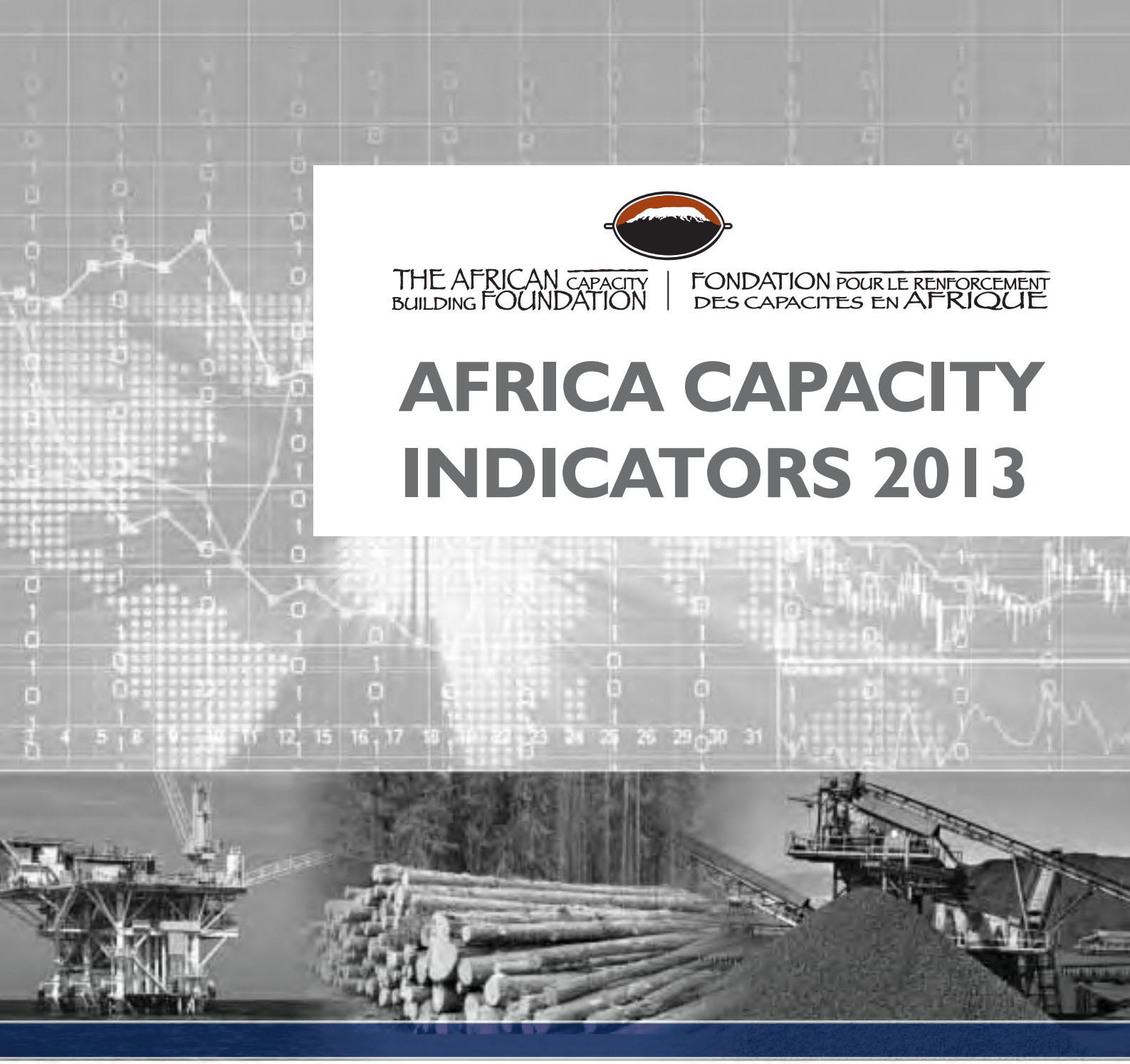
THE AFRICAN CAPACITY BUILDING FOUNDATION | FONDATION POUR LE RENFORCEMENT DES CAPACITES EN AFRIQUE

AFRICA CAPACITY INDICATORS 2013

CAPACITY DEVELOPMENT FOR NATURAL RESOURCE MANAGEMENT



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CAPACITY DEVELOPMENT FOR NATURAL RESOURCE MANAGEMENT

7th Floor, ZB Life Towers, Harare, Zimbabwe

Produced by the Knowledge & Learning Department
The African Capacity Building Foundation
First printing March 2013

For additional information on project and program operations and other activities of the African Capacity Building Foundation, please visit our website at the following address: http://www.acbf-pact.org

Printed in South Africa by Colour King

ISBN: 978-1-77937-039-6

EAN: 9781779370396

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Foreword

The Africa Capacity Indicators Report 2013: *Capacity Development for Natural Resource Management* comes at an important moment in the continent. We are commemorating the 50th Anniversary of the founding of the Organisation of African Unity/African Union, a moment to reflect on the past, to consider the state of Africa today, and to plan ahead for the future.

Africa's abundant natural resources—especially in mining and agriculture, but also its maritime resources—have defined the development of its great ancient civilizations and trade routes, as well as its interactions with the rest of the world. It was the scramble for these natural resources that saw the colonization and balkanization of Africa since the fifteenth century, laying the foundations for systemic African under-development and its status as an exporter of raw materials.

The OAU from the onset, and specifically in the Monrovia Declaration in 1979, thus established measures for 'national and collective self-reliance in economic and social development,' using Africa's natural endowments to drive the industrialization and development of the continent, in the interest of its citizenry.

Fifty years later, Africa is a continent on the move. Progress on the integration and developmental agenda over the last fifteen years has seen the continent posting some of the world's fastest economic growth rates. Six of the top 10 fastest growing economies in the world are in Africa. There are endless opportunities for Africa to translate its abundant natural resource endowment into broad economic development. Africa currently produces 48 percent of the world's platinum, 48 percent of its diamonds, 46 percent of its chromium, 28 percent of its gold and approximately 10 percent of global oil reserves. It also has 60 percent of the global unused arable land. Mining, together with tourism and agriculture collectively generate over 80 percent of foreign exchange earnings. In addition, the continent has huge untapped potential in the areas of green and maritime economic sectors.

And yet, this report notes that "while there may be substantial natural resources reserves in Africa, in most cases, the heart of usage — especially in the extractive industries lies outside Africa. Despite Africa being top in the production of diamonds, gold, cobalt and platinum, it is obvious that most of these minerals are exported in their raw form to developed economies and to emerging economies. And even though resource-rich African states try to generate revenues through exports, this effort is still insignificant. Foreign markets still disproportionately determine the path of Africa's growth and development irrespective of the natural resource endowments — a development that needs to change!"

Transfers from mining to the economy as a whole have been limited due to factors such as contractual arrangements that give African

governments a limited share of revenue. In addition, transfer pricing within corporations and other forms of tax avoidance often mean that countries collect only about 40 percent of potential tax revenue. This notwithstanding, in some countries, revenue from renewable natural resources is substantial, for example from fisheries in Namibia or forestry in Cameroon. Even though there is evidence that African countries get relatively less revenue from natural resources than do other countries in the world, the potential exists to generate a significant component of Africa's GDP from for instance, natural resource-related taxes, which consist mainly of royalties and corporate income taxes, and which can be invested in visible and viable long-term -national development projects that will assist in building Africa's human, economic and social capital.

As Africa therefore looks ahead toward the next fifty years, it must strengthen its capacities to use its natural resources to build a shared prosperity. This must include policies to integrate the mining industry with other sectors of the economy by encouraging mineral beneficiation and the creation of mining and mineral processing capital goods industry. It must safeguard African food security and nutrition through investment in agriculture and agro-processing. And it must do this in a manner that is sustainable and takes account of Africa's growth and demographic trajectories and needs over the next few decades.

The capacities and capabilities required to achieve this must therefore be strengthened at country, regional and continental levels. The African Union's *Action Plan for the Accelerated Industrial Development of Africa* identifies a number of critical priorities in this regard. These include the development and implementation of policies on product and export diversification; natural resource management and development; investments in human capital development, science, technology and innovation; development of standards, compliance and legal, institutional and regulatory frameworks, and infrastructure development.

In addition, the Africa Capacity Indicators 2013 report shows that countries also require capabilities to ensure peace and political stability, in order "to aggregate and address citizen needs, include diverse societies into decision-making (women and excluded groups), and enhance the accountability of public officials to the citizenry." Thus, in order to make optimal use of its natural resources, Africa needs peace and stability. At the same time, if it does not use its natural resources to grow its economies and develop its people, there can be no lasting peace. The 2013 Africa Capacity Indicators Report (ACIR), the third such thematically-driven Report which maps Africa's capacity in key areas, is therefore an important toolkit to assess where we are today, and what needs to be done for the continent to make use of the opportunities and possibilities presented by its abundant natural endowments. In doing so, the Report details the capacity imperatives to enable Africa to eradicate poverty, break the negative stereotype and build a shared prosperity.

The ACIR's index is a composite index computed from four sub-indices generated from cluster analysis. The four clusters are: a) the policy environment, which examines the conditions that must be in place to make development possible; b) processes for implementation, which assess the extent to which countries are prepared to deliver results; c) development

results at country level; and d) capacity development outcomes, which measure the desired change in human condition. The Report also builds a unique index for measuring capacity for natural resources management. Together, these indices highlight important gaps in our understanding of capacity needs on the continent.

I view this publication as an asset for policy makers and practitioners to forge a meaningful way forward and I commend the leadership of the African Capacity Building Foundation (ACBF) and the myriad stakeholders who individually and collectively worked hard to produce this Report. It provides an insightful and intuitive framework for approaching natural resource management in Africa. It is a must-read for academics, policy makers and development practitioners alike; and complements ongoing efforts at the national, regional and continental levels. The African Union Commission is proud of this groundbreaking study, and we hope others will follow suit and draw on this timely and pertinent knowledge piece.

H.E. Dr. Nkosazana Dlamini Zuma
Chairperson of the African Union Commission
Addis Ababa, Ethiopia
January 2013

Acknowledgements

The 2013 Africa Capacity Indicators Report, *Capacity Development for Natural Resource Management in Africa*, was prepared by an internal core ACBF team under the overall guidance of Frannie Léautier, Executive Secretary, ACBF. Its conceptualization, design, and ultimate production benefited immensely from the experiential know-how, invaluable insights, written contributions, and critical inputs of many. Accordingly, we would like to express our heartfelt gratitude to all who variously and collectively helped us write this Report.

The team is particularly thankful to the distinguished 2013 External Reference Group (ERG), for its intellectual leadership, commitment and drive: Elizabeth Asiedu (University of Kansas, USA); Elias T. Ayuk (UNU Institute for Natural Resources in Africa, Ghana); Hany Besada (UNDP, USA/North-South Institute, Canada); Cristina D'Alessandro-Scarpari (Sciences Po, France); Engobo Emeseh (Aberystwyth University, UK); Ken B. Johm (AfDB, Tunisia); Elaine Lawson (University of Ghana, Ghana); Amadou Hama Maiga (2iE, Burkina Faso); Florence Margai (Binghamton University, USA); Denis Maugenest (CERAP-INADES); Ibrahim A. Mayaki (NEPAD-NPCA, South Africa); Massoud Moussavi (Causal Links LLC, USA); Emmanuel Nnadozie (UNECA, Ethiopia); Sam Otoo (World Bank Institute, USA); Francis Y. Owusu (Iowa State University, USA); Malcolm Sawyer (Leeds University Business School, UK); Jeff Stark (Foundation for Environmental Security and Sustainability, USA); Pratibha Thaker (The Economist Intelligence Unit, UK); Roger A. Tsafack-Nanfosso (Université de Yaoundé II, Cameroun); and James Wakiaga (UNDP, Zimbabwe).

We also appreciate the foundational knowledge pieces on key thematic issues by way of commissioned papers from: Peter Arthur (Dalhousie University, Canada); Joseph Ayee (University of KwaZulu-Natal, South Africa); Claudious Chikozho (University of Pretoria, South Africa); Alemayehu Geda (Addis Ababa University, Ethiopia); Abbi Kedir (University of Leicester, UK); William Moseley (Macalester College, USA); Aminata Ndiaye/Paul Ndiaye (Cheikh Anta Diop University, Senegal); Eric Ogunleye (Abuja, Nigeria); Olawale Ismail/Jide Martyns Okeke (International Alert, UK/ Institute for Peace Studies, Ethiopia); Korbla Puplampu (Grant MacEwan University, Canada); and John Unruh (McGill University, Canada).

Recognitions also go to the policy institutes that undertook the self-valuations of their respective countries' Country Policy and Institutional Assessment (CPIA): Conception et Analyse des Politiques de Développement (CAPOD), Benin; Centre d'Analyse des Politiques Economiques et Sociales (CAPES), Burkina Faso; Projet de renforcement des capacités en gestion économique et financière du Cameroun (CAMERCAP), Cameroon; Centro de Políticas Estratégicas (STPC), Cape Verde; Projet de Cellule d'Analyse de Politique Economique du Centre Ivoirien de Recherches Economiques et Sociales (CAPEC), Côte d'Ivoire; Institut de

Développement Economique du Burundi (IDEC); Kenya Institute for Public Policy and Research Analysis (KIPPRA), Kenya; Centre de Recherches, d'Etudes et d'Appui à l'Analyse Economique à Madagascar (CREAM); Madagascar; Centre Mauritanien d'Analyse de Politiques (CMAP), Mauritania; Cellule d'Analyse et de Prospective en Développement (CAPED), Niger; Liberian Macroeconomic Policy Analysis Capacity Building Project (LIMPAC), Liberia; Centre d'Etudes de Politiques pour le Développement (CEPOD), Senegal; Economic and Social Research Foundation (ESRF), Tanzania; Economic Policy Research Centre (EPRC), Uganda; Zambia Institute for Policy Analysis and Research (ZIPAR); Zambia; and Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU), Zimbabwe.

The in-country data collection, that shaped the Report's analysis, was managed by a cadre of policy and academic institutions. For their assistance, we thank: Basga Emile Dialla (CAPES, Burkina Faso, in charge of Francophone West Africa); Barnabé Okouda (CAMERCAP, Cameroon, in charge of Central Africa); Felix Muriithi (KIPPRA, Kenya, in charge of East Africa and the Horn); and Hardson Kwandayi (PSMTP-AU, University of Mutare, Zimbabwe, in charge of Southern Africa and the Indian Ocean).

We extend our thanks to the dedicated in-country data experts (many of whom have collaborated with the ACI team since its inception), for thoroughly gathering the vital data that form the basis of the Report: Ayédjo Tokou (Benin), Abel Tiemtore (Burkina Faso), Martin Nsengiyumva (Burundi), Anaclet Désiré Dzossa (Cameroon), João Leal (Cape Verde), Espoir-Vivien Mhalioh (Central African Republic), Ibn Ali Youssouf (Chad), Michel Tansia-Monkoy (DRC), Naasson Loutete-Dangui (Republic of Congo), Gnanda Eponou-Benson (Côte d'Ivoire), Charmarké Idris-Ali (Djibouti), Paul-Henri Nguema Meye (Gabon), Mamadou Camara (Guinea), Adulai Jalo (Guinea-Bissau), Mande Romalahy (Madagascar), Tiemoko Dembele (Mali), Ridouane Berrhazi (Morocco), Mamadou Cissoko (Mauritania), Abdou Maina (Niger), Mady Dansokho (Senegal), Komlan K. Agbovi (Togo), Mustapha Bouzaiene (Tunisia), Naledi Modisaatsone (Botswana), Wondwossen Aselet (Ethiopia), Kunkung Jobarteh (The Gambia), Anthony Krakah (Ghana), Mathews Omondi (Kenya), Masoai Mokone-Dennis (Lesotho), Paul King (Liberia), Phiri Pangapanga (Malawi), Krishna Chikhuri (Mauritius), Claudio Dengo (Mozambique), Gurvy Kavei (Namibia), Modinat Olusoji (Nigeria), Johnson Rukundo (Rwanda), Cadyna Afonso da Costa Cardoso (São Tomé and Príncipe), Mabel M'bayo (Sierra Leone), Sindisiwe Hleta (Swaziland), Khamis Shauri (Tanzania), Christian Kakuba (Uganda), Shebo Nalishebo (Zambia), and Patience Siwadi (Zimbabwe).

We are especially grateful to colleagues who probed our partially articulated ideas, read drafts of earlier chapters, assisted with write-ups, and advised on analysis. Our heartfelt thanks go to Francis Owusu, Korbla Puplampu, Cristina D'Alessandro-Scapari, and Peter Arthur, who graciously acted as an informal advisory committee to the team; the quality of this Report is far better as a result of their critical insights and inputs. The Report was enhanced by Randy Hecht who provided English editorial support, and Phumuzile Khumalo for administrative support throughout the process.

We also are very grateful to all the individuals and institutions who made time in their busy schedules to participate and actively engage the deliberations of the two-day Validation Workshop in Dar es Salaam, Tanzania. Their individual and collective voices positively shaped

the Report and our ongoing joint initiative (the microsite and tablet application) with the Economist Intelligence Unit.

The Report was spearheaded by an internal team that comprised Robert Nantchouang, George Kararach (now with AfDB), and Kobena Hanson. Noteworthy contributions were received from Kwabena Agyei Boakye, Roger Atindehou, Sharon Chitambo, Lovemore Dzikati, Alfred Gumbwa, Yves Ntoto, and Walter Mangwende. As team leader and coordinator of the ACI Report for the past three years, it has been both an honor and pleasure—I could not have done it without you!

While thanking all the individuals and institutions who supported this process, we acknowledge sole responsibility for any errors, misrepresentations and or omissions that may be found in this Report.

Kobena T. Hanson
Head, Knowledge and Learning &
Coordinator/Team Leader, ACIR2013
January 2013

Preface

For societies at large to benefit from natural resource endowments, they need superior capacity of the actors and stakeholders involved in high value natural resource extraction, processing, marketing, and management of revenue. Such capacity, however, ideally needs to be balanced between and among stakeholders. This is the central theme of the 2013 Africa Capacity Indicators Report—*Capacity Development for Natural Resource Management*. There is a good deal of emerging evidence that "capacity imbalance"—whereby one set of stakeholders enjoys significant capacity while the other stakeholders experience inferior and in some cases much lower capacity—can result in mismanagement, abuse of office, corruption, criminality, and exploitation. The resulting animosity then can have profoundly negative outcomes as the lower capacity set of stakeholders realizes the imbalance and its repercussions. And while capacity development in the natural resource sector, with regard to Africa, is usually thought of as being most needed by African stakeholders such as the government, civil society, and local communities, a great deal of capacity is lacking on the part of the international investor, who is in many cases unable to 'read' local socio-political, ethno-cultural, and economic environments in Africa so as to be able to innovate and derive arrangements that work and are mutually beneficial. Consequently, capacity development is needed not only for government stakeholders, but also for stakeholders engaged in international and domestic processes in the investments sector.

This Report, the third in its series, focuses on an issue of great importance to Africa today—natural resource management—and highlights what African countries need to do individually and collectively to overcome capacity challenges. The Report provides a comprehensive analysis of the critical perspectives and current academic and policy debates on the natural resource value chain, including emerging challenges and issues such as climate change and green economy. To keep the emphasis relevant to the 2012 Africa Capacity Indicators Report (ACIR)—*Capacity Development for Agricultural Transformation and Food Security*, this volume gives particular attention to case studies and issues of capacity development and policy choices for "green growth." The Report, in this sense, links the natural resource management discussion with the themes of the two previous ACI Reports (ACIR2011 on state fragility and ACIR2012 on agricultural transformation and food security).

In interrogating the challenges, opportunities, and possibilities along the natural resource value-chain, the Report examines the complex entanglements of issues, processes, and actors involved in the natural resource value chain in Africa. It identifies underlying dynamics to include weak oversight mechanisms, capacity deficits, corruption and collusion by government agencies and officials, gaps between legal (official) and informal (socio-cultural) approaches, unresolved contestation about natural resource governance, armed conflicts and insecurity, and the challenges and opportunities presented by globalization. The Report acknowledges the cross-border and regional dimensions and implications of natural resource management. Most important, the Report

highlights the limitations of existing policy responses: the narrow focus on enforcement; inaction regarding underlying socio-economic, political, and environmental issues; an over-emphasis on national-level initiatives with limited synergies with regional and international approaches; and the absence of strong regional and international policy actions. As a knowledge product aimed at enhancing capacity, the Report goes a step further to map out initiatives that either are working or have the potential to contribute to addressing challenges of governance and management in natural resource value chain in Africa.

The Report strongly and unequivocally cautions that while broad capacity development of all actors, (such as investors, civil society, and government) is desirable, it will be unrealistic in the timeframe of resource exploitation priorities and processes, and in particular given the other needs that prevail in many resource-rich or resource-dependent African countries. Accordingly, what is needed are more focused approaches that are able to attend to near-term capacity challenges in the acute settings of conflict-affected countries, while at the same time pursuing deeper institutional capacity development in the broader set of African countries. Where tensions are high, it can be dangerous to build capacity for a stakeholder that resides on only one side of a set of tensions and not the other. At the same time, if one side enjoys enhanced capacity over another, then the prospect for taking advantage of the lower capacity actors is enlarged. The United Nations has done considerable work on the problem of capacity imbalance, particularly in the context of peace negotiations—which high value resources are always a part of. One shortcut in acute settings, then, would be to enhance the capacity of opposing sets of actors, which would provide them with checks on one another. Another would be to begin capacity development with the lower capacity stakeholder. Of course, one caution in doing this is to possibly expose the effort to accusations of taking sides in whatever the issue may be. By selecting specific issues that are the subject of high tensions, and then building capacity on both sides of the issue, a targeted capacity development effort can be deployed, while at the same time contributing to peace building.

Africa is at a critical stage when it comes to managing its natural resources. If we care for our children; and children's children and think beyond our lifetimes, policy making should be honest, discourage corruption, and curb the plunder of the continent's natural resources. As the late Ghanaian Okyenhene (King of Akyem) Nana Sir Ofori Atta I (1881–1943), said, "Land belongs to a vast family of whom many are dead, few are living, and countless generations yet unborn." This is true now more than ever given the increasing awareness of the environmental consequences of growth policies that neglect nature.

The enormous potential for natural resources to benefit African societies is clear. However, the paradox of plenty has and continues to detract significantly from this potential, and in a number of cases results in worsened situations of criminality, conflict, dislocation, and underdevelopment. The primary avenue proceeding from the resource curse to realized potential is through capacity development. The political will to engage in capacity development in a sustainable manner across diverse ethno-cultural, religious, geographic, socio-economic, linguistic, autochthonous, and migrant populations

requires transformational leadership. However, while political will is central, such political will can be very effectively applied at many levels of government and civil society, in a wide variety of learning environments. While history has shown that broad capacity gains in a society do not always result in predictable outcomes, it does facilitate the economic and political self-determination needed for countries to navigate their own way in a world where effective management and exploitation of natural resource endowments will become increasingly important.

By publishing this Report we hope ACBF has been able to fulfill in a small way the North African proverb that asks: "Who is brave enough to tell the lion that his breath smells?"

Frannie A. Léautier
Executive Secretary
African Capacity Building Foundation
Harare, Zimbabwe
January 2013

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Acronyms and Abbreviations

ACBF	African Capacity Building Foundation
ACI	Africa Capacity Index
ACIR2011	Africa Capacity Indicators Report 2011
ACIR2012	Africa Capacity Indicators Report 2012
AfDB	African Development Bank
AfGF	African Development Bank's African Green Fund
AMCOW	African Ministers' Council on Water
AMV	Africa Mining Vision
APPA	African Petroleum Producers Association
APRM	African Peer Review Mechanism
ATAF	African Tax Administrators Forum
AU	African Union
AUC	African Union Commission
BBC	British Broadcasting Corporation
BMZ	German Federal Ministry for Economic Development Cooperation
BRICS	Brazil, Russia, India, China and South Africa
CADSP	Common African Defence and Security Policy
CBNRM	Community Based Natural Resources Management
CDM	Clean Development Mechanism
CDSF	Capacity Development Strategic Framework
CEDEFOP	European Centre for the Development of Vocational Training
CEMAC	Communauté Economique et Monétaire de l'Afrique Centrale
CGE	Computable General Equilibrium
CIA	Central Intelligence Agency
CILSS	Comité permanent Inter-États de Lutte contre la Sécheresse dans le Sahel
COP	Conference of the Parties
CSOs	Civil Society Organizations
CSPs	Country Strategy Papers
DRC	Democratic Republic of Congo
ECA	East African Community
ECOWAS	Economic Community of West African States
ECPF	ECOWAS Conflict Prevention Framework
EITI	Extractive Industries Transparency Initiative
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FDRE	Federal Democratic Republic of Ethiopia
FSDEA	Fundo Soberano de Angola
FIDA	Fonds International de Développement Agricole
FLEGT	Forest Law Enforcement Governance and Trade
FLSH	Faculté des Lettres et Sciences Humaines
G-8	The Group of Eight
GAPP	Generally Accepted Principles and Practices

GCC	Gulf Cooperation Council
GCN	Global Carbon Network
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEMAP	Liberia Governance and Economic Management Assistance Programme
CFA	Communauté Financière Africaine
GGA	Good Governance in Africa
GHG	Greenhouse Gas
GIEC	Groupe d'experts Intergouvernemental sur l'Evolution du Climat
GIMPA	Ghana Institute of Management and Public Administration
GPF	Government Pension Fund-Global
GWP	Global Water Partnership
GWVSA	Global West Vessel Specialist Agency
ICG	International Crisis Group
ICMM	International Council on Mining and Metals
ICPDR	International Commission for the Protection of the Danube River
IEA	International Energy Agency
IFIs	International Financial Institutions
IFPRI	International Food Policy Research Institute
IGAD	Inter-Governmental Authority on Development
ILO	International Labour Organization
IMF	International Monetary Fund
IOE	International Organization of Employers
IPCC	Intergovernmental Panel on Climate Change
ITA	Institute for Food Technology
ITUC	International Trade Union Confederation
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
KAZA	Kavango-Zambezi
KPCS	Kimberley Process Certification Scheme
LCBC	Lake Chad Basin Commission
MDGs	Millennium Development Goals
MENA	Middle East and North Africa Region
MERI	Monitoring, Evaluation, Reporting and Improvement
MNCs	Multinational Corporations
MOFED	Ministry of Finance and Economic Development
MRC	Mekong River Commission
NBA	The Niger Basin Authority
NBI	Nile Basin Initiative
NEMAP	National Environmental Management Action Plan
NEPAD	New Partnership for African Development
NGOs	Non-Governmental Organizations
NICs	Newly Industrialized Countries
NNPC	Nigerian National Petroleum Corporation
NRC	The Natural Resource Charter
NREG	Natural Resources and Environmental Governance
NRFs	Natural Resource Funds
NRM	Natural Resources Management
NSIA	Nigerian Sovereign Investment Authority

ODA	Official development assistance
OECD	Organization for Economic Co-operation and Development
OECD-DAC	Organisation for Economic Co-operation and Development Assistance Committee
OfD	Oil for Development
OKACOM	Okavango River Basin
OPEC	Organization of Petroleum Exporting Countries
ORASECOM	Orange-Senqu River Commission
OXFAM	Oxford Committee for Famine Relief
PES	Payments for Ecosystem Services
PRSPs	Poverty Reduction Strategy Papers
PUP	Private Use Permits
PWYP	Publish What You Pay
R&D	Research and Development
RDP	Reconstruction and Development Program
RECs	Regional Economic Communities
REDD+	Reducing Emissions from Deforestation and Forest Degradation Plus
RIO+20	Rio Earth Summit and its Agenda 20
RSA	Republic of South Africa
RWI	Revenue Watch Institute
SADC	Southern African Development Community
SAPs	Structural Adjustment Programs
SARW	Southern Africa Resource Watch
SBI	Sustainable Budget Index
SIDA	Swedish International Development Agency
SIWI	Stockholm International Water Institute
SLIM	Social Learning for the Integrated Management
SNH	Société Nationale des Hydrocarbures
SNI	National System of Investments
SOEs	State Owned Enterprises
SPDC	Shell Petroleum Development Company
SREP	Scaling Up Renewable Energy Programme
SREX	Special Report on managing the Risks of Extreme events and disasters to advance climate change adaptation
StAR	Stolen Assets Recovery Initiative
SWF	Sovereign Wealth Funds
TDA	Trans boundary Diagnostic Analysis
TFCA	Trans frontier Conservation Area
TJN-A	The Tax Justice Network for Africa
TOT	Terms of Trade
TRBM	Transboundary River Basin Management.
TRBO	Transboundary River Basin Organization
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDP-HDI	United Nations Development Programme Human Development Index
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme

UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO-WWAP	UNESCO World Water Assessment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNITA	União Nacional para a Independência Total de Angola
UNODC	United Nations Office on Drugs and Crime
UNOPS	United Nations Office for Project Services
UNSC	United Nations Security Council
UNU-INRA	United Nations University- Institute for Natural Resources in Africa
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VPA	Voluntary Partnership Agreement
WCED	World Commission on Environment and Development
WDR	World Development Report
WTO	World Trade Organization
WWF	World Wildlife Fund

Executive Summary

This year's Report, the third in a series, focuses on an issue of great importance to Africa: natural resource management. The Report is holistic, yet focused on what African countries need to do individually and collectively to achieve effective management and good governance of the continent's vast natural resource wealth. The discussion covers both renewable and non-renewable endowments, with specific focus on forests, land, water, solid minerals, and petroleum resources. The Report offers analysis of the critical perspectives and contemporary academic and policy debates on the natural resource value chain, including emerging issues such as climate change and green economy. Pragmatic approaches based on original problem solving in different contexts are also presented in each chapter of the Report. To keep the emphasis relevant to the 2012 Africa Capacity Indicators Report, *Capacity Development for Agricultural Transformation and Food Security*, this volume gives particular attention to issues of capacity development and policy choices for "green growth." The Report, in essence, links the natural resource management discussion with the themes of the two previous ACI Reports (ACIR2011, on state fragility, and ACIR2012, on agricultural transformation and food security).

All across Africa, there has been an exponential growth of extractive industry investment and agro-industrial projects implemented by large multinational and national companies, encouraged by the numerous recent natural resource discoveries. Local communities most directly affected by the growth in the exploitation of Africa's natural resources—whether forests, land, or extractive minerals—are often marginalized and vulnerable, and bear the brunt of the environmental and social impacts engendered by the natural resource extraction. These communities, often located in places with no or little formal national state presence, have to deal with the political, economic, and social pressures that accompany the arrival of large-scale investment projects. Thus, while the overwhelming majority of these large projects operate in Africa's rural areas, and despite the generation of taxes, royalties, and occasionally some social investment by companies, the local communities around these areas usually remain poor. Many investors do not honor their corporate social responsibility to these communities and rather collude with the political elite to further marginalize them. Yet, there are countries and companies that are able to do this right, and the report pulls out these examples and highlights their lessons for others.

It is unfortunate that across Africa, the exploitation of renewable (land, forests, water) and non-renewable (oil, gas, and minerals) natural resources and their role in national development has been subject to political, social, and environmental struggles and armed conflicts. The terms "resource curse," "paradox of plenty," and "Dutch disease" have been used to describe particular manifestations of this negative relationship and refer to forms of erosion of the larger economy. For instance, the relationship between an increase in the exploitation of natural resources and a decline in the manufacturing sector (at times including emergent industrial agriculture) suggests that comparatively greater revenue from natural resources can deindustrialize a national economy by raising the

exchange rate and thus make the manufacturing sector less competitive. This is a particular problem for African economies that do not have mature manufactu-ring sectors able to withstand such a process, and so as a result are quite vulnerable to shocks.

Sierra Leone, Liberia, the Niger Delta in Nigeria, and the Democratic Republic of Congo immediately come to mind as examples of countries that have experienced negative results of natural resource discoveries. Land grabs in Tanzania and Ethiopia and the political unrest in Madagascar due to popular protest over unfavorable land deals with South Korea offer additional illustrations of negative impact. Conversely, Botswana's success in managing its diamond reserves demonstrates the positive impact that governments can achieve through proper management of natural resources and the revenue they generate. The discovery of oil in Ghana and Uganda also shows early promise of producing additional success stories in natural resource-generated development.

This Report reviews the evidence in the literature, the claims of resource curse theorists, and alternate views that challenge them using political economy and capacity analyses along the complex resource–conflict links. Contrary to the rentier state theory, which posits that resource-rich states were weak, corrupt, authoritarian, and therefore susceptible to conflict, it appears that governments use revenue from abundant resources to buy off peace through patronage, large-scale distribution policies, and effective repression. We show in the report that the notion of resource curse has also been debunked from a methodological and econometric perspective. The criticism particularly concerns trade-based proxies (such as the share of primary product export) traditionally used to measure natural resource abundance. From this perspective, the disappointing growth performance of resource-rich countries is related to macroeconomic policies rather than to natural resources. Thus, the resource curse phenomenon may be due more to econometric and measurement fallacies, because resource wealth may, in fact, represent an important factor for economic development. We also cover perspectives in the report that call into question the resource curse argument because it appears to neglect the potential of human agency to rectify the risks posed by the "paradox of plenty."

Covering such criticisms and challenges against the resource curse theory could lead to a partial move away from the initial debates over the "greed versus grievance" causal binary and help countries look at resources in a positive light while putting in place the needed capacity to make it so. As such, we hope to shift the emphasis to issues related to capacity, leadership, knowledge sharing, and good governance. At the same time, it would be disingenuous to ignore the general ills, economic challenges, socio-political, and environmental pains that resource-rich African countries face in managing those natural resources. As a result, an issue that gets important coverage in the report is the means by which natural resources can be managed to enhance cooperation and contribute to the overall socioe-conomic development of countries.

The Report argues that the so-called natural resource curse is not inevitable. A number of countries have been able to effectively manage their natural resources to spur development. While there are no silver bullets that enable countries to make the best possible use of natural resources for development, there generally are steps nations can take. ACIR 2013 analysis is influenced by these geo-political and

socio-economic contexts, and is therefore driven by the need to better map out and understand the capacity development dimensions that are central to the management of Africa's natural resources.

The analysis in the report helps countries to look in a fresh manner at the challenges, opportunities, and possibilities and their respective links to developing a new policy outlook. Addressing the challenges and beating a new path necessitates a rethink with regard to: the legacy of old natural resource management problems; the emergence of new development and possibilities; and an understanding of the changing natural resource management landscape—at the local, national, continental, and global levels.

The old natural resource management landscape, was seen as characterized by:

- the unbalanced asymmetries of weak African states versus strong external actors (multinational corporations and consumer countries);
- the often low and erratic commodity prices and unfair terms of trade offered for Africa's natural resources— especially extractives;
- weak technological, managerial, and bargaining capacity;
- inadequate systems of taxation; lack of transparency in natural resource management;
- lack of economic diversification and shared growth;
- unmitigated environmental damage caused by extraction processes, corruption, and criminality across the natural resource value chain;
- poorly organized and dissatisfied civil societies in resource-rich countries;
- abuse of windfall rents—often extracted for the benefit of political elites;
- social and cultural displacements of affected communities;
- real and perceived intertwining of political failures and grievances over governance and redistribution of natural resource wealth; and
- a general discrediting of natural resource based development as a viable model of national well-being.

This Report contends that this scenario has, for myriad reasons, slowly given way to a revised landscape characterized by the emergence of new developments, opportunities, and possibilities.

We map out the revised landscape and accompanying winds of change as exemplified by:

- growing state coherence with strong natural resource management policy frameworks and increasing regional and sub-regional integration and linkages;
- high (even if erratic) commodity prices fueled by a strong demand from emerging economies, notably BRICS nations;
- improving technical skills—legislature, science, and management—and a strong recognition of, and appreciation for, training programs for stakeholders across the entire natural resource management value chain;
- improved and informed leadership resulting in strengthened state–civil society–private sector partnerships and cooperation;
- enhanced national and regional initiatives, region-level adaptation/adoption of emerging best practices in natural resource governance, and an integration of local perspectives and practices and civil society into official policy responses;
- renegotiation of old contracts, adoption of robust and transparent governance

structures, and employing civil society organizations (local and international) as pressure groups to hold multinational companies accountable to their corporate social responsibilities; and

- increasing sophistication and will to bargain—drawing on a plethora of initiatives, such as the Kimberley Process Certification Scheme (KPCS), Publish What You Pay (PWYP), the Extractive Industries Transparency Initiative (EITI), and the African Development Bank's African Legal Support Facility (ALSF) to ensure improved accountability, transparency, negotiation, and management of natural resources and the revenue they generate.

We show how the revised landscape has witnessed an exposure of the problem of "missing revenue," particularly in the oil industry, as well as the growth of corporate social responsibility initiatives. In addition, we provide an extensive discussion of value-chain jobs and the development of sovereign wealth funds. The Report links the evolution of institutions to the increased appreciation and promotion of green growth, REDD+, and intensified environmental advocacy by both national and international non-government organizations (NGOs). The proliferation of civil society organizations with enhanced capacities and international linkages is another manifestation of the revised landscape. The Report shows that these developments have also engendered new configurations of dialogue among public and private entities, civil society organizations (CSOs), and local communities. These have sparked more widespread rejection, for example, of conflict-based or ridden diamonds and timber, and abuses by multinational corporations in oil and gas extraction.

Across the continent, governments are advancing initiatives such as the African Peer Review Mechanism (APRM), Africa Mining Vision (AMV), and NEPAD's Capacity Development Strategic Framework (CDSF), which, in tandem with multilateral efforts by AfDB, the World Bank, and others are transforming the natural resource management landscape. Again, we are witnessing a number of industry self-policing initiatives that are combining to empower Africa to evolve a new, more complex, more evidence-based and participatory vision of natural resource management. This vision of natural resource based development has a much more diversified and empowered portfolio of stakeholder and actors. The implication is that the continent can achieve real growth and transformation based on natural resources—the so-called paradox of plenty is **not** inevitable!

The Report highlights many positive country experiences to support this proposition. Aside from the well documented case of Botswana, other noteworthy exemplars captured in the Report include:

- Liberia's achievements in the forest sector—utilizing policy formulation, institution building, and operational responses to curb corruption and insecurity and reducing transnational illicit timber trade;
- Sierra Leone's remarkable progress by putting in place relatively effective institutions and realizing economic growth, which has been driven by natural resources, including iron ore;
- Mozambique's transformation of its forestry sector, including canceling or reducing the land area of 1500 investor contracts due to non-compliance with their investment plan;

- Ethiopia's laudable efforts at building capacity for the staff of higher education institutions in the area of natural resource management and eco-tourism;
- Nigeria's statutory backing for the implementation of EITI;
- Angola's and Nigeria's launching of Sovereign Wealth Funds; and
- the host of other nations who have just discovered resource wealth—among them Tanzania, Uganda, Ghana, Mozambique, and Kenya—who have also established or are planning to establish such funds.

Nowhere has a positive resource management strategy been more evident than in Botswana, where the establishment of strong and transparent governance structures, anti-corruption systems, and integrity of public institutions has contributed to economic success. In addition to establishing a well-functioning judicial system that respects property rights and the rule of law, it has adopted a decision-making process that involves consulting traditional authorities. Other countries have quietly made strides in this regard, as well. Consider the achievements of Nigeria in involving civil society in the oil sector and Liberia's approach to increased transparency in the logging industry.

The Report offers invaluable insights into how this shift from the old legacy to the new vision transpired. Put simply, the winds of change were driven by "hard lessons learned"—by African governments, multinational corporations, international investors, foreign governments, artisanal and small-scale miners, civil society, and local communities. After decades of poor management, corruption, criminality, poor leadership, conflict, and failed development—which imposed huge costs on populations across the continent and provoked resistance—the drivers of good natural resource governance and sustainable management emerged.

The entire portfolio of stakeholders is also subject to a new normative environment, as evidenced by the strong natural resource management policy environment that is gaining momentum across the continent. The revised policy landscape frames the sphere of potential constructive action, providing new spaces for agency. For example, the Africa Mining Vision (AMV) has as its primary and long-term goal the creation of circumstances that support the transparent, equitable, and optimal exploitation of Africa's mineral resources to underpin broad-based sustainable growth and socio-economic development. To this end, the AMV seeks to use Africa's natural resource sector to transform the continent's social and economic development path in order to address the challenges of poverty and limited development. It seeks to set Africa on an industrialization path, based on its natural capital, to enable the continent to take its place in the global economy.

Agency is, however, unrealized potential. In acknowledging this, the Report submits that agency can be realized by advancing the capacity of all stakeholders across the natural resources value chain. The Report thus submits that resource-rich countries need to be particularly capable of securing political and social stability. Key capabilities include how a country manages—whether at local, country, or regional level—to aggregate and address citizen needs, include diverse social groups (women, youth, and excluded groups) in decision-making, and enhance public officials' accountability to the citizenry. If countries are not capable of securing social and political stability, they remain poor

and mired in conflict even if they are rich in natural resources. Another key capability is that of tapping benefits from trade and integration, which presupposes the capacity to put in place an enabling environment with property rights, rule-based governance, a sound business regulatory environment, a functioning financial sector, and effective trade policies. But countries also need to have negotiation skills to discuss and secure the appropriate terms of trade, establish trade policies, and engage in fair contractual agreements. There is also an urgent need for management capability to remove the constraints that bottleneck the effective extraction of resources, including supply chain bottlenecks (infrastructure development, transport logistics, business climate).

For African countries to move forward, capacity needs to be enhanced in four clusters—***a) policy environment, b) processes for implementation, c) development results at the country level, and d) capacity development outcomes***. The policy environment examines the conditions that must be in place to make transformational change and development possible, with particular emphasis on effective and development-oriented organizations and institutional frameworks. It is focused on (a) whether countries have put in place national strategies for development (including a strategy for agricultural development, given the importance of transforming agriculture and achieving food security) and their level of legitimacy; (b) the countries' levels of commitment to meeting development and poverty reduction objectives established within the Millennium Development Goals (MDGs); (c) country-level awareness and focus on better utilization of limited resources for capacity development as measured by the presence of policies for aid effectiveness; and (d) degree of inclusiveness that supports their long-term stability as measured by the existence of gender equality and other socially inclusive policies. Indeed, broad participation and good governance underpin this measure.

Processes for implementation assess the extent to which the countries are prepared to deliver results and outcomes. This dimension is concerned with the creation of an environment that motivates and supports individuals and leaders; the capacity to manage relations with key stakeholders inclusively and constructively; and the capacity to establish appropriate frameworks for managing policies, strategies, programs, and projects. Equally important are processes for designing, implementing, and managing national development strategies to produce socially inclusive development outcomes.

Development results are tangible outputs that permit development. The main areas covered by the cluster are: the coordination of aid support to capacity development; the level of creativity and innovation; achievements in the implementation of the Paris Declaration on Aid Effectiveness; achievements in gender equality; and social inclusion and partnering for capacity development.

Capacity development outcomes tend to measure the desired change in the human condition. Indicators to this effect are captured mainly through the financial commitment to capacity development; the actual achievement of specific MDGs; gains in gender equality and broader social equity; and achievements in agriculture and food security, among other measures.

The Report points to an excellent policy environment and equally impressive implementation process landscape. However, countries do not

appear to be on the brink of achieving development results (18.2 percent ranked low and very low in Cluster 3, and a paltry 2.3 percent of surveyed countries fell in the very high category). The real challenge remains achieving capacity development outcomes—an issue globally recognized and deliberated in much detail in many capacity development forums, including the 2011 4th High Level Forum on Aid Effectiveness in Busan, Korea. Analysis of this cluster reveals that over two thirds (72.7 percent) of countries surveyed fell in the very low capacity zone (table A).

Table A: ACI 2013—Country percentage by cluster and level of capacity

Level of capacity	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Very Low	0.0	0.0	2.3	72.7
Low	0.0	0.0	15.9	22.7
Medium	0.0	13.6	56.8	2.3
High	15.9	63.6	22.7	2.3
Very High	84.1	22.7	2.3	0.0
Total	**100**	**100**	**100**	**100**

Source: 2013 ACI database

The observed pattern in 2013, however, is not a marked deviation from that witnessed in either 2011 or 2012. In each year, the policy environment has been the strongest and development outcomes weakest. Actually, the above notwithstanding, findings from the 2013 ACI further suggest that while many African countries are taking the necessary steps to advance their capacities for managing natural resources, progress has so far been yielded primarily in Clusters 1 and 2—policy environment and implementation processes. On the whole, African countries are not doing badly in this capacity area, as most of the 44 countries included in the ACI Index fall within the green and yellow zones (Very High, High, and Medium). This finding mirrors the recent extant literature that suggests that increasingly, African governments are embracing sound and sustainable management of their natural resource wealth. The policy environment, in particular, has been very dynamic, with a spate of sovereign wealth funds being opened across the continent as resource-rich nations look to manage their resources—a powerful sign that African states are embracing fiscal prudence.

The top five performers in the field of capacity for natural resource management—Rwanda (83.2), Ghana (80.6), Namibia (77.6), Botswana (77.3), and Nigeria (73.8)—are, however, not the top performers in terms of overall capacity. Actually, of the NRM top performers, only Ghana happens to also be a top capacity performer, with an ACI score of 53.0. Rwanda fares satisfactorily on the overall ACI score with 44.1. Namibia, Botswana, and Nigeria are all ranked low capacity nations on the overall capacity index (table B).

Table B: ACI-NRM 2013*—Resource Endowed Countries**

Country	Policy Environment	Processes for Implementation	Devt Results	Capacity Devt Outcomes	Index NRM	Rank NRM	J1	ACI2013
RWANDA	100	87.8	71.1	79.2	83.2	1	2	44.4
GHANA	85.2	83.6	79.5	75.0	80.6	2	3	53.0
NAMIBIA	87.0	70.8	75.3	79.2	77.6	3	2	27.9
BOTSWANA	88.9	77.9	69.9	75.0	77.3	4	3	30.7
NIGERIA	79.6	75.3	66.4	75.0	73.8	5	3	37.7
SÃO TOMÉ AND PRÍNCIPE	74.1	57.2	72.2	71.4	68.0	6	4	21.8
GAMBIA	87.0	63.2	67.7	52.4	65.4	7	4	39.2
MOROCCO	61.1	77.4	63.3	54.8	63.2	8	2	43.9
ZIMBABWE	57.4	70.3	60.1	62.5	62.2	9	2	50.3
MALI	75.9	68.8	67.0	45.8	62.1	10	2	44.7
TANZANIA	61.1	71.6	51.0	64.3	61.0	11	3	36.0
LIBERIA	55.6	66.4	52.1	66.7	59.5	12	2	36.2
CAR	64.8	68.0	47.5	54.2	57.4	13	2	27.5
UGANDA	63.0	53.4	62.0	48.1	55.9	14	2	50.1
SIERRA LEONE	70.4	59.4	52.5	45.8	55.6	15	2	27.2
BURKINA FASO	51.8	51.6	50.5	66.7	54.4	16	2	66.6
MADAGASCAR	57.4	59.9	49.1	51.9	54.2	17	2	27.2
GABON	55.5	62.0	66.1	40.7	54.2	18	3	31.6
MALAWI	79.6	61.3	42.0	45.8	53.7	19	2	32.4
NIGER	81.5	64.6	48.8	37.5	53.4	20	3	29.0
CONGO, REP	66.7	62.5	71.3	33.3	53.3	21	1	48.4
ZAMBIA	70.4	70.4	64.6	29.6	51.5	22	3	43.9
MAURITANIA	38.9	61.3	58.5	51.8	51.0	23	3	24.3
ETHIOPIA	66.7	45.6	42.3	51.9	50.1	24	4	48.9
BURUNDI	64.8	39.2	38.0	55.6	46.9	25	2	38.2
TOGO	70.4	46.8	44.6	35.4	46.4	26	2	18.9
GUINEA	74.1	64.3	34.0	33.3	45.2	27	2	15.6
CAMEROON	72.9	50.5	57.1	26.2	44.8	28	3	50.7
KENYA	50.0	53.2	33.9	40.7	43.1	29	2	60.1
TUNISIA	31.5	39.7	66.5	45.8	42.6	30	3	26.5
CHAD	79.6	72.9	40.3	22.2	41.6	31	1	22.8
SWAZILAND	75.0	55.0	21.4	52.4	41.1	32	3	21.3
DJIBOUTI	75.0	54.4	62.5	20.0	40.9	33	4	19.1
BENIN	37.0	53.2	43.0	29.2	38.7	34	2	45.4
MOZAMBIQUE	29.6	54.4	23.5	59.3	35.9	35	3	28.9
SENEGAL	46.3	58.9	70.6	16.7	35.5	36	3	42.5
CÔTED'IVOIRE	37.5	50.0	39.3	20.8	33.3	37	3	30.3
DRC	22.2	56.4	48.5	18.8	29.3	38	3	35.6
LESOTHO	31.5	54.8	25.6	11.1	22.3	39	2	34.8

J1 = country's natural resource status

1 = Hydrocarbon producer only

2 = Mineral producer only

3 = Hydrocarbon and mineral producer

4 = Prospective (There is reasonable expectation that the country will be producing significant hydrocarbons and/or minerals)

*Angola and South Africa excluded due to missing data

**Cape Verde, Guinea Bissau and Mauritius excluded since they are not hydrocarbon, mineral or prospecting nations

The above pattern, which reflects the findings from the country level, clearly suggests that the African policy environment is very strong, with most (77 percent) of the countries surveyed combining to display high to very high capacity (figure A). From a legitimacy and incentives perspective, the African picture, while not as positive as the policy landscape, is still laudable. Here, almost 54 percent of the countries surveyed showed at the high to very high level (figure B). The improved dialogue environment reflects the revised natural resource management landscape and its spaces of opportunity for dialogue and involvement of myriad stakeholders (figure C). These findings also emphasize the need to better match the capabilities of the state to the dependency on the resources and find solutions—such as buying capacity—to bridge the gaps while countries are taking the time to build their capability. Again, Botswana comes to mind as a country that has followed such an approach.

Figure A: Policy environment/efficiency of instrument

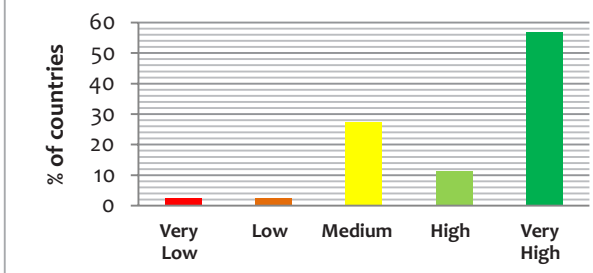
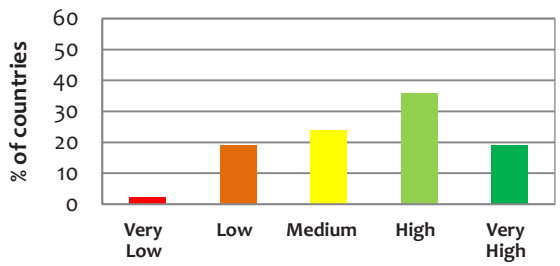
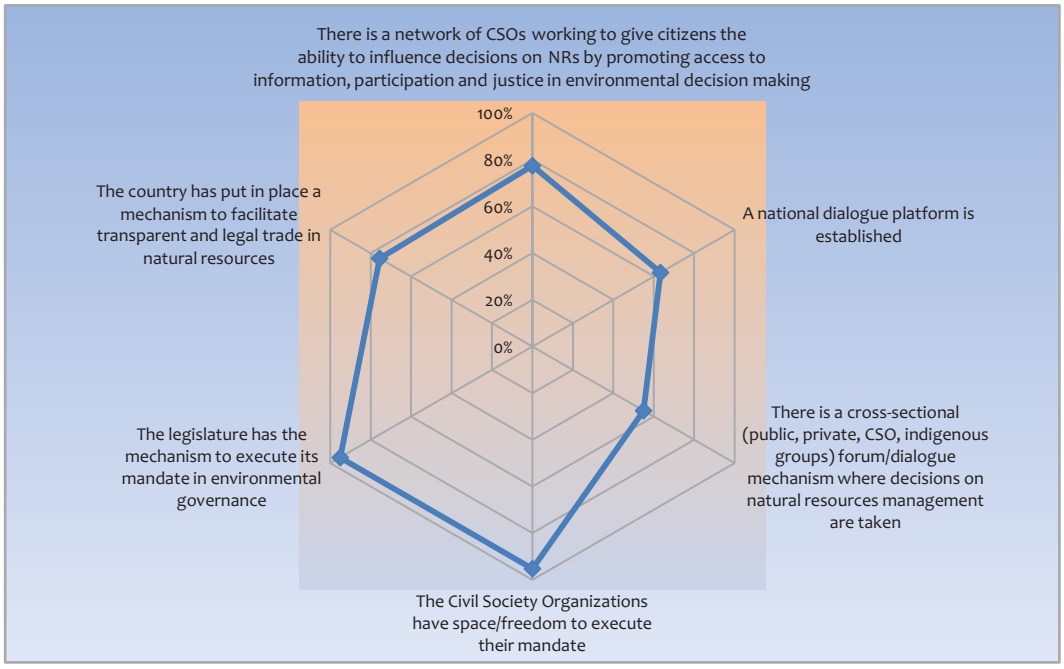


Figure B: Legitimacy and incentives of NRM policy



Source: Computed from ACIR 2013 database

Figure C: Dialogue and social inclusion on natural resource governance (percentage of countries)



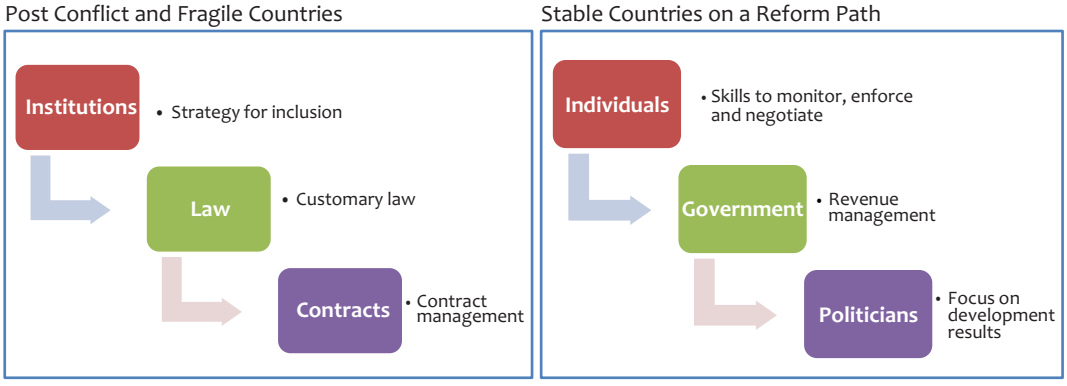
Source: Computed from ACI 2013 database

The revised landscape notwithstanding, many challenges still lie ahead. Accordingly, the Report calls for the development of: a) transformational and development-oriented leadership; b) independent, accountable, and transparent institutions; c) effective natural resources regulation; d) deepened capacity building interventions; e) conduits for learning from success stories; and f) coordinating and integrating planning agencies, as key steps to ensure that the agency brought about by the revised landscape turns into realized potential.

To achieve this, the Report unequivocally points out that capacity of all actors and stakeholders involved in the natural resource value chain—extraction, processing, marketing, and management of revenue—is of fundamental importance in turning the sector into a benefit for broader society. Such capacity, however, ideally needs to be balanced among stakeholders. There is a good deal of emerging evidence that "capacity imbalance"—wherein one set of stakeholders enjoys significant capacity while the other stakeholders experience inferior, and in some case much lower, capacity—can result in corruption and exploitation due to a lack of effective checks and balances. The resulting animosity then can have profoundly negative outcomes as the lower capacity stakeholders realize the imbalance and its repercussions. While capacity development in the natural resource sector, with regard to Africa, is usually thought of as being most needed by African stakeholders such as the government, civil society, and local communities, a great deal of capacity is lacking on the part of the international investor, who is in many cases unable to "read" local socio-political, ethno-cultural, and economic environments in Africa so as to be able to innovate and outline arrangements that work and are mutually beneficial. Thus, capacity development is needed not only for government stakeholders, but also for stakeholders engaged in international and domestic processes in natural resource management.

As highlighted in figure D below, the linkages and sequencing of capacity development will vary from country to country as well as between, say, a post-conflict and fragile state and a stable country on a reform path. Accordingly, it is critical to map out how to most effectively use a combination of approaches in the pursuit of development objectives. Deriving, regularizing, and formalizing the right mix of approaches to natural resource exploitation can support exploitation objectives and go a long way to optimizing sustainable and beneficial natural resource use across Africa.

Figure D: Key linkages for NRM in post-conflict/fragile vs stable countries



The political will to engage in capacity development in a sustainable manner across diverse ethno-cultural, religious, geographic, socio-economic, linguistic, autochthonous, and migrant populations will require leadership to take the long view. And while political will at the topmost positions of government is important, such political will can be very effectively applied at many levels of government and civil society, in a wide variety of training and education settings. Small expressions of political will often can have significant repercussions, both because those engaged directly in capacity building will have a number of students or trainees from different parts of society, and because examples set in capacity development environments can have ongoing effects. While history has shown that broad capacity gains in a society do not always result in predictable outcomes (certain economic alliances or forms of government), they do facilitate the economic and political self-determination needed for countries to navigate their own way in a world where effective management and exploitation of natural resource endowments will become increasingly important.

In fact, as capacity, information, and knowledge imbalances are redressed, infrastructure strengthened, new bargaining models embraced, policies implemented, legal frameworks enhanced, and institutions capacitated, the dynamics are clearly shifting. Today, old contracts are being renegotiated; new resource-rich countries are putting in place robust and transparent governance structures; and local and international civil society organizations and initiatives are pressurizing multinational companies to honor their corporate social responsibilities. The natural resource management landscape in Africa is undergoing a revision. These winds of change are reflected not only in the ACI index scores on natural resource management, but also in the widely observed economic growth patterns, improved human development indices, and enhanced governance and transformative leadership stories emanating from every corner of Africa.

Chapter 1

Africa's Capacity Development Landscape

1

Africa's Capacity Development Landscape

1.1 Introduction

In 2011, the African Capacity Building Foundation (ACBF) launched the inaugural Africa Capacity Indicators Report (ACIR) as a flagship report on the theme *Capacity Development in Fragile States*. This was followed in 2012 with the second edition of the Report, on the theme *Capacity Development for Agricultural Transformation and Food Security*.

This year, the Report focuses on a very pertinent subject: *Capacity Development for Natural Resource Management*.[1] The discussion on natural resources covers renewable and non-renewable endowments—with specific reference to forests, land, water, and minerals (solid minerals and petroleum resources). Non-renewable natural resources are mineral substances usually discussed under the so-called extractive industries. The value of natural resources rests on the quantity of material available and the demand for it. The latter is determined by its usefulness to production and in supporting consumption. All resources are of vital importance for the societies involved in their exploitation and satisfy the consumption needs for a range of reasons such as biodiversity, food and energy security, and the production of indispensable appliances for sustainable development. Their presence and the strategies for their use have huge implications on states' and territories' economies and socio-political landscapes.

Generally, the broader context of investments in and extraction of natural resources in Africa has moved toward increased variability in types; how frequently they occur; the resources and land areas involved; the histories of how investments come about and operate; and the role of governments and the local population. There are a number of established investment types whose existence can, in many cases, be traced to the given country's colonial legacy. Other large-scale land resource deals were common in the early post-colonial era, before the present surge in interest in natural resource extraction. Mineral and timber exploitation are good examples, having been present from the colonial era to date in a variety of forms and in many countries. However, the kinds of mineral resources being exploited have now expanded substantially, as have the areas being mined and their spatial extent (Karsenty 2010).

Other investment types are more recent, and have emerged due to a combination of technological advancement, socio-political trends, and prices. Biofuels in particular have come about recently with the emergence of ways to more easily and economically convert forms of agricultural produce into fuels, together with green politics, a need to diversify fuel sources, and pricing (Schoneveld 2010). While acquiring land resources for agriculture is not new, the acquisition of land for national food

security purposes for the investor country (such as by South Korea) is relatively new, and has emerged with the prospect of uncertainty and scarcity in the global food supply, highlighted by record-setting global food prices in 2008 and again in 2011 (Murphy et al. 2011; Smaller and Mann 2009). Investments are also driven by concerns over what climate change, growing populations, increasing urbanization, and price uncertainty will mean for investor countries that wish to attend to the needs and aspirations of their own citizens (Smaller and Mann 2009; Murphy et al. 2011).

In addition, there are largely uncharted relationships between types of investors. For example, the acquisition of agricultural land resources for biofuel production takes land out of food production and the global food supply and, by extension, may increase threats to food security and contribute to a greater desire to acquire additional lands for food production (Nelson et al. 2012).

Still other types of investments have been common in the past, and occur in the same way currently, but are notable primarily for the enormity of the areas they now affect. Of particular note is the conversion of forest land to grassland for grazing cattle for the international market, and the vast areas now in this land use that was once forest (Molnar et. al. 2011). But also important is the conversion of forests to tree plantations and clear cutting for timber (Venter et al. 2009; Lambin and Meyfroidt 2011).

The broader context of obstacles for realizing the socioeconomic potential of high-value natural resource extraction is daunting. Patronage and corruption can divert revenue to small groups as opposed to benefiting the wider population. Shortsighted and low capacity management of resources and their revenue can result in wasted opportunities. Low capacity of investors to adequately understand the African natural resource investment environment can prevent them from deriving workable arrangements with the proper controls and checks and balances. Moreover, just the presence of high value resources can put peace at risk when the resources become the focus of disputes that turn violent or provide revenue streams to belligerent interests that desire to start or restart armed conflict. In addition, grievances can be created by expectations that go unmet or by inequalities in the distribution of jobs, infrastructure, revenue and other benefits. More generally, overemphasis on the resource extraction sector can erode both the performance of the economy and the quality and functioning of institutions (Alao 2007; Bruch et al. 2011).

The terms "resource curse," "paradox of plenty" and "Dutch disease," are used to describe particular manifestations of the aforementioned negative relationship and, refer to forms of erosion of the larger economy. For example, the relationship between an increase in the exploitation of natural resources and a decline in the manufacturing sector (at times to include emergent industrial agriculture) reveals that comparatively greater revenue from natural resources can deindustrialize a national economy by raising the exchange rate, and thus make the manufacturing sector less competitive (Corden and Neary 1982). This is a particular problem for economies on the African continent that do not have mature manufacturing sectors able to withstand such a process, and so as a result are quite vulnerable to shocks.

Despite the evidence in the literature, some of the claims of the resource curse theorists have been challenged more recently (Obi 2010) because the resource-conflict link is probably more complex than is conceptualized in the

literature (Basedau and Lay 2009). Contrary to the rentier state theory, which posits that resource-rich states were weak, corrupt, authoritarian, and therefore susceptible to conflict (Obi 2010), the argument is that "governments use revenue from abundant resources to buy off peace through patronage, large-scale distribution policies and effective repression"[2] (Basedau and Lay 2009: 758).

The notion of resource curse has also been criticized from a methodological and econometric perspective (Arthur 2012a). These criticisms particularly concern the trade-based proxies (such as the share of primary product export) traditionally used to measure natural resource abundance. From this perspective, the disappointing growth performance of resource-rich countries was related to macroeconomic policies rather than to natural resources. Thus, the resource curse phenomenon is due to econometric and measurement fallacies, while resource wealth may represent an important factor for economic development (Daniele 2011).

Similarly, Humphreys et al. (2007) have called into question the resource curse argument because for them, there is considerable room for human agency to rectify the risks posed by the "paradox of plenty." Finally, examining the relationship between oil and conflict, for example, Fearon (2005) argues that oil predicted civil war risks not because it provided an easy source of rebel start-up finance, but more likely because oil producing nations have relatively low state capabilities that stemmed from their level of per capita income and weak military and institutional structures capable of effectively repressing the outbreak of armed insurrection. A further complication is that oil makes state or regional control a tempting prize.

Such criticisms and challenges against the resource curse theory have led to a partial move away from the initial debates over the "greed versus grievance" causal binary. It is therefore not surprising that much of the emphasis has shifted to issues related to capacity, leadership, good governance, and an exploration of the links between resource endowment and the viability or capacity of rebel groups (Obi 2010). The resource curse thesis can be criticized and its core arguments undermined on the grounds of its "prevailing evaluation methodologies and on the basis of measurement errors, incorrect specification of the models and the high probability of spurious correlations" (UNRISD 2007:12 cited in Obi 2010:489). At the same time, it would be disingenuous to ignore the general ills, economic challenges, and socio-political pains that resource-rich African countries face in managing those natural resources. As a result, an issue that often crops up has been the means by which natural resources can be managed to enhance cooperation and contribute to the overall socioeconomic development.

1.2 Capacity Development for Natural Resource Management in Africa

Managing natural resources is challenging. Across Africa, a number of countries with large endowments of valuable natural resources do no better, and often do worse, than less endowed countries. This recurrent fact reinforces the notion of the so–called "natural resource curse" or the "paradox of plenty" (UNDP 2011a:1). Across Africa, the exploitation and role of renewable (land, forests, water) and non-renewable natural resources (oil, gas and minerals) in national development has, unfortu-

nately, been central to the geo-political, social, and armed struggles. Sierra Leone, Liberia, the Niger Delta in Nigeria, and Democratic Republic of Congo immediately come to mind. Similarly, land grabs in Tanzania, Madagascar, the Democratic Republic of Congo, and Ethiopia; the pollution in the Niger Delta region of Nigeria; and the political unrest in Madagascar due to popular protest over unfavorable land deals with South Korea are well documented. On the positive side, Botswana's success in managing its diamond reserves, and the promise that the discovery of oil in Ghana and Uganda heralds, are all evidence of the complex role natural resources play in both promoting development and fuelling conflicts across the continent.

All across Africa, moreso in recent years, there has been an exponential growth of extractive industry investment and agro-industrial projects implemented by large multinational and national companies. Communities most affected by the growth in the exploitation of Africa's natural resources—whether forests, land, or extractive minerals—are often marginalized and vulnerable, as much of Africa's natural resource wealth is located in rural areas. These communities, often in places with no or little formal national state presence, have to deal with the political, economic, and social pressures that accompany the arrival of large-scale investment projects. Thus, while the overwhelming majority of these large footprint projects operate in Africa's rural areas, and despite the generation of taxes, royalties, and occasionally some social investment by companies, these areas usually remain poor. Many investors do not honor their corporate social responsibility to these communities and rather collude with the political elite to further marginalize them.

The above notwithstanding, the natural resource curse is not inevitable (UNDP 2011a). A number of countries have been able to effectively manage their natural resources to spur development. While there are no "silver bullets that enable countries to avoid the resource curse and make the best possible use of natural resources for development," there generally are steps nations can take to mitigate the curse (UNDP 2011a:2-3). It is in light of the above geo-political and socio-economic context, coupled with the need to better map out and understand the capacity development dimensions central to the management of Africa's natural resources, that ACIR 2013 was conceived.

Indeed, in recent times, Africa has posted good growth prospects (IMF 2011a). The Regional Economic Outlook of October 2011 submits that Africa will grow by more than 5.25 percent in 2011 and 5.75 percent in 2012. While this projection was premised on the assumption that the global economy will regain some of its momentum in 2012, many African countries have, in reality, achieved this outlook in part because of the boom in commodity exports—particularly given the demand for natural resources from India and China as well as other emerging markets (see Chapter 3). Some African countries where there is good governance are reaping the benefits of supplying natural resources such as oil, gold, and diamonds to the emerging markets. In fact, with Africa currently producing 46 percent of the world's chromium, 48 percent of its diamonds, 29 percent of its gold, 48 percent of its platinum, and approximately 10 percent of its global oil reserves, one can argue that mining, together with agriculture and tourism, are the key pillars of Africa's economy, as they collectively generate over 80 percent of the foreign exchange earned by most of these nations.

Africa, however, urgently needs a better understanding of the natural resource management value-chain, which has great potential for exports, employment, and enhanced poverty reduction. Country capacities to assess different scenarios and concentrate efforts within prioritized value-chains or clusters make the difference between success and failure in effective management of natural resources (see Chapters 2, 6, and 8).

We conceptualize capacity as "the ability of people, organizations, and society as a whole to manage their affairs successfully; and capacity development is the process by which people, organizations, and society as a whole unleash, strengthen, create, adapt, and maintain capacity over time. Capacity is also better conceptualized when answering the question: capacity for what? Capacity for individuals, organizations, and societies to set goals and achieve them; to budget resources and use them for agreed purposes; and to manage the complex processes and interactions that typify a working political and economic system. Capacity is most tangibly and effectively developed in the context of specific development objectives such as delivering services to poor people; instituting education, public service, and health care reform; improving the investment climate for small and medium enterprises; empowering local communities to better participate in public decision making processes; and promoting peace and resolving conflict" (ACBF 2011:30-31).

To highlight the urgency of capacity for natural resource management, consider that despite the fact that oil, gas, and metals are of strategic importance, they do not account for even 5 percent of the world's production, which makes the importance of Africa's raw materials relative. While there may be substantial natural resource reserves in Africa, in most cases, the heart of usage—especially in the extractive industries—lies outside Africa. Despite Africa being tops in the global production of diamond, gold, cobalt, and platinum, most of these minerals are exported in their raw form to developed or emerging economies. And even though resource-rich African states try to generate revenue through exports, this effort is still insignificant. Foreign markets still disproportionately determine the path of Africa's economic growth and development, irrespective of the natural resource endowments. These circumstances must change!

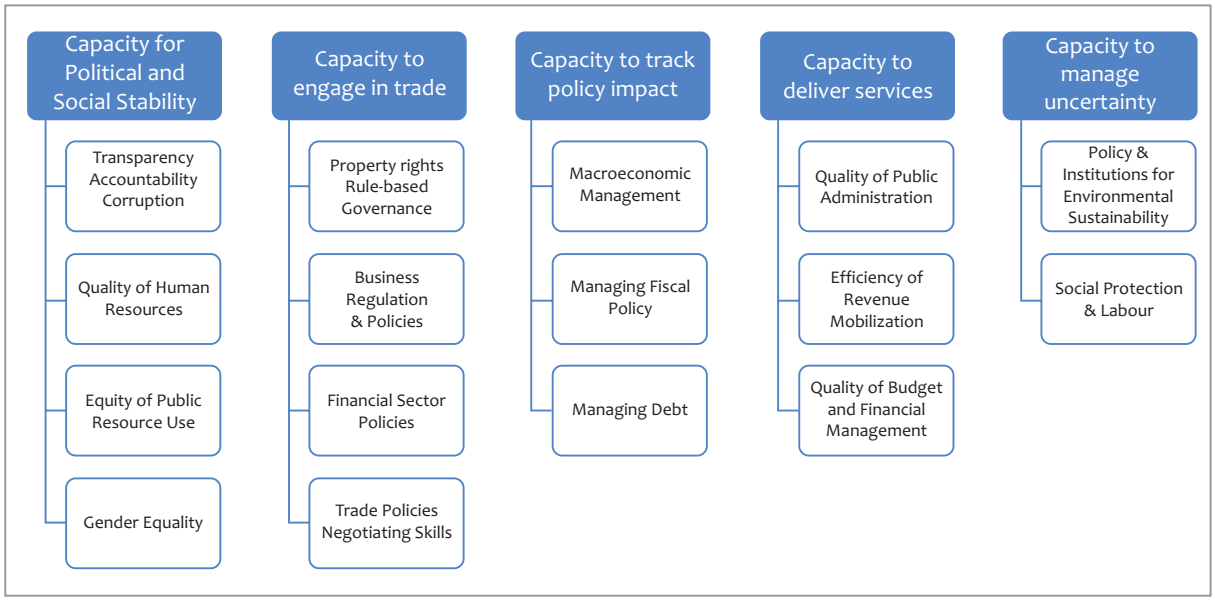
Countries dependent on natural resources need to be particularly capable of securing political and social stability. Key capabilities include how a country manages—whether at local, country, or regional level—to aggregate and address citizen needs, include diverse social groups (women and excluded groups) in decision-making, and enhance public officials' accountability to the citizenry. If countries are not capable of securing social and political stability, and they are rich in natural resources, they remain poor and mired in conflict. Another key capability is that of tapping benefits from trade and integration which presupposes the capacity to put in place an enabling environment with property rights, rule-based governance, a sound business regulatory environment, a functioning financial sector, and effective trade policies. But countries also need to have negotiation skills to discuss and secure the appropriate terms of trade, establish trade policies, and engage in fair contractual agreements. There is also an urgent need for management capability to remove the constraints that bottleneck the effective extraction of resources, including supply chain bottlenecks (transport logistics, and business climate).

Tracking the impact of different economic policies, particularly those that help countries manage the boom and bust cycles inherent in dependency on natural resources, is also required (a point stressed in Chapter 3). Such capabilities include having a cadre of individuals and organizations that can formulate, implement, or evaluate macroeconomic, fiscal, and debt policies. Citizens also expect that a country rich in natural resources should be able to deliver services effectively, which presumes quality public administration, efficient resource mobilization, and superior budget and financial management capabilities.

Price fluctuations and changes in terms of trade also necessitate critical capabilities of managing within uncertainties, and being ready for the challenges presented by, for example, climate change. All these uncertainties require countries to have skilled people, who are well versed in sustainability thinking for development programs and policies, and institutions for environmental sustainability.

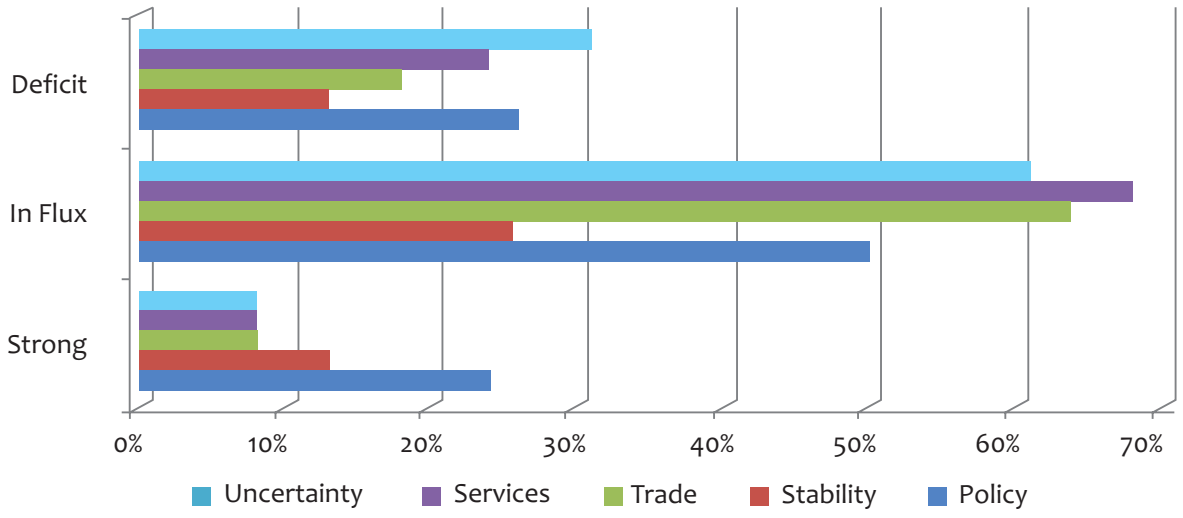
Looking at African countries using the above lenses, we can identify those that are strong, in-flux, or have weak capacity to manage their natural resources effectively (figure 1.1). Capacity-strong states are those able to withstand and manage all kinds of shocks (stability), engage effectively in globalization (trade), track the impact of policies (policy), deliver services (service) and manage uncertainties from climate change (uncertainty). In-flux states have some capacities in the areas mentioned above but are not secure and are uneven geographically or across sectors (figure 1.2). Such states risk falling into deficit situations or undergoing fundamental changes to join the category of capacity-strong states. They are very dependent on transformative leadership in order to change. Capacity-deficit states have major gaps in many of the areas mentioned above.

Figure 1.1: Indicators of organizational and institutional capacity



Source: Léautier (2012)

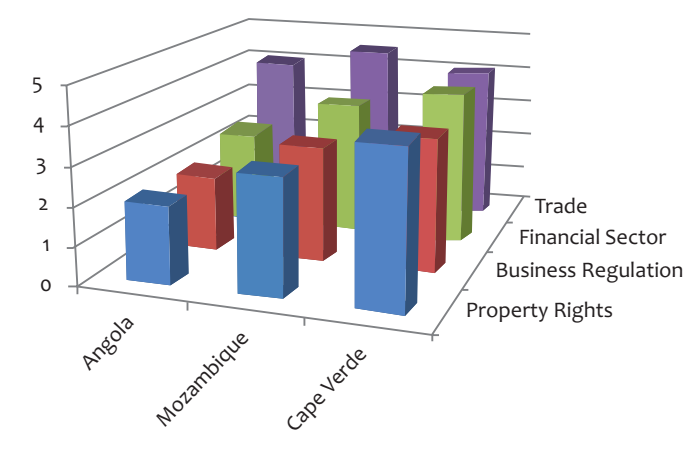
Figure 1.2: Capacity comparator in Africa



Source: IDA Resource Allocation Data 2007. Classification based on analysis of averages of multiple indicators plus or minus one standard deviation from mean, across six dimensions of capacity

As clearly depicted in figure 1.2, many countries in flux lack capacity to track policy or deliver services—both critical needs for natural resource management—and many face uncertainty. Risks of trading with weak property rights, business regulation and financial sector capacities vary across countries that are rich in natural resources, and countries have varying degrees of dependence on any given natural resource—whether minerals, timber, or oil (figure 1.3).

Figure 1.3: Risks of trading with weak property rights, business regulation and financial sector capacities—Angola, Mozambique and Cape Verde



Source: Léautier (2012)

Given the aforementioned factors, coupled with the incoherent understanding of the capacity dynamics facing Africa (particularly in the natural resources sector) the ACIR 2013 is conceived and designed to bring to the fore the capacity development subtleties impacting this very critical sector. The ACIR2013 attempts to locate the position of Africa's natural resources in a global context and explores what capacities are required for effective management of these resources. Enhanced capacity of states and society remains an important part in promoting rapid economic growth in Africa. It makes growth more inclusive by sharing the benefits of development with poorer groups and communities, particularly in disadvantaged communities, in both rural and urban areas. Lack of adequate capacity in this regard hinders potential growth, weakens international competitiveness and adversely affects poverty reduction efforts as well as peaceful co-existence of communities and regions on the continent.

1.3 ACIR 2013 and the Capacity Development Landscape[3]

1.3.1 Methodology

The ACI Report measures and empirically assesses capacity in relation to the development agenda in African countries. The ACIR also highlights key determinants and components of capacity for development. To this end, the ACIR maps out the capacity development landscape in Africa with the goal of sharpening the focus on capacity deficits as a major development policy issue. The Report and its key index—Africa Capacity Index (ACI)—offer the needed inputs into the decisions on what to finance in order to develop capacity; the regulatory and institutional reforms needed to better support public-private partnership in "capacity investment" and building; and the investment in further strengthening of public administration. They also bring to the fore the importance of political will to enhance social inclusion and beneficiation of development.

The methodology employed by the Foundation for developing the ACI is based on three levels of capacity: (i) the enabling environment; (ii) the organizational; and (iii) the individual. The enabling environment refers to the system beyond the organization—including the tone set by leadership and other countervailing factors. It encompasses the broader system within which individuals and organizations function, thus influencing their performance outcomes. The organizational level of capacity comprises the internal policies, arrangements, procedures and frameworks that allow organizations to operate effectively and accommodate the integration and consolidation of individual capacities for specified goals. The individual level assesses the skills, experience, and knowledge that are vested in people (ACBF 2012). Leadership comes at the individual level in the values espoused that determine accountability and results, thus enabling individuals to transform the environment of work to generate results.

The Africa Capacity Index (ACI) is a composite index computed from four sub-indices[4], each of which is an aggregated measure calculated on the basis of both a quantitative and a qualitative assessment of various components that form a cluster. Cluster analysis was used to generate the sub measures. The clusters have the following dimensions: policy environment; processes for implementation; development results at country level; and capacity development outcomes.

The policy environment examines the conditions that must be in place to make transformational change and development possible, with

particular emphasis on effective and development-oriented organizations and institutional frameworks. It is focused on (a) whether countries have put in place national strategies for development (including a strategy for agricultural development, given the importance of transforming agriculture and achieving food security) and their level of legitimacy; (b) the countries' levels of commitment to meeting development and poverty reduction objectives established within the Millennium Development Goals (MDGs); (c) country-level awareness and focus on better utilization of limited resources for capacity development as measured by the presence of policies for aid effectiveness; and (d) degree of inclusiveness that supports their long-term stability as measured by the existence of gender equality and other socially inclusive policies. Indeed, broad participation and good governance underpin this measure.

Processes for implementation assess the extent to which countries are prepared to deliver results and outcomes. This dimension is concerned with the creation of an environment that motivates and supports individuals; the capacity to manage relations with key stakeholders inclusively and constructively; and the capacity to establish appropriate frameworks for managing policies, strategies, programs and projects. Equally important are processes for designing, implementing, and managing national development strategies to produce socially inclusive development outcomes.

Development results are tangible outputs that permit development. The main areas covered by the cluster are: the coordination of aid support to capacity development; the level of creativity and innovation; achievements in the implementation of the Paris Declaration on Aid Effectiveness; achievements in gender equality; and social inclusion and partnering for capacity development.

Capacity development outcomes tend to measure the desired change in the human condition. Indicators to this effect are captured mainly through the financial commitment to capacity development; the actual achievement of specific MDGs; gender and broader social equity; and achievements in agriculture and food security, among other measures (ACBF 2012:30).

1.3.2 *Highlights and trends*

As highlighted above and to ensure comparability over the past three years, the methodology employed for computing the 2013 ACIR mirrors the 2011 and 2012 Reports. To this end, three levels of capacity are assessed: a) enabling environment, b) organizational environment, and c) individual level (table 1.1).

Table 1.1: Capacity dimensions in 2013 (% of countries by level)

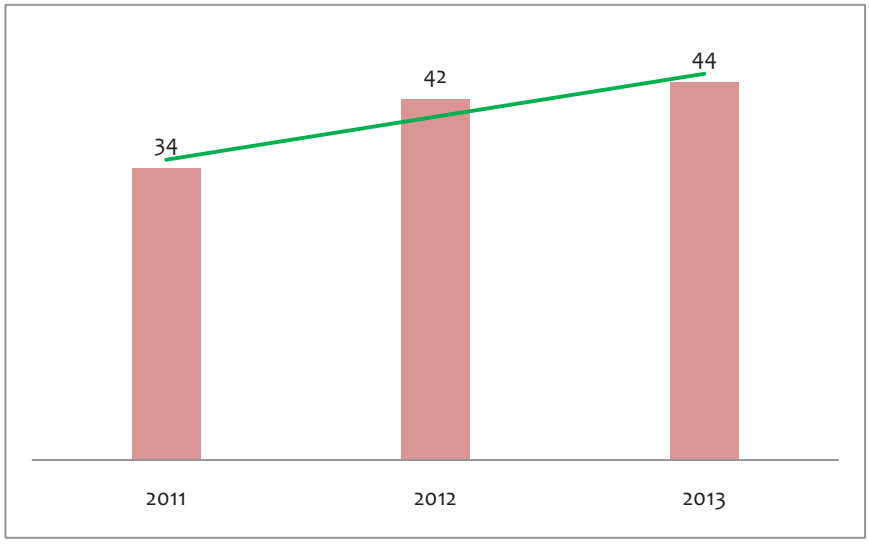
Level	Enabling environment	Organizational level	Individual level
Very Low	0.0	2.3	75.0
Low	0.0	11.4	20.5
Medium	18.2	15.9	2.3
High	81.8	31.8	2.3
Very High	0.0	38.6	0.0
Total	100	100	100

Source: 2013 ACIR database

Countries that witnessed the most significant capacity improvements over the period 2012-2013 are the Democratic Republic of Congo (+17.5); Madagascar (+17.0); Republic of Congo, (+13.9); Cameroon (+13.4); and Burkina Faso (+13.2). While the underlying factors explaining these country-specific improvements vary, in all cases it appears some efforts at political reform and enhanced social inclusion underpin the change observed.

The period also witnessed an expansion in both the geographic coverage and scope of the analysis. In 2011, the Report surveyed 34 countries and focused on capacity. For 2012, the Report grew to cover 42 countries, and its scope expanded to encompass both overall capacity and capacity for agricultural transformation and food security. This 2013 Report covers 44 countries and maps capacity in agriculture and natural resource management (figure 1.4), in addition to overall capacity. To this end, the process has managed to generate trend analysis of capacity in Africa (three-data points) and capacity for agricultural transformation and food security (two-data points). ACIR 2013 added two newcomers, São Tomé and Príncipe and Tunisia, to the geographic coverage.

Figure 1.4: Geographic coverage of ACIR 2011-2013



Source: 2013 ACI database

Overall, the 2013 ACI registered significant capacity developments compared to the 2012 ACI. Whereas in 2012 only one country—Ghana—managed to register a "high" capacity level, this year witnessed a significant improvement in the capacity status of two countries—Burkina Faso and Kenya—with the result that both are classified "high." Ghana, on the other hand, which was classified "high" category in the 2012 ACI, slid back into the "medium" bloc this year. In a related development, the percentage of countries in the "low" capacity category shrank from 14.2 percent to 11.4 percent, again suggesting an improvement. For example, Madagascar, Mauritania, and Mauritius all made the jump from "low" to "medium." By the same token, the upgrading of both Burkina Faso and Kenya from "medium" in the 2012 ACI to "high"

in the 2013 ACI caused the percentage of countries in the medium capacity to decline from 31 percent to 27.3 percent (figures 1.5a and b).

These positive shifts notwithstanding, more effort still needs to be placed on enhancing capacity because, to-date, no country has broken into the coveted "very high" capacity space. Moreover, the bulk of countries still fall within the "low" (brown zone) capacity bracket—52.4 percent in 2012 and 56.8 percent in 2013.

Figure 1.5a: ACI levels 2013

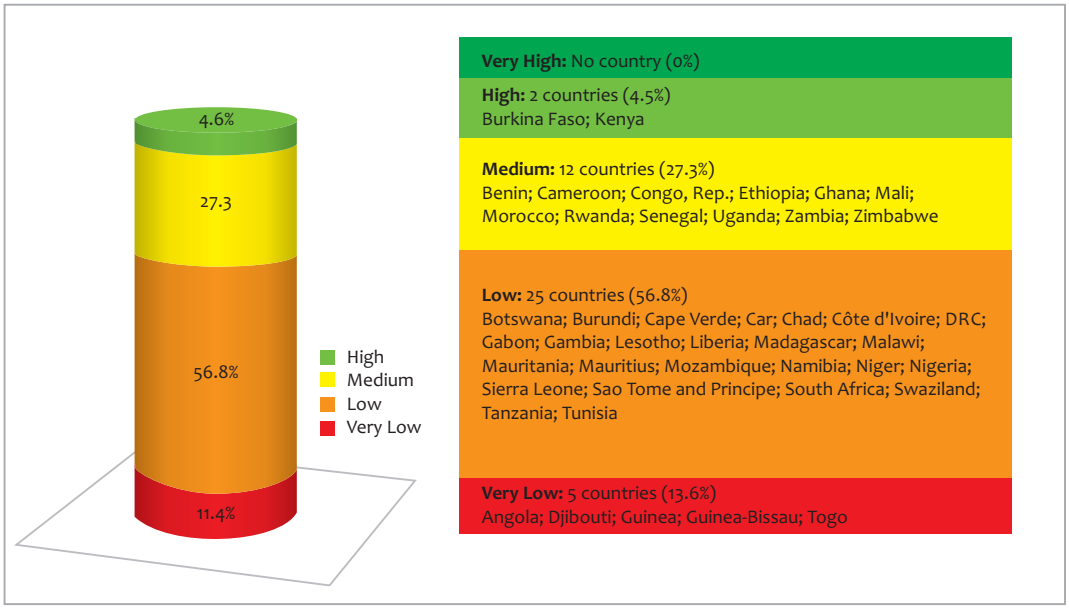
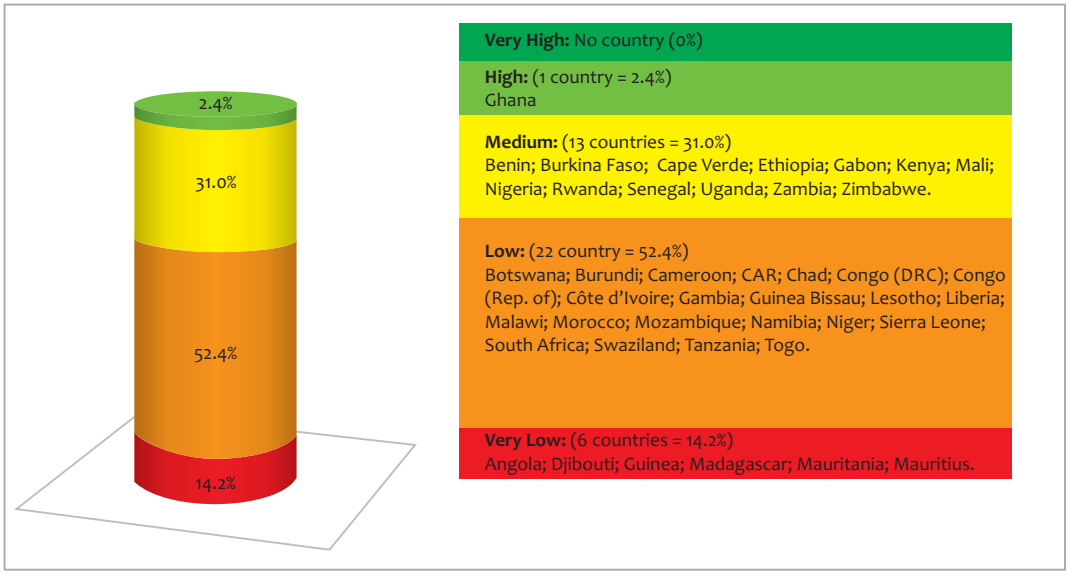


Figure 1.5b: ACI levels 2012



Source: 2013 ACIR database

As noted earlier, the ACI is a composite index averaged from four cluster indices—policy environment, processes for implementation, development results at country level, and capacity development outcomes. Pattern analysis suggests that as one moves gradually from left to right (that is from the policy environment to capacity development outcomes), the majority of countries witness a decrease in capacity. Put differently, most African countries have the requisite capacities—local or outsourced—to formulate policies. In fact, of the 44 countries surveyed, all fell within the high or very high capacity category with regard to this cluster. Again, it appears, countries are doing well in terms of putting in place the essential processes for implementation (86.3 percent in very high or high bracket, and no country in low or very low).

In spite of the excellent policy environment and equally impressive implementation processes landscape, countries appear not to be on the brink of achieving development results (18.2 percent ranked low and very low in Cluster 3, and a paltry 2.3 percent of surveyed countries fell in the very high category). The real challenge, however, still remains achieving capacity development outcomes—an issue globally recognized and deliberated in much detail in many capacity development forums, including the 2011 4th High Level Forum on Aid Effectiveness in Busan, Korea. Analysis of this cluster reveals that over two thirds (72.7 percent) of countries surveyed fell in the very low capacity zone (table 1.2).

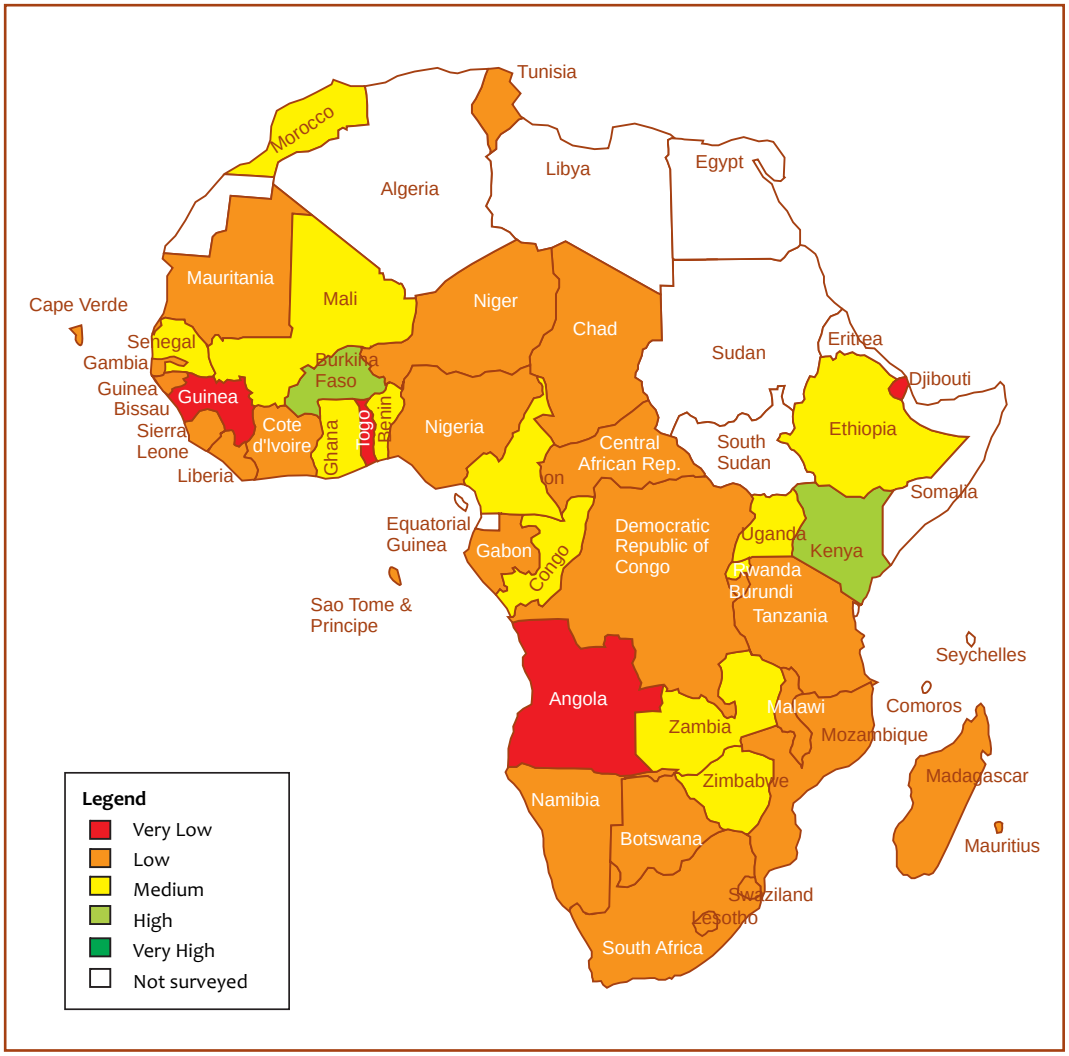
Table 1.2: ACI 2013—Country percentage by cluster and level of capacity

Level of capacity	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Very Low	0.0	0.0	2.3	72.7
Low	0.0	0.0	15.9	22.7
Medium	0.0	13.6	56.8	2.3
High	15.9	63.6	22.7	2.3
Very High	84.1	22.7	2.3	0.0
Total	**100**	**100**	**100**	**100**

Source: 2013 ACI database

The observed pattern, however, is not a deviation from that witnessed in either 2011 or 2012. In all three years, the policy environment has been the strongest and development outcomes weakest (ACBF 2011, 2012). This notwithstanding, it is encouraging that in 2013 there are a few countries with "green zone" (high) ratings in Cluster 4, notably Kenya, and very high ratings in cluster 3 for Morocco. Indeed, with the exception of the shifts highlighted above, including the five dynamic performers and the new countries surveyed, the general capacity landscape is quite comparable to that of 2011 and 2012 (figure 1.6). That said, the fact that we observed significant capacity jumps among the countries suggests that African countries are making meaningful strides toward advancing capacity. This assertion can be confirmed empirically in the next couple of years, by which time we will have five data points (2011-2015) for rigorous analytical interrogation.

Figure 1.6: Map of Africa by 2013 ACI levels and countries surveyed



Source: Generated from 2013 ACI database.

1.3.3 *ACI top performers—Burkina Faso, Ghana, and Kenya: the inside story*

Over the past three years, Ghana, Kenya, and Burkina Faso have consistently been the top three capacity performers. In 2011 all three were part of the "medium" capacity bloc as no country registered a "high" or "very high" capacity level. That changed in 2012 when Ghana inched its way into the "green zone"—the color code designation for high and very high capacity. This year, the top performers are Burkina Faso (66.6) and Kenya (60.1), as Ghana (54.1) fell back into the "yellow zone" (table 1.3). A closer look at the three countries suggests that the upward and downward movements come from fluctuations in their respective performances in specific clusters as captured in table 1.4 and figure 1.7.

Table 1.3: ACI index value—top 3 countries (Burkina Faso, Ghana, and Kenya)

Country	ACI 2012		ACI 2013	
	Rank	Level	Rank	Level
Burkina Faso	3rd	Medium	1st	High
Ghana	1st	High	3rd	Medium
Kenya	2nd	Medium	2nd	High

Source: 2013 ACI database

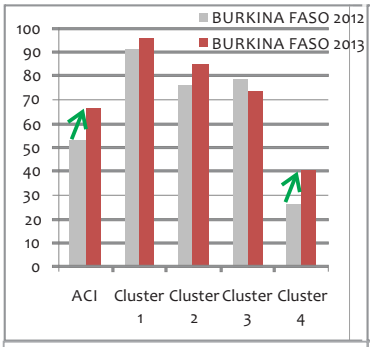
Table 1.4: Differences between 2012 and 2013 by cluster—Burkina Faso, Ghana and Kenya

2013 - 2012	ACI	Cluster 1	Cluster 2	Cluster 3	Cluster 4
GHANA	-6.1	0.0	4.6	7.0	-18.3
KENYA	1.9	0.0	0.0	-10.0	18.1
BURKINA FASO	13.2	4.2	9.3	-5.0	14.8

Source: 2013 ACI database

Figure 1.7: Cluster variances (2012 and 2013)—Burkina Faso, Ghana and Kenya

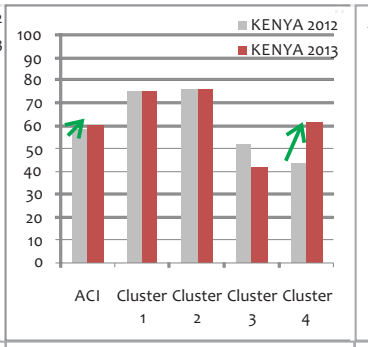
BURKINA FASO



The ACI index value increased by 13.2 points.
The country shifted from "medium" to "high" and was ranked 1st (from 3rd in ACIR 2012 and 1st in ACIR 2011).

Burkina Faso made a huge improvement on Cluster 4 and noticeable gains on Clusters 1 and 2. A slight decrease was noted in Cluster 3.

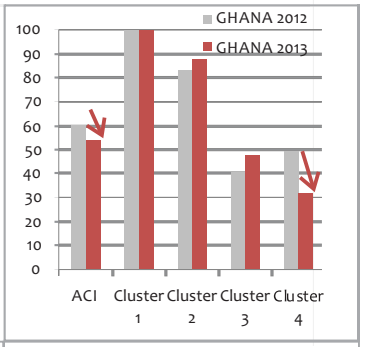
KENYA



The ACI index value increased by 1.9 points.
The country's rank remained the same (2nd). However, its level shifted from "medium" to "high."

Whereas the country experienced its biggest increase in Cluster 4, there was also a significant drop in Cluster 3. As a result, the ACI index value increased only slightly to allow the country to shift from "medium" to "high."

GHANA



The ACI index value decreased by 6.12 points.
The country's rank dropped from 1st in ACIR 2012 to 3rd. Its level also fell from "high" to "medium."

A key factor explaining the decline is the huge drop in Cluster 4. And while Clusters 2 and 3 increased significantly, it was not enough to compensate the average decrease in the ACI value index.

Source: 2013 ACI database

Further interrogation of the top three performers suggests that each country's internal strategies and policy dynamics also played fundamental roles in the resulting shifts up and down the capacity ladder—with Burkina Faso adopting what we term a ***push ahead for the future*** strategy, Kenya, a ***prepare for the future*** tactic; and Ghana, a ***wait and see*** approach.

a) Burkina Faso—push ahead for the future

The trends in Cluster 4 are very important in explaining the performance of Burkina Faso in ACIR 2013. Burkina Faso did well by focusing on leadership training and development, which increased more than tenfold compared to the 2012 ACIR, with the development of a total of 634 leaders. The area of greatest success was in developing critical institutions, where the country posted an increase of nine more institutions developed compared to the 2012 ACIR (a 39 percent increase year on year). The focus on capacity development went into skills building through more attention to short-term training—workshops, seminars, and timely short courses—on topics of relevance to the country's development. Other areas that received attention and contributed to delivering results are related to deep skill development for both men and women (even though not a single woman was trained at the PhD level for two years in a row). Another key achievement is in the assessment of the quality of the current agricultural strategy, which also improved by 18 percent compared to the previous year. Burkina Faso achieved these results by using domestic resources and existing capacity more effectively, because the country experienced a decline in official development assistance to capacity development, and even ACBF programs that had reached several degrees of maturity disbursed much less over the ACIR 2012 period than in ACIR 2013 period, by a decline of 5.5 percent. The staff strength, which is the number of people employed in capacity building also declined, indicating that the country experienced critical efficiencies and used better existing staff resources to achieve results.

b) Kenya—prepare for the future

The trends in Cluster 4 for Kenya show a different approach to capacity building compared to Burkina Faso in the 2013 ACIR, except in two key areas—leadership development and focus on skill building in areas of importance to the country. Kenya did tremendously well by focusing on leadership training and development, where a program was commenced from no leaders trained during ACIR 2012 to 1,448 by ACIR 2013. The other area of success was in supporting critical government institutions by providing technical assistance in areas of priority, where the country started delivering on technical assistance, from zero in the previous year. Kenya could do this because it increased the staff strength engaged in capacity building by 214 percent, which allowed the country to spread out into not only leadership development and technical assistance to government, but also on increased skills building through more attention to delivering short-term courses, workshops, and seminars to a strategic group of people on selected and priority topics of relevance to the country's development. Other areas that received attention and contributed to delivering results are related to deep skill development for women (three more women got PhDs in areas of relevance to public sector policy and management, bringing the total to 14 women trained at the PhD level in ACIR 2013, compared to 11 in ACIR 2012). Another key achievement was the focus on timely policy studies that were advanced, even though attention has not been given to dissemination of such studies. The assessment of the quality of

the current agricultural strategy showed a decline of 6.7 percent compared to the previous year. Kenya achieved these results by doing a better job at targeting which institutions to strengthen and which stakeholders to develop, including at the leadership level. The effective use of official development assistance (ODA) was also a key factor, because the country experienced a 111 percent increase in ODA to capacity development. There was a decline in both the domestic resources allocated to capacity (-27 percent) and ACBF disbursements to programs (-26 percent) compared to ACIR 2012.

c) Ghana—wait and see approach

The trends in Cluster 4 for Ghana show a very different approach to capacity issues in the ACIR 2013 compared to Burkina Faso and Kenya, except in one key area—focus on skill building in themes of importance to the country through increasingly targeted short courses to more beneficiaries. Ghana paid attention to revising existing curricula rather than developing new ones, and to maintaining gains made in civil society involvement in capacity development and policy issues in the country, as it went into the election period. As seen in the ACIR 2013 analysis, the impact of elections was to disinvest in capacity development as all indicators in this category declined compared to ACIR 2012. The staff strength engaged in capacity development declined; the number of institutions strengthened also declined, as did technical assistance to government on critical issues. There was an 80 percent decline in leadership training and development compared to ACIR 2012. For example, there was a decline in the number of policy studies and research completed as well as in the dissemination of policy analysis and ideas. Ghana also disinvested in the staff strength engaged in capacity building, with a decline of 43 percent, which may not bode well for the future, especially in the areas of managing a resource-rich economy. The other area suffering from the "wait and see" attitude that creeps in during election years is related to deep skill development for men and women, both of which declined compared to previous years. An additional key challenge for Ghana was the focus on timely policy studies, which were not advanced and delivered as the country went into campaign mode; as a consequence, there was a decline of 82 percent. The assessment of the quality of the current agricultural strategy also showed a decline of 28 percent compared to the previous year. Ghana did not experience a decline in ODA to capacity development, which remained flat between the two years. However, there was a sharp decline in both the domestic resources allocated to capacity (-27 percent) and ACBF disbursements to programs (-24 percent) compared to the ACIR 2012 period. The country's lack of attention to delivering investments for the future in terms of skills needed, policy analysis, and institutional strengthening explain the reduced ACBF disbursements. All these factors combined to pull Ghana down from a rating of "high" in 2012 to "medium" in 2013. Ghana did remain in the top three for three years in a row, which means the country is resilient. However, its attention needs to be refocused on capacity issues so as not to lose out on what has been built in the past.

1.4 ACIR 2011–2013—State fragility, agricultural transformation and food security, and NRM

A key message in this Report is that advancing capacity for natural resource management has far reaching implications in dealing with emerging global challenges such as climate

change, environmental degradation, and the push toward green growth while addressing old woes—state fragility, agricultural transformation, and food security—the central themes of the two previous ACI Reports. Indeed, beyond the resource-conflict nexus, there are linkages that can be drawn among the mismanagement of natural resources, economic decline, or underdevelopment and food security. Aside from armed conflict and its repercussions, fragility affects other forms of conflicts and disputes over land, water, ownership of extractives, and aspects of their value-chain (ACBF 2011).

Central to the fragility-agriculture-natural resource management nexus are the small-scale stakeholders—primary actors in the "natural resources–development with poverty–conflict" trichotomy and the focus of much attention in the context of the resource curse. While there are several problems associated with small-scale resource extraction, there are also opportunities. In general, artisanal and small-scale mining (ASM) is practiced by basic, manual extraction techniques. It is often unregulated, and those that engage in extraction are exposed to various physical hazards (Hayes and Perks 2012). Artisanal and small-scale mining activities are also associated with numerous economic and social problems such as diversion of livelihoods from more sustainable agricultural activities, environmental degradation, and pollution (Hayes and Perks 2012).

As currently practiced in a number of resource-rich African countries, artisanal and small-scale mining is poorly done because of the lack of technical capacity to identify, plan, develop, and exploit high value resources. As a result, small-scale stakeholder extractive activities fail to take full advantage of the overall value of the resource while at the same time consuming or contaminating other resources—such as wood and other forest resources, land, and water—that are essential to livelihoods and food security, particularly once the extractable resource is exhausted. Thus, artisanal and small-scale mining delivers short-term monetary gains to miners and traders who are involved directly, but it also worsens local poverty for many others. In the Democratic Republic of Congo, artisanal and small-scale mining has been linked with armed conflict where minerals extracted by artisanal workers were used to purchase weapons and fund other aspects of the conflict (Hayes and Perks 2012).

Artisanal mining has become an important source of livelihood for women across rural resource-rich African countries because of its relative ease of entry and the fact that it requires almost no formal education, skills, or capital. In this regard, artisanal and small-scale mining is providing impoverished women and families with economic opportunities that might not otherwise exist (Hayes and Perks 2012). With regard to women's role in small-scale resource extraction, a study in the Democratic Republic of Congo found that their involvement in artisanal and small-scale mining was for the most part driven by poverty. The study demonstrated that during the years after the conflict in the country, women's participation in artisanal and small-scale mining increased as a consequence of the general economic downturn and decreased livelihood opportunities in traditional sectors, such as agriculture (Unruh 2012).

There is thus a need to acknowledge the importance of small-scale resource exploitation for local livelihoods and to examine the tensions and stresses that can come about from small-scale extraction activities, overlapping claims to the same resources, or to different resources in the same area. In many resource-rich African countries, small-scale extraction of high-value

natural resources (such as diamonds, forests and wildlife products) may be long established before any conflict or occur prior to the arrival of large-scale extraction interests. In addition, small-scale exploitation activities may develop as a coping strategy during conflict. Such exploitation—often unofficial and/or illegal—is often the economic backbone of impoverished or war-torn communities. Local populations, consequently, view disruption of their livelihoods—through attempts to stop their small-scale extractive activities, or competition with large-scale exploitation—as a negative development. It is for this reason that Lujala and Rustad (2012a) caution that economic development of resources that undergird local livelihoods should focus on formalizing and supporting the resource economies on which conflict-affected populations depend. This should include legalizing forms of artisanal and small-scale mining, so that it is not acted against by the state.

By the same token, large-scale stakeholders figure prominently in the local setting. Often, these entities are better equipped, well organized, and more capable than state authorities at the local level—-particularly in fragile and post-conflict areas. In such circumstances, local community members may not only expect the company to step in for the state in providing needed services, but may transfer their grievances against the state to the company if they fail to provide services (Anderson and Zandvliet 2001).

1.4.1 *Enhancing interaction between large and small-scale stakeholders and the role of capacity*

Investments in resource sectors have great potential to help stabilize fragile and conflict-affected countries by generating revenue, creating employment, and demonstrating to other businesses that countries are safe to invest in. For this to occur in a way that benefits the country as a whole, however, capacity is often the primary constraint. Enhanced capacity to effectively, efficiently, and equitably manage, exploit and market natural resources without necessarily impacting local livelihoods (agricultural production and food security) is needed by all actors in the process, not only small-scale stakeholders and government, but also for large-scale stakeholders (national or international).

A major challenge in the interaction between the myriad stakeholders in natural resource claims, use, exploitation and sale is the pervasiveness of the ongoing incompatibility between informal or customary land tenure and formal state property rights regimes. This may be the most important mode of interaction between large and small-scale stakeholders regarding natural resources, and it has major repercussions not only on development, but also on issues of conflict, environmental degradation, land-use and the role of property in the operationalization of capital (Bruce and Migot-Adholla 1994; McAuslan 2003; de Soto 2000). As African

governments and the international development community acknowledge the problems that result from the separation of customary and statutory land tenure systems, two broad approaches have been developed to connect smallholders with national property rights systems. The first seeks to provide title as proof of possession and ownership of land (Migot-Adholla and Bruce 1994). Many experiences, however, have revealed that giving title to small-scale resource users often accomplishes neither inclusion nor linkage between tenure systems (Bruce et al. 1994). The second involves recognizing customary tenure in national land laws, thereby making forms of customary land tenure legal in statutory law (Bruce and Migot-Adholla 1994; McAuslan 2003). This approach also has problems, such as when ethnicity is used as the primary basis for claims, and when laws from different customary groups become contradictory in statutory law. There is the problem of customary law becoming much less flexible (one of its great advantages for local communities) once it is included in statutory law, rendering it essentially useless for local communities. At the same time, statutory law provides the advantages of predictability and low flexibility for those who participate in it, allowing for security and predictability in contracts and investments (Unruh 2006). Nonetheless, there are ways to meaningfully engage smallholders with regard to natural resource rights, and this is where capacity is needed on the part of large-scale stakeholders.

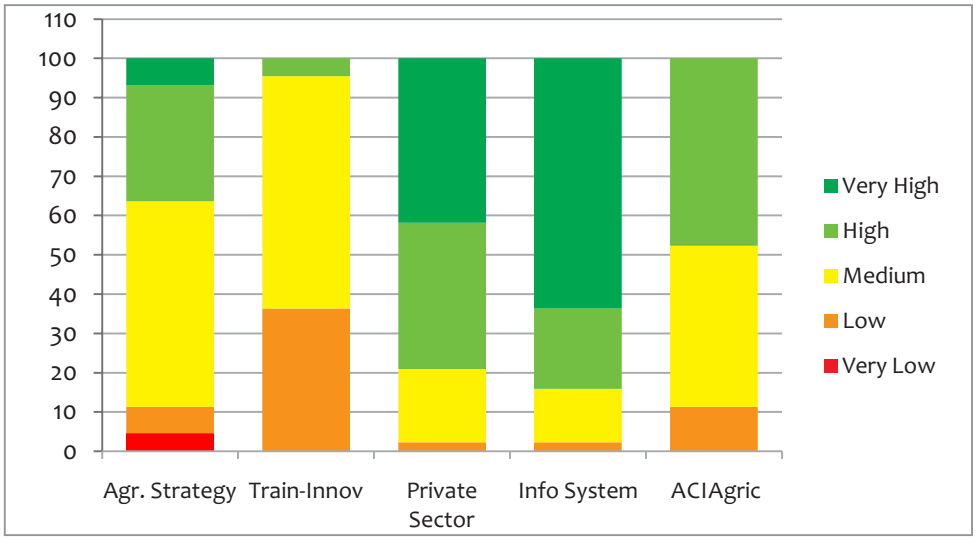
If one looks at the country level results pertaining to capacity for agricultural transformation and food security (figures 1.8 and 1.9), it is clear that the majority of countries surveyed have a composite capacity rating of "high." While most countries have invested in the dimension of capacity related to information systems and made progress toward engaging the private sector, not that much has been achieved in the area of innovation—particularly training and employing innovative systems, including rethinking land tenure and access to land. If countries are to better address the nexus of fragility, agricultural transformation and food security and natural resource management, then more countries need to invest in strategy, training, and innovation (figures 1.8 and 1.9).

Figure 1.8: ACIAgric 2013 – Percentage of countries by cluster

Level	Agricultural Strategy	Training/Innovation	Private Sector	Information System	ACIAgric
Very Low	4.5	0.0	0.0	0.0	0.0
Low	6.8	36.4	2.3	2.3	11.4
Medium	52.3	59.1	18.6	13.6	40.9
High	29.5	4.5	37.2	20.5	47.7
Very High	6.8	0.0	41.9	63.6	0.0
Total	100	100	100	100	100

Source: 2013 ACI database

Figure 1.9: ACIAgric 2013 capacity by clusters



Source: 2013 ACI database

Findings from the 2013 ACI analysis further suggest that while many African countries are taking the necessary steps to advance their capacities for managing natural resources, progress has so far been yielded primarily in Clusters 1 and 2—policy environment and implementation processes. On the whole, African countries are not doing baldly in this capacity area, as most of the 44 countries fall within the green and yellow zones (Very High, High and Medium). This finding mirrors the recent extant literature which suggests that increasingly, African governments are embracing sound and sustainable management of their natural resource wealth (Ayee et al. 2011). The policy environment, in particular, has been very dynamic, with a spate of sovereign wealth funds being opened across the continent as resource-rich nations look to manage their resources—a powerful sign that African states are embracing fiscal prudence (Giugale 2012; Ward 2009). Indeed, following in the steps of Botswana, Nigeria and Angola have both recently launched such funds, and Tanzania, Uganda, Ghana, Mozambique, and Kenya have established or are planning to establish such a fund.

The top-five performers in the field of capacity for natural resource management—Rwanda (83.2), Ghana (80.6), Namibia (77.6), Botswana (77.3), and Nigeria (73.8)—are not the top performers in terms of overall capacity. Actually, of the NRM top performers, only Ghana happens to also be a top capacity performer, with an ACI score of 53.0. Rwanda fares satisfactorily on the overall ACI score with 44.1. Namibia, Botswana and Nigeria are all ranked low capacity nations on the overall capacity index (figure 1.10)

Figure 1.10: ACI-NRM 2013*—Resource endowed countries**

Country	Policy Environment	Processes for Implementation	Devt Results	Capacity Devt Outcomes	Index NRM	Rank NRM	J1	ACI2013
RWANDA	100	87.8	71.1	79.2	83.2	1	2	44.4
GHANA	85.2	83.6	79.5	75.0	80.6	2	3	53.0
NAMIBIA	87.0	70.8	75.3	79.2	77.6	3	2	27.9
BOTSWANA	88.9	77.9	69.9	75.0	77.3	4	3	30.7
NIGERIA	79.6	75.3	66.4	75.0	73.8	5	3	37.7
SÃO TOMÉ AND PRÍNCIPE	74.1	57.2	72.2	71.4	68.0	6	4	21.8
GAMBIA	87.0	63.2	67.7	52.4	65.4	7	4	39.2
MOROCCO	61.1	77.4	63.3	54.8	63.2	8	2	43.9
ZIMBABWE	57.4	70.3	60.1	62.5	62.2	9	2	50.3
MALI	75.9	68.8	67.0	45.8	62.1	10	2	44.7
TANZANIA	61.1	71.6	51.0	64.3	61.0	11	3	36.0
LIBERIA	55.6	66.4	52.1	66.7	59.5	12	2	36.2
CAR	64.8	68.0	47.5	54.2	57.4	13	2	27.5
UGANDA	63.0	53.4	62.0	48.1	55.9	14	2	50.1
SIERRA LEONE	70.4	59.4	52.5	45.8	55.6	15	2	27.2
BURKINA FASO	51.8	51.6	50.5	66.7	54.4	16	2	66.6
MADAGASCAR	57.4	59.9	49.1	51.9	54.2	17	2	27.2
GABON	55.5	62.0	66.1	40.7	54.2	18	3	31.6
MALAWI	79.6	61.3	42.0	45.8	53.7	19	2	32.4
NIGER	81.5	64.6	48.8	37.5	53.4	20	3	29.0
CONGO, REP	66.7	62.5	71.3	33.3	53.3	21	1	48.4
ZAMBIA	70.4	70.4	64.6	29.6	51.5	22	3	43.9
MAURITANIA	38.9	61.3	58.5	51.8	51.0	23	3	24.3
ETHIOPIA	66.7	45.6	42.3	51.9	50.1	24	4	48.9
BURUNDI	64.8	39.2	38.0	55.6	46.9	25	2	38.2
TOGO	70.4	46.8	44.6	35.4	46.4	26	2	18.9
GUINEA	74.1	64.3	34.0	33.3	45.2	27	2	15.6
CAMEROON	72.9	50.5	57.1	26.2	44.8	28	3	50.7
KENYA	50.0	53.2	33.9	40.7	43.1	29	2	60.1
TUNISIA	31.5	39.7	66.5	45.8	42.6	30	3	26.5
CHAD	79.6	72.9	40.3	22.2	41.6	31	1	22.8
SWAZILAND	75.0	55.0	21.4	52.4	41.1	32	3	21.3
DJIBOUTI	75.0	54.4	62.5	20.0	40.9	33	4	19.1
BENIN	37.0	53.2	43.0	29.2	38.7	34	2	45.4
MOZAMBIQUE	29.6	54.4	23.5	59.3	35.9	35	3	28.9
SENEGAL	46.3	58.9	70.6	16.7	35.5	36	3	42.5
CÔTED'IVOIRE	37.5	50.0	39.3	20.8	33.3	37	3	30.3
DRC	22.2	56.4	48.5	18.8	29.3	38	3	35.6
LESOTHO	31.5	54.8	25.6	11.1	22.3	39	2	34.8

J1 = country's natural resource status

1 = Hydrocarbon producer only

2 = Mineral producer only

3 = Hydrocarbon and mineral producer

4 = Prospective (There is reasonable expectation that the country will be producing significant hydrocarbons and/or minerals)

*Angola and South Africa excluded due to missing data

**Cape Verde, Guinea Bissau and Mauritius excluded since they are not hydrocarbon, mineral or prospecting nations

1.4.2 *Approaches for the role of small-scale stakeholders*

With small-scale stakeholders being among the most complex actors for investors to deal with in the context of natural resource exploitation, it is worthwhile to highlight a few approaches to small-scale–large-scale interaction. Generally, formalistic approaches to resource rights that work well in Western country contexts do not have a great deal of meaning to many local African communities. While Western-based statutory law is replete with a wide variety of legal constructs that can have meaning to local communities in resource rights situations, if used in innovative ways (Unruh 2008), what is needed from a capacity perspective is to find out how particular arrangements in statutory law can attend to what local communities deem important (Unruh 2012).

a) ***The inalienability problem, and the nature of land as an asset:*** The belief that land and the resources it contains cannot be permanently alienated is a significant feature of landholding across much of Africa—and one that strongly influences current land tenure and any interaction with investors. A large part of the inalienability concept has to do with the way land resources serve as an asset for local communities, and the distinction between this and the way money or other assets function. The reality that land outlives all owners and occupants, and that it "keeps on giving' over time, is a primary feature of the asset. Thus, regardless of how poor the agricultural season, or the occupants, there is an important "element of continuation" regarding how land functions over generations that is fundamental to food and personal security, livelihood, and even identity (Unruh 2008). Land in this sense is much more than a simple commodity. Thus, unlike other assets (cash, a vehicle, a shop, or even a job), all of which can at some point in time be "finished," land is never finished in the same way, and so keeps on providing. That a large amount of this land asset is "banked" by local communities (possessed but uncultivated, unrented, and unsold) is important for groups that experience unstable and insecure periods, but problematic for national level food security, economic recovery, and natural resource exploitation (Unruh 2012, 2008).

b) ***Concept of "selling":*** While the concept of selling land and land resources exists in rural Africa, in many cases it can be significantly different from the Western concept involving permanent and exclusive transfer of all rights. Lentz (2006a) articulates the difficult aspects of selling land in West Africa, "the questions of who has the authority to transfer what rights and over which parts of a given property, who are the legitimate recipients of transferred rights, and the nature of the rights transferred, and the temporal dimension of the transfer" remain unresolved. Thus, there are ongoing demands by the seller's fellow lineage members who do not recognize the sale, which often results in retaking land. And while some analysts suggest that more individualized rights to land is a growing phenomenon in West Africa and elsewhere, a closer look reveals this to be the case primarily within the lineage, and much less so with outsiders (Lentz 2006a). Recent studies (Unruh 2012;

Hagberg 2006) also show that when more individualized rights to land become increasingly common within the lineage, sanctions are most strongly evoked against the rights of individuals to transfer land to outsiders without consulting holders of allodial title or lineage heads. One of the most difficult issues is intergenerational and intra-family conflict regarding land sales, as the African customary concept comes into contact with the Western understanding (Lentz 2006b; Hagberg 2006). In addition land and land resource sales to outsiders are seen both as a process of excluding youth from land they might otherwise have legitimate customary claim to, and as a feature of the less than legitimate formal statutory tenure.

c) ***Equal footing:*** While there have been various attempts at putting small-scale stakeholders on equal footing with large-scale stakeholders in land resource scenarios so that equitable deals can be worked out, allowing everyone to play by the same rules, the problems with connecting customary and statutory law have proven daunting. Mozambique, however, has pursued an approach with positive results. In this case statutory law puts customary occupation (based on customary evidence, which is deliberately not defined in statutory law) on equal footing as formal title, with neither prevailing over the other. This compels the large-holder to negotiate directly with smallholder communities over the exact nature and forms of rights that are to be enjoyed by the large-holder. In Mozambique the lack of capacity at the state level to resolve disputes between large and smallholders has meant that resolving disputes out of court has become quite robust, with significant capacity building implications (Unruh 2005). While this capacity resides primarily with the many NGOs that are assisting local communities with understanding the law and negotiations, it also has developed large-holder investors, who are able now able to interact with communities in a more effective way.

d) ***Conveyance:*** The formal Western legal notion of conveyance is of significant utility in interacting with local communities, but unfortunately is used poorly and insufficiently. Conveyance is the transfer of a right to another, but under a very wide variety of concepts, conditions, and circumstances (Garner 2000). The distinction between land law and land conveyance is that the law deals with legal rights in land, whereas land conveyancing transfers rights and interests in land. In other words, legal concepts about property reside in law, but the mechanics of applying the concepts constitute conveyancing (Onalo 1986). It is the wide variety of different ways of actually implementing property rights concepts that is of utility with regard to conveyancing. In formal Western-style legal systems a "conveyance" is charged with the construction and derivation of different means of creating and transferring interests in land and with ensuring that the party who makes the transfer is in secure ownership (Robillard et al. 1986). Deriving a mechanism for conveying a right is what will delineate or specify a right in land or a

land resource. The creation of a "right in land" is important given that freehold (all rights in land) does not exist in a transferable sense outside the lineage in many areas of rural Africa. But there are many different types of conveyance, each of which can be interpreted and applied in a variety of ways (Garner 2000). Earlier in its history, Kenya had some successful experience in this regard (Onalo 1986). Thus, one advantage of focusing on conveyances is that the variety and flexibility of its different forms is an important fit with the widely varied and flexible types of customary tenure, and the delineation of specific (but not all) rights also engages the customary element of continuation of occupation and land inalienability.

An additional useful form of conveyance in the context of natural resource exploitation is the common concept of a license. While a leasehold creates a proprietary interest in land whereby use of the land is exclusive, a license holder in the Western legal definition has the right to use the land only for particular purposes and no right to exclude the current inhabitants (Stevens and Pearce 2000). The issue of whether an exclusive right to occupy and use land has been granted is the test of whether such a right is characterized as a lease or a license. Such licensing is mentioned here because it offers some potential for addressing certain problems stemming from the interaction of customary and formal land resource law in parts of Africa, where non-exclusionary and rights-specific forms of land resource exploitation are needed. Postwar Mozambique has experienced some success with this form of conveyance. In an approach called the "open border model," formal legal recognition of the customary boundary revolves around a community, and the rights of community members within the boundary are guaranteed. However, the open character of the boundary encourages commercial investors to locate within such a boundary (Unruh 2005). In such a construct, land within a community boundary is occupied and used by a local community, and also exploited by a commercial investor through a secure transfer of specific rights, but not the right to exclude the customary landholders (Tanner 1997).

e) ***Innovations in leasing:*** Leasing is an important form of conveyance, and the concept of leasehold has been extremely flexible and useful in facilitating a separation between the ownership of land and the use and exploitation of land resources (Stevens and Pearce 2000). Most fundamentally, leasehold creates a "proprietary interest in land." But significantly relevant to local communities, the landlord retains the "the right of reversion," whereby at the termination of a lease for whatever reason, full rights are returned (Stevens and Pearce 2000). The options for effectively engaging local communities with a very wide variety of leasing arrangements is significant. Leasing arrangements can be much preferred over selling land by landowning lineage members. That lease payments provide money over time is secondary to other aspects of a lease arrangement that may provide for livelihoods over time, as land does. Thus, while the notion of periodic payments in a leasing arrangement can be one aspect of the "element

of continuation," that parallels the way land as an asset functions for local communities, money in particular is unlikely to benefit the number of people who, due to their membership in the customary lineage, may later attempt to annul, claim, or enter into a dispute with one or more parties to a lease. There is often a desire on the part of local communities to have additional tangible features of a lease more robustly engage the "element of continuation" in ways that benefit the broader local community over the long term (as land does), even if the inclusion of such features means a reduction in periodic monetary payments. Such features of a lease can include: hiring and training local workers; fostering investor-smallholder relationships regarding mechanization and processing of agricultural products and other out-grower arrangements; developing schools, health clinics, and extension services; and assigning a proportion of the earnings of the business to roads, wells, medicines, veterinary services, piped water supply, teachers, and new seed varieties—in other words, local development. But important to the leasing context, the provision of these features needs to be ongoing for the duration of the lease. Some items on this list function in a relationship to land so as to upgrade the asset nature of land for the local community. Items such as training, agricultural extension, new seed varieties, roads, and water supply, are essentially investments in the people–land relationship which makes a land asset more valuable over time. Such features of "continuation" and benefit for a local community are particularly useful in engaging the prospect of a community member appearing after the lease agreement is signed and claiming not to have received benefits.

Continuation perform another important function, in that they serve to keep leasing arrangements binding, which is a particular difficulty in interactions between large and small-scale stakeholders. Different than a one-time signature on a document to make an agreement binding, leasing arrangements in many areas of rural Africa need to be maintained in a customary context by ongoing forms of relationship between the community and the tenant, regardless of whether the tenant is a smallholder "stranger" or a commercial investor. For the customary sector, the existence of such features of continuation are in a very real sense obligations by the tenant. In this regard, the granting of land rights in a customary sense in much of rural Africa is very much like the analogy used by Guadagni (2002) in describing how land transfers in Africa are not an economic transaction, but instead a social transaction. "[The] customary right to land is like the modern right to vote: foreigners may not buy it in any other way than by acquiring citizenship," and by implication, the obligations of citizenship (Guadagni 2002). Such obligations do not end once the right has been acquired.

1.5 Self-assessing the CPIA (2011-2013)—challenges, opportunities and possibilities

Capacity helps countries better manage the negative effects of dependency on natural resources. Ownership of the strategy for development and the accompanying policies are critical for successful implementation of development programs. Knowing what capabilities are needed to deliver on a strategy and program of development increases when countries can self-assess their capacity needs and evaluate their performance.

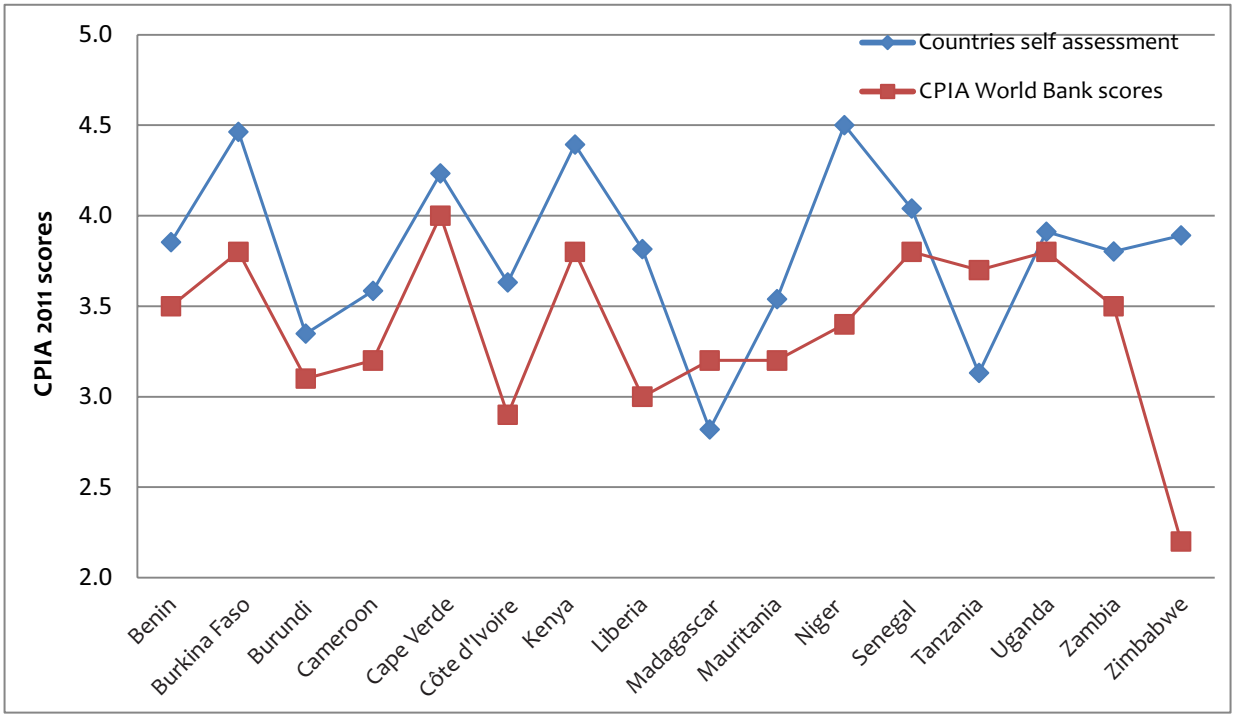
As in 2011 and again in 2012, with ACBF support, 16 countries have undertaken a self-assessment employing the Country Policy and Institutional Assessment (CPIA) criteria. Countries assessed their policies and institutions on a set of 16 criteria regrouped into four clusters, using the same rating scale employed by the World Bank and the African Development Bank. The rating scale ranges from 1-6 (Very Weak for 2 years or more – Very Strong for 3 years or more).

The rationale to let countries self-assess is premised on the following: a) there is little evidence that the CPIA enjoys broad ownership; b) ownership of assessment could lead to stability through better development results and more responsiveness to citizen needs at the country level; c) the CPIA does not allow for variation of rankings across country types; and d) there appears to be a double standard in that the richest countries have not achieved the ideal policies specified by the CPIA, particularly in the areas of risk management, oversight and supervision of the financial sector, budget imbalances, and debt levels. To this end, data was gathered in the field for countries on the basis of the 16 CPIA indicators. The questionnaire was administered by independent in-country think-tanks in the same way as the World Bank to allow for comparison of results. The use of in-country think-tanks is key as they have better knowledge of country realities. Finally, the findings were validated by an external reference group who played a similar role to the World Bank experts in providing technical guidance.

A comparison of the self-assessed scores to the World Bank scores reveals that on the whole, countries rated themselves between "Weak" and "Moderately Strong" (minimum = 2.8; maximum = 4.5; average = 3.8). The lowest average score was given by Madagascar (2.8) and the highest by Burkina Faso and Niger (4.5). The same score range applies with the World Bank scores, though their scores are lower than those by the self-assessed countries (minimum = 2.2; maximum = 4.0; average = 3.4). As shown in the figure below, Madagascar and Tanzania were harshest with themselves. On the other hand, Zimbabwe and Niger were the most generous (figure 1.11).

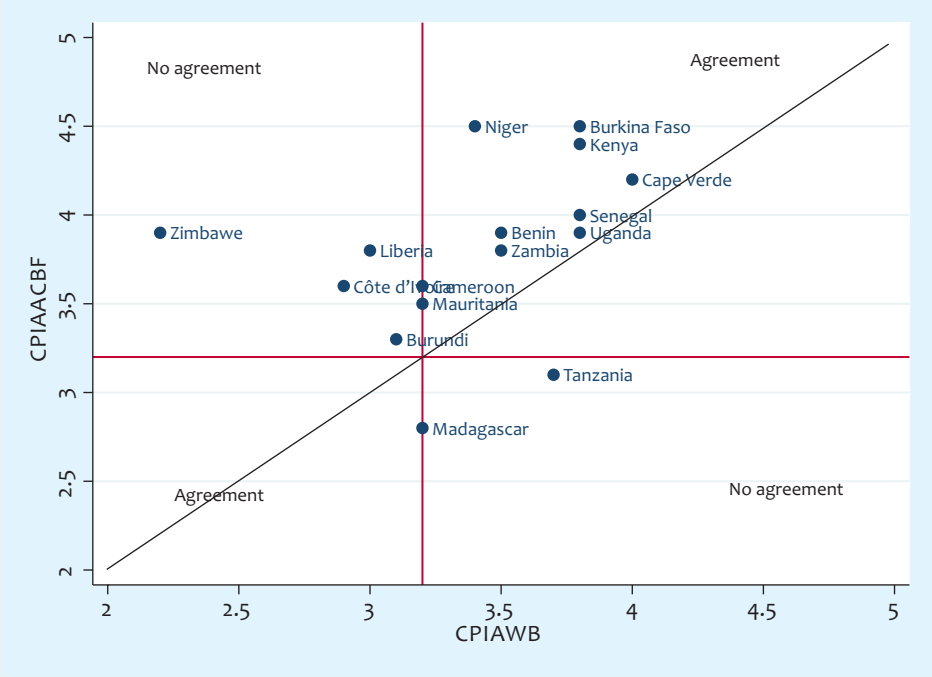
With regard to the ranking of countries as either fragile or non-fragile, disagreement between the country self-assessed scores/classification and the World Bank's are noted for six countries (Burundi, Côte d'Ivoire, Liberia, Tanzania, Madagascar and Zimbabwe). As presented in the chart below, Madagascar and Tanzania ranked themselves as fragile states, whereas the other countries assessed themselves as being non-fragile (figure 1.12). Overall, the Kappa coefficient was negative (k = -0.20), suggesting a disagreement between countries' perception of themselves and that of World Bank.

Figure 1.11: 2011 CPIA Scores – World Bank and country self-assessment



Source: 2013 ACI database; IRAI table 2011, World Bank

Figure 1.12: Comparison of the World Bank and country self-assessment score - 2011



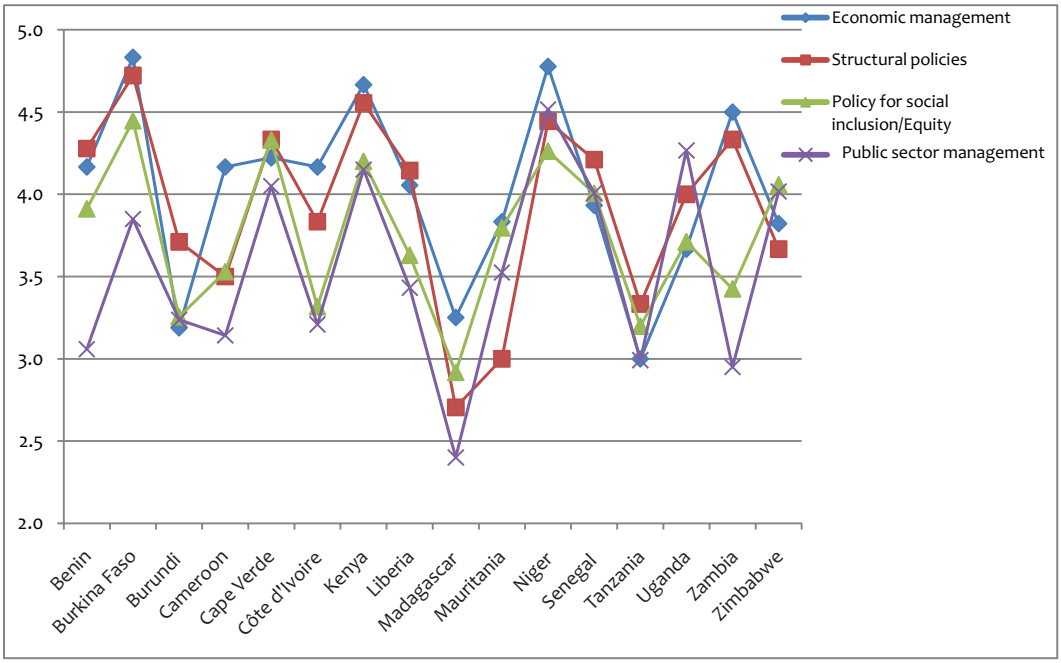
Source: 2013 ACI database; IRAI table 2011, World Bank

The patterns observed with the CPIA scores are similar to those within the clusters. In all four clusters, countries ranked themselves between Weak and Moderately Strong, except in economic management, where the rating ranges from Moderately Weak to Moderately Strong. The pattern also applies to the scores from the World Bank, with an exception on economic management. However, in a different way, the lowest score given by the World Bank was in this cluster, where they found the economic management in Zimbabwe to be very weak—a classification rejected by Zimbabwe in its self-assessment.

On average, both the countries and the World Bank are in agreement on the levels of performance in the four clusters. In decreasing order, countries are doing best on economic management, then structural policies, and then in the area of policy for social inclusion/equity. The public sector management is the most challenged area (figures 1.13 and 1.14).

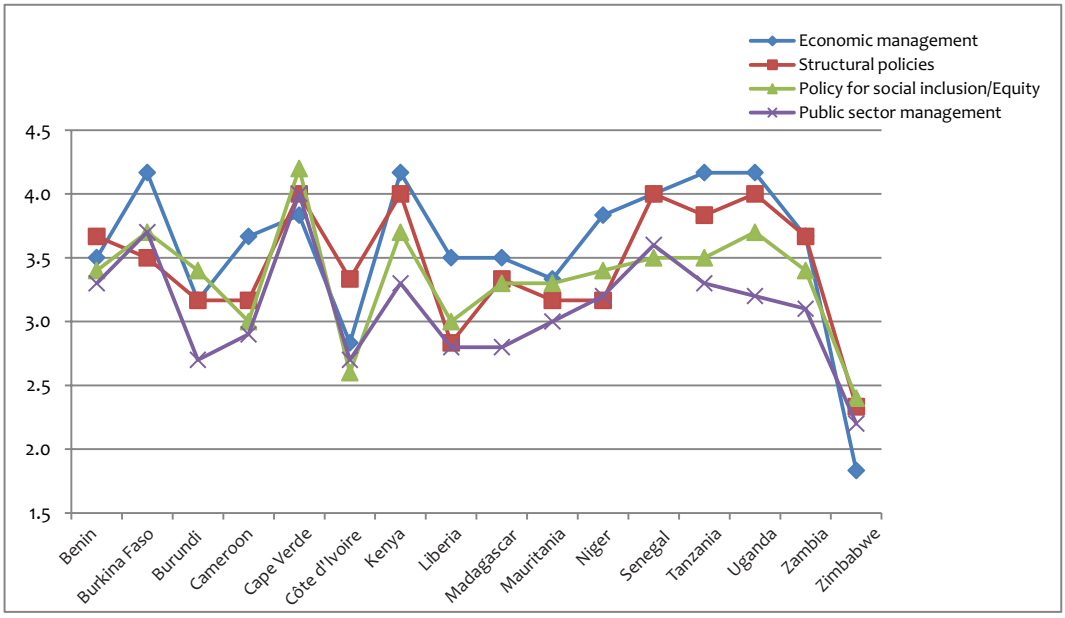
Given the systematic biases that are present in all types of assessments, one needs to be wary that these biases will be particularly prevalent in fragile states where the landscape is more complex and the reality on the ground is difficult to establish (Kararach et al. 2012). There is thus a need for a combination of measures to remove systematic biases and address data limitations. We propose a measure that minimizes this bias by adopting an average of the CPIA scores by the three institutions currently undertaking the CPIA (World Bank, AfDB, and the ACBF self-assessment).

Figure 1.13: CPIA 201 – country self-assessment scores by cluster



Source: 2013 ACI database; IRAI table 2011, World Bank

Figure 1.14: CPIA 2011 – World Bank scores by cluster



Source: 2013 ACI database; IRAI table 2011, World Bank

The above findings have implications for Africa and its development agenda. Indeed, studies that have critically interrogated the essence of self-assessment (ACBF 2012; Kararach et al. 2012) argue that there are several reasons for self-assessments. Notable among them are the following:

a) ***Enhanced country ownership:*** Since the Paris Declaration, there has been a growing consensus that development efforts need to be locally owned to be relevant and sustainable. This position was re-affirmed in Busan recently. Local ownership of the process means that policies and interventions get embodied in the context of local priorities and frameworks. Ownership produces more sustainable actions and results given the prioritization of local needs and/or rights, resources, and the likely mobilization of local political support. Indeed, recognizing the political nature of development is crucial for the design of effective coordination frameworks such as thematic and working groups. For projects to succeed there is a need for political commitment and leadership to demand change and seek performance-orientation and beneficiary-participation. All of these elements redefine the power balances in terms of, for example, gender and other factors related to inclusion, in and around the projects (Acemoglu and Robinson 2012).

b) ***Greater accountability for outcomes and results:*** One of the criticisms of the existing CPIA scores is their limited focus on results. Countries must be given opportunities for self-assessment to allow for greater inclusivity in the

discourse on aid and development assistance as well as the utilization of such resources. The non-inclusivity of the state and citizens in Africa to chart their development priorities also produced significant shortcomings in that patrimonialism, corruption, mismanagement, and conflict became the major characteristics of the recent development history on the continent. Limited capacity continues to be eroded and state-mandates delivered on a fragmented "clientilist" basis due to lack of accountability and social inclusion. Self-assessment by countries and communities to derive the CPIA would give greater inclusivity and accountability for development outcomes and results.

c) ***Enhancing policy dialogue***: Self-assessment grants a country and community the opportunity to undertake retrospection and self-reflection. This considerably enhances the quality of policy dialogue and subsequent programmatic decisions derived from such processes. Until recently, the quality of policy dialogue in most parts of Africa remained relatively poor due to weak governance frameworks and limited engagement of the state by the broader society. Self-assessment in the CPIA process will give voice to countries and communities in the decisions that are derived from the CPIA—especially prioritization of resource allocation as well as implementation.

d) ***Credibility and acceptance to CPIA-related processes***: Significant principal-agent problems in the CPIA and aid-allocation processes may have been undermined by the nature of the relationship between donors and recipients. Donors' relationships with the intended ultimate beneficiaries of aid projects—the poor—tend to be largely indirect and distant. Consequently, policy objectives, incentives and information available to these agents are not always well aligned with the objectives of either the taxpayers from the donor countries or the beneficiaries. This problem affects all aspects of aid delivery: program design, implementation, compensation, incentives, monitoring, evaluation, allocation as well as donor coordination. CPIA initiatives must be cognizant of this difficulty to ensure aid effectiveness. Self-assessments have the potential to cut this rather long CPIA process chain and grant it greater credibility and acceptance (Kararach et al. 2012).

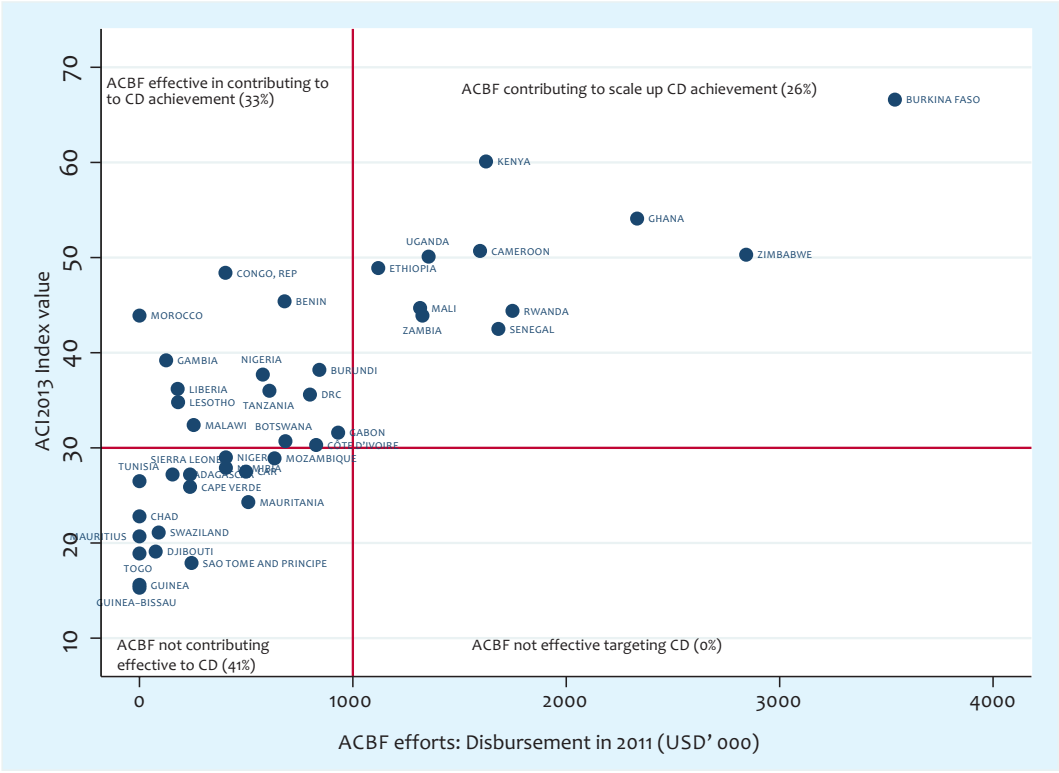
1.6 The Role of the African Capacity Building Foundation

During the period 2011-2012, ACBF managed to extend the coverage of its programmatic operations to forty-four African countries. Within the same period, the Foundation supported 87 projects/programs across these forty-four countries and disbursed more than US$32 million in support of its capacity development interventions across Africa.

The Foundation generally has been very effective in targeting its grants. This is a result of the planning that goes into the identification, design, and roll-out of projects/programs. It is also reflective of Management's vision and strategy, which distinguishes it from other players in the crowded field of capacity develop-

ment. Key to the successful and effective project/program implementation are the balance between grant making and program support, the use of the Foundation's own presence on the ground, and its extensive networks of experts to leverage for effective alternatives to capacity on a regional and country basis. The Foundation has aimed for a track record of results that come from the quality of its portfolio, the effectiveness with which it uses resources, and the adjustment in its operations and procedures that come from evaluation and learning. In executing its mission, ACBF has sought to balance creativity with efficiency, breadth with quality, and speed with attention to detail. All these factors have allowed ACBF to develop and enhance its mission and establish a track record of results (see figure 1.15).

Figure 1.15: Effectiveness of ACBF support to CD interventions in Africa (cut off 30)



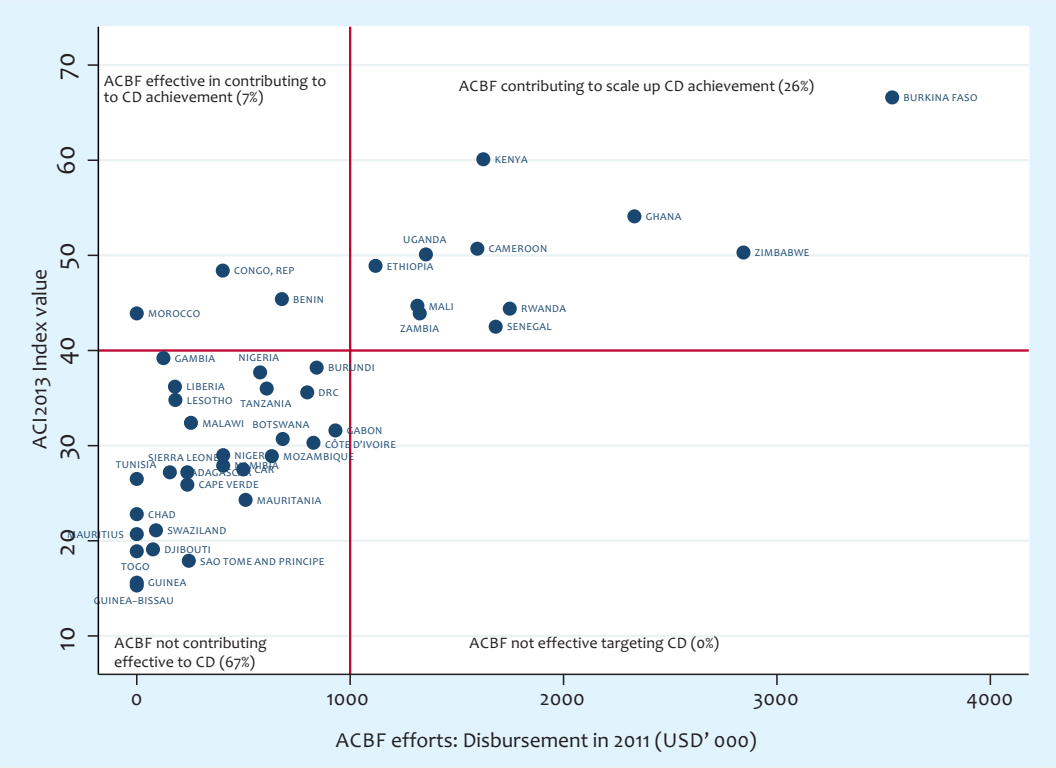
Source: 2013 ACI database

As captured in figure 1.15 above, there are no ACBF projects/programs in the bottom right quadrant of the chart. Moreover, 59 percent of countries are in the top right and left hand quadrants of the chart, indicating that for the most part ACBF is contributing to effective capacity development. The remaining 41 percent represent the countries where ACBF has invested few funds. Among them, six countries (out of the 44 surveyed) did not benefit from any ACBF funding in 2011. Clearly, the details captured attest to ACBF's relevance to capacity

development on the African continent. ACBF has yet to initiate a program in Mauritius or renew its support to Guinea, where the previous grant came to closure a couple of years ago.

The cut-off value for ACI index value in figure 1.15 is 30, which is the value ACBF used in the previous reports. However, ACBF would like to raise the bar and, going forward, impose 40 as the limit value. Doing so will result in a reduction in the number of countries in the top left hand quadrant. It will not, however, affect the effectiveness of targeting capacity development by ACBF, as can be seen in the chart below (figure 1.16). Within the revised setting, no country appears in the bottom right quadrant of the chart, which indicates that even when the bar is raised, ACBF is still very effective at targeting its capacity development interventions. Raising the bar, however, brings the percentage of countries in the top right and left hand quadrants of the chart to 33.3 percent, again indicating that for the most part ACBF is contributing to an effective capacity development strategy.

Figure 1.16: Effectiveness of ACBF support to CD interventions in Africa (cut off 40)

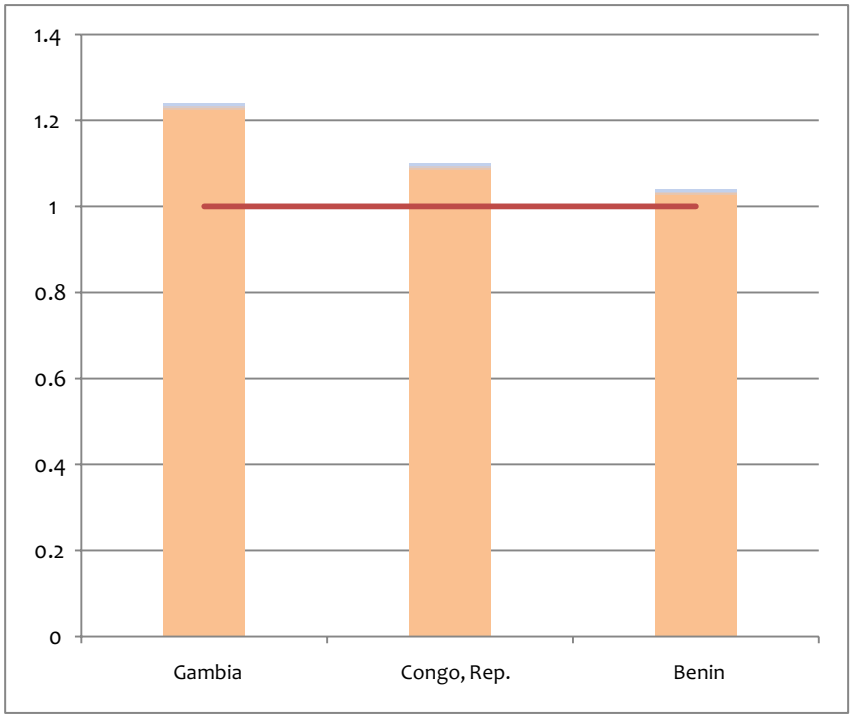


Source: 2013 ACI database

Drawing from the above and an analysis of the 44 countries surveyed, the capacity development efficiency coefficient reaffirms how effective ACBF's interventions are in employing the inputs they allocate to capacity development activities. The capacity development efficiency coefficient is an absolute value, calculated as the ratio of the capacity development outputs index to the capacity development inputs index. The coefficient varies across the countries surveyed (average = 0.4, std = 0.3), ranging from 0 to 1.24. The three countries with the highest inputs index (Kenya, Ghana and Burkina Faso) also happen to be the ones with the highest capacity index, suggesting that ACBF's presence on the ground does makes a difference. This assertion is further confirmed by the correlation coefficient between ACI index and inputs index (0.787). Moreover, the regression of ACI index on inputs index shows a strong positive link between the two variables (coef = 0.45; t = 7.55; p = 0.000; adj R-squared = 0.61).

The Gambia (1.24); Republic of Congo (1.10) and Benin (1.04) are the best performers with regard to utilization of the inputs they allocate to capacity development. In all of these three countries, any unit value of input yields more than one unit of output (figure 1.17).

Figure 1.17: CD efficiency top performers (Gambia, Congo Republic, Benin)



Source: 2013 ACI database

1.7 Conclusion—ACIR three years down the road

Over the past couple of years, the launch of the Africa Capacity Indicators Report has generated a lot of interest and created optimism about how to track and focus capacity development efforts in Africa. Evidence from print and electronic media, user feedback, citations, and reviews all suggest that the ACI Report is helping to reshape the discourse on capacity development.[5]

As one independent reviewer pointed out when commenting on the 2012 ACI Report, "[it] provides an amazing overview of the current food security context in Africa and highlights an important gap in our understanding of capacity needs for ensuring food security in the future. … [The] indicators are useful and certainly provide a base for M&E in this important area. The commentary provides deep insight into many aspects of global, regional and national food security with illustrative examples where these add value" (Hendriks 2012).[6]

A number of countries have also used the report for their policy and planning work in such areas as changing budget nomenclature (Cameroon), citation in budget reviews to parliament (Zimbabwe), and shaping of policy monitoring (Burkina Faso). Others, notably Burundi and Tanzania, inspired by the Report, are collaborating with ACBF to design and roll out mini, country-specific capacity development indicator reports. The Foundation is also very excited about its partnership with the Economist Intelligence Unit (EIU) to develop an interactive data tool, country briefs and a tablet application with applicability for both academics and policy makers.

The aforementioned developments and the Report's citation index are testament to the publication's appeal.

In conceptualizing and drafting this third Report, the Foundation, together with its collaborating partners, listened to stakeholders' myriad feedback and tried to incorporate as much as possible all suggestions and address any concerns.

Chapter 2

The Status of Natural Resource Management (NRM) in Africa—Capacity Development Challenges and Opportunities

2

The Status of Natural Resource Management (NRM) in Africa—Capacity Development Challenges and Opportunities

2.1 Introduction

Africa holds more than half of the world's rare minerals, and it is rich in both renewable and non-renewable natural resources. Its 55 countries are endowed with both abundant renewable (water, land, forest, fish) and non-renewable or depletable (minerals, metals, oil) natural resources (see Appendix 1). Only a small fraction of these resources has been discovered, with potential in the large reserves that remain either undiscovered, or barely harnessed. The continent holds more than half the world's resources of cobalt, manganese, and gold, as well as significant supplies of platinum, uranium, and oil. An estimated US$1 trillion of minerals, metals, and oil were extracted in 2008, with commodity exports accounting for 38 percent of the continent's GDP (Forstater et al. 2010).

As noted earlier in Chapter One, this Report defines natural resources as "stocks of materials that exist in the natural environment that are both scarce and economically useful in production or consumption, either in their raw state or after a minimal amount of processing" (World Trade Organization 2010: 2). The exploitation of the continent's natural resources, especially those that are not renewable, has a role in various combinations of colonialism, wars, tensions, and the region's underdevelopment (Ayee et al. 2011). Non-renewable resources often referred to as extractives have made Africa either popular or unpopular, depending on their benefits or costs (Collier and Hoeffler 2002; Auty 2001a,b,c). Consequently, Africa has become the focal point of considerable research and interest, perhaps because of the discovery in recent times of an increasing amount of hydrocarbons on the continent and the negative impact that could be associated with them if not properly managed (Lesourne and William 2009; Custers and Matthysen 2009).

Natural resources can contribute to economic growth, employment, and fiscal revenue. They are often a major source of national income but are also, if mismanaged or shared unfairly, a major cause of conflict and instability. Countries with weak institutions often struggle to handle the potentially destructive force of corruption and efforts by various actors to capture the wealth generated by natural resources. The governance of natural resources is especially important in the context of divided societies because control over the benefits from local natural resources is often a chief motivator of ethnic or identity-based conflicts. Many resource-rich and resource-dependent African nations are characterized by poor growth rates, high inequality, widespread impoverishment, bad

governance, and an increased risk of civil violence (Collier 2007; Dunning 2008; Mildner et al. 2011).

This chapter examines the status of natural resource management in Africa and its capacity development challenges and opportunities. Specifically, it examines the role the post-colonial state has played vis-à-vis multinational corporations in the exploitation of natural resources on the continent. Following the introduction, section two briefly interrogates Africa's colonial legacy and the resultant post-colonial state. Section three examines the nexus between the state and multinational corporations in relation to natural resources management. Section four addresses the reasons behind the recent renaissance in natural resource management in Africa. In section five, an attempt is made to examine the natural resources value chain. Section six focuses on the issue of natural resources governance. Section seven highlights key and emerging initiatives in NRM. Finally, section eight maps the way forward and offers policy guidance.

2.2 Africa's Colonial Legacy and the Post-colonial State—a synopsis

Colonial legacy

The Berlin Conference of 1884-1885 marked the beginning of a new era of economic and political relationships between Europe and Africa. Although imperialism may have spread to protect strategic transport routes and to demonstrate national power and prestige, its most immediate purpose was to protect economic interests that had developed over several centuries (Hodder-Williams 1984). Under colonial rule, African colonies were politically and economically subordinate to European needs. Britain and France, especially, required cheap raw materials and desired captive markets for manufactured goods. Over time, their governments integrated their African colonies into the global financial and economic system. African colonies supplied inexpensively produced agricultural commodities, such as rubber and cotton, and such minerals and metals as gold, diamonds, manganese, and copper to industries in Europe. Manufactured textiles, household goods, and farm implements sold to Africans at high profit completed the integrated economic system (Young 2000).

The colonial policies worked to handicap independent Africa's economic future (Rodney 1972; Amin 1972). When it was clear that the African countries would achieve independence, some of the colonial powers, notably the British, began to guide some of their colonies toward the goal of developing their economies. In so doing, they began to establish a few domestic industries (usually fledgling import-substitution industries for simple-to-produce goods such as matches, plastic shoes, beer, soft drinks, and textiles) in addition to continuing the production of primary commodities for export (Ake 1981). The departure of the colonial administrations left post-independence African economies distorted and lacking integration (DeLancey 2001). The newly independent countries' serious lack of capacity to manage their affairs post-independence, muted the sovereignty and decision making power of the young nations, rendering their economies dependent on foreign markets, finance, and expertise. Capacity gaps, particularly in shaping strategy and negotiating long-term contracts, took away strategic power and subjected the countries to influence from multinational corporations.

The political structures that developed were essentially alien and hastily imposed. The colonial powers created governing apparatuses

intended primarily to control the territorial population, implement exploitation of natural resources, and maintain themselves and the European population. Power did not rest in the legitimacy of public confidence and acceptance; rather, it was vested in the colonial state, which was highly authoritarian, centralized in the office of the governor, and backed by the police and army (Gordon 2001: 60). The long-term experience with the colonial state also shaped the nature of ideas bequeathed at independence, as leaders became authoritarian, self-interested, and corrupt (Kasfir 1983; Wunsch and Olowu 1990). Accountability structures and the set of institutions that are typically needed to manage economic affairs were weak or inexistent, and power, which was mostly brokered from the capitals, was far removed from the space in which natural resources resided. This subsequently impacted the post-colonial state capabilities.

The post-colonial African state

Much ink has been devoted to the post-colonial state in Africa, which has been characterized as "prismatic" (Riggs 1964), "soft" (Myrdal 1968), "weak" (Jackson and Rosberg 1982), "overdeveloped" (Leys 1976), "precapitalist affectation" (Hyden 1983), "anti-development" (Dwivedi and Nef 1982), "predatory" (Fatton 1986) and "vampire" (Frimpong-Ansah 1992). African countries inherited the idea of the state as an "engine of growth" from the former colonial rulers (Young 1988; Young 1994; Ergas 1987; Jackson and Rosberg 1982). In countries that adopted a "socialist path" to development—for instance, Tanzania and Guinea—state control of the "commanding heights" was the model.[1] This involved nationalization of some aspects of the natural resource sector, especially the extractive industries, that were the preserve of multinational corporations, as was the case in Zambia and Tanzania (Sklar 1975). Most of the other countries declared a commitment to a "mixed" economy, but with the state controlling the commanding heights. The economic crisis of the late 1970s and the 1980s and the lessons of international experience from the success of market-friendly economies combined to force a redefinition of the role of the state (Tangri 1999; Herbst 2000).

Given the state's incapacity to implement structural adjustment programs, the World Bank and other donors moved in the 1980s toward a concern with improving state capacity: governments' capacity to achieve their stated objectives, design and implement economic policies for growth, and provide good governance to their societies and markets (Brautigam 1996; Englebert 2000). This was to be achieved by "rolling back the state"—that is, restricting the role of the state while providing greater opportunity for market forces to assert themselves on the development process and liberalizing the economy to induce economic development (Jeffries 1993; Hyden 1983). The concern also involved building administrative capacity as an instrument of the development process rather than of a spoils system and the development of more efficient and, in a sense, more autonomous state machines. Various panaceas were suggested, including administrative reform covering areas such as organizational development, manpower development, training, and the introduction of management techniques along the lines of the New Public Management School (Levy 2004; Bratton and Hyden 1992; Bratton 1989; Harbeson et al. 1994).

In the World Bank's World Development Report (WDR) of 1997, the question about the role of the state is conceptualized as "matching the role to capability" (World Bank 1997: 4). According to the Report, there are some basic government tasks that even weak states should strive to get

right. They are a foundation of law, a benign policy environment, including macro-economic stability, investing in people and infrastructure, protection of the vulnerable, and protection of the natural environment (World Bank 1997: 5-8). These are the tasks that governments can perform where appropriate capacity exists. By the early 1990s, only a few African states (notably Botswana and Mauritius) had the institutional capacity to enable them to perform these basic tasks satisfactorily. The weak states that were unable to get right the basis tasks were also plagued by huge budget deficits, extensive involvement in the provision of goods and services (often referred to as state control of the "commanding heights" of the economy), and complex regulations that stifled private and voluntary initiatives. It was this phenomenon of weak and overextended or bloated states that the public administration reforms of the 1980s and 1990s sought to address (Adamolekun 1999; Tangri 1999).

By the late 1990s, the need for a market-friendly economy had become widely accepted throughout Africa. This implied a reduced role for the state in economic management. The state provides an enabling environment for private sector economic activities by implementing appropriate economic policy reforms and providing the necessary legal and regulatory framework. It is also expected to provide some of the social and physical infrastructure, sometimes in partnership with the private sector (Adamolekun 1999). The private sector was generally underdeveloped in most African countries. Under these circumsta-nces, the state's domination of the national economy was a necessity. However, because state control became an ideology in some countries and was simply allowed to continue in others, private sector growth was stunted. A few champions of state control condemned private wealth as antithetical to the pursuit of "equality" and consciously hindered the development of the private sector (Tangri 1999). The new commitment to a market-friendly economy has moved virtually every African country in the direction of promoting private sector development, and this in turn has led to the emergence of a new public-private balance: the private sector is more involved in national economic management, and the state has allowed some reduction of its role and emphasized its responsibility to provide a business-friendly policy environment and appropriate legal and regulatory frameworks. The pursuit of this business-friendly environment, itself a reflection of the revised role of the state from one of direct involvement to ensuring a favorable environment, has led to proliferation of multinational corporations in the natural resource sector.

2.3 The State, Multinational Corporations, and NRM in Africa

The involvement of the state in natural resource management in Africa may be divided into three phases. The first phase saw the state's direct involvement in natural resource management. This was largely ideologically driven by newly independent countries that stressed the need for self-determination and control of the national patrimony.[2] After gaining independence from colonial rule, natural resource-rich states in Africa established state owned enterprises (SOEs) to exploit natural resources. In Ghana, for instance, Kwame Nkrumah's Convention People's Party established the State Gold Mining Corporation and Workers Brigade to exploit gold and agricultural resources, respectively (Killick 1978). Similar state enterprises were established in Nigeria, Tanzania, Zambia, and Democratic

Republic of Congo for mineral exploitation (Herbst 2000). Governments believed at the time that the state should become an entrepreneur or engage in what one might call "state capitalism" (Mafeje 1977) or a statist approach to development. Until the 1970s, government intervention in the economy was regarded as the norm and seen as necessary to the pursuit of development. However, SOEs did not perform well under the burden of their multiple objectives, which included generating surpluses, attaining a healthy balance sheet, achieving internal management efficiency, and promoting such social welfare goals as being avenues for employment and selling goods below existing market prices (Hyden 1983; Tangri 1999). The dominance of SOEs was broken during the era of structural adjustment programs, with its cost-cutting measures aimed at reducing government expenditure through privatization or divestment of state owned enterprises.

The second phase involved the nationalization of private corporations engaged in natural resource exploitation. This occurred most often where military governments came to power, but also through intellectual pursuits of political ideology. Nationalization of private companies took place under the "Ujamaa," or African Socialism ideology, of Julius Nyerere's Chama Cha Mapunduzi government in Tanzania (Tandon 1979). Similarly, in Ghana, the military government of General Acheampong's Supreme Military Council nationalized some private companies in the industrial sector in 1972-1978 (Killick 1978). Acheampong was amongst the first who attempted to repudiate international debts of the Progress Party government of Dr Busia that he overthrew (Chazan 1983). Such practices were used in the 1990s for debt relief for the Highly Indebted Poor Countries (HIPC) program (Bayraktar and Fofack, 2011) and in the 2000s for recuperating funds that had been lost due to corruption, such as under the Stolen Assets Recovery Initiative (StAR) run by the United Nations and the World Bank (OECD 2012). African states' nationalization interventions did not last for long and have not yielded the expected dividends. This is because the states lacked the resources (for instance, capital, technology, and personnel) to revamp the natural resources sector and also compete with multinational corporations (Dunning and Lundan 2008).

The third phase is the current dominance of multinational corporations, with the states playing limited regulatory roles. This phase began in the 1980s, when multilateral and bilateral aid organizations advocated minimal state intervention in the market through privatization, deregulation, and liberalization.

There has been a flurry of scholarly works on multinational corporations and their role in the natural resource sector in Africa (Apter and Goodman 1976; Sklar 1975; Drucker 1974; Moran 1978; Alden and Davies 2006; Leonard 1980; Wiig and Kolstad 2010; Ozoigbo and Chukuezi 2011). Multinational corporations have had a long history in Africa because of their role in exploiting natural resources in colonial and post-colonial periods. They have become pervasive (as a result of market orientation policies and globalization) to the extent that some scholars have referred to them as Africa's "new colonizers" (Dunning 1993a;b), while others see them as the "Janus face" of globalization (Eden and Lenway 2001).

The role of multinationals in the economy and natural resource exploitation has attracted considerable debate among scholars (Collier 2011). Opinions on the extent to which Africa has benefitted from natural resources and multina-

tional corporations vary widely: some view them as real partners in the development process, and others view their contribution in the natural resource sector as a myth and counterproductive (Drucker 1974; Ozoigbo and Chukuezi 2011). Those who point to disappointing results from the sector accuse governments of having accepted a power imbalance between corporate and community interests. Natural resources are seen as benefiting primarily the foreign interests and elites in Africa. Conversely, some of the institutions in the sector (for instance, the chambers of mines or land, forestry, or minerals commissions) claim that natural resources have contributed immensely to development. Scholars argue that these contributions cannot be measured in terms of revenue only, but also by the very presence of multinational corporations in the rural communities (Dunning 2008) and their consequent contributions to better communication technology, banking, electricity, health, education, human resource development, and technology transfers in general. In addition, they have spent millions of dollars on voluntary social responsibility projects in the communities (Wiig and Kolstad 2010). At the local level, multinational corporations have launched corporate social responsibility initiatives that enhanced capacity for sustainable livelihoods, respect for cultural differences, and skill building for employees, the community, and government. Moreover, other arguments are that the multinationals' home-country regulation or standards, accounting rules, production technology, and procurement procedures have contributed to improving the performance of the natural resource sector in Africa (Ayee et al. 2011).

Although the activities of multinational corporations on Africa's natural resource sector date to the colonial and post-colonial periods, the economic globalization launched in the 1980s expanded their reach and gave them continued momentum. More recently, several factors have contributed to the influx of a new wave of multinational corporations in Africa, including Japanese and Chinese state sponsored companies.

The first important factor is the combination of abundant resources and vast market potential. In recent years, there has been major development in oil exploration in Guinea, Ghana, and Uganda, which has elevated Africa's oil reserves to 9.215 billion tons (Forstater et al. 2010). The African continent, with a population of 700 million, constitutes a huge potential market, and its economy has enjoyed sustained growth since 1994, gradually manifesting its vast market potential (Wiig and Kolstad 2010; Collier 2011).

Second, continued deepening of political and economic reforms in African countries created a more favorable environment for MNCs to invest in Africa. Starting from the 1980s, most African countries implemented political reforms that focused on democratization and economic readjustment driven by commercialization, privatization, and liberalization. These reforms enabled freer movement and more rational allocation of capital and other production factors, making the market mechanism more flexible and in conformity with the economies of developed countries. In particular, restrictions on foreign investment were lifted in some African countries, which then promulgated attractive foreign investment policies (Jeffries 1993). Such measures offer foreign investors various incentives and convenience, thus contributing to the upsurge of foreign investment utilization. It is worth noting that with the extension of reforms into the financial sector, the securities market has been booming in Africa. Prior to 1990, there were altogether six stock exchanges in sub-Saharan Africa (excluding South Africa): Botswana, Côte d'Ivoire, Kenya, Nigeria, Mauritius, and Zimbabwe, of

which only two accepted foreign investment (Forstater et al. 2010). By December 1997, however, when the West Africa Regional Stock Exchange in Côte d'Ivoire officially opened for business, a total of 20 countries were attracting foreign investment through stock exchanges. In addition, a factor not to be neglected derives from the fact that democratization of African countries reached a climax in the 1990s. The 1994 democratic transformation in South Africa carried special significance. South Africa's abolition of apartheid and return to the international community brought about dramatic changes to the political atmosphere and bolstered multinational corporations' confidence in investing in Africa (Alden and Davies 2006; Kapter 2006). Stability and development have become the common aspiration of African countries. This has reduced the political risks associated with investment on the continent.

Third, western countries that had maintained economic distance from the continent took note of the new business opportunities and sustained rapid development in Africa (Forstater et al. 2010). The international community's renewed recognition of Africa and major western countries' readjustment of African policy to encourage investment in and trade with Africa drove multinational corporations' expansion on the continent.

An issue that has dominated the debate over the state, multinational corporations and natural resources is the balance of power between national governments and multinational corporations, which often appear to have a firm and unfair advantage, mainly because of capacity weaknesses in the resource-rich host economies. MNCs have, as a result, what most of the time borders on a love-hate relationship with the host economies (Eden and Lenway 2001). The host governments feel cheated, while the MNCs believe that they are doing the right thing. Most of the challenges begin at contract stage, where host economies feel at a disadvantage and where many MNCs are said to have been dishonest with the host country from the onset of contract negotiations. In the words of Robinson (1979: 51), "the transfer of the surpluses is also made possible by the weak bargaining position of the host countries which compels them to provide a number of concessions to the multinationals which encourage the increased imports of the items assembled abroad."

A renewed debate on the balance of roles between the state and MNCs has surfaced following the 2008-2009 financial and economic crisis. Debates and discussions have challenged the wholesale acceptance of multinational corporations' leadership in resource exploitation in Africa, with arguments that the states' leadership should be front and center and not be pushed to the back burner. The state has a role to play in natural resource exploitation under certain conditions. Three key reasons underlie this point:

- First, the state must have the capital, technology, and entrepreneurial resources necessary to compete favorably with the multinational corporations. Unfortunately, these are "scarce commodities" that most African countries lack, which necessitates the development of a liberal legal and investor-friendly environment to attract foreign multinational corporations (World Bank 2009). The capacity to design such an environment that

balances the need to attract foreign investment while maximizing revenue to the state in the form of taxes from exploiting natural resources is a critical capability that most countries in Africa lack.

- Second, governments of most natural resource-rich countries in Africa should be advocating resource nationalism (Ward 2009). This refers to a situation where producer countries have moved to maximize revenue from natural resource production while altering the terms of investment for future output. The shift entails two components: (i) limiting the operations of multinational corporations, and (ii) asserting greater national control over natural resource development. In other words, resource nationalism generally refers to a set of policies as well as the justifications given to policies that increase government intervention in resource development (Stevens 2008; Ward 2009). Host countries' capacity to put in place policies that use information available today to manage resources wealth in the future is sorely lacking, as is the capacity to design contracts that assert the right level of control on natural resources while allowing profitable private sector activity.

- Third, governments should resort to the use of the Obsolescing Bargaining Model, whereby once a natural resource has been discovered and the investment sunk in development, relative bargaining power switches in favor of the host government, which then tries to increase its fiscal take by unilaterally changing the terms of the original contract (Ramamurti 2001). Few host governments have the capability to strategize and negotiate over time, while using the advantages of bargaining power reversals.

2.4 The Renaissance in Natural Resources Management in Africa Today

The current upsurge in interest in natural resource management in Africa and the need to manage the proliferation of multinational corporations is attributable to a number of key factors. First, despite having an abundant natural resource endowment, Africa has experienced disappointing results in translating this natural wealth into broad economic development. The net development impact of natural resources has been modest. For instance, natural resource-related taxes, which consist mainly of royalties and corporate income taxes, generated just 32 percent of Africa's GDP growth from 2000 through 2010 (AfDB/OECD/ECA 2010). In some countries, revenue from renewable natural resources is also substantial, for instance, from fisheries in Namibia and forestry in Cameroon (AfDB/OECD/ECA 2010). This notwithstanding, transfers from the sector to the economy as a whole have been particularly disappointing because of several factors, including contractual arrangements that give the government a limited share of revenue and the issue of transfer pricing. In short, there is evidence that African countries get relatively less revenue from natural resources than do other countries in the world (Dunning 2008; Humphreys et al. 2007; UNDP 2011a).

Second, the literature has shown that the role of natural resources in the promotion of economic growth has become one of the core issues of development theory and practice. It is argued that developed countries such as the United States, Canada, Australia, and the Scandinavian

countries became rich and technologically advanced through a judicious use of their natural resources wealth (Dunning 2008). Accordingly, the conclusion is that natural resource wealth becomes a real development asset when "coupled with investments in skills and technological capacities and with good macroeconomic institutions and management" (Lederman and Maloney 2007: xiv). This positive view of natural resources is also shared in the 2003 African Convention on the Conservation of Nature and Natural Resources.

Third is the growing trend in Africa to improve and maximize tax collection and use it to contribute to improved governance. Consequently, it has become imperative to improve natural resources taxation as an essential revenue source for many African countries, which hitherto has not been exploited in Africa (Pritchard 2009; 2010; Brautigam et al. 2008).

Fourth is the continuing presence of the two major negative effects from natural resource wealth: the resource curse and the Dutch disease,[3] which have bedeviled most resource-rich countries on the continent (Sachs and Warner 1995, 1997a, 1999a, 2001; Strauss 2000; Gylfason 2004; Mehlum et al. 2006). Some authors have even classified natural resources as one of the ten most robust variables with a significantly negative effect on growth in empirical studies (Sala-i-Martin 1997; Doppelhofer et al. 2000: Gylfason 2001a). This is because economic activities related to non-renewable natural resources, especially, are perhaps the most susceptible to looting because the (i) resources are geographically fixed and cannot relocate; (ii) resource extraction requires relatively low ongoing operational investment to maintain the productivity of the initial physical infrastructure; and (iii) products are usually exported, which creates many choke points for extortion, such as pipelines, roads, and ports (Gylfason and Zoega 2006).

Fifth is the continued challenge of the social and environmental costs associated with the exploitation of natural resources with little welfare-enhancing return. Few of the developmental benefits expected to accompany the exploitation of minerals have materialized in the host communities. The population in natural resource areas suffers from such problems as displacement of indigenous communities, loss of livelihoods, adulteration of local culture, conflicts, human rights abuses, diversion of watercourses, and loss of biodiversity due to environmental destruction (Akabzaa et al. 2007). Multinational corporations involved in the exploitation of natural resources have launched corporate social responsibility initiatives aimed at enhancing capacity for sustainable livelihoods; respect for cultural differences; and skills building for employees, the community and government, but these initiatives have either been implemented poorly or had no perceptible effect. Meanwhile, the expectations of returns from the sector have been particularly high at the community level. These communities typically are located in deprived areas whose conditions have worsened because of chronic poor service deliveries. The communities tend to expect the companies to provide basic amenities and infrastructure that the central government has failed to provide, as if they were surrogate governments. Some civil society organizations (CSOs) have argued that some of the unrealistic demands by the communities may be traced to unfulfilled promises made by some of the companies at the beginning of their operations (Akabzaa et al. 2007; Ayee et al. 2011: Gboyega et al. 2011).

Multinational corporations have made false promises to communities in many African countries, and this has resulted in huge community resentment (Akabzaa et al. 2007; Campell 2009). For instance, the strike by mine workers of Lonmin Platinum company in Marikana, North West Province of South Africa in mid-August 2012, which led to the death of 45, including two policemen (the highest since the transition to majority rule in 1994) was about not only the mine workers' demand for a wage increase from R6,000 to R12,500 per month, but also the failure of Lonmin to meet its social, economic, and environmental commitments within the framework of global corporate social responsibility. In other words, social ills apart from the wage demand fueled the unrest:

> Marikana township constructed by Lonmin did not have electricity for more than one month, and at a nearby RDP township broken drains were spilling into river. … In Marikana there are broken sewage systems, bilharzia in the water, children are getting sick … lack of educational facilities and training, environmental pollution. … Many mine workers rented shacks in informal settlements and live in appalling conditions. All these led to tension in the communities and high youth discontent (Macleod 2012: 2-3).

This incident fueled a spate of natural resource-related strikes, renewed calls in South Africa for transformation and nationalization of the mining industry, and exposed both the industry's inability to live by its corporate social responsibility and the government's incapacity to enforce mining law and regulation (Ramphosa 2012). The one lesson that can be learned from the Marikana crisis is that expectations of returns from the natural resource sector have been particularly high at the community level in all African countries. These inordinate expectations have caused frustration among the youth in the communities and tension or rivalries among the various mining communities (Mildner et al. 2011; Ikelegbe 2006: Babu 2000). Capacity to engage in dialogue between mining companies and communities is critical to manage such tensions in the future.

A key governance issue is the historical bias of central government institutions in favor of corporate and especially transnational investors vis-a-vis the interest of the communities. The fact of the matter is that in Africa, policy making is centralized in national institutions that seem to have no direct accountability to communities or even the local government units (Ross 1999; 2001; Rosser 2006a,b; Ayee et al. 2011; Gboyega et al. 2011). This has resulted in power imbalance between state and corporatist interests and those of the communities, which are affected by the operations of natural resource companies. Some of the state institutions responsible for the natural resource sector are only indirectly accountable to the legislature through their supervising ministries. The state has not developed a culture of community engagement, especially as regards resource issues. State officials, like the natural resource companies, have a hostile attitude toward the communities. The legislature provides very little support for communities affected by natural resource activities on such matters as environmental pollution and job opportunities (Dunning 2008; Ayee et al. 2011; Gboyega et al. 2011; Mildner et al. 2011). Matters have not been helped by successive governments' penchant for appointing members of the legislature from natural resource constituencies and other senior public officials to serve on the boards of these companies, which has created a permanent conflict of

interest that seems to have been resolved in favor of the natural resources industry (Humphreys et al. 2007; Dunning 2008; Ariweriokuma 2009).

Sixth is the proliferation of both local and international drivers of good natural resource management that, through their activities or enforcement, have put the matter on the agenda. The potential for raising the development impact of natural resource wealth is therefore widely recognized and has prompted many groups to start assisting African countries in managing their natural resource wealth. These drivers may be roughly classified into nine groups: (i) International Financial Institutions; (ii) Other Multilateral Initiatives; (iii) Regional Initiatives; (iv) Bilateral Donors; (v) Non-Governmental Organizations; (vi) Industry Groups; (vii) Multi-stakeholder Initiatives; (viii) Charters and Conventions; and (ix) In-Country Civil Society Organizations (table 2.1). The drivers have no doubt shifted "attitudes in resource-rich developing countries . . . where, for instance, the Extractive Industries Transparency Initiative (EITI) serves as a concrete rallying point for both reformist countries and for reformers in reluctant countries" (UNECA 2009: 230-231) while "an international charter gives people something very concrete to demand: either the government adopts it or it must explain why it won't" (Mildner et al. 2011:164-165). They have also engaged in capacity building initiatives for institutions in the natural resource sector and made natural resource management a top priority on the local and international agenda. Notwithstanding this laudable progress, the practical impact of the drivers on managing natural resources revenue has largely remained mixed (Lederman and Maloney 2007; Humphreys 2007; Dunning 2008; UN 2009; Acosta 2010; Gaille 2011; Collier 2011). Table 2.1 summarizes the numerous drivers of natural resource management that are currently in play in Africa.

Table 2.1: Drivers of good natural resource management

DRIVERS	AIMS/INTERVENTIONS
1. International Financial Institutions: African Development Bank; Asian Development Bank; Inter-American Development Bank; OECD; World Bank; IMF; IFC	Endorsed Extractive Industries Transparency Initiatives (EITI); AfDB provided Legal Facility for negotiating extractive resource contracts and creating an appropriate, enabling environment with modern legal and regulatory frameworks for the extractive resource sector; World Bank supports EITI-Multi Donor Trust Fund and EITI ++ Initiative to help countries strengthen accountability institutions in the "value chain." emphasizing heavily the importance of transparency; Mineral Resources Governance Project aims to strengthen governance and transparency in the management of mineral resources; IMF supports Multi-Donor Trust Fund for Capacity Building Technical Assistance in Managing Natural Resource Wealth, launched in November 2011 to assist countries in overcoming the resource curse.
2. Other Multilateral Initiatives: Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development; Joint Oil Data Initiative; The Oslo Group on Energy	Global Dialogue was designed to fulfill the priorities for the mining, minerals and metals sector as identified in the Johannesburg World Summit Plan of Implementation. The aim of the Joint Oil Data Initiative is to build a database and raise the awareness of all oil market players of the need for more transparency in oil market data. The Oslo Group on Energy Statistics will contribute to the development of improved methods and international standards for national official energy statistics, and, in particular, review and contribute to update the UN handbooks and manuals on energy statistics.
3. Regional Initiatives: African Tax Administrators Forum (ATAF); African Petroleum Producers Association (APPA); The Tax Justice Network for Africa (TJN-A)	ATAF aims to become a platform to allow African administrators to articulate African tax priorities, anchor good practices, and build capacity in African tax policy and administration through peer learning and knowledge development. APPA is an intergovernmental organization created in 1987 in Lagos, Nigeria, to serve as a platform for African petroleum producing countries to cooperate, collaborate, and share knowledge and competences. It aims to promote common policy initiatives and projects in all facets of the petroleum industry with a view to maximizing developmental and welfare benefits. The Tax Justice Network for Africa (TJN-A) is a pan-African initiative and part of the International Tax Justice Network. It was launched at the World Social Forum in January 2007. Its aim is to mainstream tax justice in the economic discourse in Africa and promote socially just, democratic and progressive tax systems.
4. Bilateral Donors: Australia; Austria; Canada; European Union; Finland; France; Germany; Italy; Japan; The Netherlands; Norway, Qatar; Spain; Sweden; Switzerland; UK, and US	Support corporate social responsibility and the sound management of natural resource through financial contributions to the EITI and the EITI-Multi-Donor Trust Fund administered by the World Bank. Support EITI and EITI-MDTF. Norway's development agency (Norad) runs Oil for Development (OfD). The OfD initiative aims to assist developing countries with petroleum resources (or potential) in their efforts to manage these resources in a way that generates economic growth and promotes the welfare of the population in general, and in a way that is environmentally sustainable.
5. Non-Governmental Organizations: Oxfam; Publish What You Pay; Revenue Watch; Global Witness; Human Rights Watch; The International Tax Justice Network (ITJN)	Oxfam participates in EITI, lobbies mining companies and governments to adhere to policies and practices that support the rights of affected communities and defends these communities' rights. Publish What You Pay is a global civil society coalition that helps citizens of resource-rich developing countries hold their governments accountable for the management of revenue from the oil, gas, and mining industries. Revenue Watch participates in EITI and promotes transparent, accountable, and effective management of natural resource wealth to help

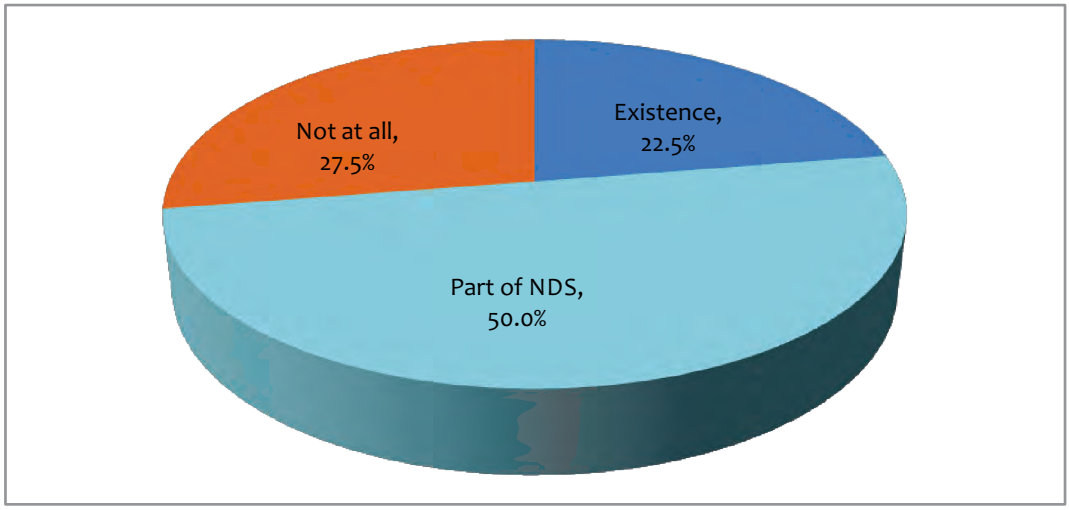
	countries avoid the resource curse. It takes a comprehensive approach to improving governance and development across the entire value chain. Global Witness participates in EITI and exposes the corrupt exploitation of natural resources and international trade systems to drive campaigns that end corporate impunity, resource-linked conflict, and human rights and environmental abuses. Human Rights Watch is one of the world's leading independent organizations dedicated to defending and protecting human rights. Pursues extractive industries as special business topic and participates in EITI. The ITJN promotes tax cooperation, democratic taxation and transparency.
6. Industry Groups: International Council on Mining and Metals (ICMM); Southern Africa Resource Watch (SARW)	The ICCM represents many of the world's leading mining and metal companies as well as regional, national, and commodity associations. It operates the Resource Endowment Initiative, whose objectives are to identify the factors that have allowed some countries to benefit from their substantial resource endowments. SARW's advocacy agenda includes promotion of revenue transparency by supporting the EITI and encouraging countries to sign up to the EITI and advocate together with local communities.
7. Multi-stakeholder Initiatives: Extractive Industries Transparency Initiative (EITI); Kimberley Process Certification Scheme (KPCS)	The EITI is a global standard that promotes revenue transparency. It has a robust yet flexible methodology for monitoring and reconciling company payments and government revenue at the country level. The process is overseen by participants from the government, companies and national civil society. The Kimberley Process is a joint government, industry, and civil society initiative to stem the flow of conflict diamonds—rough diamonds used by rebel movements to finance wars against legitimate governments. The KPCS imposes extensive requirements on its members to enable them to certify shipments of rough diamonds as "conflict-free."
8. Charters and Conventions: Natural Resource Charter; African Convention on the Conservation of Nature and Natural Resources, 2003; The OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations of 2009 and its Arm's Length Principle; OECD Declaration on International Investment and Multinational Enterprises of 1976	Natural Resource Charter's mission is to assist the governments and societies of countries rich in non-renewable resources in managing those resources in a way that generates economic growth, promotes the welfare of the population in general, and is environmentally sustainable. The Charter is organized around twelve Precepts that offer guidance on core decisions that governments face—beginning with the decision to extract the resources, and ending with decisions about using the revenue they ultimately generate. It provides four levels of detail about each of the Precepts. The African Convention on the Conservation of Nature and Natural Resources aims to: (i) enhance environmental protection; (ii) foster the conservation and sustainable use of natural resources; and (iii) harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound, and socially acceptable development policies and programmes. The OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations of 2009 and its Arm's Length Principle (which stipulates that the pricing and other conditions of cross-border transactions between associated enterprises should not differ from those that would be made between independent enterprises in comparable circumstances). OECD Declaration on International Investment and Multinational Enterprises of 1976 covers areas on taxation.
9. In-Country Civil Society Organizations (renewable and non-renewable sectors: land, forestry, fisheries, extractive industry)	There are over 1,000 CSOs in Africa in the renewable and non-renewable natural resources sectors that advocate for the communities and point to the imbalance between corporate and community interests. They also criticize governments' unresponsiveness to the poor and other marginalized groups and the inability of the state to develop a culture of community engagement, especially pertaining to resource issues.

Source: Ayee 2012

In this section, we have highlighted the six factors that have brought to bear renewed interest in natural resource management in Africa. The discussion uncovered six areas of capability that need to be in place for countries to do well in managing the added pressure that comes from this attention to natural resources. The first is the capacity to translate the windfall from natural resources into development results while avoiding the mistakes of the past. This capacity relates to strategic use of revenue from natural resources for the challenges of today, such as infrastructure, education and health, versus saving for future generations, all which require good planning and implementation capacity at the national and local level.

Of the 44 countries surveyed for the 2013 ACIR, all (100 percent) have functioning national development strategies in place. Again, 93 percent have integrated capacity development into their national development strategies; 70 percent have very clear objectives, and 23 have some objectives, albeit vague. With regard to the natural resource sector, 22.5 percent of the 44 nations surveyed, have established a specific strategy for the mining sector, while 50 percent have embedded their mining sector strategy in the broader national development strategy (figure 2.1).

Figure 2.1: Existence of a specific strategy to develop the mining sector



Source: Computed from ACI 2013 database

The second capacity gap raised by the discussion in this section relates to the use of natural resources as an asset for development through the appropriate development of skills (geology, mining, engineering), technologies (extraction, manufacturing, construction), and macroeconomic management (structure of economies, interest rates and inflation, investment and savings) in strategic bargaining for future revenue. Assessment of the skills gaps and areas for attention in transferring and developing technology as well as maintaining good macroeconomic management in the face of rich asset bases and untapped potential is a critical need at the country and regional level.

Findings from the country-level suggest that the African policy environment is very strong, with most (77 percent) of the countries surveyed combining to display high to very high capacity in this area (figure 2.2). From a legitimacy and incentives perspective, the African picture, while not as positive as the policy landscape, is still laudable. Here, almost 54 percent of the countries surveyed showed at the high to very high level (figure 2.3).

Figure 2.2 Policy environment/efficiency of instrument

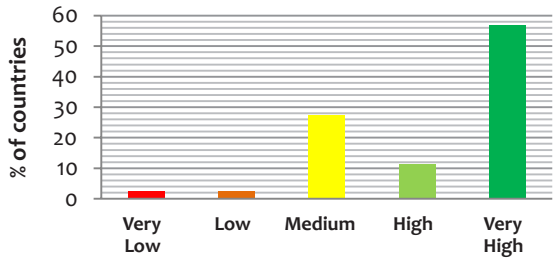
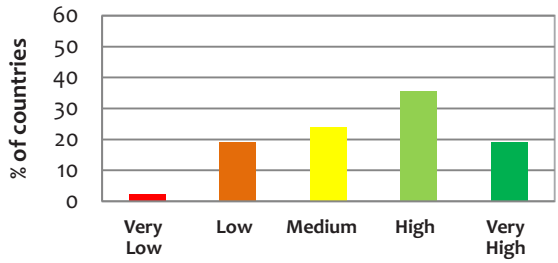


Figure 2.3 Legitimacy and incentives of NRM policy



Source: Computed from ACIR 2013 database

The third issue comes from the ability to define, collect and manage a tax regime that provides the needed revenue from a rich natural resource asset base. How well public administrations are able to manage public finances becomes a critical capacity gap to be filled. Based on the survey findings, the quality of public administration needs to be improved, concurring with evidence from the broader literature (Owusu and Ohemeng 2012). On a scale of 1-6, the average score from both the World Bank and ACBF-driven self-assessed Country Policy and Institutional Assessment (CPIA) is approximately 3. Neither of the best performing countries—Cape Verde (World Bank) and Kenya (self-assessed) exceeds a score of 4 (table 2.2).

Table 2.2: Quality of public administration—2011 CPIA scores

CPIA 2011 - Cluster 15	No. of countries	Average	Maximum	Minimum
World Bank	36	2.9	4 (Cape Verde)	2 (Angola, DRC, Zimbabwe)
Countries Self-assessment	16	3.0	4.1 (Kenya)	2.1 (Madagascar)

Source: ACI 2013 database; World Bank IRAI 2011

The fourth capability is related to managing the negative impacts of resource wealth that lead countries down a path of bad governance and instability. The capacities needed range from good economic modeling and planning to support the non-extractive industry sectors and maintain a diversified economy. Additionally, the political economy and institutional capacities to maintain good governance and political and social stability are critical. To this end, the survey findings suggest that 59 percent of natural resource producing countries safeguard social stability using expenditure-smoothing in both boom and bust cycles. Again, the survey suggests that attitude of governments toward the equitable distribution of revenue and saving for the future is favorable to very favorable in 67 percent of the surveyed countries. The finding reinforces the recent attention African states are paying to sovereign wealth funds.

The fifth capacity relates to managing biodiversity and mitigating the negative impacts of extraction on the ecosystem, which includes capacities in science and technology as well as those related to community management and involvement. Interestingly, the survey suggests that while an impressive 85 percent of countries survey have signed on to Reducing Emission from Deforestation and Forest Degradation (REDD), only 31.4 percent are implementing the REDD protocol effectively. And the level of government commitment to promoting environmental sustainability is mixed (table 2.3).

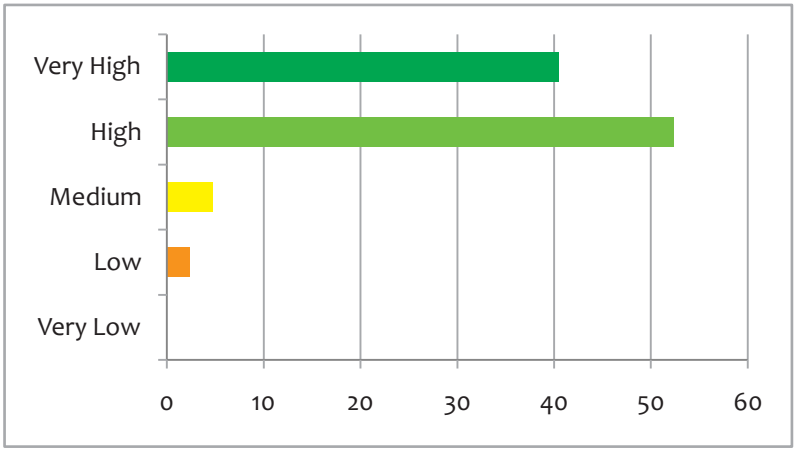
Table 2.3: Government commitment to environmental sustainability

Level of commitment	% of countries
Very Low	2.4
Low	19.0
Medium	23.8
High	35.7
Very High	19.0
Total	100.0

Source: Computed from ACI 2013 database

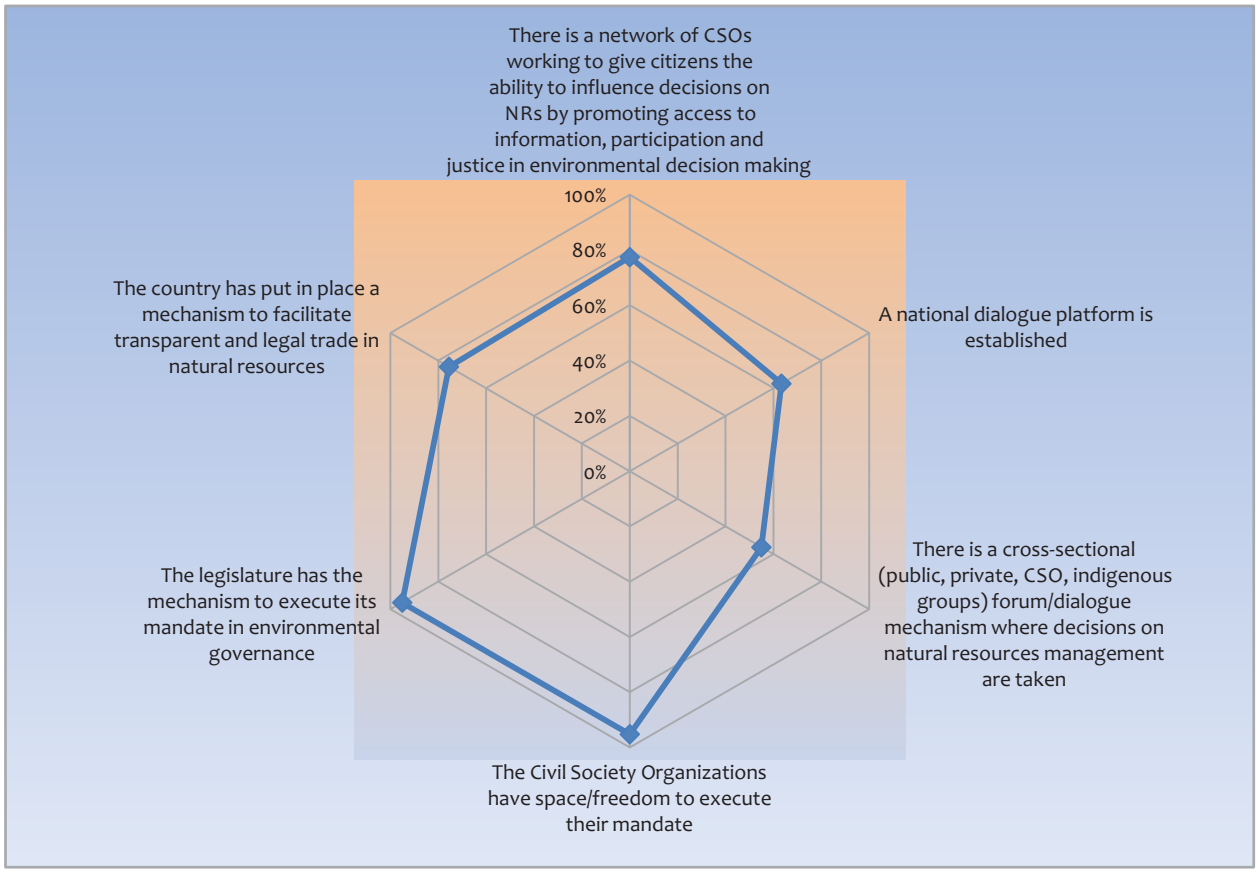
The sixth capability to be developed comes from the need to have effective dialogue between the extractive industry and the surrounding community to manage expectations but also provide needed services. The role of the legislature and local governments in this process is critical, as is the role of national agencies involved in developing and negotiating long term contracts. In this regard, the findings of the ACI suggest that, overall, most African countries have put in place meaningful mechanisms for social inclusion (figure 2.4). Within the specific domain of natural resources, the landscape is enabling for dialogue and involvement of myriad stakeholders (figure 2.5).

Figure 2.4: Level of dialogue and social inclusion



Source: Computed from ACI 2013 database

Figure 2.5: Dialogue and social inclusion on natural resource governance (percentage of countries)



Source: Computed from ACI 2013 database

Finally, there is a need for coherence and coordination of the numerous local and international efforts of good natural resource management to ensure that what is implemented provides development value to the host economy and does not override limited local capacity. To this end, countries surveyed attest to the progress being made on the continent. Almost 82 percent of the countries have put in place an aid coordination policy; for almost half (48 percent), their support to capacity coordination ranks 4-5 (on a scale of 1-6).

2.5 Natural Resource Value Chain—vulnerabilities, challenges and opportunities

All the capabilities mentioned in the last section will not yield the intended results if attention is not paid to the natural resource value chain. The natural resource sector's value chain consists of five stages (Humphreys et al. 2007; Dunning 2008): 1) Award of Contracts; 2) Monitoring of Operations; 3) Collection of Taxes and Royalties; 4) Distribution of Revenue; and 5) Utilization in Sustainable Projects.

Collier (2011) however, maps out four stages in the decision chain, namely: (1) managing the process of discovery; (2) capturing the rents through taxation; (3) balancing the use of revenue; and (4) managing the investment process.

The chain is governed by laws and regulation to ensure maximum efficiency and effectiveness for favorable beneficial outcomes. Even though natural resource-rich African countries have designed laws and regulations to manage their natural resources, these laws and regulations have been considered "more investment friendly…and in line with international best practices in the industry and as well take cognizance of relevant stakeholder views" (World Bank 2008: 32). They liberalize and deregulate the sector. However, they also reinforce the point that "In hindsight, and in view of current high mineral prices, some of the natural resource codes then adopted and some of the agreements negotiated may have been overgenerous to foreign investors" (UNCTAD 2007: 161). For instance, in spite of the several reforms of the legal framework of the Ghanaian and Nigerian mining and oil sectors, respectively, the legal framework governing both sectors has been found to be extremely investor-friendly and deficient in some areas (Ayee et al. 2011; Gboyega et al. 2011).

2.5.1 Vulnerabilities

Studies on natural resources in Africa highlight vulnerabilities in sector governance along the value chain and explain why it has been difficult to implement best or second best welfare-enhancing policies (Humphreys 2007; Collier 2007; Dunning 2008; Ayee et al. 2010). The sector is vulnerable to rent-seeking activities because of certain characteristics, such as the requirement for large initial capital expenditures; lack of choice in location; the sudden wealth and easy money image; the local nationals' previous experience with multinational companies; the particular sense of entitlement that local people have with respect to the wealth generated; and the high level of government regulation (Marshall 2001).

There are sector management vulnerabilities in the regulation and award of leases, in revenue collection and administration, and eventually, in the way budget procedures secure sustainability in revenue re-investment. Contracts are often subject to strong confidentiality clauses by the multinational corporations, governments,

investors, and banks involved. Corruption is only a part of the explanation. Governments argue that they cannot make all details of the extractive industries public and that they have limited influence on companies. Countries also compete for the scarce managerial and technical skills needed for resource extraction. Nonetheless, shortages of legal and negotiation skills play a major role in driving down tax revenue from natural resources (Collier 2010a; Collier 2011; UNDP 2011a).

Despite the strong focus on development by many governments, there are still incentive problems in several of the institutions involved in natural resource governance in Africa. An excessively centralized policy-making process, a powerful executive president, strong party loyalty, political patronage, lack of transparency, and weak institutional capacity at political and regulatory levels have greatly contributed to the extractive industries' inadequate flow of net benefits. Consequently, it has been argued that the net benefit of natural resources is likely to be improved with appropriate reforms in governance (Dunning 2008; Ayee et al. 2011; Gboyega et al. 2011).

Admittedly, among potentially important values from the industry, other than direct revenue, are transfers of technological and organizational skills and corporate social responsibility. Multinationals' home-country regulations or standards, accounting rules, production technology, and procurement procedures may also help strengthen the sector. Consequently, arguments to downplay the importance of natural resources to the national interest need to be considered in light of these perspectives (Eden and Lenway 2001; Obeng-Odoom 2012).

Nevertheless, the economic importance of natural resources is not adequately matched by forward and backward linkages to other economic growth-promoting activities. Except for the employment of semi-skilled labor force, most of the inputs are imported while the mineral products are exported with little or no value added. In other words, the multiplier effect that could have accelerated growth is lower than what would be the case if non-renewable activities were properly integrated into the economy (UNDP 2011a; Gaille 2011).

A net benefit assessment requires estimations of benefits from natural resources, including royalties and taxes, infrastructure, technology transfers, and employment, as well as their multiplier effects and how they compare with costs, such as environmental consequences, health problems, cultural difficulties, and loss of agricultural land. The paradox of natural resource wealth is that many of the countries endowed with such resources still have a high level of poverty (Humphrey et al. 2007; Dunning 2008; Obeng-Odoom 2012).

Two reasons can be adduced for the paucity of tax revenue from the natural resource sector. First, the contracts with multinational companies are often unfavorable for African governments, with calls for re-negotiation so far difficult in the light of the stringent contracts. Second, the level of corruption in the sector is generally enormous, with international dimensions (World Bank 2006: Lederman and Maloney 2007; UNDP 2011a).

2.5.2 *Challenges*

Capacity challenges such as undercapitalization, lack of competition, underperformance, an investor-friendly and overgenerous legal framework, inadequate understanding of the technical aspects of natural resource management, and the domination of multinational corporations vis-à-vis a weak state are key obstacles to the transformation of natural resources into a "destiny" or "blessing." The effectiveness of all policies to manage risks associated with natural resources requires a strong institutional framework, and the literature is clear that institutional weakness (corruption, lack of rule of law, weak governance) is a major determinant to the natural resource curse (Ross 1999; 2001; Rosser 2006a, b). In the words of the International Monetary Fund (2010:2):

> "countries endowed with oil, gas and minerals face great policy challenges due to the enclave nature of these extractive industries, the non-renewable character of these resources and the large rent income usually associated with them. National administrations are often weak, laws and regulations defective, and policies inadequate. Moreover, the overall governance environment is often poor, compounded by a tendency towards secrecy in natural resource matters. As a result, countries often do not receive fair compensation for their resources, and their spending does not produce the desired results."

A number of institutional capacity challenges have been identified in the natural resource sector in Africa. First, the capacity of the legislature in Africa to act as a countervailing force over the executive and understand the complexity of natural resource legislation has been questioned (Humphreys et al. 2007; Dunning 2008; UNECA 2009; UNDP; 2011; Ayee et al. 2011; Gboyega et al. 2011). Apart from passing the annual budget, the legislature is responsible for ratification of natural resource leases, contracts, and stabilization agreements. However, the performance of these responsibilities is subject to executive influence; thus, the checks and balances intended to secure independent control by the legislature in African countries are rendered dysfunctional. Natural resource leases and other agreements with the companies first are brought to government agencies before being ratified by the legislature and then awarded to the companies. The select committee of the legislature on natural resources is responsible for conducting due diligence and examining the capacity, reputation, and finances of the company under review. If the company is deemed trustworthy and the proposal is in order, the contract or the agreement is cleared. Due precaution is supposed to be taken to avoid conflict of interest within the legislative select committee. If any matter under consideration before the committee could cause conflict of interest, these members have to recluse themselves. This may happen in practice as well, but this is uncertain because the supervision by the legislatures and their committees in Africa is not effective (see box 2.1 for the Ghanaian experience).

Box 2.1: Weak supervision of the Ghanaian legislature in natural resource management

A glaring example of how weak this supervision can be is the Ghanaian legislature's 2008 retroactive ratification of 21 mining leases awarded during 1994–2007 to exploit the mines. According to the country's constitution, all mineral leases must be ratified by Parliament before execution. The Parliament did not fully comply with this mandate. In the Parliamentary Debates of October 20, 2008, it came to light that mining leases granted to 21 companies between 1994 and 2007 were operational even though they had not been ratified by Parliament (Ghana, Republic of 2008a, b). The relevant parliamentary committee expressed great dissatisfaction at the delay in submitting the leases for ratification. It has also expressed concerns about why the executive entered into an agreement with the companies and then, after 10 years, brought them to Parliament to be ratified. In spite of these concerns, Parliament did ratify the leases and cautioned the ministry responsible for mines that any such violation of the laws of the land in the future would be subjected to the full sanctions in accordance with the law.

Source: *Ghana, Republic of (2008a, b).*

Second, weak bureaucratic capacity prevents regulatory institutions from performing their functions effectively. This problem can be identified in almost all ministries, departments, and agencies in Africa (AfDB 2005). This said, the lack of capacity is a function of the lack of political incentives to meaningfully invest in sector reforms rather than a quantitative indicator of a government's scarce human and material resources. Tackling poor regulatory capacity in this arena has not been a consistent priority. As a result, the natural resource industry is not being regulated effectively, essential analyses are not being undertaken, and most policy proposals are accepted without sufficient understanding of their implications. Following from this, capacity is lacking in the implementation of policies, programs, and projects. This general lack of capacity has not been addressed sufficiently at the political level (UNDP 2011a). Most legislators in Africa lack resources, and they may not be qualified to appreciate the intricate issues necessary to monitor natural resources activity. Significant potential to improve sector governance exists in the recruitment of qualified and skilled support staff to follow up, monitor the sector, and inform politicians. For important decisions, legislators are briefed by bureaucrats and technocrats and, after a short retreat, the proposals—including the budget proposals—are tabled for discussion and usually passed by the legislature. With the ruling party in majority in the legislature, most budget appropriations and government proposals are passed without any significant amendment. Thus, Parliament ratifies everything that is presented to it and the very idea of its oversight and supervision is called into question (UNECA 2009).

Third, transfer pricing has negatively affected revenue collections in some African countries. Most multinational companies in the natural resource sector operate internationally and have extended dealings with affiliated companies, which increases opportunities for transfer pricing and potentially lowers the tax liability. This further complicates the task of tax administration and creates a challenge that requires specific skills. Most African tax laws have legal provisions to address the issue, but these provisions are insufficient. The tax administration personnel need better training on how to recognize the transfer pricing opportunities in

natural resource operations and stronger capacity to detect and respond to this problem. The issue of transfer pricing is sophisticated and complex in nature, and it has the potential to seriously erode the tax base in most African countries (Brautigam et al. 2008).

Fourth, the generous concessions granted by governments to multinational corporations in the natural resource sector cannot be altered even when the conditions in which they were signed change substantially or unexpectedly *ex post*. Therefore, attempts at renegotiation have not only been contentious but have reflected institutions' weak capacity to meaningfully engage the multinational corporations, particularly in the face of the resources at their disposal. Royalties and tax concessions often are frozen by an investor-friendly stabilization clause for a set period of time. Higher prices will not necessarily imply a proportional increase in state revenue to mineral-rich African countries (WTO 2010; Gaille 2011).

Fifth, governments' capacity to deal with the domestic side of natural resource management —for example, effective distribution or use of the revenue generated from natural resources to prevent conflict—has been questioned. Proper natural resource management also involves accountability with regard to how these resources and wealth are used. Proper resource management ensures that everyone in the country benefits from the oil wealth in an equitable manner. Resources are therefore a blessing for the countries that possess them only if properly managed. In Africa, however, these resources have been a blessing for some and a curse for others—the latter specifically for the population and the region from which these resources are extracted. These resources are a curse for these regions because they remain in abject poverty, experience poor economic growth, and are held to a generally lower standard of living than other parts of the country that enjoy the bulk of this wealth. This problem can be attributed to poor resource management, a problem in many resource-rich countries in Africa (Onigbinde 2008). The argument that the more resources a country has, the greater its share in economic growth and prosperity will be, does not hold true when one examines these countries. Nigeria is the world's eleventh largest oil exporter and derives immense wealth from annual oil production and trade, but it continues to suffer from poor resource management. This is manifest specifically in the Niger-Delta region, Nigeria's largest oil producing region but also its poorest because it has not benefited from the oil wealth derived from oil production (Ikelegbe 2006; Obi 2010). Poor resource management is one of the prominent reasons behind the crisis in the region. Similar cases can be found with oil in Angola and diamonds in the Democratic Republic of Congo and Sierra Leone, two countries that have experienced both extreme poverty and violent civil wars (Onigbinde 2008).

These challenges point to one fact: unlike the government, multinational corporations have the benefit of the best accounting and legal resources. This imbalance influences negotiations between governments and the multinational companies (Ayee et al. 2011; Gboyega et al. 2011; Gaille 2011). In addition, the natural resource industry in Africa receives the best of terms and concessions from governments. Even if the industry wishes to keep up with international corporate social responsibility standards, it is not in its interest to push for reform. The companies have been in the countries for a long time through different administrations, and their motive for and sole focus on profit have remained steadfast. They gradually have come to know the system well, and their sheer

appreciation of how things work creates a competitive advantage (UNDP 2011a; Obeng-Odoom 2012).

2.5.3 Opportunities

In the midst of capacity challenges, however, there are capacity opportunities given the renewed interest in curbing the natural resource curse and making natural resource welfare enhancing for host governments and citizens, with support from the international community (bilateral and multilateral organizations), the United Nations, and civil society organizations. The proliferation of global initiatives and interest in overseeing a transparent management of natural resources came about at the turn of the century as a donor effort to tackle development problems, including government corruption, institutional erosion, civil conflicts, and economic crowding out effects associated with the resource curse (Ross 1999, Collier 2007). Accordingly, as already highlighted in table 1, capacity building interventions have been launched worldwide. They have been meant to equip politicians, law makers, technocrats, CSOs, and even indigenous communities to contend with the new trends and nuances in natural resource management.

a) ***The World Bank capacity initiatives:*** In 2009, the World Bank launched its Natural Resources and Environmental Governance (NREG) Program to assist African countries in managing their natural resources. The mission of the program, which is ongoing, is to improve transparency in systems and procedures for natural resource management, which could lead to more effective enforcement and improved collection of revenue in the sector. For example, the Good Environmental Governance Program was launched to support innovation in introducing performance measures for environmental management. In addition, the World Bank Group's Forest Governance Program, launched in 2000, gives strong emphasis to working in partnership with governments, civil society, the private sector, and donor organizations. In May, 1998, the G-8 launched an action program on forests, giving high priority to ending illegal logging and timber trade. The action program seeks to complement actions undertaken at regional and international levels and states the G-8's commitment to identifying actions in both producer and consumer countries (World Bank 2009).

For instance, the results of the World Bank's NREG program in Ghana, which focused on policy reforms and institutional capacity building, include: (i) in forestry, a log tracking system to verify the legal origin of timber exports was piloted starting in 2010 by four large timber companies; (ii) in support of improved transparency, bi-annual revenue disbursement reports are disseminated to the public within 30 days of publication by the Forestry Commission; (iii) in the mining sector, "Social Responsibility Guidelines for Mining Companies in Mining Communities" were prepared in consultation with stakeholders, and the fiscal model has now been applied to three mines; (iv) a draft Strategic Environmental Assessment on oil and gas has been developed for consultation. The assessment outlines how environmental and social issues associated with developing the offshore oil and gas sector (worth about US$1 billion per year over the next 20 years)

should be mitigated or managed (World Bank 2012a).

b) ***International Monetary Fund (IMF) capacity initiatives:*** In May 2011, the IMF launched its Topical Trust Fund on Managing Natural Resource Wealth, envisioned as an effective vehicle for coordinating donors' capacity building initiatives in managing natural resource wealth. It has provided US$25 million over five years to scale up technical assistance to low-income and lower-middle-income countries endowed with oil, gas, and minerals to help them deal with associated economic policy challenges. Specifically, it aims to build macroeconomic policy capacities and assist countries in getting a fair share of their natural resource wealth. Furthermore, the Trust Fund's mandate is to help create a stable macroeconomic environment for exploration and exploitation of natural resources so that access to those resources becomes both more secure and more socially responsible, which will generate a substantial benefit to the world community. It has concentrated on capacity building in five areas: (i) extractive industries fiscal regime; (ii) extractive industries revenue administration; (iii) fiscal policies and public financial management specific to resource-rich countries; (iv) natural resources-related financial asset and liability management; and (v) statistics for natural resources (International Monetary Fund 2010). It is too early to assess the impact of this initiative.

c) ***Revenue Watch Institute (RWI) capacity building initiatives:*** These efforts help societies examine every stage of the development of oil, gas, and minerals, from the decision to begin exploration through organizing production, establishing revenue management, and designing and implementing policies for spending and economic development. A mainstay of RWI's work is developing the capacity of civil society. It provides financial and technical training and support to more than 50 partner organizations on every aspect of oil, gas, and mining; has provided technical assistance to governments in drafting mining and oil laws and in improving revenue management; and has spearheaded the global campaign to develop global standards for transparency and accountability in the minerals sector. It is also a leader in the development and implementation of the Extractive Industries Transparency Initiative (EITI) and has been since EITI's inception (Revenue Watch Institute 2006). RWI has pioneered projects with local and district governments in countries where the national government shares revenue from natural resources. Through its research, RWI has built a body of literature on best practices in revenue management, including contracting, oil fund laws, fiscal regimes for mining, and effective parliamentary oversight, and it publishes the Revenue Watch Index, which analyzes transparency practices in more than 40 countries that are among the top producers of petroleum, gold, copper, and diamonds. The scope of its activity extends to the creation of digital tools that allow users to analyze and share data that can help advance better governance. Furthermore, it has developed training courses and materials, such as the module on Introducing the EITI, that meet the learning needs of

civil society advocates, government officials, journalists, and parliamentarians working toward improving the management of oil, gas, and minerals. Furthermore, it is collaborating with the School on Governance of Oil, Mining and Gas Revenues in Ghana, together with the Ghana Institute of Management and Public Administration and German Agency for Technical Cooperation, to train students for the natural resources sector (Revenue Watch Institute 2006).

d) ***United Nations University-Institute for Natural Resources in Africa (UNU-INRA):*** Established in 1986, it moved to the campus of the University of Ghana in Legon, Accra, Ghana in 1994. UNU-INRA's work centers on Africa's two most important endowments: its human and natural resources. It aims to strengthen capacities at universities and other national institutions to conduct research and produce well-trained individuals with the ability to develop, adapt, and disseminate technologies that promote the sustainable use of the continent's natural resources. It has also established operating units in the following five countries, through which some of its major activities are undertaken:

- University of Cocody, Abidjan, Côte d'Ivoire (social, economic, and policy analysis related to natural resource management);
- University of Yaoundé I, Yaoundé, Cameroon (use of geo-informatics and applications of computer technology to natural resource management);
- University of Zambia, Lusaka, Zambia (soil fertility and mineral resources);
- University of Namibia, Windhoek, Namibia (marine and coastal resources); and
- Institute for Food Technology (ITA) of the Ministry of Mines and Industry in Dakar, Senegal (processing of agricultural and local food products, food quality, and food technology) (UNU-INRA 1994).

e) ***Capacity building by universities:*** Given the importance of natural resources, most universities in Africa have either established departments of natural resource management or introduced programs, mainly at the graduate level, on various aspects of natural resource management. For instance, the University of Malawi Bunda College established the Department of Natural Resources Management in 1999 to advance and promote theoretical and practical knowledge in natural resources and environmental management through teaching, research, outreach, and consultancies with the aim of conserving natural resources and the environment. Similarly, the Faculty of Law at the University of Ghana, Legon has introduced undergraduate and graduate programs in oil, gas, and environmental law.

f) ***Advocacy of civil society organizations (CSOs):*** There are several advocacy CSOs involved in the natural resource sector in all African countries. They have been at the forefront of championing the interests of the local communities and drawing attention to the deleterious effects (adverse environmental hazards, human rights abuses, and lack of

corporate social responsibility) of the operations of the multinational corporations. Although their advocacy has most of the time gone unheeded, it has nonetheless drawn public attention—either locally or internationally—to the negative effects of natural resource companies' operations. This has gone a long way to create space for discussion of natural resource issues that have fed directly or indirectly into public policy, capacity building interventions, and/or initiatives of local and international organizations (Gboyega et al. 2011; Ayee et al. 2011; Collier 2007).

g) ***Learning from the experiences of countries within and outside Africa:*** The experience of Botswana will be instructive here. In the words of Leith (2005: 120) "Botswana's exceptional growth record… is not explained by a single silver (or diamond) bullet; rather it is explained by a whole range of policies that worked together and were supported by effective institutions." Leith further notes that, it reinvested the proceeds of natural resources through the use by the government of a Sustainable Budget Index.

In addition, learning from the experiences of other countries outside Africa is equally instructive. The experiences of the United States, Canada, Norway, Oman, Qatar, Indonesia, and Malaysia in natural resource management point to the shared goals of preserving social stability, accelerating economic growth, and creating credible and stable groups of technocrats willing to engage and influence political leaders. Furthermore, strong constituencies outside the natural resource sector were considered and listened to in the management of the proceeds of natural resources. Examples are fisheries in Norway, agriculture in Indonesia, and traditional chiefs and cattle owners in Botswana. These constituencies argue for prudent spending during booms and for effective spending otherwise. Indonesia also reinvested the proceeds from its natural resources. For instance, oil revenue in the 1970s and 1980s was used to support improvements in agricultural productivity and diversification into other sectors. Furthermore, Chile transformed its Copper Fund into a broader Economic and Social Stabilization Fund to avoid procyclicality, that is, policies to smooth the swings associated with natural resource revenue. This example shows the importance of credible commitments to rules by the government (Collier 2007; Torvik 2009; UNDP 2011a).

It is too early to assess the impact of these capacity building interventions because of their long period of gestation and maturity. The results of capacity building initiatives usually take a very long time to be achieved and therefore depend on sustainability, commitment of the various stakeholders, and the capacity to learn from experience. However, a number of indicators collected in the ACIR can shed light on where countries are on critical capabilities. These include indicators that measure the level of transparency and access to information; measures of the extent and quality of dialogue and inclusion; indicators of policy capacity and statistical capacity; measures of the performance of the legislature and contract definition and management; and the overall level of tertiary education in science and technology,

engineering and environmental management. These are in addition to the set of measures highlighted in Chapter 8 on the critical capabilities needed as a result of the factors driving the interest in natural resource management in Africa.

2.6 Improving Natural Resource Governance in Africa

With escalating energy and raw material demands from the BRICS (Brazil, Russia, India, China and South Africa) and increasing commodity prices in the world market, there is a renewed global interest in minerals and natural resources throughout Africa (Maconachie 2009). Moreover, the finite supply of fossil fuels, combined with increased demand, is leading to an intensification of efforts by various states and multinational corporations to discover and control new sources of oil (Arthur 2012b). This has become even more urgent in recent times, with the Western world eager to reduce its reliance on oil from the Middle East and expanding economies of China and India interested in satisfying their demands.

While the governance of natural resources (oil, gas, minerals, forests, and water) has the potential to confer great economic and strategic benefits on the countries where they are found (Arthur 2012b), there is also increasing evidence that extractive natural resources have not helped developing countries, especially those in Africa, to achieve prosperity and their desired socioeconomic ends (Sovacool 2010). Unsurprisingly, questions about effective and efficient governance of resource revenue have become increasingly central to local and international efforts.

In light of the above, the issue of natural resource governance is globally emerging as a vital source of policy dissonance and debate, with far-reaching implications for African countries. In the coming years, South-South economic linkages will change the face of globalization; climate change and desertification will intensify extreme weather events; and water and land resources will become increasingly scarce, especially in the world's low income countries, as a newly emerging global middle class intensifies resource demand. Governments, resource-rich communities, and the global private sector all play a crucial role in the strategies and institutions governing the management of resources. An innovative, inclusive and sustainable approach to the governance of natural resources is therefore required if private sector activities are to effectively support economic development and contribute to peace, security, and political stability. Greater accountability and corporate social responsibility by investors; the reinvestment of resource revenue into social services and poverty reduction by host governments; and diversified economic development ought to be clear objectives for all stakeholders (Besada 2012).

In response to global trends, 2011 witnessed several initiatives internationally, all of which seek to bring "a more systemic approach and a greater sense of order to the governance of natural resources" (Besada 2012: 2). Mitigating the growing risk of conflict around the intensified demand for resources is a critically important public good. The global initiative led by Oxford University economist Paul Collier in collaboration with Revenue Watch in the United States to produce a global Natural Resource Charter; the African Union/United Nations

Economic Commission for Africa (UNECA) initiative to develop an Africa Mining Vision with the support of the Australian, and Nordic governments and the World Bank; the European Union's work with the Overseas Development Institute and the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) on the impact of climate change on natural resource governance in Africa; and the Canadian government's initiative to create an institute of extractive industries and development all testify to the perception that there is an urgent need for a globally recognized set of governance rules around natural resource exploitation (Besada 2012).

The increasing frequency of dialogue and roundtable discussions taking place between various stakeholders reflects a growing concern that stakeholders are somehow falling short in dealing with critical issues relating to the governance of natural resources and that more needs to be done in reconciling economic and business objectives with a more responsible exploitation of resources (Besada 2012). The issues relate mainly to the frequent absence of clear, well-conceived regulations and mining codes; weak adherence to the rule of law; an absence of fiscal, monetary, and budget discipline; few pro-poor public-private partnerships; weak skills and limited resources in government departments; limited encouragement of open dialogue between government and civil society; and little if any transparency and accountability. The Fourth High-Level Forum on Aid Effectiveness in Busan, Korea (November 29 –December 1, 2011), highlighted many of these weaknesses. All these deficiencies call for an improved and traceable governance system in the natural resources sector (Besada 2012).

From the perspective of African stakeholders, effective natural resource governance is increasingly seen as the key determinant of the continent's economic growth and investment opportunities, especially should official aid volumes decline. As noted by the Financial Times (January 18, 2012), "2011, [is] a year that will surely be remembered as the time when resource nationalism strode back to center stage." African leaders have come to recognize that the manner in which the continent's resources are managed and exploited is fundamental to their ability to mobilize more resources domestically, contribute to sustainable economic and social development, and enhance both state and human security. Given the changing global order, brought about by the rise of emerging economies and their increased trade with and investment in Africa, an understanding of Africa's governance of natural resources and how it is likely to evolve is of greater importance than ever (Besada 2012).

2.6.1 *Fostering good governance: transparency, accountability, rule of law and participation*

The argument for good governance as a panacea for resource mismanagement in Africa is that it promotes a society's development of human capabilities and ensures transparency and accountability, each of which contributes to achieving overall development (Maconachie 2009). Similarly, Alao (2007) posits that the "governance structure" around extracting and processing resources and managing generated revenue determines whether natural resources will turn out to be a curse or a blessing. It is the case that many developing countries are unable to take full advantage of their natural resources, and the underlying causes of such a state of affairs can be explained by governments' failure to deal with institutional infrastructure and policy-related challenges such as weak existing laws, regulatory support, and technical expertise. Stated differently, a recurring frustration in efforts to promote overall socioeconomic

development has been the lack of proper governance structures and capacity to undertake and implement programs and services necessary to ensure that natural resources do not result in a resource curse.

As Wantchekon (2002:2) argues, when state institutions are weak so that budget procedures either lack transparency or are discretionary, resource windfalls tend to help consolidate an already established authoritarian government and generate incumbency advantage in democratic elections. This incites the opposition to resort to political violence in competing for political power, which generates political instability and authoritarian governments. This argument is similar to that of Mehlum, Moene, and Torvik (2006), who demonstrate through regression analysis that the resource curse is likely to occur in countries that lack strong institutions and good governance. In Nigeria, for example, the absence of strong institutions, political transparency, and accountability, coupled with the high incidence of corruption, has combined to undermine the ability of various levels of governments to put in place policies and programs that will contribute to the overall socioeconomic development of the oil-producing areas (Ite 2004). The state of affairs in Nigeria is not different from the situation in Cameroon. As Gauthier and Zeufack (2011) submit, although Cameroon may have captured an estimated 67 percent of its oil rent, only about 46 percent of total oil revenue that accrued to the government between 1977 and 2006 may have been transferred to the budget. The remaining 54 percent was not properly accounted for due to poor governance and the lack of a transparent and accountable framework to manage oil revenue. Similarly, in Chad, the World Bank in 1999 used its leverage as a gatekeeper of private sector oil investment to write fiscal restrictions and extra-governmental oversight into Chadian law as part of the Chad-Cameroon Oil Pipeline Project (see case study in Chapter 5). Despite this, poor governance as embodied in the absence and weakness of public accountability, transparency, and checks and balances provided by the press, civil society, and other institutions, meant that the government of Chad was able to ignore its promise of spending oil royalties and dividends on social programs such as healthcare and education, as well as development projects (Winter and Gould 2011).

In Angola, the government denies due process and fares badly in terms of voice and accountability, government effectiveness, regulatory quality, rule of law, and control of corruption. Furthermore, within the social sectors, financial resource allocations are biased to elite interests. For example, funding for overseas scholarships and medical education are given to the children of elites at the expense of the most elementary primary health care and basic education needs of the ordinary Angolan people (McFerson 2009a). Restrictions on political rights and civil liberties are equally severe in the Democratic Republic of Congo, which ranked last among 46 African countries with respect to the business and regulatory climate (McFerson 2009a). Similarly, Equatorial Guinea ranked 35th out of 46 African countries for the quality of economic management and is perceived to be one of the world's most corrupt states (McFerson 2009a). Aside from that, across resource-dependent political economies, rent-seeking provides the ruling elites with the means of maintaining their hegemony. Such a state of affairs divides countries between a privileged and wealthy ruling minority, while the rest of society remains impoverished (Arthur 2012b). For example, despite being the source of over 90 percent of the oil explored and exported in Nigeria and of foreign exchange earnings, communities in the Niger Delta Region of Nigeria, including the nine

oil-producing states (Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo, and River) generally lack essential social services and infrastructure, and local people are not employed in the oil industries operating in their communities.

It is in this regard that Siegle (2005) argues that the whole problem with the resource-curse phenomenon centers on unfairness. This is because a privileged minority benefits extravagantly from their insider status at the expense of the majority. This inequity persists because those in power are able to take advantage of a lack of public scrutiny to conceal from the public the degree to which they are profiting from these national endowments. In Equatorial Guinea, the elite have virtually appropriated the entire revenue. Although average per capita income is in excess of US$14,000 a year, 60 percent of the population earns below US$350 a year—under the absolute poverty line of $1 a day (McFerson 2009a:1538). Similar inequities can found in Gabon (McFerson 2009a). In sum, in resource-rich countries, political elites employ corrupt means to siphon the oil money for their personal gains (Wantchekon 2002).

It is therefore unsurprising that McFerson (2009b; 2010) identifies the major pillars of good governance as accountability, transparency, the rule of law, and participation. While accountability consists of the capacity to call public officials to task for their actions, especially with regard to how public revenue is mobilized and spent, transparency entails citizens' low-cost access to relevant information, particularly on public service access and quality, mobilization of revenue, and allocation of government expenditure. In addition, transparency of government information is a must for an informed executive branch, legislature, and the public at large—normally through the filter of competent legislative staff as well as capable and independent public media. The rule of law is also critical to provide society and the private economic sector with predictability—by means of formal laws, required regulations, and administrative provisions that are clear, known in advance, and uniformly and effectively enforced. Finally, participation by users of services, government employees, other relevant stakeholders, and citizens at large is necessary to design effective government programs, supply the government with reliable information, and provide it with a reality check (McFerson 2010).

2.6.2 *Role of an informed media and civil society in natural resource governance*

Good governance can be further fostered by having the media and civil society organizations play important roles a country's affairs. As the fourth estate, a critical media remains instrumental in ensuring accountability through its watchdog and monitoring functions. The media act as a check on the government and public office holders by raising issues of transparency and accountability. Aside from that, the media are crucial in disseminating information, engaging in agenda setting, creating awareness, and providing a vehicle for education (Arthur 2010) on issues pertaining to the natural resource governance. More important, media knowledge and expertise are crucial to holding governments accountable for their actions regarding resource management.

Indeed, the lack of media/information literacy has contributed in significant ways to the endurance of despotism and demagoguery, dominance of unaccountable governments, and propagation of ethnic violence in many African

countries, as various actors control messages and manipulate information for parochial and self-serving purposes. Since information is at the heart of any political or social interaction, it is important that citizens have the ability to appropriately assess and use it if those interactions are to produce progressive outcomes for society. Such competence enables an understanding of the contexts, motivations, and impacts of messages that are produced and disseminated, thereby eliciting responses that are perceptive and apposite. It is for this reason that various civil society groups and development partners, the African Capacity Building Foundation included, are pushing for media/information literacy as a core area of focus (Hanson 2012).

By focusing on and providing information, the media can enlighten the general public on how revenue from the resource sector, for example, is being disbursed by the government. This process, however, calls for specialized training in the area of natural resource management and extractive reporting, as without the requisite know-how by the media, the information provided to the general public might sound hollow. Thus, having an informed media that is also very knowledgeable about the issues is crucial to ensuring effective resource management and helping the ordinary person or citizens to be educated.

Beyond the role and contribution of the media, effective resource governance can be further enhanced if individuals and civil society organizations have the political space for expression (Arthur 2010). Civil society organizations in various countries have played a vital role in fostering debate to improve transparency and accountability (de Renzio, Gomez, and Sheppard 2005).

Thus, African states have the responsibility to accommodate the complaints and demands made by civil society, as these ultimately serve as important monitoring agents in states with weak institutions (Gonzalez-Vicente 2011). Furthermore, civil society can also play an effective role in engaging transnational investment through direct pressure, such as strikes at the site of investment projects. The prerequisites for the success of this approach are the willingness of state forces to allow protests and the capacity of the companies' local managers to bring about the demanded changes (Gonzalez-Vicente 2011). This approach has been successfully put into practice in Zambia, where Chinese investors have been very active in recent times. The death of 46 Zambian workers in the Chinese-operated Chambishi mine in 2005 raised the alarms of civil society. This pushed the Chinese mine to increase its social investment, but also ignited a democratic debate about Zambia's partnership with China (Gonzalez-Vicente, 2011:73-74). In addition to using direct pressure as employed in Zambia, civil society can also be involved in efficient resource governance by tackling ownership (which is to say, shareholders) at the corporation's country of origin. This has been a preferred way in which transnational advocacy networks have successfully internationalized local struggles. Connections between local civil society and transnational advocacy networks are essential to rescale and empower opposition narratives (Gonzalez-Vicente 2011).

The role of civil society groups is also evident in a country like Ghana, where they have been active in advocating the adoption of legislation in line with international best practices. According to Gyampo (2011), as part of a strategy to reclaim and open up the space for the democratic participation of civil society in the consultation process, a preparatory workshop sponsored by

Revenue Watch Institute, Oxfam America, Catholic Relief Services, and other organizations was held to collate civil society views and concerns to feed into the forum. The prime objective of the meeting was to educate civil society on oil production and oil development issues on the basis of international best practices and to formulate a set of civil society demands. Also, the meeting served as the rallying point for the few civil society representatives invited to the national forum to carry the voices of many who had been denied the opportunity to participate in the national consultative process (Gyampo 2011).

In particular, the Oil and Gas Platform, a network of approximately 35 civil society organizations working on oil and gas issues in Ghana, has been very active by engaging in analytical capacity and advocacy (Prempeh and Kroon 2012). Set up in 2008 with the support of Oxfam and the World Bank, the Oil and Gas Platform conducts capability audits to determine what capacity exists in the oil and gas sector and where it is lacking. Also, it has the intention of focusing on compliance monitoring of petroleum laws and social and environmental monitoring. In addition, given the strategic role civil society is expected to play in promoting accountability and community participation, a grant of US$2 million is being provided under the World Bank's Governance Partnership Facility to support a wide range of activities to be championed and implemented by civil society and community based organizations (World Bank 2011a).

Then there is the Publish What You Pay (PWYP) campaign by CSOs and international NGOs. It seeks to ensure a more transparent and accountable system for the governance of extractive revenue. Other related initiatives by CSOs are highlighted in table 2.1.

Despite their contributions in many African countries, CSOs and NGOs dedicated to fostering good governance in the natural resource sector face a number of challenges. For example, in several African countries implementing the EITI, local civil society groups remain too weak to fulfill their watchdog function. Many are either co-opted or marginalized by the government; others simply lack the capacity to hold governments and business to account (Carbonnier, Brugger and Krause 2011:252). This is very much evident in Cameroon, where few NGOs or CSOs have the requisite training to understand the content of EITI reports, which greatly weakens their capacity to act as a watchdog of the transparency process (Gauthier and Zeufack 2011).

In Sierra Leone, the actual capacity of civil society to hold the government and powerful companies accountable for their actions through the use of information made available by transparent reporting remains unclear (Maconachie 2009). Such a notion may be unrealistic and unachievable in a fragile state such as Sierra Leone. Not only is the capacity for promoting transparency and accountability low, but relatively weak civil society actors remain largely unable to monitor or challenge the power of well-established rent-seeking actors who are firmly established in the mining sector, in some cases since the discovery of diamonds in the 1930s. Moreover, historically there is not a culture of transparency or accountability in the mining sector in Sierra Leone, and the concept of record keeping is still very alien.

In Angola, with a few exceptions (such as the Angolan Catholic University and *Associação* Fiscal), civil society groups are not actively engaged in public finance issues. The situation stems from the weak capacity to analyze policy

and from government restrictions (de Renzio, Gomez, and Sheppard 2005:65). It is for reasons like these that Kolstad and Wiig (2008) argue that the activities of CSOs are insufficient in themselves to achieve transparency and must be complemented by other types of policies. This is because transparency depends on the electorate's level of education; the capacity and the extent to which stakeholders have the power to hold government accountable; and the private and collective nature of the goods about which information was provided.

2.7 Key and Emerging Natural Resource Management Initiatives

In the efforts to ensure that natural resources become a blessing as opposed to a curse, numerous steps toward integrated planning and decision-making are currently taking place across Africa.

2.7.1 *Transboundary natural resource management*

There are a number of lessons to be learned from managing depletable resources such as water (an issue detailed in chapter seven). As Swatuk (2012:84) has pointed out, the fact that there is no substitute for water as a necessary resource for life, combined with its shared nature across many African states, has led to the suggestion by scholars that water cooperation could have tangible peace and development effects "beyond the river." Within Africa, many countries recognize the need for cooperative management of transboundary waters, and this has found expression in numerous bilateral and multilateral agreements and transboundary river basin organizations (TRBOs). An example of regional cooperation among member countries and implementing agencies that has contributed to effective and successful resource management is the SADC Protocol on Shared Watercourses (Mirumachin and Van Wyk 2010). Signed by 13 SADC Heads of States and entered into force in 2003 an instrument of international water law to jointly manage water in the Orange River Basin,[4] the protocol has fostered closer cooperation between the SADC states for the coordinated management, protection and utilization of shared watercourses through the establishment of river basin organizations (Heyns, Patrick, and Turton 2008). Bilateral agreements and, eventually, a basin-wide multilateral agreement to establish the Orange-Senqu River Commission (ORASECOM), not only reduced the potential for conflict, but also contributed to regional integration, socio-economic development, poverty alleviation and the protection of vital ecosystems in the region (Heyns, Patrick, and Turton 2008). Such protocols could provide examples of how to deal with natural resources like oil and gas that may stretch beyond country borders, such as in Lake Malawi.

Similar to the SADC Protocol, there is also the 1999 Nile Basin Initiative (NBI), which was launched by nine riparian countries with assistance from the international community to not only offset the negative trends in resource use and the conflict potential of Egyptian hydro-hegemony (Swatuk 2012), but also ensure cooperation and economic integration, sustainable resource development, and security (Teshome 2008). The NBI was followed by the launching in 2006 of the Nile River Basin Commission (NRBC) to foster cooperation and sustainable, equitable, and peaceful use of water resources of the River Nile (Kagwanja 2007).

The basic principles of the NBI are transboundary environmental action, regional power trade, efficient water use for agricultural production, and water resource planning and management (Swatuk 2012). Despite its

principles, goals, and multi-track strategy with a development focus, which can serve as a model for other transboundary resource management (especially mineral resources that straddle national borders or waters), the NBI has faced a number of challenges. Notable among them are the lack of overall political leadership, mutual suspicions and distrusts among the "upstream" and "downstream" countries on water resource development, political problems among some members of the NBI, the absence of agreement on water allocation among the riparian states that is accepted by all member countries, the lack of a strong legal and institutional framework, and poor infrastructure, poverty, inadequate skills, and environmental degradation (Teshome 2008). In fact, Swatuk (2012) has pointed out that the Nile Basin case illustrates the complexity and difficulty of arriving at mutually acceptable arrangement for managing transboundary waters, particularly where the downstream state (Egypt) has captured the resource (for which there is no substitute) and is considerably more powerful than all other states in the basin, while the upstream states lack significant human, financial, and other resource capacities.

Notwithstanding the complexities, occasional inter-state tensions, and other challenges, there is no denying that the NBI has largely resulted in a multilateral cooperative approach to sharing water and its benefits among members. Kagwanja (2007) argues that the NBI witnessed a shift from antagonism to cooperation among riparian states in the utilization of resources, and that the launch of the NBI and the concomitant Nile River Basin Commission signifies the triumph of regionalism over unilateralism in managing and settling conflicting claims over shared water resources.

2.7.2 *Community-based natural resource management (CBNRM)*

Given that the governance of forests, wildlife, and the broader environment has social and economic implications that can lead to tensions and violence, southern and eastern African countries are adopting a community-based natural resource management (CBNRM) and landscape connectivity that allow for wildlife mobility across a tenurial mosaic of managerial units based on reconciliation of social, economic, and ecological objectives (Metcalfe and Kepe 2008) As Roe and Nelson (2009) submit, CBNRM involves the management of resources such as land, forests, wildlife, and water by collective local institutions for local benefit. It may be based on commercial uses of natural resources, such as managing wildlife for local tourism or hunting enterprises. The CBNRM approach to conservation and development recognizes local people's rights to manage and benefit from the management and use of natural resources. It entails restoring communities' access and use rights, empowering them with legislation and devolved management responsibility, building their capacity, and creating partnerships with public and private sector actors to develop programs for the sustainable use of a variety of natural resources. The CBNRM model works to strengthen locally accountable institutions for natural resource use and management, enabling local groups of people to make better decisions about the use of land and resources. One such African example is the Kavango-Zambezi (KAZA) Transfrontier Conservation Area (TFCA), which transcends multiple land owners (communal, state, and private) and includes Angola, Botswana, Namibia, Zimbabwe, and Zambia. It

features a spectacular display of mega fauna and a number of tourist attractions such as the Victoria Falls. In addition to promoting the integration of wildlife conservation, tourism, and rural development, the KAZA TFCA, which was agreed to in May 2003 by the countries noted above, was geared toward rural poverty alleviation (Metcalfe and Kepe 2008).

Despite its goals and contributions to poverty alleviation, CBNRM is not without challenges. For example, human-elephant conflict and especially complaints from farmers around protected areas in many parts of Africa is indicative of the challenges related to managing wildlife and natural resources. People and wildlife increasingly compete for space and food as human populations grow and wildlife habitats shrink, and the impact of human–wildlife conflicts on crops, livestock, and life at the "hard edge" can be huge. For example, Zambian communal area landholders, who are affected by the TFCA, lack sufficient incentives to accommodate the wildlife costs, especially those related to elephants. This is because ordinary rural residents are disempowered relative to the state, traditional leaders, and other countries involved in TFCA. Although Botswana, Namibia, and Zimbabwe are allowed to market elephants through international sport hunting under the Convention in the Trade in Endangered Species of Fauna and Flora (CITES), Zambia is not. Furthermore, Botswana, Namibia, and Zimbabwe have policies that allow communities to receive the full direct benefits, whereas Zambia's present revenue-sharing policy will halve the value to communities of elephant trophy hunting (Metcalfe and Kepe 2008).

2.7.3 *Kimberley Process Certification Scheme (KPCS)*

Another initiative that has recently emerged regarding how to efficiently manage natural resources is the Kimberley Process Certification Scheme (Grant and Taylor 2004). Established in 2003, the scheme aims to prevent the sale of diamonds perceived to have been mined in conflict areas. As of August 2012, the KPCS counted 75 countries as members, including all major diamond-producing, trading and processing countries. Its mission is to cut off funding to rebel groups involved in wars against legitimate governments. KPCS empowers governments to hold companies legally responsible for the statements they make with regard to certificates (Wexler 2010) and, through this process, ensure that "blood diamonds" do not enter the international diamond market. As Wright (2004) notes, the KPCS represents something unique in the annals of international diplomacy. It is the first serious attempt by the international community to address the problem of the illegal exploitation of natural resources. It also represents first time that an international agreement has been negotiated and adopted on the basis of consensus among governments, industry, and civil society acting as equal partners. Finally, by putting violators at risk of market exclusion, the scheme has an influence on exporting states' cost-benefit calculus (Carbonnier, Brugger, and Krause 2011).

Despite these laudable goals and achievements, the KPCS has had to contend with a number of challenges. Diamonds, whether rough or polished, are often small, and even larger stones are relatively light. This makes diamonds easy to

smuggle unless Customs agents employ x-ray devices (detectable under such scanners) (Grant and Taylor 2004). So while trade in illegal diamonds has been reduced drastically, it has not stopped. Weak internal control mechanisms, especially in post-conflict countries, allow the illicit diamond trade to continue to flourish. Corruption of state officials involved in the certification process also thwarts the objectives of the scheme. In Sierra Leone, Angola, and the Democratic Republic of Congo, illegal foreign and local diamond miners still circumvent the Kimberley Process and use their international networks to place their products in the international market (ECA 2009; Gaille 2011).

Thus, dealing with smuggling and other forms of illegitimate trading in natural resources like diamonds remains a challenge. Furthermore, it is unclear what penalties, if any, will be applied to transgressors, aside from possible expulsion from the KPCS. Finally, there are concerns relating to its voluntary and non-binding nature, weak government oversight, as well as weak controls and monitoring abilities by the actors involved (Grant and Taylor 2004; Wright 2004; Wexler 2010). As Grant and Taylor (2004) point out, the "certificate of origin" issued by governments may be undermined by a lack of transparency within some national diamond industries. They note that countries such as Angola, Russia, and China are adamant that information on diamond resources—ranging from ownership of private shares in mining joint ventures to precise mine location and production statistics to tax collection procedures and figures—are a matter of "national security" and therefore cannot be revealed.

2.7.4 *Extractive Industries Transparency Initiative (EITI)*

Another voluntary code that has gained international recognition is the Extractive Industries Transparency Initiative (EITI). Launched in 2002, its underlying assumption is that the opacity that marks business-government relationship in the extractive industry facilitates greed, mismanagement of natural resource revenue, and an inability to hold governments accountable (Idemudia 2009). To address this, the EITI aims to increase transparency in financial transactions between governments and companies within the extractive industries (see table 2.1).

As an initiative that aims to improve oversight and prevent corrupt practices, such as the diversion of revenue from extractive industries intended for public government accounts into private accounts, the EITI involves the full publication and verification of company payments made to governments and of government revenue received from oil, gas, and mining activities. With "payment and revenue information made transparent and publicly available, it becomes easier to exert pressure on governments for better spending on key basic services such as education and health" (Arthur 2012b: 115). Moreover, a regular provision of quality information creates a system of checks and balances that assists in holding companies and governments accountable and results in improved economic importance, political stability, and better investment (Maconachie 2009).

It is therefore a welcome development that many African countries have signed up to implement the EITI. While Nigeria in 2007 became the first candidate country with a statutory backing for the implementation of EITI (Idemudia 2009), 22 African countries are now signatories to the EITI, which commits them to greater resource revenue transparency. The Nigerian government, for example, recognizes that improvements in the transparency of petroleum revenue data are needed for the effective management of public resources and to improve the image of Nigeria at home and abroad (Idemudia 2009). Similarly, in Cameroon and Gabon, EITI helps monitor and manage capacity of government agencies and provides the platform for civil society organizations to identify the challenges in the management of natural resources (EITI Secretariat 2010).

The EITI process is still in its infancy in promoting a corruption-free extractive sector; therefore, the sector is still enmeshed in ugly corruption in Africa. There is still a danger that the government and private firms will make false declarations and that civil society organizations can be co-opted through bribes, contracts and other incentives (ECA 2009: Obeng-Odoom 2012).

Indeed, while advocates believe that the EITI holds the key to facilitating economic improvement in resource-rich developing countries (Maconachie 2009), it is at the same time presumptuous to assume that it is the magic bullet for meeting all the challenges associated with resource mismanagement among African countries (Arthur 2012b). This is because the EITI has its own unique challenges. First, according to Kolstad and Wiig (2008), the EITI is an initiative that focuses on revenue from extractive industries in resource-rich countries. This implies a narrow take on transparency, as only a small section of the public sector is covered. Other parts of the natural resource extraction value chain are not addressed by the initiative, which also fails to address transparency in the use of public resources—the expenditure side, which is clearly the key in many of the corruption related problems faced by resource-rich countries. Aside from its voluntary nature, another "major weakness of the EITI approach is that companies that participate in the initiative are obliged to report payment only in countries of operation that subscribe to EITI" (Arthur 2012b: 116). Moreover, in Nigeria for example, the government failed to enact legislation that would have complemented its participation in EITI by making government expenditure at all levels more transparent. The government also failed to pass into law a fiscal-responsibility bill to introduce new measures of integrity, transparency, and uniformity of budget making and government expenditure at all levels (Idemudia 2009).

In Angola, little information is available to the public about the state budget, with the exception of the enacted budget (de Renzio, Gomez, and Sheppard 2005). Documents are produced primarily for internal purposes, but sometimes they are not produced at all, for lack of adequate capacity, as in the case of in-year reports or audited accounts. Also, in Cameroon, a criticism of the EITI concerns the poor quality of the information provided in the official documents published as part of the EITI. According to Gauthier and Zeufack (2011), only aggregated figures for the country's total oil production are presented, with no details provided for each of the companies' production and payments to the Treasury and the National Hydrocarbons Company (*Société Nationale des Hydrocarbures, SNH*), a public corporation controlled by the presidency. Finally, a country like Botswana, which is often touted as a success story, was

initially reluctant to be part of the EITI because it would have breached its confidentiality agreements with business partners like De Beers. Indeed, the position of the Botswana government regarding the EITI in 2003 was that although it believed in transparency and accountability, publication of national revenue acquired from extractive industries should be tempered by commercial and political prudence. The Botswana government suggested that in a competitive market place, it was not prudent for it to publish all its commercial secrets for the use and best benefit of its competitors. Although Botswana ultimately joined the EITI in 2007, its initial reluctance mirrors the concerns and challenges that have bedeviled the EITI.

2.7.5 *Publish What You Pay*

The Publish What You Pay (PWYP) campaign by civil society and international non-governmental organizations aims to ensure a more accountable system for the management of extractive revenue. Launched in June 2002 primarily by George Soros, Chairman of the Open Society Institute, and the major international NGOs (Global Witness, the Catholic Agency for Overseas Development, Oxfam, Save the Children UK, and Transparency International UK), the campaign's mission is to help citizens of resource-rich developing countries hold their own governments accountable for the management of revenue from the oil, gas, and mining industries and for resource-rich governments to publish full details on revenue (McFerson 2010). The PWYP coalition's efforts have led to significant improvements in the policies and practices of governments and companies on the disclosure of payments and revenue from the oil, gas, and mining industries. In addition, it has enabled citizens of resource-rich developing countries to gain greater access to the information they need to hold their government accountable; been a catalyst for putting resource revenue transparency on the agenda of governments, companies, investors, donor agencies, and international organizations; and played a critical role in holding EITI stakeholders accountable for the implementa-tion of their commitment to increase transparency of payments and revenue (van Oranje and Parham 2009).

The campaign has not been entirely successful because of the lack of a freedom of information law in many African countries, which has constrained public disclosure. Multinational companies in some cases are wary of a backlash from the state on financial payment disclosure, and there is no monitoring, sanction, or enforcement regime for the initiative beyond pressure from CSOs and the international development partners (ECA 2009; Gaille 2011; Obeng-Odoom 2012).

2.7.6 *Africa Mining Vision*

A further attempt to improve natural resource management has recently centered on the Africa Mining Vision (AMV), which has as its primary and long-term goal the creation of circumstances that support a transparent, equitable and optimal exploitation of Africa's mineral resources to underpin broad-based sustainable growth and socio-economic development (AUC/AfDB/ECA 2011). The AMV seeks to use Africa's natural resources sector to transform the continent's social and economic development path in order to address its poverty and limited development. It seeks to set Africa on an industrialization path, based on its natural capital, to enable the continent to take its place in the global economy (AUC/AfDB/ECA 2011). In sum, the AMV outlines what needs to be done to overcome the mismanagement in the natural resource sector. Its goal is to ensure that natural resources positively transform the development landscape across the continent by 2050 and help improve the living standards of many Africans.

2.7.7 *Natural Resource Charter*

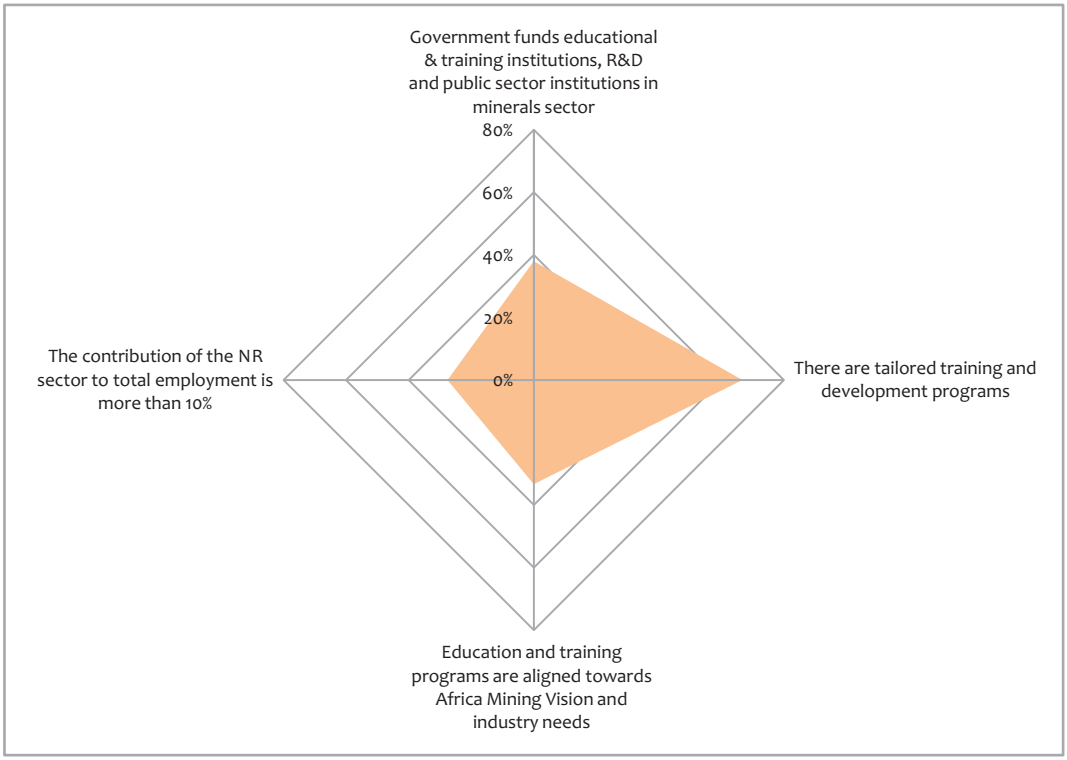
A final initiative aimed at ensuring efficient natural resource governance and management that has recently gained attention is the Natural Resource Charter. Central to the Charter is the position that because many natural resources are non-renewable, effective and efficient resource management should first ensure that a country maximizes benefits for all its citizens, promotes transparency and accountability, and gets a good deal through a well-designed fiscal regime that allows the government to share in profitability and has some minimum revenue stream in all production periods. This can be made possible, according to the Charter, through either a royalty levied on a value or physical basis linked to production and a charge linked with profitability, or through corporate or entity income tax.

Indeed, in 85.7 percent of African countries surveyed, the socio-political configuration should make it possible for national consensus to be forged on the equitable, transparent, accountable, and sustainable management of natural resources. That said, transactions in mining sector across most countries are not as transparent as efficient natural resource governance would require (ACI 2013 database).

In addition, the decision chain for resource extraction should ensure that revenue is used to address social inequities and improve the living standards of citizens. This can be realized by ensuring that a substantial part of revenue is invested outside the resource sector in physical, human, and environmental infrastructure, including education, health care, and infrastructure. Moreover, effective utilization of revenue requires that investment and outlays are built up over time. In particular, there is the need to save a portion of revenue during high revenue periods, hold the surplus in a "stabilization fund" and then draw down the saved revenue during low revenue periods. Since the socio-economic and environmental spillovers will be felt most by communities located in the region being explored or developed, it is vital that there are direct economic and social opportunities linked to the establishment of industries and services based on natural resources in the communities where the natural resources are located. Finally, revenue from resource extraction should be harnessed to support the creation of employment and income in various sectors. The employment opportunities can arise from the direct stimulus created by the resource sector as well as from the availability of funds generated by resource revenue (Natural Resource Charter 2009).

Drawing on the survey findings, it appears over 60 percent of the countries surveyed, there are tailored training and development programs that benefit from public investment from natural resources. However, the contribution of the natural resource sector to employment is weak. Only in about 14 percent of countries is the contribution to employment more than 10 percent (figure 2.6).

Figure 2.6: Harnessing revenue from resource extraction to support education and employment



Source: Computed from ACI2013 database

2.8 Conclusion and Policy Actions

The overall impact of natural resources on Africa's development is mixed, and public discontent has intensified as the sector is perceived as generating low net economic and social returns. Successive governments have shown a commitment to addressing some of these issues, but action has been slow, piecemeal, and lacking a holistic approach. The political commitment to decisively reform the sector has been intermittent at best. These issues all point to a need for good natural resource governance in Africa.

An overarching framework for interrogating natural resource management in Africa must take into account two of the main vulnerabilities in the political economy of natural resource management. The first relates to national sovereignty. The presence of highly professional foreign multinational companies and their ability to negotiate with weak government institutions and get better and more generous contracts have echoed concerns over national sovereignty. The second relates to the promotion of a social contract, which imposes an obligation on the part of the government to effectively manage natural resources like mining for the benefit of present and future generations. The framework must deepen support for establishing good governance institutions for natural resource revenue management and assisting countries in negotiating extraction agreements that are both fair and consistent with the development agendas of countries.

This framework should have the following principles:

a) ***Transformational and development-oriented leadership:*** In a perfect world, a nation's leadership would invest resource

proceeds wisely, in a way that maximizes long-term economic development. By either design or an accident of history, resource curse countries in general, and most natural resource-rich African countries in particular, "have been beset with a curse of leadership. Leaders representing different regime types and periods of time have shown similar traits in misgoverning their people and misusing their resources. They have also not introduced the right kind of management structures to ensure the use of these resources in a way that benefits their citizens" (Duruigbo 2006: 46). The success stories of Norway, Canada, Botswana, Chile, Indonesia, and Malaysia show that transformational and development-oriented leadership is a sine qua non for effective management of natural resources because the leaders engage with strong constituencies outside the natural resource sector in the management of natural resource proceeds (UNDP 2011a).

b) ***Development of independent, accountable, and transparent institutions:*** These can help the government manage the proceeds from natural resources and negotiate meaningfully with MNCS. As Acemoglu et al. (2002: 3-4) argue in the case of Botswana, the "relative healthy institutions allowed the country to properly manage the mining of diamonds—a particularly successful initiative expropriated mining rights away from tribes and towards the state, cementing the common interest and fending off potential tribal problems. The initial quality of institutions created a positive and reinforcing dynamic, whereby the revenue from diamonds mining were used to further strengthen national institutions." In other words, competent institutions with clear mandates are needed to make decisions that benefit the welfare of the countries and to enforce transparency and accountability. Strengthening public institutions creates a political environment less prone to conflict and more efficient in managing public spending. The natural resources sector's enclave character has created public interest in the governments' establishing legal and institutional structures for regulation that promote accountability and industrial development (Collier 2007; Ayee et al. 2011).

c) ***Successful natural resources regulation:*** This requires the recognition that the problems of the resource curse are political in nature and need to be tackled at the political level. State elites might have incentive to weaken the very institutions that they have created, and therefore will emphasize the importance of creating institutions supported and overseen by a dense network of diverse stakeholders (Dunning 2008). A political approach recognizes that policy failures, which result in the resource curse, the Dutch disease, and other such pathologies associated with natural resource wealth, are not always the result of naivety or lack of capacity on the part of policy makers. State elites might benefit in the short term from such situations. A framework for political analysis does not assume that all will be solved well if policy makers and politicians simply know what to do and have sufficient capacity to

implement technically sound policies. Instead, it delves into underlying interests and incentives of state actors and puts them at the forefront when constructing policies and strategies.

d) ***Deepening capacity building interventions:*** This involves augmenting skills and knowledge through training, providing technical advice, and enhancing genuine community engagement in all aspects from planning to on-the-ground action. Therefore, capacity building should foster the transfer of technology and technical capacity, social cohesion with communities, and development of human and social capital. Capacity building should be based on the principles of trust, reciprocity, and norms of action and should manage the often adversarial relationship between MNCs and local communities (Gelb and Grasmann 2010; UNDP 2011a).

e) ***Learning from success stories:*** African countries can learn a lot from the success stories of the United States, Canada, Norway, Botswana, Chile, Indonesia, and Malaysia in the management of natural resources. The countries designed and implemented value-for-money policies and programs that enabled them to avoid the resource curse and the Dutch disease. Learning from others or benchmarking oneself against best practices is part of capacity building. It is only non-learning countries that repeat their mistakes ad infinitum, and the onus is on them to learn from those countries that have performed creditably in the management of natural resources and whose success stories demonstrate how natural resources can become welfare-enhancing. This is because "the most interesting aspect of the paradox of plenty is not the average effect of natural resources, but its variation. For every Nigeria or Venezuela there is a Norway or a Botswana" (Torvik 2009: 241).

f) ***Coordinating and integrating planning agencies:*** African states and stakeholders can promote efficient management and governance of natural resources and achieve the cornerstones of the Capacity Development Strategic Framework (CDSF) by coordinating and integrating planning agencies operating across various sections. Applying the CDSF cornerstones involves employing appropriate African technology that supports the continent's development challenges; participating in and owning the decision-making process rather than having it imposed by international actors; mobilizing domestic sources of revenue; and efficiently utilizing financial resources. Additional recommendations include monitoring and evaluating the performance of capacity development programs and their degree of success in meeting stated goals and objectives; creating an environment that stems brain drain; and creating a system for ensuring that the best brains share their experiences in their countries (AU/NEPAD CDSF 2009).

To this end, the knowledge of the numerous networks of African experts in the Diaspora are an important human resource that can be tapped to assist in the efficient management of natural resources in Africa. By mobilizing and strengthening the networks that link professionals abroad with counterparts at home, members of the African Diaspora can offer research and consultancy services on a wide range of issues (Tettey 2003), including the governance of

natural resources. In sum, as the natural resource curse poses considerable risks for African countries, the crucial policy tasks are developing and sustaining the necessary institutions and capacity and engaging in trade and investment policies geared toward diversifying African economies away from over-reliance on natural resource activities (de Soysa 2011).

Chapter 3

Managing Africa's Natural Resource Wealth

3 Managing Africa's Natural Resource Wealth

3.1 Introduction

The last decade witnessed both an exceptional rise in the prices of primary commodities and a significant number of natural resource discoveries in Africa. The first development is being hailed as the most significant commodity price boom in the last four decades—a boom fueled by a demand surge from emerging economies, notably the BRIC (Brazil, Russia, India and China) states. The boom has allowed many resource-rich African nations to benefit from the global price hikes. The second development has been credited for the surge in export earning due to new natural resource discoveries that, coupled with the rise in global prices of primary commodities, have had positive and negative effects. High export earnings from natural resources, though beneficial in terms of providing much needed resource and in spurring growth, also have brought with them socio-political and macroeconomic challenges. As a result, African development and policy discourse has been dominated by issues related to natural resource endowments, often focusing on whether or not these resources have enhanced the well-being of citizens.

The general expectation and belief is that revenue from natural resources helps promote socioeconomic development. Unfortunately, this is not always the case. Several studies point to the fact that resource-rich countries usually experience less than impressive socioeconomic growth and performance when compared with those with fewer natural resources (Karl 1997; Sachs and Warner 2001; Humphreys, Sachs, and Stiglitz 2007). This is particularly so for the oil-producing countries. According to Karl (1999: 34), the development is explained by the fact that many of the oil-producing countries or petro-states are more dependent than other states on a single non-renewable commodity, and the exploitation of that commodity is more capital intensive, enclave oriented, centralized in the state, and rent producing than any other, all of which bodes ill for successful development. Revenue flowing through incapable or corrupt structures has negative consequences on a country, fosters dependence on natural resources, and tends to result in corruption and a mono-industry economy. In particular, oil exports inflate the country's currency value and render other exports uncompetitive. Further, natural resource extraction creates and solidifies asymmetries in wealth and increases the income gaps between the rich and poor; these, in turn, contribute to the institutionalization of corruption and enable oppressive regimes to maintain their political power (Karl 1997).

This chapter sets out to interrogate the natural resource value chain in Africa to better understand the dynamics, challenges and what needs to be done. Section two analyzes the macroeconomic challenges and policy implications of resource flows from a booming natural resource sector. Section three examines the real and potential role of public sector investment in natural resource

management with a view to improving its sustainability and use in developing both the natural resource sector and other sectors of the economy. Section four discusses the dynamics of conflict in the natural resource sector. Section five addresses criminality in the sector; and maps out the nature, scale, types, networks and actors, and policy responses using case studies from Liberia and Nigeria. Finally, section six concludes and maps a way forward for improved natural resource governance in Africa.

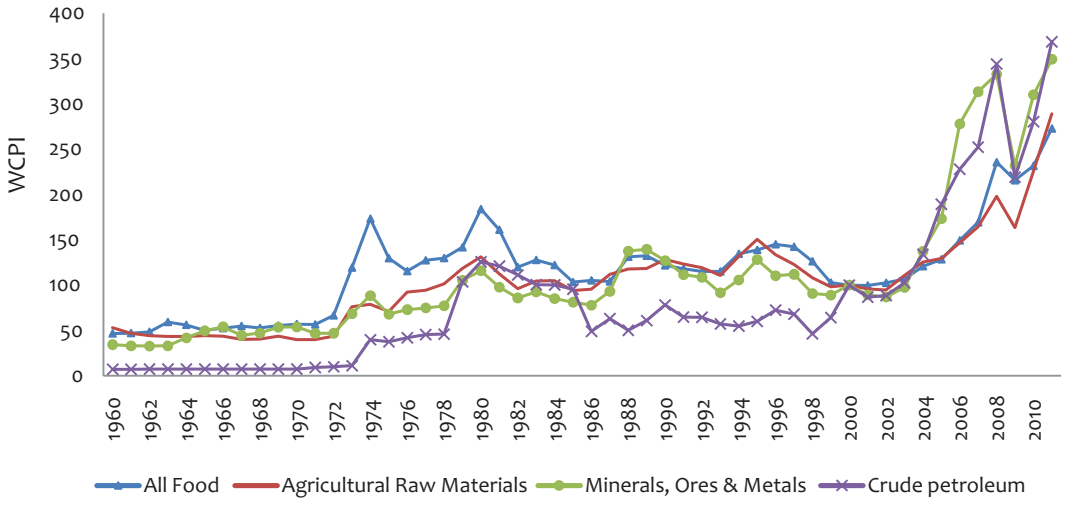
3.2 Africa's Natural Resource Flows[1] and Macro-economic Policies

At independence, many African nations were exporters of a limited range of primary products and importers of manufactured goods. This development often meant a demand for external finance, when export earnings and other sources of revenue were insufficient to finance the level of public expenditures needed by newly independent states. Fifty years on, the dynamics have not changed significantly.

In fact, the emergence of China and India, raising the price of major African commodities,[2] appears to be reinforcing this pattern. Annex 2 presents a picture for all African countries, showing that nearly all are dependent on a few commodities. Petroleum dominates Africa's commodity export scene; it comprises nearly half of the continent's exports and approximately 20 percent of global exports. This dependence on commodity exports has resulted in "enclave" development with poor linkages to the rest of the economy, lack of diversification, excess borrowing, and high wage increases driven by the booming sector. In addition, poor governance, high levels of foreign ownership, and vulnerability to external shocks continue to plague many countries. On the positive side, during booms, commodities generate vital revenue that fuels growth and reduces poverty—thus, natural resource flows have critical macroeconomic implications.

Commodity price[3] cycles have historically consisted of short-lived booms followed by longer periods of stagnation. Since the mid-twentieth century, there has been only one previous major commodity price boom, between 1973 and 1980 (Figure 3.1). The recent boom (2003 – 2011), is both the longest in the historical record and the broadest, as it affects all categories of commodities (UNCTAD 2012). While commodity prices fell sharply in late 2008 and early 2009 following the global economic crisis, they rebounded in 2010-2011. In aggregate terms, food, tropical beverages, and agricultural raw materials have all experienced high prices since 2003 (figure 3.1). Metals, especially tin, nickel, copper and gold, similarly reached high prices, and it is expected that metal, food and agricultural raw material prices could rise even further in the medium term due to strong demand from emerging economies (IMF 2012).

Figure 3.1: World commodity price indices in USD (2000=100) trend, 1960-2011



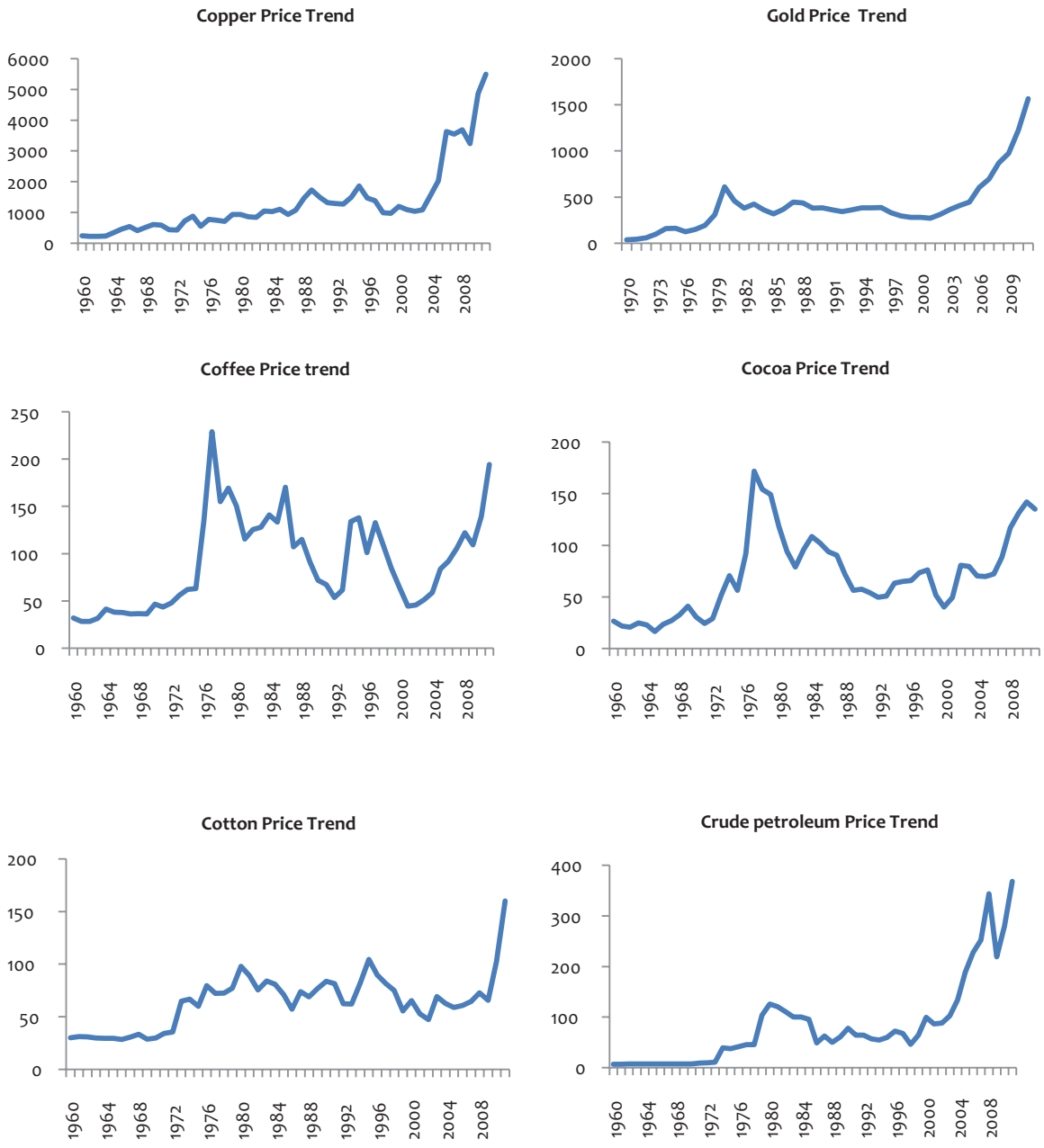
Source: Computed using UNCTAD (2012) database

By the end of 2011, average prices for energy and base metals in real terms were three times as high as a decade earlier, approaching or surpassing their record levels over the past four decades (figures 3.1 and 3.2). Food and raw material prices also rose markedly, though they remain well below the highs reached by minerals, ores, and metals. The surge in commodity prices can be attributed to the sustained growth in emerging economies over the past decade (Heap 2005; World Economic Outlook 2006, 2008; IMF 2012).

Figure 3.2 highlights difference across four distinct commodity groups: energy, metals, food (and beverages), and agricultural raw materials, by focusing on one or two specific commodities from each of the four major commodity groups—crude oil (**energy**), copper and gold (**metals**), coffee and cacao (**food/beverages**), and cotton (**raw materials**). The figure shows that the broad patterns observed for commodity groups also hold true at the commodity-specific level. As has been noted by IMF (2012) and UNCTAD (2012), these groups differ across many dimensions—in terms of the basic structure of the underlying markets, the nature of the commodity (for example, renewable versus exhaustible resource bases), and their association with global activity (for example, metals and energy are more important for industrialization and infrastructure building, and as such their prices may be more strongly correlated with the global business cycle than the prices of food and agricultural raw materials).

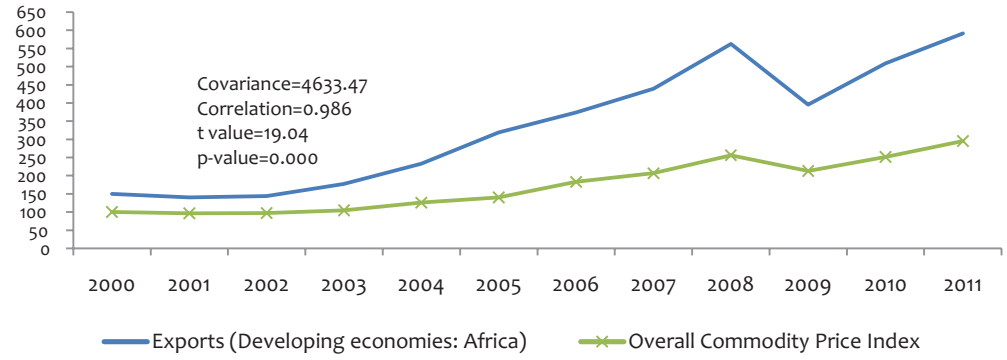
Commodity price trends and export earnings in developing Africa economies have followed a similar pattern over the last decade (figure 3.3). Such an incidence of almost identical broad patterns is not unexpected given the very strong correlation coefficient of 98.6 percent between the two. What is more remarkable is that the recent excellent growth record in Africa has also broadly followed this pattern (figures 3.4 and 3.5).

Figure 3.2: Trends of specific commodity price indices—1960 to 2011 (2000=100 in USD)



Source: Computed using UNCTAD (2012) database

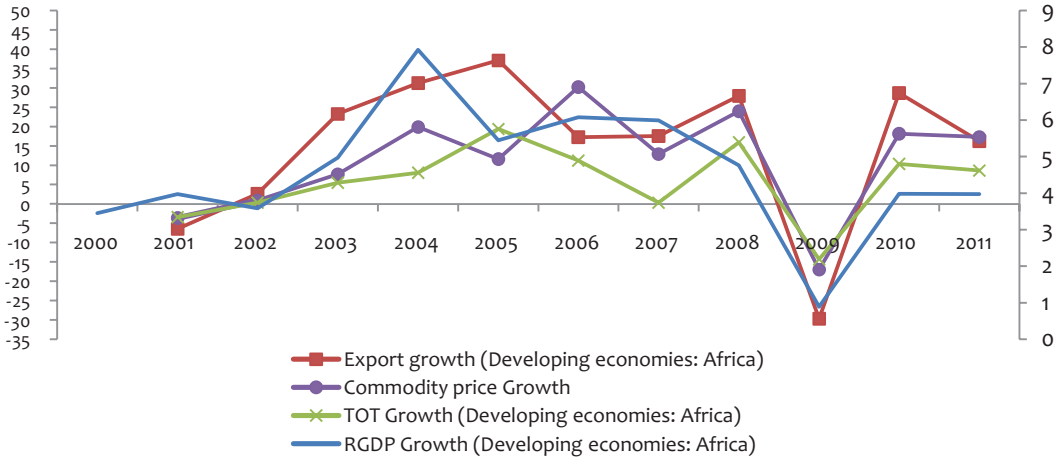
Figure 3.3: Trends of exports* and overall commodity price index (in US dollars, 2000=100) for developing African economies



*in millions US dollars at current prices and current exchange rates
Source: Computed using UNCTAD (2012) data base

Annual growth in Africa has averaged an impressive 5 percent over the last five years. The global economic crisis of 2008–2009 interrupted this trend by halving the rate to approximately 3 percent, but growth bounced back to almost 5 percent in 2010. As figure 3.4 shows, the surge is strongly associated with a rise in commodity prices and a related improvement in terms of trade and export earnings.

Figure 3.4: Growth rates in export, commodity price, TOT and real GDP for developing African economies (GDP growth rates in the right axis)

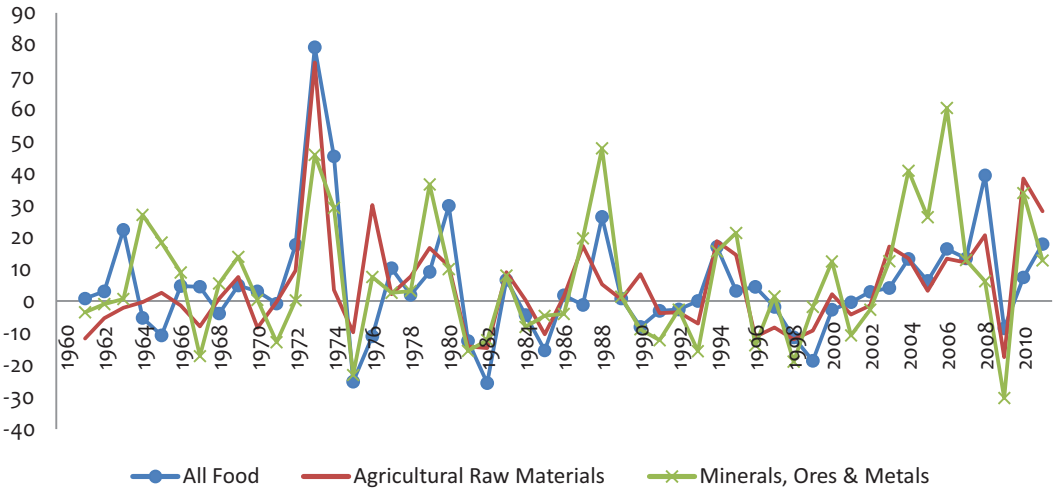


Source: Computed using UNCTAD (2012) data base.
Note: Correlation between growth and exports is 0.64; growth and ToT 0.54; and exports and ToT 0.81.

Arbache and Page (2008) contend that the rapid economic growth in Africa is propelled not by economic fundamentals (or transformation) as such, but rather by high growth accelerations in natural resources exports and better policies in all economies. Consequently, the future of Africa's growth recovery lies in the fate of the mineral rich economies. This, if true, could be something of a worry for the sustainability of Africa's recent growth.

Though natural resource exporters have benefited from a sharp increase in commodity prices over the past decade (figures 3.1 and 3.2), they have also experienced increased price volatility (figure 3.5; see also World Bank 2009; IMF 2012).

Figure 3.5: Annual percentage change in major commodity price Indices, 1960-2011 (in USD; 2000=100)



Source: Computed using UNCTAD (2012) database

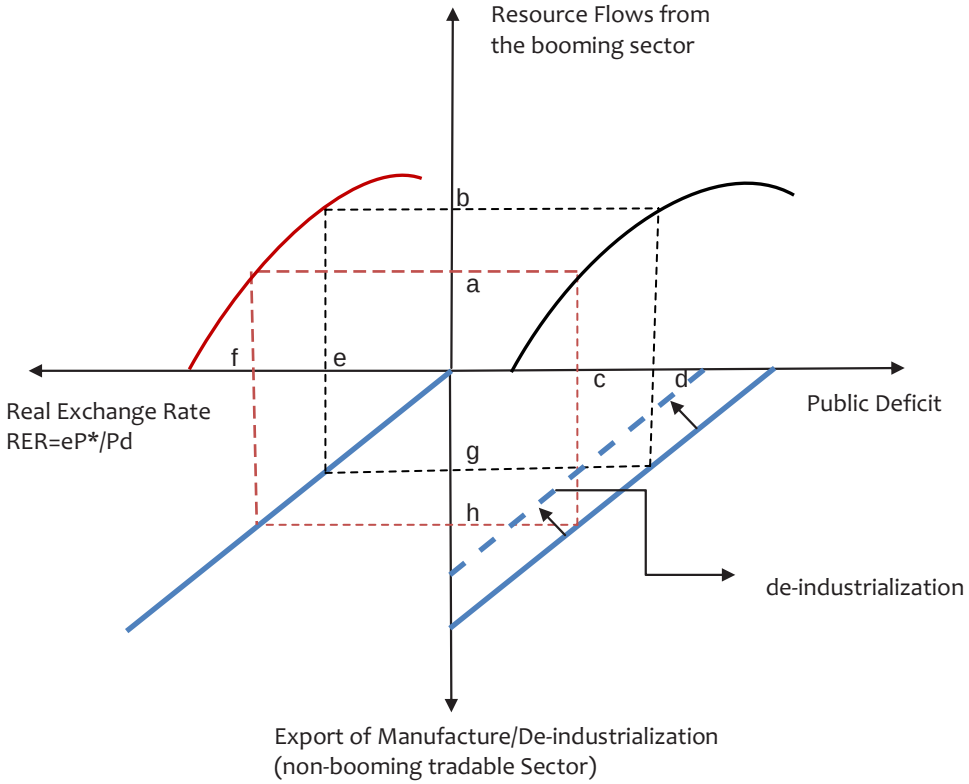
As figure 3.5 shows, short term instability of prices is inherent in commodity markets. Annual variability ranges from -30 percent in 2009 (for minerals, ores and metals) to approximately 80 percent in 1973 (for food and agricultural raw materials). To Brown and Gibson (2006), such short-term price volatility is driven by a wide range of factors including: changing weather patterns, business cycles in key markets, price speculation, conflict in producing or transit countries, exchange rate reforms, breakdown of international commodity agreements, demand cycles, and export dumping.

The dependence on primary commodities and the nature of their prices entail both short term macroeconomic challenges and long term growth and development concerns. The foreign exchange earnings from the booming sectors and their volatility are captured in the macroeconomic literature through the Dutch disease and the government's fiscal response to external finance.

3.2.1 *Commodity booms and macroeconomic challenges in Africa: theory and evidence*

The conceptualization of the macroeconomic ramifications of resource flows from the booming of commodity sector can be summarized using figure 3.6. The Y axis in quadrant one shows the resource flows from the booming sector (which has increased from point *a* to *b* due to commodity price rise or resource discovery). The fiscal response of an increase in public spending and a possible decline in tax revenue that normally follows this phenomenon is summarized in the X axis of the same quadrant using public deficit (public spending minus public revenue) that increased, in absolute value terms, from *c* to *d*. In quadrant two, the exchange rate appreciation effect of these flows owing to the Dutch disease are shown by a decline in real exchange rate (appreciation) from point *f* to *e*. Quadrant three shows the de-industrialization effect of this real exchange rate appreciation that is induced by the Dutch disease effect (as marked by a decline in manufactured exports/non-booming tradable sector—from point *h* to *g*). An inward shift of the schedule in quadrant four indicates the long term growth and de-industrialization effects of the specialization in primary commodity production.

Figure 3.6: Resource flows from a booming sector and its ramifications



3.2.2 *Resource flows form a booming sector and the Dutch disease in Africa*

An overreliance on a small set of commodity exports may lead to the simplification of a national economy (Gylfason 2001a). As exports of a commodity increase, so do inflows of foreign exchange, which raise the value of a nation's currency. The Dutch disease occurs when a more highly valued currency makes a nation's other exports more expensive and less competitive in the global market. Furthermore, a higher valued national currency also makes imports relatively inexpensive, and these cheap imports pose problems for domestic producers. Both of these trends (relatively more expensive exports and cheaper imports) tend to hurt a country's local industries (Cordon 1984; van Wijnbergen 1984).

Across Africa, numerous studies have been undertaken with the aim of assessing the Dutch disease effect. For example, Benjamin et al. (1989) constructed a Computable General Equilibrium (CGE) model to study the Dutch disease effect of Cameroon's oil boom. They argue that the treatment of tradables in traditional Dutch disease models may not be plausible for some countries. Accordingly, they separate tradables into exportables (mainly agriculture) and importables (manufactures) and assume that locally produced goods are imperfect substitutes for importables. Their results point to the important differential impact of a boom in the exportable and importable goods sector. The impact in the former, agriculture (exportables), is negative, while that in the latter, manufacturing (importables), could in fact be positive.[4] Kayizzi-Mugerwa (1990) formulated a model for Zambia that aims to examine the impact of copper prices within that country. The study submits that the Dutch disease is largely validated in the case of Zambia.

Finally, a recent study by Treviño (2011) employs an approach by Ismail (2010) to search for evidence of Dutch disease in oil-rich countries of the Central African Economic and Monetary Community (CEMAC). Treviño (2011) further notes that while CEMAC countries have benefited from high international oil prices in recent years, they have also experienced relatively large real exchange rate appreciations. He focused on the 14 member countries that constitute the CFA franc zone separating them into net oil importers and exporters. His findings are broadly consistent with the presence of Dutch disease in the second group of countries during the oil-price boom.

Nigeria, in particular, is thought to have suffered from Dutch disease (Olusi and Olagunju 2005). Prior to the development of the oil industry, Nigeria had relatively robust agricultural and manufacturing sectors that served the rest of West Africa. However, as the oil industry grew, the manufacturing industry and agriculture declined precipitously. Even though corruption was and is also an issue in Nigeria, which has consistently ranked among the most corrupt countries in the world over the past several years (Transparency International 2011), Dutch disease has also been a factor.

Ian and Karl (2003) flag Equatorial Guinea as a prime example of all the ills associated with the Dutch disease, following its significant oil and gas discoveries. An IMF (2005) study broadly agrees with these conclusions. The Dutch disease is also observed in Kenya following the coffee boom of 1976-1979, when the coffee price quadrupled (Bevan et al. 1993). In contrast to the above studies, after examining the effects of the coffee boom in Tanzania, Musonda and Luvanda (1991) reject the validity of the Dutch disease for Tanzania. Rather, they emphasize the importance of examining the pattern of the

distribution of gains from the booming sector in determining its overall outcome.

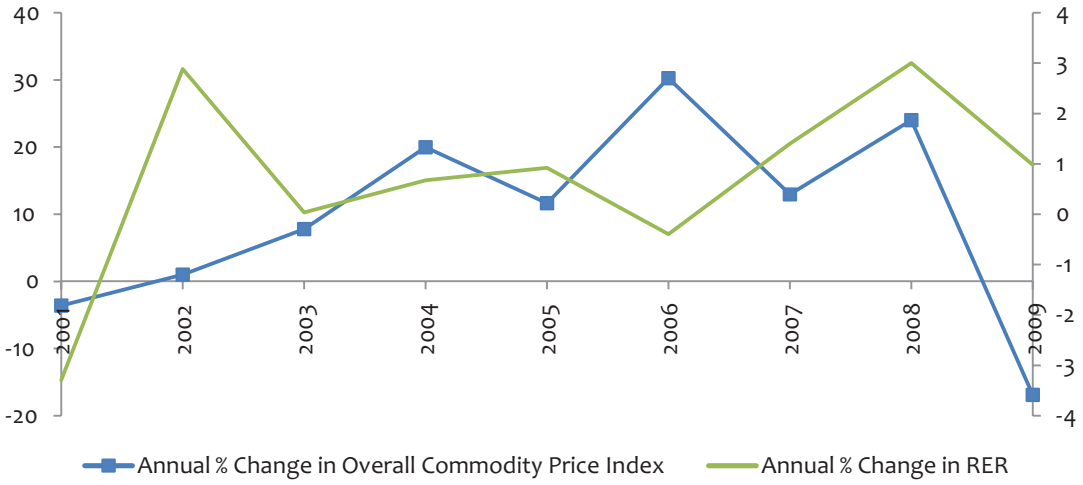
Bevan et al. (1993) show that the Dutch disease effect is not limited to the mining and oil sectors. It can also be observed in the agricultural sector if the global commodity price warrants a windfall gain from such exports. Notwithstanding this similarity, in terms of impact, the two commodity categories have different effects, as agricultural commodities are often produced by a large number of smallholders (such as coffee and cocoa farmers) and hence the scope for monopoly rent is limited. In line with this difference, Collier and Goderis (2012) note that while commodity booms have unconditional positive short-term effects on economic growth, non-agricultural booms in countries with poor governance have adverse long-term effects that dominate the short-run gains.

Love (1994) has also shown the Dutch disease effect of diamond mining on the agricultural sector (excluding livestock)[5] in Botswana; although his general results are contested by other researchers (Acemoglu et al. 2001, 2002; Harvey and Lewis 1990). Similarly Limi (2006) explored the case of Botswana and concluded that governance determines the extent to which the growth effects of resource wealth can materialize, and that the Dutch disease argument has little effect on the linkage between natural resource abundance and economic development. In Nigeria, Sala-i-Martin and Subramanian (2003) found a negative and nonlinear impact of natural resource abundance on growth, which they argued arises from its effect on institutional quality. They conclude that waste and corruption from oil (rather than Dutch disease) is responsible for Nigeria's poor long-term economic performance. Finally, an IMF (2009a) analysis of Chad concluded that the effects of Dutch disease are hard to evaluate, not only because of lack of information but also because the non-oil sector is highly underdeveloped. The IMF study posits that there is little evidence to support the presence of Dutch disease, with the exception of a significant increase of the wage bill, likely explained by the expansion of government expenditure during the oil boom (expenditure effect), rather than by shifting labor toward oil production/refining (resource-movement effect).

As the aforementioned studies suggest, many of the studies on the Dutch disease phenomenon have focused on the impact of resource-abundance on public spending, the real exchange rate, and its effect on the reallocation of resources across sectors. This has typically been identified through the observation of an appreciation of the real exchange rate, a decline in manufacturing output/export or de-industrialization, and an expansion of non-tradable activities. Brahmbhat et al. (2010) note that there is robust evidence that terms of trade increases (following a commodity price boom) causes real appreciation in natural resource-rich countries. In a study of 22 African countries, Cashin et al. (2003, cited in Avendaño et al. 2008) notes that almost 80 percent of the variation in the real exchange rate is associated with movement in prices of commodities. The evidence on the shrinking manufacturing sector in developing countries in general is, however, mixed (Sala-i-Martin and Subramanian 2003; Brahmbhat et al. 2010). The mixed result is attributable to a number of factors—resource curse, human capital, quality of institutions and public policy. Ismail, for example, argues that, in general, a 10 percent increase in an oil windfall is associated with a 3.4 percent fall in value added across manufacturing sectors (Ismail 2010, cited in Brahmbhat et al. 2010).

Figure 3.7 shows a strong positive association between the growth in the commodity price index and the real effective exchange rate in Africa (except perhaps in 2006). The aggregation of the real exchange rate figure across the continent might conceal much of the strong association observed at country level. In fact, Avendaño et al. (2008) show a stronger association for a number of African countries where China's commodity import demand is pronounced, for example Zambia (see also Brahmbhat et al. 2010).

Figure 3.7: Annual percentage change in the overall commodity price and REER Index of African economies (Commodity price in the right axis)



Source: Computed using UNCTAD (2012) database

3.2.3 *The fiscal response to commodity boom: evidence from Africa*

In many developing countries, exports of primary commodities constitute a substantial share of government revenue directly (dividends and royalties) and indirectly (income tax and export tax). Excessive volatility of commodity prices, with cycles of booms and busts in the real global economy, create problems for macroeconomic management and planning. Thus, many commodity-dependent countries face extreme variable revenue (Dehn 2001; Westerhoff 2004; Humphreys and Sandbu 2007) and often experience: a) sudden surges and volatility in revenue; b) associated oscillations in spending; and c) problems of carrying an optimal level of savings and a likelihood of indebtedness.

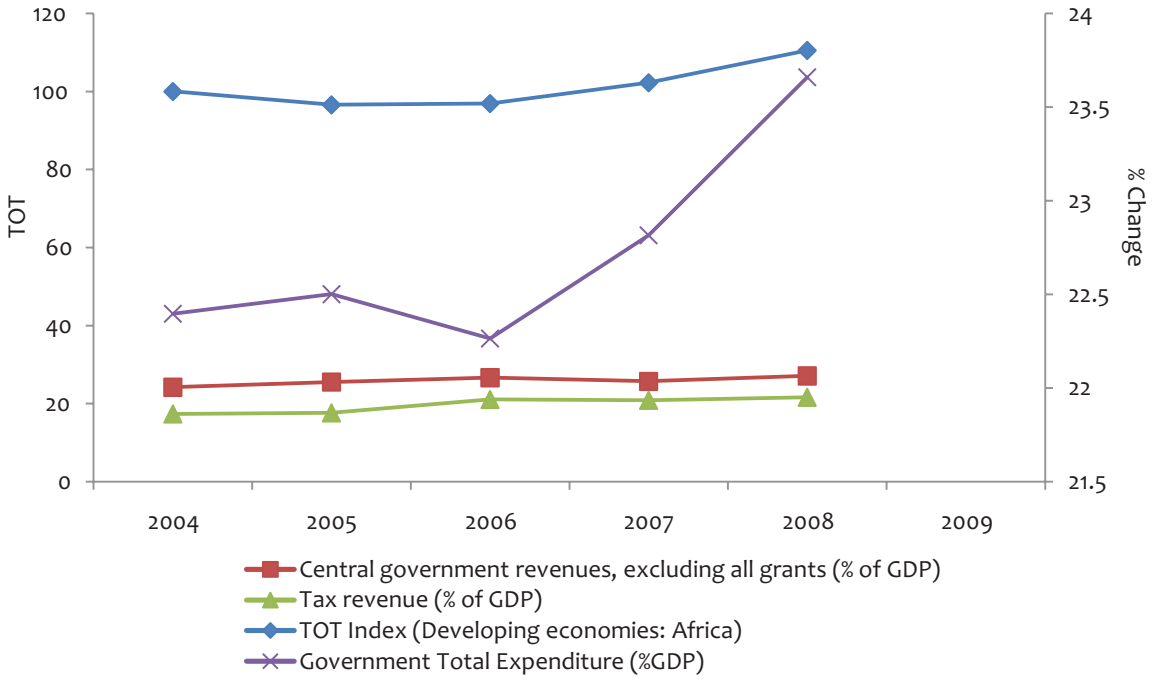
Figure 3.8 shows the trend in government expenditure, total revenue, tax revenue (all as percentage of GDP) and the overall commodity price index for Africa in the last five years. Taxes and revenue have been more or less constant, while expenditure has shown steady growth in tandem with the improvement in the terms of trade, possibly indicating the fiscal response to the recent commodity boom in Africa.

In Equatorial Guinea, for example, revenue from oil went from US$3 million in 1993 to US$725 million in 2003, and the oil sector's share of GDP increased from 11 percent to 86 percent in 2000

(Ian and Karl 2003). Such high dependence on the export of oil coupled with poor budgetary management of the windfalls from the oil sector boom has led the country to sustain a negative budget balance, even at times of high oil prices. A study by Obinyeluaku and Viegi (2007) on Nigeria, found that poor oil revenue management made its budget vulnerable to fiscal shocks. According to these authors, oil windfalls induce Nigeria's government spending, which is difficult to retrench when the oil revenue falls; this distorts government budget allocation patterns and increases deficits and debt stocks.

Turning to the issue of public spending, the Nigerian government's revenue problem (which is related to the commodity boom, as noted above) has a direct implication for government expenditure/public spending. According to Hawthorne et al. (2005), resource booms lead governments to engage in overspending that eventually needs to be financed by debt. This "inter-temporal allocation" problem can extend to the public if government restricts them from investing their wealth in foreign assets (Deaton 1999).

Figure 3.8: Government revenue, tax revenue, TOT and government expenditure in Africa



Source: Computed using ADI (2011) and UNCTAD (2012) database

In Equatorial Guinea, Ian and Karl (2003) again posit that, during high oil price hikes, government often implements ambitious public expenditures but typically finds that its budget cannot maintain that level of spending during low price periods. As a result, the government often borrows money at unfavorable terms not only during bust cycles, but also during booms by a pledge of future oil production as collateral to secure additional loans. Budina et al. (2007)

similarly notes that in Nigeria, the failure of the oil boom to end the perennial stagnation in the non-oil economy is mainly due to the extreme volatility of expenditure rather than Dutch disease effect.

In a similar vein, IMF (2012) notes that the high volatility of commodity prices complicates fiscal policy in both commodity-exporting and -importing countries because adjusting fiscal expenditures to changes in the external environment usually is subject to significant time lags. IMF (2012) further notes that this applies in particular to countries in which the size of fiscal revenue is highly dependent on the level of commodity prices. Atkinson and Hamilton (2003) concur with the above, arguing that many resource-rich countries engaged in high consumption spending, on average, experience lower economic growth and fare worse than those that use the windfall to finance public investment.

The third and final issue relates to the issue of saving and indebtedness. As Collier and Gunning (1999) and Medina (2010) note, commodity export dependent developing countries respond differently in their revenue management policies in times of commodity price booms. Some countries significantly raise their effective tax rate (Kenya, Bolivia) while others keep it unchanged (Colombia, Botswana) or decrease it (Cameroon, Senegal). For example, Angola's practice of mortgaging future oil earnings to increase public outlays has repeatedly led to eventual budget and debt crisis (IMF 2009a). Similarly, during the oil boom of the 1970s, Nigeria borrowed heavily to finance public consumption and in the mid-1980s suffered two shocks: a reduction in the oil price from US$ 30 to US$ 18 per barrel and a swing from borrowing to repaying (IMF 2009a). To avoid such vulnerability to fiscal problems and indebtedness, saving up during good times for use in bad times through countercyclical budgetary policies might be useful (World Bank 2012).

Relatedly, Geda (2002, 2003) on African countries in particular, and Brahmbhat et al. (2010) on developing countries in general, note that high commodity prices in the 1970s encouraged many resource-rich countries (using resources as collateral) to borrow to finance large investment projects and high public expenditure. When prices plunged in the 1980s, these countries were left with balance-of-payments crises and unsustainable external debt levels. And as Reinhart and Rogoff (2010 cited in Brahmbhat et al. 2010) caution, when external debt rises above 60 percent of GDP, annual growth declines on average by 2 percentage points, and for high levels of debt, growth is cut in half.

Another debt related fiscal problem is a possible rise in the level of short term debt following a commodity boom. Such debts are particularly important because if the level of debt is far larger than official reserves (or liquid assets held externally) it makes countries vulnerable to speculative attacks. Thus, the ratio of official reserves (or liquid asset held externally) to short term debt—called the "Guidotti-Greenspan" indicator—shows the vulnerability (if below 1) or otherwise (if above 1) of countries to speculative attack (Avendaño et al 2008). Figure 3.9a suggests an improvement in the Guidotti-Greenspan indicator for all African economies (1995-2007) in aggregate terms, while figures 3.9b and 3.9c show the same for a sample of countries. Some, however, caution that changes in debt composition, maturities, and structure have contributed notably to these improved performances (Avendaño et al. 2008; Geda 2012).

Studies generally suggest a positive relationship between saving and the degree to which rents

from resources are being invested to create growth in GDP (Atkinson and Hamilton 2003). Specifically, Atkinson and Hamilton (2003) find that a 10 percent increase in the saving ratio leads to a 0.3 percent increase in the growth rate of GDP per capita. Given this, policy should aim at structuring transparent mechanisms or funds in which the nation's wealth from natural resources can be saved. Suggestions by Auty (2001a), following his comparative study of Botswana's success (and Saudi Arabia's failure) in curbing the negative effects of the commodity price boom, include setting up capital development funds (as a means to identify the capital component of the rents and to sterilize capital inflows); revenue stabilization funds (to buffer the revenues that is absorbed via public expenditure from price shocks); and project evaluation units to improve the efficiency of public sector investment (Auty 2001a). However, managing such funds is not always an easy task.

Figure 3.9: Ratio of total exchange reserve to total short-term external debt (Africa, Group A and B)

Figure 9a: Ratio of total exchange reserve to total short-term external debt (All Africa)

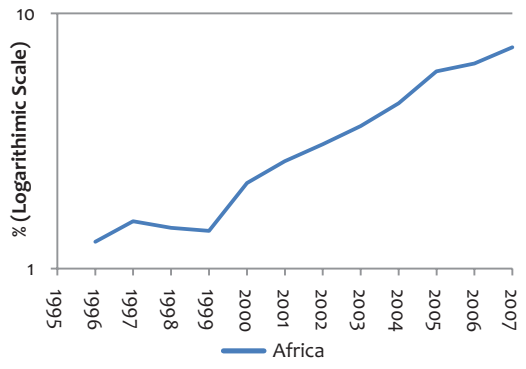


Figure 9b: Ratio of total foreign exchange reserve to total short-term external debt (Group A sample countries)

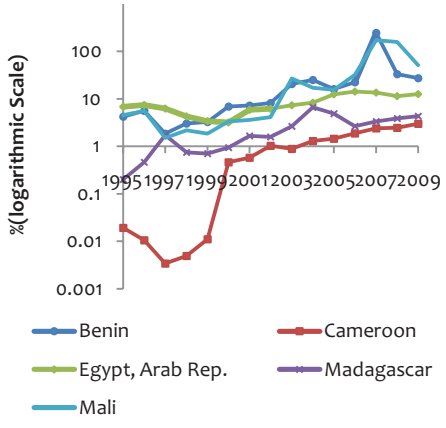
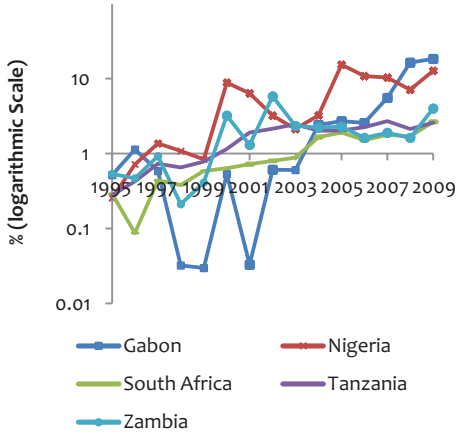


Figure.9c: Ratio of total foreign exchange reserve to total short-term external debt (Group B sample countries)



Source: Computed using ADI (2011) database

Finally, the political economy of fiscal policy is also important in the wake of resource flows from the booming sector. Drawing on the experiences of 18 developing countries that witnessed favorable terms of trade shocks during 1974-1989, Little et al. (1993) argue that these countries did not grow faster than countries that experienced negative terms of trade shocks during the same period. Little et al. (1993), rather cite a loss of competitiveness in non-booming industrial and agricultural sectors (Dutch disease), and poor management of revenue from the boom (the fiscal response) as the major causes for this poor performance.

Resource-rich nations are also more vulnerable to corrupt rent-seeking behavior that serves to distort the allocation of resources and hamper growth (Bardhan 1997, cited in Gylfason 2001a). This, combined with a lack of transparency on how the wealth is distributed, makes it very difficult for governments to alter their spending habits when a downturn in resource prices arrives (Auty 2001a). Moore (2004) similarly notes that an excessive reliance on resource revenue risks of transforming resource-producing countries into rentier states.[6] This situation encourages resource-rich countries to devote more attention to distributive functions (subsidies) and interventionist functions (creation of a national resource company) than to functions related to the regulation, supervision, taxation, and management of the economy (Moore 2004).

A number of critical deductions may be drawn from the above analysis. Capital flows from a booming sector have an inherent tendency to worsen the deficit by encouraging spending and discouraging tax collection. In the process, they may result in governments drifting away from sustainable self-financing behavior including indebtedness. A further important implication of the analysis relates to the impact of such capital inflows on the distribution of income. By ensuring the creation of rentier states, such capital flows could influence the distribution of income in favour of a particular group – potentially leading to conflict. Moreover, commodity booms and busts are often badly handled and discourage building fiscal capacity (Gelb et al. 1988; Bevan et al. 1989, 1993; Ramírez et al. 2011).The general conclusion is that the adverse consequences of a resource boom are mainly a result of poor management of revenue or poor fiscal response: the unwise use of large windfall revenue (in terms of high spending, less investment and saving, corruption, criminality and even conflict) contributes to economic degeneration. Thus, addressing these issues are critical macroeconomic policy and institutional capacity development challenges in nations with a booming commodity sector.

3.3 Employing Public Investment in NRM for Growth

African countries have an intrinsic comparative advantage in diverse renewable and non-renewable natural resources. It is, thus, not an anomaly that many African countries thrive on the production and export of these commodities. African countries can and should mainstream natural resources and their management as engines of growth and poverty reduction.

However, many resource-rich African countries face the daunting challenge of translating their comparative advantage into competitive advantage—enhancing exploitation of known and hitherto unknown natural resources, improving their value addition, increasing exports of higher value commodities, and using the export proceeds to develop more

sustainable sectors, such as manufacturing. Economies of scale and productivity growth gained by improving resource use, and capabilities in the natural resource and other sectors, could enable them to achieve this (Warf and Stutz 2007).

The extant literature paints a disappointing picture of disconnect between resource wealth in Africa and economic performance—"resource curse" (Gylfason 2000, 2001a, b; Leite and Weidmann 1999; Papyrakis and Gerlagh 2004; Rodriguez and Sachs 1999; Sachs and Warner 1995, 1997b, 1999a, b, 2001).

As noted earlier, while the resource curse hypothesis seems to be borne out in many African countries, it is not a universal truth: there are abundant country examples of a positive relationship between natural resource endowments and economic progress. For instance, Norway's ability to catch up with its richer neighbors and subsequently maintain a faster and sustained growth in the 1970s and 1980s was strongly entrenched in its oil discoveries (Røed Larsen 2005). See also Mitchener and McLean (2003), Wright (1990, 2001), and Wright and Czelusta (2003) on similar country experiences. On the African continent, Botswana's experience, like that of Norway, is worth noting.

Four main channels through which natural resource availability exerts negative effects on growth and welfare have been identified (Papyrakis and Gerlagh 2006). These are: 1) reduction in institutional capacities by inducing rent-seeking behavior and corruption, leading to political instability (Krueger 1974; Collier and Hoeffler 1998; Torvik 2002); 2) deterioration in terms of trade and possible reduction in the degree of openness due to currency overvaluation and loss of competitiveness in exports of commodities other than natural resources (Corden 1984); 3) reduction in public and private investment in human capital development, especially high-quality education and skilled labor (Gylfason 2001a; Gylfason and Zoega 2006; Stijns 2006); and 4) crowding out investment in physical capital (Atkinson and Hamilton 2003; Papyrakis and Gerlagh 2006, 2007; Yuxiang and Chen 2011).

Aside from the aforementioned negative effects, several interrelated challenges limit countries' ability of to mainstream natural resources and their management as engines of growth and poverty reduction effectively. Prominent among these is poor capacity in technology. Thus, natural resource extraction and related support and servicing activities are dominated by foreign owned and managed multinationals and medium enterprises. Local companies are not as successful as their foreign counterparts because they lack the essential human and technological capacities, expertise, and production facilities required to compete. Consequently, the locals lack competitiveness in their own country. Upstream and downstream activities in the Nigerian and Angolan oil and gas sector, for example, are dominated by foreign firms such as Total, Elf, Chevron, Texaco, Agip, and British Petroleum. The story is no different in the mineral sector: De Beers, Rio Tinto, and more recently Chinese companies dominate diamond, copper, and other mineral exploitation in Botswana, South Africa, Zambia, and the Democratic Republic of Congo.

This human and technology capacity gap (between the local firms and their foreign counterparts alluded to above) has made African countries less competitive globally even in the resources for which they should be competitive and has reduced the potential returns from their natural resource endowments. According to

Collier, compared with developed countries in the OECD and elsewhere, natural resource wealth in Africa is substantially unknown, and a far smaller percentage of known resources is being exploited. "Africa has only a fifth of the known endowment of the rich countries because the other four-fifths have not yet been found" (Collier 2011: 2).

3.3.1 *Justifications for public investment*

To turn their comparative advantage into global competitive advantage, African countries must invest in human and technological capacity development in several key areas that will enable them to advance natural resource discovery and exploitation processes. Such investment promises to reduce information asymmetry between countries and investors. For instance, adequate local capacity in geological information and accurate valuations of their natural resource deposits will enable them to negotiate for fair returns on the exploitation of those resources. This knowledge will help the countries create efficient markets, empower the local private sector to participate in the exploitation process, improve returns on investments, and promote retention of the benefits accruing from natural resource exploitation. It will also create capacity for improved financial management of natural resource revenue and guarantee their judicious use in other critical sectors such as infrastructure, education, health, governance, and security (Ismail and Okeke 2012).

Unfortunately, aside from pockets of scholarships currently being offered by state-owned enterprises and multinational resource extracting companies, there is very limited public investment in the capacity development sector in most African countries.

Although government direct involvement in economic activities is usually minimal, there are several justifications for public investment in natural resource management. First, citizens have certain rights as the real owners of the resources, including the right to demand social accountability of the state in its role as the custodian of the resources and the party responsible for arbitration of social and ecological tradeoffs in the use of resource revenue (Khoday and Perch 2012). Natural resources are ideally social capital, with collective ownership by all citizens. As the representative of the people and their collective interests, government is best positioned to hold those resources in trust for the citizen owners (Collier 2010b). Public investment is equally necessary to ensure the natural resource pie benefits all through investment in discovery, extraction, and revenue utilization.

Second, some investment in direct natural resource management activities is the government's exclusive responsibility. Only government, for instance, has the power to allocate public financial expenditures for different sectors and for activities such as investment in the legal framework for natural resource exploitation and management or investment in improving the business environment (Collier 2010c—Natural Resource Charter Precept 10 level 3). This will further enhance private sector investment in the sector and promote the needed balance between private and public sector investment in natural resources. Absence of government investment in developing and enforcing legal and property rights related to natural resource capital can lead to chaos. Investment in legal and law enforcement institutions that determine the rules of the game in natural resource management activities and have the capacity to enforce such rules is the exclusive responsibility of the

government. Moreover, only the government can invest in providing social amenities that promise to improve the business environment for natural resource development and management activities. Such investment will take the form of general purpose and specific reforms aimed at improving the market, infrastructure (human, physical, and social), and business regulation.

Third, public involvement through investment in natural resource management is necessary to address market failure (that is, when the allocation of goods and services by a free market is not efficient and leads to inefficient outcomes), develop and complement markets for natural resources, as well as promote market mechanisms that reflect the true value of the resource by incorporating externalities (Gale and Milham 2009). A key component of public investment in natural resource management hinges on the fact that to improve the conditions of natural resources, investment decisions should have a socioeconomic dimension, which is hardly the case when left to the forces of the market. In the absence of public engagement, society will lack the capacity to develop a structured system of engagement in the sector, thus leaving activities in the sector to be unruly and devoid of social benefits. Without such a structured system, selfish individual interests overwhelm social interests and breed inefficiency, rent-seeking, misappropriation, and outright theft. These selfish interests may prompt private firms and individuals to promote and pursue investments that are neither socially desirable nor optimal. Such investments may generate negative externalities for the society and the environment (Ismail and Okeke 2012). This is especially true for natural resources with high risks, few or no private economic returns, and a strong ecological footprint. For instance, private firms may focus their investment more on post-discovery exploitation of natural resources and pay little attention to investment in discovery or exploration. Furthermore, private investors, driven by profits, may neglect cleaning up the environmental pollution and degradation resulting from their activities. In such situations, public investment is necessary to address failure of market forces to attract private investment to beneficial activities and to force the emergence of market mechanisms that promote appropriate valuation and pricing of natural resources.

Fourth, public investment in natural resource management is necessary to encourage and facilitate private investment in the sector (NRC 2010). Private investors will hardly be attracted to investing in natural resource exploration and extraction in an environment marked with chaos and insecurity. While some private investors may be risk-loving given the high probability for higher returns, others are risk averse and more interested in the security of their investments. To attract and retain such private investors, government must invest in basic activities such as rule of law, security, infrastructure, and other investment-promoting activities.

Fifth, public investment in natural resource management is justifiable on the grounds of promoting economic diversification in terms of base revenue and exports (NRC 2010). An economy that relies heavily on natural resources for exports, fiscal revenue, and foreign exchange is usually highly susceptible to the vagaries of the international market prices unless specific policies are put in place to manage this. The only way out of such a conundrum is diversification into more sustainable sources of fiscal revenue and foreign exchange. This can only happen with focused public investment such that the proceeds from the natural resource exports are invested in the development of other sustainable source of income. Some focused

areas of public investment in this regard are agriculture, agribusiness, and industrial development. This could include development of a value chain around the natural resource, its peripheral activities, and completely new areas such as manufacturing.

3.3.2 *Implications and challenges*

a) ***Implications:*** Public investment in natural resource management has economic, social, and ecological implications for society. The economic implications are most visible in the market for natural resources. To this end, market prices may not reflect the natural resources' true value because of environmental externalities that are not reflected in their prices (Collier 2010; Ahrend 2006). Public investment in national resource management is, again, helpful to ensure proper market valuation, which reflects environmental and social externalities. Public investment also implies supporting the market structure in ways that promote appropriate pricing of natural resources and providing the enabling environment for private sector investment in the sector to thrive. Within the social component, improved equality in access to and use of natural resources is a major implication of public investment in natural resource management (Malena et al. 2004; UNDP 2010). This is achieved through direct transfers and public spending on health, education, and public infrastructure (Beck and Nesmith 2001).

   Indeed, a healthy ecosystem is one of the main foundations for sound economic growth and poverty reduction (Khoday and Perch 2012). Left unchecked, human activities will lead to significant loss in the value of natural capital to the society through environmental and ecological degradation. Thus, public investment interventions help correct this deficiency and restore societal access to a clean environment by giving stakeholders appropriate incentives to maintain the environment (Nixon 2011; Scissors 2011; Smith 2011).

   Overall, the economic and socio-ecological implications of public investment in natural resource management include internalizing all types of externalities, creating social mechanisms for sustainable use of natural resources, supporting market mechanisms for appropriate pricing and valuation of natural resources, and successfully managing the use of natural resources for the overall benefits of all members of the society.

b) ***Challenges:*** Resource-rich countries face three unique fiscal policy challenges: revenue is exhaustible, volatile, and largely originates abroad (Heuty and Aristi 2011). The first challenge raises complex issues of sustainability and intergenerational resource allocation for both current and future joint owners of the resources. The second challenge involves exogenous factors outside the control of policymakers, which complicates planning and budgeting processes. The last challenge exerts upward pressure on the real exchange rate of the domestic currency vis-à-vis foreign currencies, making exports less competitive and thus shifting resources from tradable exports to non-tradables. Refocusing public investment in natural resource management is needed to

address these undesirable phenomena and mainstream natural resource revenue as an engine of growth in Africa.

Broadly speaking, public investment in natural resource management should cut across diverse social, institutional, and economic spheres. Such investment should include key activities that straddle discovery and development of natural resources and the use of proceeds to develop other sectors and activities beneficial to all (Barma et al. 2012). This includes not only scientific research and training, but also investment in data collection and in building capacities for knowledge management related to natural resources. Public investments in natural resource management, however, need not be limited to the above-mentioned activities or spheres. Other areas for investment include downstream and upstream development of the natural resources and related sustainable activities, such as manufacturing. Implementing this expanded view of investment will create backward and forward linkages amongst the natural resource sector and other areas of the economy.

Challenges generally associated with public investment in natural resource management include: 1) poor funding, which may be due to poor budgetary processes and corruption, where allocated funds are never delivered; 2) weak political commitment (Gale and Milham 2009), resulting in poor or non-existent resource allocation; and 3) weak institutional and human capacity of governments to undertake the required public investment (Hjort 2006; Papyrakis and Gerlagh 2004). The case studies on illegal logging in Liberia; oil bunking in Nigeria (section 3.5); and the Chad-Cameroon oil pipeline (Chapter 5) all echo aspects of these challenges.

Poor public funding is the source of another major challenge to public investment in Africa's natural resource management that, in most cases, requires a financial burden that African countries cannot shoulder. For example, the Jubilee field offshore in Ghana, appraised to have between 600 million and 1.3 billion barrels of oil reserves, is expected to cost an estimated US$ 4 billion to develop (Gary 2008). Similarly, it will cost approximately US$ 4.2 billion to develop the onshore 1 billion barrel Doba field in southern Chad (including a 1,000 kilometer pipeline). Most African governments do not have such financial resources and thus cede the needed investment to international private stakeholders.

Finally, many African countries have historically appeared unnecessarily complacent about current flows of revenue from natural resource sales and did not feel a need to engage in public investment that will help promote natural resource management as the engine of growth. That said, many African countries today have embraced public investment in natural resources. The boom in sovereign wealth funds (addressed in more detail in Chapter 6) are testament to the winds of change underway.

African countries will undoubtedly reap significant benefits when they are able to tackle the aforementioned challenges and increase

public investment in natural resource management. Such investments explain the success of Botswana, Indonesia, and Norway in sustaining a higher level of wealth over a long period of time (Lange and Wright 2004).

A key lesson is the need to explore different investment modalities that are compatible with country- and resource-specific economic and ecological environments. One such modality is a direct approach through budgeting, management, and rehabilitation of natural resources and the environment. This requires national and sub-national governments to have a budget line item devoted to the establishment and enforcement of a land use system and natural resource development and management policies and regulations.

Another modality is to explore focused group investment facilitation. An example of this type of investment modality is the payment-for-ecosystem-services (PES) system, under which a payment is made by a private investor to ensure continued availability of natural resources, especially ecosystem services. This modality assigns and allocates monetary value to ecosystem services. Allowing for internalization of this economic value helps improve incentives for actions that provide long-term benefits that may accrue to the wider society. China, Indonesia, and Vietnam have some of the largest PES arrangements in the world that focus on protecting their degraded watersheds. These countries provide good lessons for African states willing to adopt a similar investment modality.

3.4 Conflict Resolution and NRM

Across Africa, high value, extractable natural resources have been linked to numerous armed conflicts and social instability, significant loss of life, and lost opportunities for development. Apart from armed conflicts and their repercussions, poor resource governance also affects disputes over land, water, pollution, and ownership of extractable resources and parts of their commodity chains. These become aggravated as certain activities and actors are attracted to the mix of high value resource extraction and low institutional capacity, to engage in self-interested activities which are highly detrimental for the governments and populations concerned. This occurs in spite of the great potential for such resources to contribute to peace and prosperity.

Over the period 1970–2008, more than a third of armed conflicts worldwide were related to high value natural resources (Rustad and Binningsbo 2010). The risk of armed conflict is greatly enhanced when: 1) prospective belligerents seek to gain access to revenues generated by such resources; 2) grievances are created for those who believe they are 'losing' out on the extraction process (for example through forced displacement, labor exploitation, lack of recourse, unmet expectations, and inequalities in the distribution of perceived benefits); and 3) resource extraction activities and revenues generated undermine other sectors of the economy and cripple legitimate institutions (Lujala and Rustad 2012a).

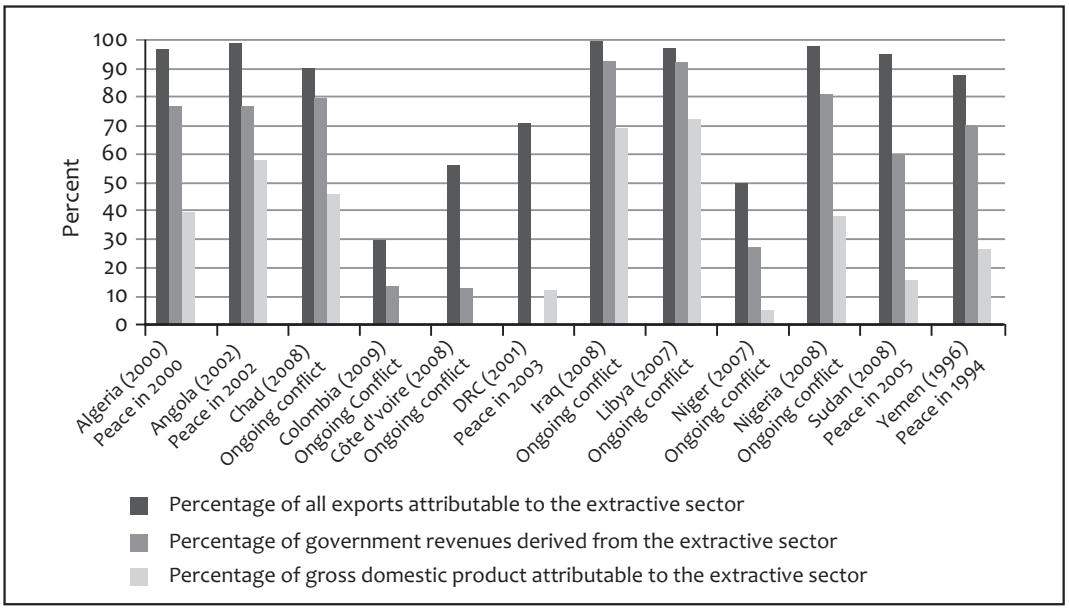
In many conflict-affected countries, high-value natural resources—oil, natural gas, minerals, gemstones, timber, and others—are an important and integral (even dominant) segment of the economy and provide significant revenue to state budgets (Bruch et al. 2011). In Angola, Sudan, and Algeria, gas and oil account for well over 60 percent of government income and over 90 percent of export revenue. Sierra Leone is well known for both its civil war (which ended in 2002), and the export of diamonds to finance the war. After the conflict, diamonds

accounted for approximately 96 percent of all exports for the country (IMF 2009b). For Chad, Libya, and Nigeria, gas and oil account for as much as 70 percent of the gross domestic product and over 80 percent of government revenues (Lujala and Rustad 2012b). Similarly, gold and uranium are important in Niger, oil is important in Côte d'Ivoire (IMF 2010a), and timber and diamonds provide significant revenue in the Central African Republic (IMF 2010a). While well managed high-value natural resources can be important in financing recovery and development, when mismanaged, revenue from resources can significantly weaken economies and governance, and heighten the risk of violence (Alao 2007).

Conflict related to natural resources encompasses a wide variety of types, actors, scales, and causes, underlying factors and predictors, and an exhaustive description of these is well beyond the scope of this Report, having been dealt with extensively elsewhere (Bruch et al. 2011; Jensen and Lonergan 2012; Ballentine and Nitzschke 2005; Alao 2007). That said, to assist in understanding some of the many facets of conflict types, figures 3.10 and 3.11 portray some of these dimensions of conflict in a resource extraction scenario. Figure 3.10 presents nine African countries recently or currently in conflict with regard to the percentage of exports, government revenue, and gross domestic product connected to the natural resource extractive sector. Figure 3.11 presents a typology of resource conflict types, causes, and manifestations.

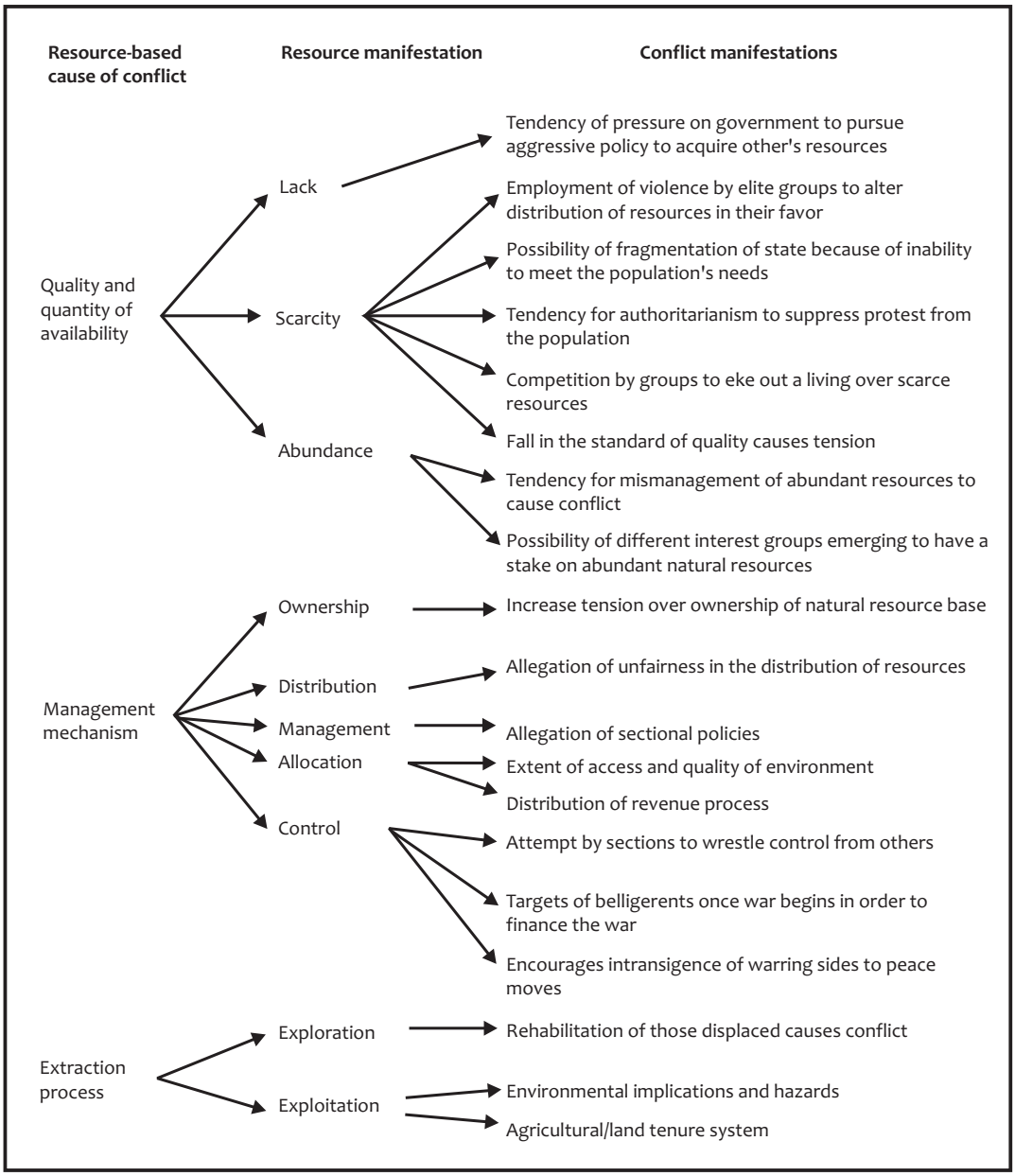
Climate change, deforestation, land degradation, large-scale pollution—such as oil spills and polluted water supplies (see Chapter 6), poor development planning, poor governance and problematic national to international policy—can all intensify risks for conflict over resources as sectors of society scramble to preserve livelihoods, maintain standards of living, or make gains off the repercussions of scarcity, but also from resource abundance that can exist in a broader context of scarcity and deprivation.

Figure 3.10: Economic role of the extractive sector in primarily African conflict-affected countries



Source: Lujala and Rustad (2012b)

Figure 3.11: A typology of natural resources and conflict causes—Africa



Source: Alao (2007)

3.4.1 Actors—local to international

While there are a variety of actors involved in the different aspects of natural resource extraction value chain, these can generally be grouped into three key categories according to scale—local, national and international—and what roles they play and/or how they are affected by the resource exploitation process.

a) ***Local actors:*** Local actors in a resource extraction context can be individuals or groups, but for our purposes act at the village or local community level. Gene-

rally, extractive activities by local actors can contribute to livelihoods and development, but they also have the potential to alienate local populations from critical cultural and livelihood resources by excluding community members from minor forest products, grazing, water access, and cemeteries or other important cultural locations. They can also inflame local conflicts, with consequences that can potentially span generations (Nelson et al. 2012).

In most countries targeted by extractive resource investments, the failure to acknowledge affected local populations runs the prospect of putting investments at risk. Attempting to rectify this can be difficult because local actors are often excluded from specific contracts (Daniel 2011) and from the smallholder perspective the contracts can entail secrecy and lack of public consultation (Klopp 2000; Cotula et al. 2011). This gets at the importance of agency and of specific mechanisms of participation for local level actors. The ability of communities and households to participate in ongoing investment deals and extractive activities in order to protect their rights and enjoy monetary gains is often quite weak. International investments may ignore indigenous land claims and occupants. And while strong locally held land rights have in the past deterred high-level deals involving international actors, they often do not protect households from local elites (Boras and Franco 2010). That said, many investors are often aware of the need to engage local actors (The Munden Project 2010; Andrianirina-Ratsialonana et al. 2011), and certain commodities require local labor, and as such good relations can be important (Deininger et al. 2011).

The tension between customary, state, and investor rights to resources is a central feature of extractive resource investments. Such tensions are informed by a considerable history of land alienation and conflict over land rights between states and customarily-administered communities (Nelson et al. 2012). Some resistance has resulted in violent conflict with the security forces of international companies or with government police and military or paramilitary units (Ramos and Bonilla 2008; Zander and Dürr 2011). However, there is some indication that as social movements increase pressure on investors, states, donors, high-value commodity product consumers, and non-governmental organizations, there has begun to be a change from the past approach of marginalizing customary land rights. Within this changed approach, some investors are attempting to derive profits from resource extraction through cooperation with local communities rather than at their expense. Gains in expanding this approach have been limited so far, and mostly involve Western firms that want certain certifications for their end-products (Karsenty et al. 2008; Molnar et al. 2011). These efforts can attempt to engage communities, and often use participatory mapping to identify sites that are crucial for gathering non-timber forest products, or that have agricultural or cultural purposes, so that investors can mitigate the impact on these crucial resources while sharing the burden of managing the spaces in question (Karsenty et al. 2008; Molnar et

al. 2011). In some cases, NGOs can be brought in to facilitate the implementation of socially-conceived aspects of the project, as many of the companies lack the capacity to implement such programs on their own (Karsenty et al. 2008; Molnar et al. 2011).

However, even in circumstances where customary land rights (and capacity) are "strengthened" through mapping, formal titling, community resource management schemes, or revenue-sharing initiatives, national and international actors that fail to fully understand local land resource dynamics run the risk of inflaming local tensions and competition over land resources, particularly if the interests and claims of one group are privileged (including imbalance in capacity building efforts) over another's (Karsenty et al. 2008). Often, investor and state perceptions of "customary rights" and what constitutes "communities" are oversimplified and static—often assuming that spatial administrative units imposed by the state represent homogeneous interests and socio-political identities, and are represented by authorities generally viewed as legitimate. This view neglects asymmetrical power relations and differentiated interests within these societies and spaces, especially differences related to age and gender (Sulle and Nelson 2009; Van Dam 2011).

b) ***National actors:*** The state plays a critical role in resource extraction deals and concessions, especially when it comes to guaranteeing the security of investments (Klopp 2000; Bulkan 2011). While the existing literature describes unique relationships of corruption between states, corporations, and communities (Hanlon 2011; Zoomers and Durr 2011), in countries targeted by extractive resources investment (notably Tanzania, Ethiopia, and Kenya), the guarantee of investment security occurs through land resource politics that are played out at the national level through public figures, highlighting the large role of the state (Klopp 2000).

To encourage and facilitate foreign investment in extractive land resources, the state often does not take into consideration pre-existing local use and access rights. And although land tenure in many African contexts remains "customary," and local institutions govern the day-to-day land tenure issues, the state in many cases claims all land resources according to statutory law. This allows the state to describe desired spaces as "underused," "marginal," "idle," or "abandoned" in order to grant investors access (Von Braun and Meinzen-Dick 2009; Borras and Franco 2010).

The state also has primary monitoring responsibility with regard to investors' activities and the enforcement of laws, legal standards, and the relationships between local communities and national and international actors. In this regard, the cases of Liberia and Mozambique are notable. In Liberia, President Johnson Sirleaf early in her administration ended decades of poorly managed extraction of timber resources by issuing Executive Order No. 1, declaring all forest concessions null and void and assigning the Forestry Development Authority (FDA), together with the Liberia Forest

Initiative, responsibility for supervision of the reform process of the forest sector (GOL 2006b). The executive order demonstrated the president's and the state's commitment to changing the way extractive investments are made in the country (Altman et al. 2012). In Mozambique, Chikweti Forests of Niassa, a Swedish-based "Global Solidarity Forest Fund" owned by the Norwegian and Swedish churches, was investigated by the government regarding its timber activities (Hanlon 2011). The Mozambican Prime Minister's office found that the company created conflicts of interest by offering family members of local leaders jobs in exchange for permitting the company to operate outside of its legally contracted area (the company had occupied an estimated 32,000 hectares illegally) (Hanlon 2011). More broadly, in Mozambique, after an audit of investments between 2002 and 2008, the National Directorate of Lands and Forests cancelled or reduced the land area of 1500 investor contracts due to non-compliance with their investment plan (Hanlon 2011). As these two cases demonstrate, despite low capacity, there is still some ability at the national level for change, monitoring and punishing (or at least criticizing) investors that fail to comply with their contracts. However, the national level can often lack the knowledge, laws, institutions, and importantly, the political will, to ensure that resource extraction projects are carried out responsibly in ways that protect people and the environment. Since the mid-1990s, many resource companies themselves, the banks that finance resource projects, donor and investor nations (especially Western countries, but increasingly China) and NGOs have become increasingly aware that the absence of effective social and environmental protection measures puts the viability of resource extraction operations at risk—and turning this awareness into capacity is where attention is critically needed. One example of such risk is in the Niger Delta, where about one-quarter of potential oil production is lost to theft, violence, or sabotage (Nelson et al. 2012).

A different way in which national level actors play a role in resource extraction occurs in Central and West Africa regions, which are defined by economies based on smaller extractive resource concessions. In these cases, forests containing timber resources are more publicly owned and stringently managed, and therefore land markets tend to be dominated by local, wealthy elites and corporations rather than foreign investors (Nelson et al. 2012).

Countries hosting foreign natural resource extraction firms may participate in specific projects if they have the capacity to effectively do so, and therefore provide land and labor with bureaucratic-level assistance. For example, West African countries have historically provided public funds for vocational and management training in such business ventures (Hilhorst et al. 2011). Some states have also created institutions to seek out and facilitate investments (for example, Centro de Promoção de Investimentos in Mozambique, and the Tanzanian Investment Centre).

c) ***International actors:*** Conflict-affected countries with high-value natural resources often experience that the few foreign direct investments that are in the country are in the resource extraction sector. This is because companies engaged in resource extraction need to go where the resources are, as opposed to investors who are able to select their location for investment more freely, or are able to delay investment in a particular country until conditions become more stable (Shankleman 2012). Investments in natural resource extraction also are often controlled by government–foreign investor agreements which are, by contract, enforceable in Western legal systems, such as those of the United Kingdom, the United States, or the Netherlands. Such an arrangement provides the needed legal investment security for investors, which may not otherwise be available in the relatively weak legal systems of conflict-affected states. In addition, resource extraction efforts can be operated as separate, secured areas with their own infrastructure, power, water, housing, airstrips and security. Within such enclaves, a skilled workforce can be brought in directly from the outside, even when extraction infrastructure is being constructed. A local workforce can then be trained over time to take over operation work (Shankleman 2012). In this context, many international companies engaged in African resource extraction activities are particularly adept at operating in unstable socio-political environments. Liberia, Sudan, and Mozambique have been sites of armed conflict and were some of the top targets for extraction industries, even when the conflicts were still underway (Alden-Wiley 2010). In fact, conflict-affected countries can be particularly attractive to certain foreign investors, despite the possibility for a recurrence of armed conflict (Alden-Wiley 2010). Although the Madagascar coup is the only instance in which the large-scale presence of foreign resource operators was directly linked to broader political instability (and government collapse) within the past decade, the specter of armed conflict over land and land resource rights hangs over many countries being targeted for investment.

3.4.2 *Pillars of the problem*

While the precise character of the resource curse and its repercussions are varied across different countries and cases, there are a few components, or "pillars" that play a fundamental role in the larger problem. These occur in some form across most, if not all, cases of the resource curse, such that understanding how they operate can provide insight into possible policies and approaches able to mitigate negative effects and maximize real opportunities. The issue of "resource nationalism" is examined with regard to what is meant by natural vs. national resources and the difference between resources vs. rights.

a) ***Natural resources vs. national resources:*** While there are three broad types of resource nationalism: 1) production country nationalism, 2) consumer country nationalism, and 3) investment target country nationalism (Ward 2009), the first two are most relevant to the African continent. Production country resource nationalism is generally regarded as the

increasing use of control of natural resources to advance policy goals—both economic and foreign policies (Stanislaw 2008). Variations on this general theme exist however, including: 1) a production country seeking to make maximum use and value of their resource endowment (MEES 2006); 2) an arrangement where resource producer countries move to maximize revenue from present resource production while changing terms of investment for future output (Farren 2006); 3) a set of policies and justifications given to policies that increase government intervention in resource development (Ait-Laoussine 2008); and 4) the nationalization of natural resource infrastructure investments made by non-state commercial interests (Stevens and Pearce 2000). Consumer country nationalism occurs when non-resource producer countries or commercial interests attempt to take control of the sources of natural resources in other countries (Ward 2009). In extreme cases, this form of resource nationalism can lead to armed conflict (Ward 2009; Williams 2009). Investment target country nationalism involves the strategic use of sovereign wealth funds. In this case, revenue is directed toward such funds, often controlled in part or in whole by outside interests (Ward 2009).

Because high value resources like minerals and oil are usually not distributed evenly across the landscape of a country, some groups will be advantaged or disadvantaged in often counter-intuitive ways. For example, the people of the Niger Delta, Nigeria, occupy land rich in oil but are disadvantaged and excluded from the benefits associated with oil extraction, and instead suffer violence and deprivation. Likewise, the indigenous occupants of areas containing diamonds in Sierra Leone suffered dislocation and violence as outside interests sought to gain access to diamond areas. As a result, inequality, divisiveness, and grievances can emerge if significant effort is not put toward alleviating these conditions. When the distribution of resources coincides in some form with ethnic, linguistic, religious, socio-economic class, or other divisions within society, including insider vs. outsider, or recent arrivals vs. native to an area, or power distinctions, then significant difficulties with various forms of group resource capture can emerge. Real or perceived inequality (both of which fall into the category of "horizontal inequality") can create serious grounds for grievances.

In Niger, for example, mineral revenue is diverted to Ndjamena, the capital, with little benefit incurred by the local population in mining areas. This has led to grievances among the Tuareg, on whose lands the minerals and the mines reside. In other cases, those who control the instruments of state or economic power may be reluctant to share income and benefits with poorer areas of the country. It is not surprising, then, that countries in Africa endowed with high value resources can be beleaguered by secessionist and rebel movements attempting to decrease (or increase) this horizontal inequality (Alao 2007; Lujala and Rustad 2012a).

b) ***Resources vs. rights:*** As a primary context for extractable resources, the rights systems under which these are claimed and exploited influence a great deal. In

terms of rights acquisition and rights maintenance for the investor, these occur in a very wide variety of ways given the different legal contexts and resources being acquired (Borras and Franco 2010; Corbera et al. 2011). The purpose of the investment, however, can be quite important in relation to the specific rights of acquisition. For example, in the context of concessions as a form of land rights acquisition, such rights frequently have attached to them the prospect that they can be revoked if the implementation of the investment project does not comply with the stated purpose of the investment, as Mozambique has done (Hanlon 2010). Some resources are more easily exploited than others and so require less in the way of investment or time, and therefore can involve different kinds of rights than would longer-term investments. For example, timber extraction as an investment is relatively short-term and arguably easier to accomplish than are forms of mineral extraction involving heavy equipment, facilities and excavations. As a result, these two types of investment can attract different types of investors who have abilities in pursuing forms of rights relevant to the type of investment (Deininger et al. 2011; Hilhorst et al. 2011). It can be common for an investor to pursue multiple money-making opportunities based on a specific concession right to extract a specific resource. For example, if only mining rights are granted in a concession, but forest areas need to be cleared so that mining can take place, then money can be made from timber. If areas within the mining concession are unused for mining operations but can be used for plantations, then revenue can be generated in that way as well (Hanlon 2011). The prospect of being able to pursue money-making opportunities within the area acquired for a specific purpose can lead to exploitation of lands well outside of the rights granted; and to attempts to expand rights "on the ground" in order to do this. For example, concession rights given for mineral, timber, or other extraction activities often do not include the right to exclude local communities from the concession area. However, as enforcement and monitoring capacities on the part of the state remain low in a number of African countries, investors of various persuasions can seek to engage in exclusionary practices, so as to pursue a variety of revenue streams that were not part of the initial granting of the concession (Yasmi et al. 2010; Hanlon 2011).

The transfer of land resource rights to investors is becoming a general trend in Africa. Despite the widespread individualization, registration, and privatization of holdings on the one hand, and increasing recognition of informally held rights on the other, the overwhelming majority of high value resources in African countries are officially owned and administered by national governments (Corbera et al. 2011; Hallam 2011). Although a number of contracts involve outright purchases and/or lease agreements with private individuals and institutions, the vast majority of approved and pending contracts involve the long-term concessions of state owned lands—although such lands can also be claimed by customary groups. There are two reasons for this. First, the land laws in many African countries often restrict (if

not prohibit outright) private ownership of resources "in the ground" by foreign or domestic individuals and organizations (Vermulen and Cotula 2010; Hallam 2011). Second, long-term lease agreements with state agencies can reduce the socio-political and economic risks associated with acquiring large tracts of land in foreign economies, while simultaneously providing sufficient surety to guarantee funding and facilitate the acquisition process (Andrianirina-Ratsialonana et al. 2011; Vermulen and Cotula 2010).

Beyond the significant gaps in available information on the contracts between investors and public or private landholders, a key challenge to summarizing the nature of the rights obtained is the sheer number of options available. Indeed, large-scale land resource acquisitions are not limited to a specific duration, number of actors, or transfer of specific rights. Rather, contracts often mix and match different resource tenure arrangements for different pieces of land as part of the same project (Cotula et al. 2011; Cotula and Mayers 2009). Furthermore, Cotula and Mayers (2009) demonstrate that joint equity arrangements and multi-party lease schemes offer potential alternatives to current deals among investors, governments, and informal land users. Although recent studies focus on the evolution of contracts between different actors and investors (Ping and Nielsen 2010; Hanlon 2011), the majority of areas generally fall within and across three main categories: 1) purchase of ownership right; 2) lease/concession from local land user or institution; and 3) lease/concession from the state (Nelson et al. 2012).

3.4.3 *Axis of turmoil: natural resources–development with poverty–conflict*

While there are numerous cause and effect relationships between the resource curse and the problem of "development with poverty," a central feature of these is that natural resources can have negative repercussions on development because they expose an economy—often already vulnerable—to severe and sometimes debilitating price shocks that burden the broader population (Collier and Hoeffler, 2012). Where countries have economies that depend on a few valuable resources, political and economic institutional weakness is compounded by exposure to price shocks, which occur when rapid shifts in raw material prices lead to abrupt fluctuations and downturns in resource revenue. Shocks that are large and negative tend to result in periods of economic contraction that are severe and can intensify loss of income. The result is an increase in poverty causing a reduction in income from exports and a decline in output growth rates over the medium term (Collier and Dehn 2001). Again, such epochs of rapid economic decline heighten the risk of armed conflict (Collier and Hoeffler 2004; Miguel et al. 2004). Positive shocks--as with large windfalls generated from easily extracted natural resources—sometimes destabilize economies as well, leading to missed opportunities (Collier and Hoeffler 2012), or to overspending, poor investment decisions, and ill-conceived economic policies.

The links between the resource curse and conflict are often assumed to be explicit—belligerent interests fighting over the means to arm and enrich themselves—but they can also be indirect. While several studies document strong and significant relationships between certain natural resources and conflict, few have

successfully untangled the precise nature of the relationships (Ross 2004a, 2004b). There have been findings that oil increases the probability of armed conflict (Fearon and Laitin 2003), and that co-location of gas and oil with conflict is associated with longer running and more severe conflicts (Lujala 2009). Indeed, developing countries that are oil producing are between 1.5 to 2 times more likely to engage in armed conflict than countries without oil; and that where conflict occurs in an area containing oil, conflict can last twice as long and result in double the combatant deaths than it would otherwise (Lujala 2010). Diamonds and other gemstones have also been subject to statistical studies. Fearon (2004) has shown that gemstones have effects similar to those of oil—namely, conflict is more likely and tends to last longer. However, it should be kept in mind that such statistical studies demonstrate only association, not causation.

Transboundary conflicts related to natural resource exploitation deserve mention as a separate category. Several notable examples have received considerable attention: 1) Liberia and Sierra Leone with regard to diamonds and forests (Alao 2007; Richards 2001); 2) the Democratic Republic of Congo and neighboring countries particularly to the east over mineral resources (NATO 2012); 3) Sudan and South Sudan, over oil (Newnham 2012); 4) Western Sahara and Morocco over potash mining (Gianadda and de Brito 2012; Ciment and Waskey 2007); and 5) what has become known as "water wars" involving transboundary watercourses (a development addressed in Chapter 8), particularly the Nile (Alao 2007; Klare 2001). Such conflicts require a different approach, because they often involve neighboring states and their standing armies together with supported proxy militias and movements. They then create regional issues, because such conflicts are not about the location of borders but rather how (and by whom) access to resources is acquired.

These linkages are most notable, however, for their variation, and their deployment at different scales. At the local scale, easily extractable natural resources or agricultural products (for example, rubber, bananas, and cacao) can provide insurgents with the motives and the means to challenge the state, with the state's own lack of capacity (institutional and military) serving to increase the incentive to do so (Herbst 2004). Other scale linkages include:

- A government able to finance the national budget exclusively or almost exclusively though revenue from natural resources, as opposed to public taxation, can then very easily become disconnected from the general population, and hence is less accountable to it.
- Political and economic underperformance—which is common in developing countries endowed with valuable natural resources—can make countries vulnerable to conflict as a pre-existing condition. Several studies show that low state capacity and dysfunctional institutions are positively correlated with an increased likelihood of conflict (Lujala and Runstad 2012b).
- A number of African countries (but certainly not all) with an abundance of specific natural resources, such as oil, gas, and certain minerals, have lower economic growth and lower human development than countries where these resources are scarce or absent (Auty 1993; Karl 1997). One fairly common explanation for this is that natural resources are not themselves revenue but instead are assets. For example, oil is an asset within the natural endowment of a country, and when it is taken out of the ground and sold (commercialized) it is simply converted into a liquid asset (Radon 2007). But the transaction is not revenue; rather, it is just a change in the designation of the asset from

barrels of oil to income, mainly in US dollars. Therefore, the challenge for developing country governments is to be able to transform natural resource based assets into enduring development while not diminishing the assets themselves. But such transformation can be set back by negative incentives created by natural resources—tempting leaders to overspend and see revenue as a prize that different groups or segments of society or government attempt to capture, either by corruption or armed confrontation (Alao 2007; Humphreys et al. 2007).

- Rentier states can be fostered, in which governments rely on revenue from their natural resources, as opposed to revenue generated from their population's productive activities. Such rentier states are characterized by state-society relations that are weak, and by an authoritarian government that provides undue capacity to government and certain elites (while denying this capacity to others) in order to capture resources (Ottaway 2003).

At the mid to smaller scale, there are many linkages between specific resources and conflict. Money from resource exploitation often encourages and fuels corruption, rent seeking and patronage, which can boost the actions and interests of a relatively small, powerful, and predatory elite. In Nigeria, for example, it is estimated that only one percent of the population has control over 80 percent of oil revenue (Kalu 2008).

Stakeholders involved in the 'resource - development with poverty - conflict' trichotomy who have an interest in seeing conflict resolution efforts fail are known as "spoilers" (Stedman 1997). Spoilers usually have something to lose from a change in the status quo, either politically or economically. The stakes can be quite significant when high-value resources are involved. When potential spoilers are in positions of power and the gains are large, the temptation to spoil a conflict resolution process, for example, can be significant (Rustad et al. 2012).

A variety of circumstances can encourage a spoiler mentality. Stakeholders with unrealistic expectations about the revenue or benefits associated with resource extraction, their connection to the process, and the speed with which benefits are delivered can be very susceptible to spoiler temptations. Certain groups may wish to engage in spoiler activity out of resentment at being left out of a revenue or benefit stream. Others may refuse to participate in a more equitable resource sharing process either because they benefit from the current arrangement or because they see any new arrangement as a threat to the revenue provided by lootable resources (Rustad et al. 2012).

Factionalism is a common problem in armed conflict, whereby certain factions may continue to seek better arrangements for their group (Rustad et al. 2012). The "copycat effect" can also be a problem; in this scenario, peace agreements (which often include resource use and access arrangements) aim to deliver benefits to specific factions, who are then "copied" by other groups who act or pose as factions because they desire access to resources, as well. Some factions can come into existence for precisely this reason (Rustad et al. 2012). Liberia is an example of this. Between 1990 and 1995, twelve peace agreements failed. Abuja II, the thirteenth agreement, signed in 1996, was somewhat more successful, but the conflict did not end until 2003, with the signing of the Comprehensive Peace Agreement (Dupuy and Detzel, forthcoming). Among the various reasons that led to the failure of successive

peace agreements was the copycat effect, and a related pattern whereby factions would sign an peace agreement (with significant international pressure), but then return to their previous ways of resource exploitation under different names, or through splinter groups. This ploy would then avoid officially breaching the peace agreement (Rustad et al. 2012; Reno 1999).

Gaining a commitment to stop certain forms of resource exploitation by spoilers requires significant political concessions; involving, for example, the allocation of ministerial posts, authority over some segments of the natural resource sector, or allocation of certain land areas (Rustad et al. 2012). Such concessions are often made to encourage factions to join a peace process and transform them into political actors or movements (Rustad et al. 2012). Sierra Leone is an example of this, with part of the 1999 Lomé Peace Agreement stipulating that Foday Sankoh, leader of the Revolutionary United Front, was to be appointed as the head of the Commission for the Management of Strategic Resources, National Reconstruction and Development, and giving him the status of vice president (Kawamoto 2012; Binningsbø and Dupuy 2009). In Angola, the 1994 Lusaka Protocol provided the UNITA insurgency with appointments at the ministerial level, including the ministry responsible for mining (Rustad et al. 2012).

3.5 Criminality in the NRM Value Chain—what do we know?

Criminality in the natural resource value chain is generally, yet restrictively, subsumed within the discourse of its nexus with armed conflicts. However, criminality in the natural resource value chain is more complex, multilayered, and not tied exclusively to armed conflict: it is a transnational process that involves local, regional, and international networks and transcends the orthodox conflict and peace divide, as it takes place in stable and conflict-affected countries.

The claims advanced are threefold. First, criminality in Africa's natural resource extractive industry is not limited to conventional categorizations, as it often entails official (state-led) and unofficial (unrecorded) dimensions; involves actors and processes linked to practices in the public, private and civil society spheres; and is hierarchically syndicated with local, national, regional, and international actors. Second, existing mechanisms for addressing this issue are limited and often focused on legal and law enforcement constructs rather than the socio-cultural, political, environmental, and economic undercurrents of criminality in the natural resource value chain. Third, acute capacity deficits in enforcement mechanisms arise from policy (legal) gaps, the pressures of globalization, insecurity, institutional decay, and inefficiencies linked to pervasive corruption. The policy gaps, for example, relate to unresolved contestations between extant laws and normative, informal practices related to the ownership, extraction, purification, and management of receipts from natural resources. In terms of case studies—logging in Liberia highlights the key issues and dynamics of criminality in a renewable resource sector, and oil exploitation in Nigeria, will serve as the case focus for an extractive (non-renewable) resource. Both countries have dominated the discourse of criminality in natural resource value chain in Africa, have parallel experiences of armed insurgencies linked to natural resources, and are currently attempting to reform their natural resource sectors in the post-conflict period.

3.5.1 *Conceptual linkages between natural resource value chain and criminality*

The intellectual antecedent of the criminality of natural resources in Africa is closely connected to attempts to address problems involving the nature of the state in Africa, especially in the immediate aftermath of the Cold War. Various perspectives are discernible: the first—**the "new barbarism" perspective**—conceives of violence, or what some have described as "new wars," (Kaldor 2007) as mindless, irrational, and an expression of the innate tendencies of particular human groups (Kaplan 1994). Beyond its reductionism, this perspective does not capture the complex systems that underlie the (re)production of violence. The critique of this perspective has been extensively elaborated elsewhere (Allen 1999).

A second perspective—**economic rationale for wars**—is advanced by Collier and Hoeffler (2005). This perspective underscores the ascendance of economic motives (greed and opportunities for profiteering) as the primary variable for the escalation and continuation of violence. These scholars often use the empirical context of African states by identifying some resource-rich African states that have been in a state of war to validate their theory. The phenomenon of resource curse has frequently been used to frame this theoretical position. Rich mineral resources have not generated benefits but instead have contributed to socio-economic inequality and fueled instability (violent conflicts). In other words, greed rather than grievance provides the background for understanding the likelihood, occurrence, or re-escalation of violence (Colliers and Hoeffler 2005).

A third perspective—**the political economy approach**—takes into account the complex functions of violence in the misappropriation of resources and political power. There are various dimensions to the political economy perspective. For example, Keen (2008) submits that violence and complex emergencies serve the interests of a wide variety of (not necessarily related) actors. Linked to this argument is the historical neo-patrimonial nature of African regimes that seek to reinforce the patron-client relations between the center and the periphery.

Beyond the resource-conflict nexus, there are also linkages that can be drawn between the mismanagement of natural resources and economic decline or under-development. The high revenue derived from exports of natural resources may consequently lead to the appreciation of domestic currency, reduced competition in other sectors, and the possibility of high inflation rates (Ross 1999). This consequently can lead to the widening of the informal spaces in ways that uphold increased criminal activities within the state. For example, the increased militarization of youth and regionalization of violence in post-democratic Nigeria—the sixth largest producer of oil in the world—are linked to the widening of alternatively governed spaces partly fueled by the state's failure to deliver public goods (Ismail 2010).

Indeed, the link between resources and increased criminality provides important background on the natural resource value chain. Unfortunately, within the extant literature, the dominant view links criminality in the natural resource value chain to insecurity caused primarily by armed conflicts. This is a paradox, considering the decline in the number of wars in

Africa and the consequent dominance of the natural resource sector as a main driver of Africa's political economy. The capacity gap has been largely ignored in the current policy direction on the natural resource value chain (see Chapter 8).

There has been no systematic effort to identify and document the nature, scale and underlying reasons for criminality in natural resources within the context of their value chain management. It is certainly within the natural resource value chain that various dimensions of criminality (formal and informal; national, regional, and global) are manifested. Identifying these dimensions of criminality in the natural resource value chain has been grossly limited.

The aforementioned notwithstanding, as highlighted in Chapter 2, African states have made meaningful attempts to collaborate with other stakeholders, including civil society organizations, to provide oversights on the governance of natural resources. Unfortunately, international actors (companies, entrepreneurs, institutions, and states) have often been complicit in the mismanagement of natural resources by overtly participating in or permitting illicit trade in natural resources. As a result, there are a number of initiatives involving civil society organizations to ensure increased accountability, transparency and management of natural resources. Notable examples (as highlighted in chapter 2) include: the Kimberley Process Certification Scheme (KPCS), Publish What You Pay (PWYP) and the Extractive Industries Transparency Initiative (EITI).

Although these global initiatives have been applied and implemented in some African states, there are also attempts to build an African-led framework on the natural resource value chain. Through the African Union, there have been attempts to mainstream natural resource governance into existing institutional frameworks and mechanisms. In particular, the 2004 Common African Defense and Security Policy (CADSP) provides a normative framework for governing natural resources in Africa. Specifically, CADSP underscores the need for collective efforts in responding to threats that stem from environmental matters, among other factors. In addition, the New Partnership for Africa Development (NEPAD) is providing the institutional mechanism for natural resource management to achieve sustainable development. Worthy of mention is the organization's Environment Action Plan, which is expected to assist African states in implementing regional and international environmental agreements. Further, the Economic Community of West African States (ECOWAS) Conflict Prevention Framework (ECPF) elaborates on the significance of natural resource governance as a vehicle for ensuring transparent, equitable, environment-friendly, balanced, and sustainable development, social cohesion, and stability (ECOWAS 2008).

Despite these international and regional mechanisms, criminality in the natural resource value chain abounds and stems from the lack of capacity of the state and other actors (such as civil society organizations) to deal with the problem. Three factors are central to the capacity deficits that fuel criminality in natural resource governance. The first relates to continued insecurity in Africa, especially that which is linked to sub-national violence, civil strife and other forms of insecurity. This compromises existing institutions and capacities to address illicit exploitation of natural resources. For example, higher levels of criminal exploitation of natural resources have taken place during insurgencies. Second, the high

levels of corruption in several states pose significant challenges to ongoing efforts to curb criminal activities related to resource exploitation. In fact, the natural resource sector is often the epicenter of corruption in African countries, because the sector is at the root of political power (patronage system) and most countries are largely dependent on natural resource receipts. Finally, the global environment characterized by an increased demand for income (prices) from natural resources makes criminality attractive to local and international actors alike (see Liberia and Nigeria case studies).

a) Case Study 1: Liberia—"legitimizing" criminality through private use permits in logging?

Illicit timber trade is one of the major aspects of transnational organized environmental crimes. Timber trade (legal and illegal) has historically been a critical part of international commerce. The annual turnover of international trade in timber from the 1990s to 2009 was more than US$ 200billion (TRAFFIC 2010). This figure does not capture the often clandestine and unofficial trade in illicit timber. Capturing the pattern in the export of illicit woods from Africa, while feasible, is challenging due to the dearth of dependable data and research on the issue. The problem is further complicated by the peculiarities of illicit timber trade, especially the fact that some of this trading occurs within the context of heightened insecurity caused by conflict or the activities of armed criminal groups.

Nonetheless, it is possible to map-out some common patterns and actors involved in illegal logging. Accordingly to UNODC (2010), the trade is generally facilitated by the use of fraudulent paperwork that ensures that protected timbers, for instance, can be altered into a more mundane variety. Restrictions or prohibitions of trade in specific timbers are bypassed through false documentation; collusion of illegal logging networks (warlords, gangs, multinational companies) and public officials; or via corrupt practices such as government clearance of protected woods through official certification; the issuance of questionable land permits to national and multinational stakeholders; or direct stealing of woods (sometimes with or without government knowledge or endorsement). Several of these features are discernible in the pattern of illicit timber trade in Liberia.

Liberia has emerged as a success story of post-conflict transition in Africa. Since the election of Ellen Johnson Sirleaf, there is general optimism about political stability and economic development in Liberia. Its economy grew by 4.6 percent and 5.6 percent in 2009 and 2010, respectively (World Bank 2012). A significant part of this economic performance has been credited to an increase in agricultural outputs (especially rubber and forestry).

Despite this progress, it is critical to examine criminality in Liberia's timber industry with a view to better grasping the nuances of illegal logging. While there has been much progress in addressing "conflict logging," typical of wartime Liberia, the current regime against illegal logging in Liberia appears to be reinforcing and legitimizing illegal logging and reducing the prospect of sustainability.

Nature and evolution of illegal logging in Liberia

The timber value chain in post-war Liberia can be best understood in terms of its structure and actors. Structurally, the government remains the primary authority in granting licenses for timber exploitation and its eventual delivery to final customers, but there are official provisions for community forests—areas protected from commercial logging activities and reserved for

the socio-cultural and economic well-being of host communities. The Forestry Development Authority (FDA) is the lead government agency responsible for issuing licenses and overseeing overall regulation of the timber industry. The timber companies (owned mainly by foreign stakeholders) directly exploit timber and other forest resources in exchange for rents and commissions to the Liberian state. There are also local communities in and around the forest belts who operate on the margins of the formal process as laborers or traditional owners of farmlands and forestlands and as providers of support services to timber companies.

Generally, criminality in Liberia's timber industry takes place at different layers and involves myriad actors in the value chain. Criminal practices are perpetrated at the level of: issuing licenses (often political decisions); performing regulatory and oversight functions by the FDA; monitoring and reporting accurate data; and remitting appropriate rents and taxes by logging companies. Informal (unapproved) logging activities by companies and private individuals further complicate the issue.

Illegal logging in Liberia has a long a history; however, this analysis focuses on the post-Cold War period. The post-1989 illicit logging trade in Liberia has two main phases. The first falls within the period of protracted civil wars in Liberia (1989–2003). There was a precarious interlude in the war efforts following the 1997 election of Charles Taylor. However, there was a relapse into armed insurgency during Taylor's reign as new rebel groups launched attacks from neighboring Guinea. Many studies suggest that until 2003, when Taylor stepped down, he used revenue from illicit logging to enrich himself and finance his war efforts (Beevers 2012; Richards 2001; Reno 2000).

A useful way to understand illicit conflict logging in Liberia is through a "business and diplomacy" model. This model postulates that the collapse of state institutions, which preceded and exacerbated Liberia's civil war, inspired "domestic and international interests to scramble for political advantages and control over resources" (Ellis 1999:164). The domestic interests were led by Charles Taylor, his relatives, and senior military commanders (ICG 2003). Global Witness (2001), documents the involvement of Charles Taylor, Jr. and Demetrius Taylor (Taylor's brother), who served respectively as Managing Director and Secretary of the Forestry Development Authority (FDA), in illegal logging. There were also longstanding international commercial interests in Liberia's timber that contributed to the flourishing of the illicit logging. This included links between multinational companies (representing other countries) and the Liberian logging industry. For example, Abbas Fawaz, one of Taylor's leading financial supporters, benefited significantly from illicit timber trade through his logging firm, United Logging Company. In addition, other multinational companies from France, the Netherlands, and China were also beneficiaries of this illicit trade. In 2001, for example, France imported 98,700 cubic meters (m^3) of Liberian logs estimated at US$ 13.2 million. The Netherlands—through Wijima, one of the largest Dutch hardwood importers—was also involved in this trade. China remained the largest importer of Liberian timber into Asia (Global Witness 2001). These multinational "logging companies made significant off-budget payments to Taylor and were actively involved in illegal arms exports" (Global Witness 2012a: 1). This is why there are claims that conflict logging was directly responsible for the perpetration of gross violations of human rights in Liberia.

Before the outbreak of the civil war in 1989, the illicit timber trade had flourished in the context of the Liberian state's diminished capacity to monitor, regulate, and counteract illegal commerce of its timber. In other words, illicit timber trade significantly contributed to the destruction of Liberia's economy and the cycle of violence during the 1990s (Ellis 1999).

Since the end of the war and the election of Ellen Johnson Sirleaf, there have been attempts to reform and improve the regulation of the timber industry. The pillar of reform was the establishment of the Private Use Permits (PUPs) under the 2006 National Forestry Reform Law, intended to regulate and govern the logging trade, especially the relations between private landowners and government-approved companies. Yet, it seems that this process has been less sensitive to environmental sustainability (destroying rainforest), continues to be characterized by corrupt and fraudulent practices, and harbors risks of community-based conflicts. Before delving into this reproduction of the criminality through the Private Use Permits, it is important to identify the actors and network involved in the illicit trade in Liberia's timber.

Trilogy of criminality: warlords, government officials, and foreigners

When Taylor and other warlords engaged in looting and illegal exploitation of timber during Liberia's civil war, they were able to amass revenue through informal networks with Western and non-Western companies and states. For example, it was reported that France and China imported an estimated 71 percent of Liberia's timber in 2000, and the United Kingdom, Italy, Denmark, and Germany were also part of the conflict-logging global trade network (Global Witness 2001).

There are no established links between President Johnson Sirleaf and illicit logging in post-conflict Liberia. However, concerns have been expressed about the complicity of some current government officials in facilitating the access of multinational logging firms to land deeds through corrupt practices. Multinational corporations remain the most influential players in Liberia's timber industry. They have often sought to maximize profit through non-payment of taxes, illicit acquisition of land deeds, and undue influence on government decisions, especially when they are unfavorable to their businesses. The companies that maintain dominant positions in Liberia's timber industry include: Atlantic Resources, Alpha Logging, and Samling. These three companies hold a total of more than 20 percent of Liberia's land area (Global Witness 2012a). In 2008, the Save My Future Foundation also issued a report alleging that Tobga Timber Company was responsible for felling, sawing, and exporting timber illegally from Maryland County, which had implications for the rebellion in Côte d'Ivoire. Similarly, Atlantic Resources, which is linked to the Malaysian logging company Samling, has been widely implicated in logging practices that are exploitative of community owned rainforest.

The scale of logging permits awarded to multinational companies suggests that they remain important actors in the timber sector in Liberia. The questionable acquisition of logging permits and the reduced consideration for community forests is a recipe for eliminating sustainability and heightening risks of future armed conflicts. The ecosystem depletion caused by excessive felling of trees may degenerate into conditions that breed social and economic tensions in the future. Unfortunately, despite the reform put in place by the Liberian

authorities, the illicit pattern of logging continues unabated. In fact, it seems that the laws put in place by the government provide some legitimacy for various actors to continue the illicit practices.

Policy responses: from a sanction regime to a PUPs regime

During the Liberian civil war, the United Nations imposed wide range of sanctions against Taylor's regime. However, it was not until 2003 that it decided to recognize the connection between timber trade and the sustained conflict in Liberia. Specifically, UN Security Council Resolution 1478 imposed a ten month ban on imports of Liberian timber by United Nations member states.[8] This sanction was lifted in 2006 (UNSC 1689 2006), but there have been major efforts in reforming the timber sector, especially in promoting sustainability and preventing illicit trading.

Major trading partners like the United States have offered development assistance to Liberia to promote sustainability in the timber value chain. For example, in September 2012, it was reported that the United States provided US$ 30 million to support communities in the management of forest resources. In addition, the European Union (EU) has signed the Voluntary Partnership Agreement (VPA) with Liberia. VPA is a legally binding trade agreement negotiated between the EU on behalf of its member states and the governments of the timber exporting countries (FLEGT 2012). It serves as the legal framework to set minimum standards on the felling of trees. The NGO Coalition for Liberia worked closely with local communities on the signing, one example of the manner in which civil society organizations have contributed to and have remained important actors in the formulation, implementation, and monitoring of various laws guiding legal timber trade. At the national level, the adoption of various timber reforms seems to have represented the implementation of lessons learned from the wartime era, when timber was used to fuel conflict and there was less emphasis on sustainability.

The Liberia Governance and Economic Management Assistance Program (GEMAP) was launched in 2005 as a framework for a post-conflict reconstruction program aimed at building formal institutions to curb massive corruption and prevent loss of government revenue, especially through illegal procurements and practices. The aim of GEMAP is to create and institutionalize effective financial and asset management policies and procedures, contain corruption, and improve overall economic governance. Specifically, the GEMAP process sets out six main objectives: to secure Liberia's revenue base; ensure improved budgeting and expenditure management; improve procurement practices and grants of natural resources concessions; establish effective processes to control corruption; support central institutions of government; and foster cross-cutting capacity building (Cohen et al. 2010). This ambitious blueprint has been the overarching framework for Liberia's post-war economy recovery, especially its natural resource governance architecture.

In the area of forestry, the GEMAP seeks to build the FDA's capacity through staff training, financial management systems, and periodic performance (financial and procedural) audits. GEMAP's notable achievements in relation to forestry management include standardization of all payment and revenue collection systems, improved documentation and monitoring through staff capacity training, establishment of safeguards against illegal and unqualified logging concessions, and detection of irregularities in the logging sector to safeguard against loss of official revenue (http://www.gemap-

liberia.org/about_gemap/FDA.html).

The overarching national legislation governing the timber sector is the National Forestry Reform Law, adopted in 2006 as part of the system-wide reform to ensure sustainability and allow for the legal trading of timber. This reform agenda provides a framework for mediating disputes between landowners and government-approved companies in the timber trade. An important provision within the NFRL is the establishment of the Private Use Permits (PUPs). The PUP allows for the commercial use of forest resources on private land. Under the PUP framework, the Liberian government is expected to grant permits to private landowners that will allow them to trade in timber and other forest resources with government-approved companies. Since its adoption, the government has awarded about 63 PUPs, totaling 2,582,501 hectares, approximately 23 percent Liberia's total land area (Jallah et al. 2012). The PUP was established to prevent illegal trade in timber, minimize disputes between landowners and logging firms, and meet the increasing demand for Liberia's timber. Other benefits of the PUPs as originally conceived are to generate revenue through the payment of rents by PUP operators to the government; enhance oversight and regulation over the timber sector; attract foreign direct investments (FDIs); and improve economic benefits to landowners at the community level through fair trade by government-approved companies.

Unfortunately, the PUPs may not have delivered the intended benefits, as the program seems to be entrenching illegality, unaccountability, and economic stagnation in Liberia vis-à-vis the timber sector. Global Witness (2012a, b) notes the following problems associated with the implementation of the PUPs:

1. There are very few restrictions on PUPs in Liberia's law, which allows for the possibility of widening the commercial exploitation of forest resources. This raises questions about the sustainability rationale behind the formulation of the NFRL and the PUPs in particular.
2. The government has been unable to document receipt of substantial revenue from the PUPs. This is because landowners and companies are able to agree on rates of compensation that will allow them to pay little or no taxes to the government.
3. Communities are very vulnerable to the consequences of excessive exploitation of their forests. Hence, there is a high risk of erosion, deforestation, and land degradation. This is compounded by the fact that there have been instances of falsified land deeds and other corrupt practices (Global Witness 2012a: 3).
4. Finally, PUPs seem to be legitimizing the possibility of community exclusion and widespread exploitation of forest resources that are supposed to be preserved for communities. Under the NFRL, and specifically the 2009 Community Rights Law, the community forests provision makes certain lands (forests) ineligible for PUPs. Regrettably, some of the PUPs awarded violated this provision.

The inadequacies of the regulatory regime have led to protests by CSOs and to temporary moratoriums on PUPs. For example, in response to those protests, the government issued two moratoriums (in February and August 2012) on the award of PUPs to landowners to reverse the negative trends of the PUPs. Even though much progress has been made in the shift away from conflict logging, aspects of the current government regulations inadvertently perpetuate the illegal pattern of logging in

Liberia.

Post-conflict Liberia has made some progress in attempting to govern its resources as discernible in its timber sector. This is noticeable in the reform of policy formulation, institution building and operational responses in curbing corruption and insecurity and collaborating with international actors as a disincentive for reducing transnational illicit timber trade. There are, however, considerable capacity gaps in the current regime governing natural resources in general and the timber trade in particular, both at the policy (especially the PUPs regime) and operational levels.

b) *Case Study 2: Nigeria—illegal bunkering in the oil sector*

In September 2012, Nigeria's Finance Minister raised national and international alarm that the trade in stolen crude had reached an all-time high, reducing official exports by 17 percent (the equivalent of 400,000 barrels per day) and amounting to a loss of N1.2 billion (approximately US$ 7.6 million) in official revenue on a monthly basis (Globeserver 2012). In November 2009, the ship *MT African Prince* was intercepted some 15 nautical miles off Ghana's territorial waters with 5,200 tons of crude confirmed to have been stolen from Nigeria (All Africa News, November 29, 2009). In October 2003, another ship, the *MT African Pride* and its 10 Russian crewmembers, were arrested by the Nigerian Navy for carrying some 6500 metric tons of stolen crude oil from southern Nigeria. Some months thereafter, the ship and crew disappeared from official custody under mysterious circumstances that prompted an official investigation and the eventual court-marshaling and dismissal of two rear admirals in January 2005.

These anecdotes illustrate different yet connected aspects, costs, scales, actors, and networks involved in illegal bunkering in the value chain of Nigeria's oil sector. They detail the role of internal and external actors in a well-organized syndicate and the landscape of oil bunkering in Nigeria. The landscape of criminality in Nigeria's oil value chain, however, transcends bunkering; it includes corruption in the management of oil receipts, questionable award of contracts and oil exploration licenses, and corrupt practices in the management of the downstream sector. Nonetheless, the focus here is on illegal bunkering in the context of the upstream (extractive) sector.

Over the past decade, illegal oil bunkering has become more pronounced, intensified, and syndicated, with the active collusion of security personnel, armed groups, vessel owners, riverine communities, and highly placed government officials in Nigeria. While the phenomenon predates 1999, it has taken a new dynamic ever since and become intertwined with issues of insecurity and the tensed tripartite relationship involving host communities, government and multinational oil companies operating in the Nigerian Delta region.[8]

The nature of illegal oil bunkering

The trade in stolen crude oil in Nigeria has official and unofficial dimensions. *Official illegal bunkering* primarily involves using existing oil lifting licenses to illegally take and profit from crude oil—the lifting of excess crude beyond approved quantities. It refers to the use of unlicensed ships, barges, and vessels to transport illegal crude and the falsification of documents on the lifting, volume, cargo movement, and destination through the active collusion of officers of the Customs Service, ship captains, and officials at loading terminals. To underscore the reality of official bunkering, the chief of Nigeria's Customs Service announced at a briefing for legislators in August 2008 that his department lacked the operational capacity to perform its statutory mandate of monitoring and

documenting the amount of crude taken out of Nigeria on a daily basis. The customs chief noted that "today our maritime unit has collapsed, we cannot afford to buy sea going vessels or boats. How do we tackle cases of bunkering?...We don't even know how many vessels come into this country… We are supposed to know the quantity of crude that goes out of this country, but as I am talking now, only very few companies come and call us to go and inspect the vessel, only few of them because we don't have the facilities to do it ourselves" (ThisDay 2008).

There are suggestions that illegal oil bunkering is hardly new in Nigeria: that it actually started in the mid to late 1970s following a massive increase in oil output and revenue, the involvement of Nigerians, and the expansion of maritime business in Nigeria. The phenomenon is said to have followed a steady growth in the 1980s, largely restricted to official circles during military rule. The prevalent pattern up to the early 1990s was the cargo theft format perpetrated by serving and retired high level military personnel who awarded oil lifting contracts (licenses) to themselves or their cronies and transported stolen crude alongside official crude. According to one analyst, the cargo theft format of oil bunkering expanded massively circa 1996 during the regime of Sanni Abacha, when serving high ranking naval chiefs smuggled stolen crude from the Niger Delta to neighboring countries in West Africa for sale. It is estimated that in the first six months of 1996, the three naval chiefs smuggled over 202,130 metric tons of crude out of Nigeria (Busch 2005). Since 1999, it is reported that key figures in the ruling People's Democratic Party, a group dominated by retired military chiefs, have actively encouraged and participated in unofficial oil bunkering, parallel to their collection of kickbacks for contracts in the oil and gas sector.[10]

Unofficial illegal bunkering involves stealing crude oil through a network of connected strategies. There are four stages involved in this process. First is the sourcing or extraction of crude: this is done either by hijacking a barge or vessels already loaded with crude through the use of force, or through direct extraction. The direct extraction involves either of two methods. First, hot tapping—drilling or bridging a crude pipeline, often at night. It normally occurs when and where a crude production line has been shut down owing to sabotage (pipeline vandalization by oil bunkerers) that ideally causes a drop in pressure registered at gauges at flow stations. During the shutdown, oil bunkerers install sophisticated taps from which they load stolen crude when the production line is restarted. In most cases, this is very difficult to detect as the supply is always constant, thereby preventing any fluctuation in pressure following the resumption of production at a flow station. Second is well-head tapping: this involves invading an abandoned production wellhead, removing the safety valves, and reinstalling production enabling valves to restart the pumping of crude.

The scale of illegal bunkering

There is some confusion or lack of clarity as to the exact scale of the problem. Available data appear low in reliability, consistency, and accuracy but do suggest broad trends. The lack of credible data could be due to either official attempts to cover up the actual scale of the problem or the use of different measurement yardsticks (such as a drop in estimated daily output or rough estimation of crude lost during production). The problem of unreliable data also stems from the fact that successive Nigerian governments lacked the capacity for accurate data on stolen

crude oil. Moreover, government spokespeople make public comments that fail to differentiate between crude stolen and production shut-in due to armed conflict in the Niger Delta.

According to media reports, the amount of stolen crude oil in 2000 was nearly 51,000 barrels; in 2001, it rose exponentially to over 262,000 barrels; in 2002, it dropped slightly to around 255,000 barrels (Coventry Cathedral 2009). During 2003 and 2004, oil thieves stole an estimated daily average of between 250,000 and 400,000 barrels. In 2003, the Shell Petroleum Development Company (SPDC) claimed to have lost an average of 100,000 barrels, and other upstream companies also reported losing an average of 150,000 barrels per day, all due to illegal oil bunkering (Coventry Cathedral 2009).

In 2004, the President's Special Adviser on Petroleum and Energy, suggesting official estimates, stated that between 10 percent and 15 percent of Nigeria's daily output of 2 million barrels was being lost to illegal bunkering. At 2004 prices ($41), this was equivalent to US$ 8.5 million per day, and illegal bunkerers stole an annual average of US$ 4.2 billion (Coventry Cathedral 2009:). This puts the daily average of stolen crude at approximately 250,000 barrels, thus making 2003 the turning point in the expansion of illegal oil bunkering in Nigeria. Similarly, the International Maritime Organization estimated Nigerian cargo theft in 2006 to be 80,000 barrels per day, equivalent to US$ 1.6 billion for the year (Davis 2007).

The illegal bunkering syndicate

The range of actors can be grouped into two broad categories: local and foreign.

Local Actors can be subdivided into five categories, depending on their role in the chain of illegal oil bunkering.

1. *Armed groups and criminal gangs*: Despite the 2009 amnesty program, armed bunkering groups continue to exist in the Niger Delta. These groups derive huge revenue from the oil-bunkering racket through the collection of clearance fees, passage fees, or protection fees. The involvement of black market operators (in arms and stolen crude) from Eastern Europe is often a pointer to the link between illegal oil bunkering and the proliferation of arms in the Niger Delta.
2. *Local communities*: Local communities or their agents have been known to be complicit in oil bunkering either by their failure to report the activities of oil bunkerers or their willing invitation to and derivation of revenue from oil bunkerers who operate in their communities. In most cases, crude pipelines that crisscross communities are sabotaged deep into community territories to allow communities to claim compensation from oil companies for spills and pollution and to give oil bunkerers the opportunity to hot-tap crude from pipelines. Some communities justify complicity in oil bunkering as a direct way of deriving financial benefit on oil extracted from their communities after years of neglect by government and oil companies.
3. *Colluding security personnel and other state officials*: Officials of state agencies, including the Nigerian National Petroleum Corporation (NNPC) and security Joint Task Force units, have been known to be deeply complicit in oil bunkering. There are reports of officials of NNPC selling crude from supplies reserved for domestic consumption to black market operators and illegal vessels and of their complicity in the falsification of bills of lading and theft by licensed oil transporters. Security agencies continued to be plagued by bunkering-

related corrupt practices through their taking payments from bunkering syndicates. A 2003 Report on Illegal Sale of Crude Oil submitted to former President Obasanjo is said to have detailed the explicit involvement of security officers (especially naval units based at NNS Okemiri) in the racket (Davis 2007:2). The dismissal of two rear admirals over the *MT African Pride* is a good illustration.

4. *Local artisans*: This group is composed mostly of youth that supply the needed manpower in the process of extraction, sourcing, storage, and transportation of stolen crude. This could range from welders, plumbers, and manual laborers to speedboat operators. For a majority of people in this category, oil bunkering provides employment and income, especially against the prevailing poverty in the Niger Delta.
5. *Local entrepreneurs*: This group is composed of local organizers ("businessmen") who coordinate the different phases and actors involved in oil bunkering. They make contact with armed groups, security agencies, and local communities; recruit local artisans; effect relevant payment; and find willing buyers for stolen crude.

Foreign Actors can be subdivided into two categories, depending on their role in the bunkering chain:

1. *Vessels crew/seafarers*: This group is diverse in nationalities, but the most notable are Filipinos, Russians, Ukrainians, and Ghanaians. They are usually crewmembers of barges and vessels used in transporting stolen crude. Ten Russians were arrested and later escaped in the 2003 *MT African Pride* episode. Also, in February 2009, 13 Filipinos pleaded guilty and were sentenced to various jail terms and fines for oil bunkering (The Nation 2009a and 2009b).
2. *International black market entrepreneurs*: This group operates at the topmost end of the chain, with or without any involvement in how and where stolen crude is sourced. The syndicate is interested only in having stolen crude delivered to their vessels and duly paid for. This group often includes Lebanese and Russian "businessmen."

A key strategy used by oil bunkering vessels is to constantly change the vessel/barge name; they often adopt up to three different names and give false information to security agencies about their locations, movement logs, and overall purpose in the Niger Delta. In a majority of cases, payments are effected afterward using formal banking institutions. The only payments done before or during the actual process of loading, transporting, and discharging are those made to armed groups, coastal communities in which the extraction takes place, and members of the Nigerian security outfit.

The process of selling stolen crude on international black markets involves a complex network of local and foreign individuals who tend to coordinate the process from extraction to transportation and discharging. There are reports that stolen crude is actually sold on the international black market at the notorious "Togo Triangle"—a patch of maritime area, often not policed, in and around Togo's territorial waters where money and stolen crude exchange hands (Vanguard 2009b). From arrests made and media reports, it appears that the dealers (sellers and buyers) of stolen crude from the Niger Delta are influential Nigerians from within and outside of the Niger Delta and include retired and active-duty high ranking military officers and politicians (The Sun 2009). Also included are foreigners such as Lebanese "businessmen" who operate across West Africa

and are notorious for involvement in illegal businesses; Eastern Europeans (Poles, Russians, Ukrainians); and Filipinos (Vanguard 2009b). Crucially, the key destinations for stolen crude are mostly refineries in surrounding West African countries (Sierra Leone, Ghana, and Côte d'Ivoire) and international parallel markets.

An important development in the stolen crude market is the emergence in the last five years of a huge domestic, intra-Nigerian market, owing to persistent scarcity of refined petroleum products and increased use of power generating sets. This has resulted in the mushrooming of local "refineries" that manually refine stolen crude to distill household grade diesel fuel.

3.6 Conclusion

This chapter explored the complex network of issues, processes, and actors involved in the natural resource value chain in Africa. It identified underlying issues such as weak oversight mechanisms, genuine capacity deficits, corruption and collusion by government agencies and officials, gaps between legal (official) and informal (socio-cultural) approaches, unresolved contestation about natural resource governance, armed conflicts and insecurity, and globalization.

Although resource flows have propelled the outstanding growth recorded on the continent in the last decade, getting the most out of this requires careful macroeconomic management of the challenges they pose in the short run, and strategic thinking to reduce their potential adverse effect in the long run. Both actions require capacity in economic governance.

Mainstreaming natural resources to become the engine of growth in Africa is not impossible provided there is the political will and commitment to do so. Several countries have successfully achieved this feat. It is not beyond African countries to achieve this. To this end, the chapter outlined the role of different public sector investment modalities in the transformation of natural resources management, drawing on lessons learnt from resource-rich African and non-African countries. However, to succeed, several policy actions are germane. For one, the existing human, institutional and infrastructural capacity deficiency must be tackled. There is also need for national capacity that is equipped with the technical capacity to independently explore known and unknown natural resource deposits, independently appraise finds and properly evaluate their worth, evaluate investor work plans so as to maximize the real rate of recovery and return from natural resources, and perform several other technical functions. Skills gained in these areas will help improve the real and potential revenue accruing to the country from its natural resources and minimize leakages.

Public investment in social infrastructure is again important. Thus, public investment in physical infrastructure, health, education, and other related activities is a sine qua non in this process and should be scaled up. Rather than emphasizing current consumption, such as subsidies of all kinds, focus should be on investing in capital accumulation that will benefit both the current and future generations. Structured, systematic, and well calculated mechanisms for converting natural capital into more productive capital (physical, human, and financial) through public investment is the sure way to mainstream natural resources as the engine of growth in Africa. It is only through this means that Africa will attain sustainable development in a real way.

It is imperative to address the challenge of criminal syndicates involved in the sector, including colluding local communities (and their

inhabitants), government officials, security agencies and foreign parallel market operators. The chapter also notes the cross-border and regional dimensions and implications of managing the natural resource value chain, particularly in West Africa. The listed impacts include loss of revenue to governments, criminality, armed conflict (and vice versa), the contagion effect across borders and regions, and long-term damage to local socio-economic and environmental sustainability.

More importantly, the chapter highlights the limitations of present policy responses, including a narrow focus on law enforcement, in place of addressing underlying socio-economic, political and environmental issues; placing strong emphasis on national-level initiatives with limited synergies with international approaches; and correcting the absence of strong regional and international policy actions. Finally, the chapter pinpoints extant resources and initiatives either working or with potential to contribute to addressing profiteering in natural resource value chain in Africa. This includes implementing a whole-of-the-government approach; enhancing national and regional security by negotiating settlement of disputes and other capacity development initiatives; instituting regional-level adaptation and adoption of emerging best practices in the management of natural resources; and integrating local perspectives and practices (rather than simply criminalizing them) and CSOs

Chapter 4

Structural Transformation and Natural Resource Management in Africa

4

Structural Transformation and Natural Resource Management in Africa

4.1 Introduction

Despite a dip during the recent global economic recession, many African nations continue to ride a natural resource and commodity export driven economic boom. A critical question for these countries is whether this boom is somehow different than those of the past, which all faded with time. Some have argued that we are experiencing an underlying shift in global demand for commodities because of growing urbanization on the international scale and the swelling ranks of the middle class in the global south. These factors are seen as having fundamentally changed demand for food and raw materials that many African nations are well placed to supply. Such deeper shifts in demand may lead one to conclude that African economies, which are largely dominated by primary production and are the least diversified of all developing regions, should merely ride the wave to sustained prosperity. Moreover, some have theorized that African economies ought to remain focused on primary production, the area in which they have an advantage relative to other actors in the global economic system (Naude et al. 2010).

The latter line of thinking neglects the longer-term trend of declining real commodity prices. This is because shorter term rises in prices almost always lead to the introduction of new sources of production, substitutes, or improved efficiency of use. Worse yet are long range declining terms of trade wherein the price for African exports (dominated by primary production) has weakened relative to the costs of goods imported. This evidence leads to a different conclusion than that noted in the previous paragraph: African economies must diversify away from primary production (resource extraction and agricultural commodity production) to improve their economic position vis-à-vis the rest of the world. Economies overly focused on primary production are risky because they tend to lack diversity and are vulnerable to fluctuations in global commodity prices. Such economies also often miss out on value added processing of raw materials and other forms of manufacturing.

With this in mind, this chapter focuses on an interrogation of recent trends in African resource-based economies, explores the risks of an economy overly focused on primary production, reviews the theoretical literature on the reasons countries get stuck as peripheral producers, and examines past approaches that have been embarked on to pursue economic diversification (failed and successful). Following the introduction, section two reviews trends in African resource-based economies and briefly examines foreign involvement in Africa's resource-based economies. Section three probes the vulnerability of undiversified, commodity-based economies in the face of globalization. Section four attempts to interrogate three broad policy initiatives aimed at economic diversification (import substitution, new structural economics, and the "trust fund" approach). The section also highlights Botswana as good case of effective economic diversification in resource-rich African nations. Section

five speaks briefly to what is required to achieve transformation. Finally, section six concludes the chapter and offers a way forward.

4.2 Understanding Trends in African Resource-Based Economies

4.2.1 *Recent trends in mineral, energy, and agricultural exports*

Many African economies sustained above average levels of growth through most of the international economic recession that began in 2008 as they rode a cyclical commodity export boom.[1] Leading up to 2008, most of Africa was in the midst of one of its highest growth periods on record, with average (real) GDP rising by 4.9 percent a year throughout 2000–2008, more than twice the rate in the 1980s and 1990s (Leke et al. 2010). Real GDP dipped to 3.1 percent in 2009, at the height of the financial crisis, but rose again to 4.9 percent in 2010. While average growth slackened to 3.7 percent in 2011 as a result of sociopolitical unrest in some African countries, it was expected to recover to 5.8 percent in 2012 (AfDB 2011a). In comparison, global (real) GDP averaged 4.3 percent per year during 2000–2008. It then dropped to -0.7 percent in 2009 and rose to 4.9 percent in 2010 and 3.7 percent in 2011 (CIA World Factbook 2012). As such, African economic expansion over the past 12 years has outpaced that of the world over the same period, as well as its own growth in the previous two decades.

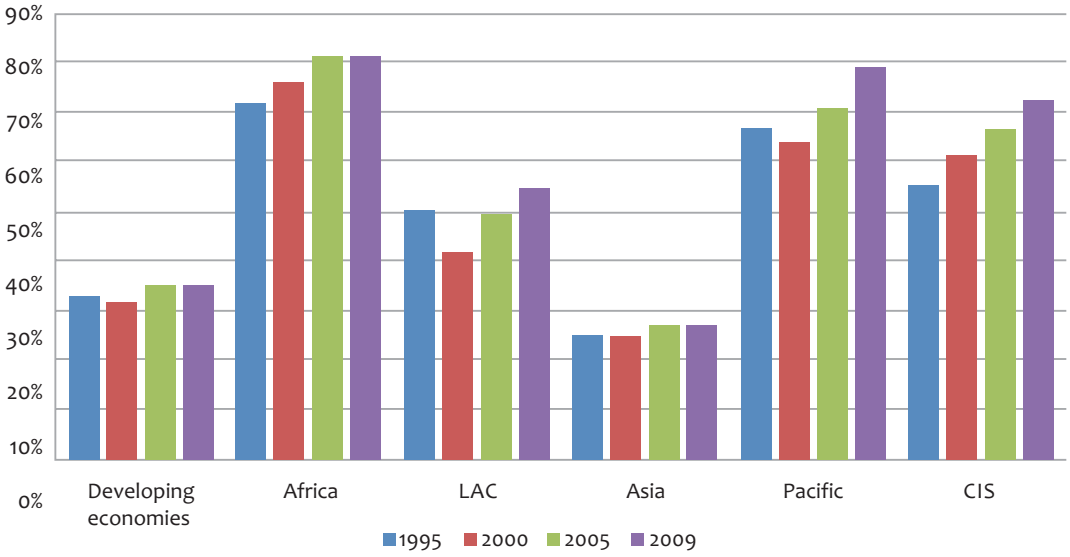
Rising prices for oil, minerals, and other commodities have helped lift Africa's GDP since 2000 (Leke et al. 2010). For starters, the continent is well endowed with certain natural resources, including oil (10 percent of global reserves), gold (40 percent), chromium, and platinum (90 percent) (Leke et al. 2010). Furthermore, much is made of the fact that large areas of Africa have not been subjected to prospecting for mineral resources, so there is a belief that much larger reserves may exist (Elliot et al. 2011).

In terms of land, and related production of food and fiber, it is debatable whether Africa really has excess food and fiber to export given that it struggles to feed its own population in some years. That said, there is a perception by some outside powers that Africa has plenty of land to spare (Horta 2009). In fact, this perception of "excess land" has been used to legitimize long term land leases or "land grabs." The 2012 African Capacity Indicators Report on agricultural transformation and food security discussed this problem at length and concluded that foreign acquisition of African land affects the land rights of the poor and women and that it has implications for capacity building (ACBF 2012).

One estimate is that roughly one third of African economic growth is tied directly to commodity exports (including oil, minerals, and agricultural goods) (Roxburgh et al. 2010). The dominance of commodities in African economies is even more evident in export figures, as approximately 65-80 percent of the continent's exports are composed of such goods. In fact, commodities exceed 50 percent of exports for nearly every African country; in some cases (such as Algeria, Nigeria, Angola, and Kenya), they account for over 90 percent of a country's export revenue (Oramah 2012). Commodities constitute a larger share of exports in Africa than in any other developing region, and the proportion has been growing over time (figure 4.1). This growing dependence on commodity exports stands in stark contrast to other areas of the world that have developed rapidly while diversifying their economies (Gelb 2010). Given the dominance of commodities in Africa's export and growth boom of the 2000s, some have framed this situation as "The New Scramble for Africa," with an apparent reference to the first scramble for

Africa in late 19th century (Carmody 2011). While growth began to slow for some sectors as the global downturn persisted, it has now begun to turn around, and projections are for consumption of many commodities to increase by 25 percent over the coming decade, approximately twice the rate of the 1990s (Leke et al. 2010).

Figure 4.1: Share of commodities in total exports by developing region



Source: UNDP. (2011b). "Chapter 2: Commodity Dependence and International Commodity Prices." In: Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty. New York: United Nations Development Program

4.2.2 *Global demographic, economic and market shifts*

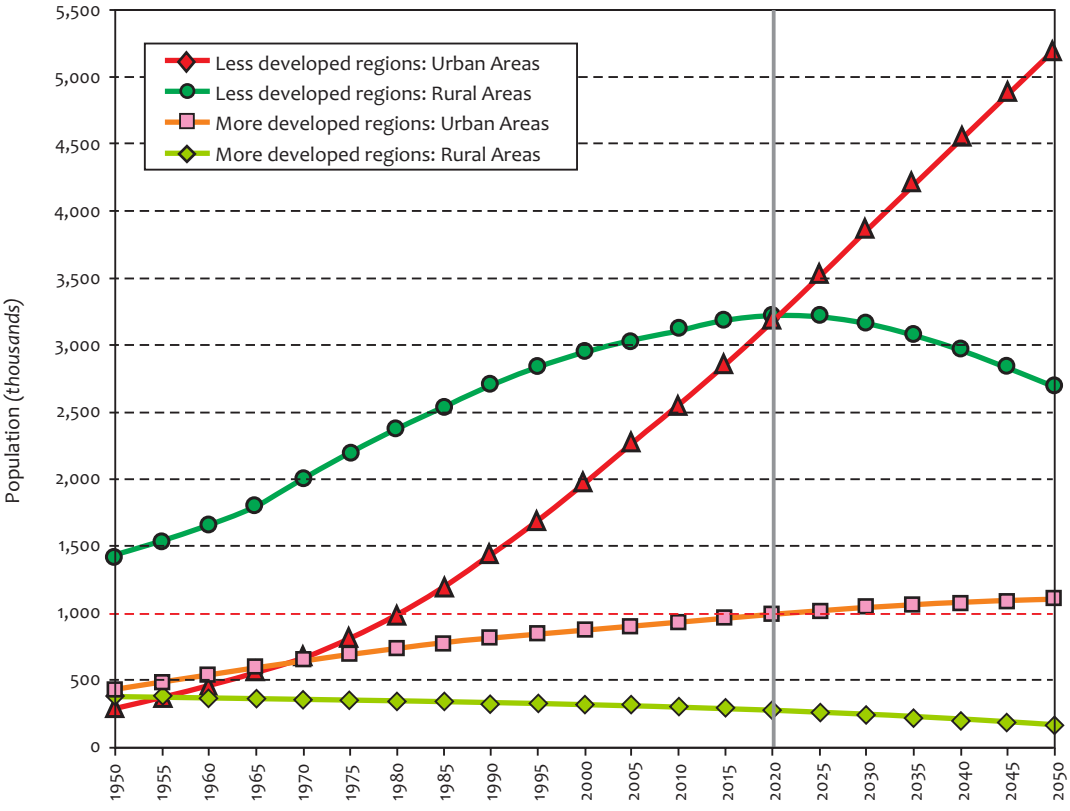
The current commodity driven export boom is not the first to be experienced by African countries; similar booms occurred in the 1950s and 1970s. The real question is whether this boom is different—which inevitably pushes us to ask what accounts for the rise in global commodity consumption and whether this is an episodic or a more fundermental shift. Furthermore, we are prompted to consider what Africa can do differently this time around to ensure that the benefits from the boom lead to development and poverty reduction.

Some have asserted that the current boom is fundamentally different than those of previous periods. The president of the African Development Bank Group, Donald Kaberuka, has argued (2007) that this commodity boom is different because, unlike in the 1970s, oil demand in Africa today is not being driven by cartelization (such as OPEC) or a sudden geopolitical shock (like the Iran-Iraq War), but rather by more fundamental shifts in global demographics and demand. Furthermore, growth in the current period is not linked to industrial expansion in the global north (such as occurred after World War II) but rather by phenomenal growth in other areas of the global south.

Demand for commodities is growing fastest in the world's emerging economies, particularly in Asia and the Middle East. This demand is driven in part by urbanization and related changes in consumption patterns in these regions (Leppman 2005) (see also figure 4.2). To a lesser extent, urbanization within Africa is also driving demand for commodities. In the case of Asia, and most particularly China, not only has the country's populace become more urban, but also the economy is increasingly dominated by manufacturing. China's economy has effectively moved from the periphery to the semi-periphery and, as the world's great factory, it must secure raw materials from around the world (Muldavin 2007; Bergmann 2012). As a result of these changing global demographics and industrialization patterns, Africa's trading patterns have shifted geographically.

Despite its history of commercial ties with Europe, Africa now conducts half its trade with other developing economic regions of the world. For example, from 1990 to 2008, Asia's share of African trade doubled to 28 percent, whereas Europe's portion shrank from 51 to 28 percent (Leke et al. 2010). Ironically, Africa has not always been able to meet the commodity demands of its own growing urban population. For example, growing urbanization in West Africa has led to a surging demand for rice, much of which is provided by Asian producers. A combination of poor internal infrastructure, cheap broken rice from Vietnam and Thailand, few to no tariff barriers, and limited state support for agriculture has made it difficult for local producers to compete (Moseley, Carney, and Becker 2010).

Figure 4.2: Urban and rural population by development group, 1950-2050



Source: United Nations. (2010a). World Urbanization Prospects: The 2009 Revision. ESA/P/WP/215. New York: UN Department of Economic and Social Affairs, Population Division.

A contrary view is that this is just the upside of a cyclical commodity boom and bust cycle, and that nothing fundamental has changed. While Africa has benefited from the current commodity boom, such high returns will soon decline. In fact, recent reports suggest that we are nearing the end of a commodity super cycle (Sharma 2012). Evidence for this view includes indicators of "oversupply, falling prices and mine closures in markets as diverse as oil, diamonds, platinum and ferrochrome" (GGA 2012a: 25).

Analysts point to long-term trends of commodity prices generally declining over time except for oil (figure 4.3). When prices go up, other suppliers emerge, substitutes are developed, and new levels of efficiency are attained. In some instances, subsidies may also be encouraging over production in the global north.

Figure 4.3: Global commodity index adjusted for inflation (1934-2010)

Source: Mark Perry, Carpe Diem blog (http://mjperry.blogspot.com/).

Agricultural commodities are clearly problematic, as large numbers of countries around the world are capable of producing them. In the case of tropical crops, other developing countries with relatively inexpensive labor costs may competitively enter markets as they believe there are profits to be made, or they may perceive that commodity production is one of their only economic development options. This was arguably the case for Vietnam, which saw its Robusta coffee production and exports surge from the late 1980s, creating havoc for Africa's major Robusta coffee producers, Uganda and Côte d'Ivoire (USDA 2012).

Other types of commodities are produced in both temperate and tropical zones. Cotton is a good example of an African cash crop in this category. These crops may be produced not only in other tropical countries where labor is cheap, but also in countries of the global north where production may be subsidized for political reasons. Oxfam America (2003) determined that in the 1990s, at the height of American cotton subsidies, the six African countries that depended on cotton for more than 20 percent of their total revenue (Benin, Burkina Faso, Central African Republic, Chad, Mali, and Togo) increased export volumes by 40 percent, yet saw their export revenue decline by 4 percent. African cotton producers and their allies in other regions of the global south won a suit they lodged against the United States with the World Trade Organization (WTO). However, while the United States did meet the letter of the law to settle this complaint, it simply switched the form of subsidy payments it provided to its farmers with no real consequent impact on global cotton prices (Ledermann and Moseley 2008). Furthermore, Africa is at an even further disadvantage as a raw cotton exporter attempting to compete with producers located in closer proximity to production facilities because it lacks the capacity for first and second stage transformation of products such as cotton (although it did have that capacity in some cases before the structural adjustment period) (Carmody and Taylor 2003). The irony, of course, is that Africa imports most of its textiles, goods for which it often produces the raw material.

We tend to think of mineral and energy resources as non-renewable and finite, which suggests that, at least in this category of commodities, the number of suppliers and degree of competition will be limited. Yet, even in these cases, rising prices tend to be temporary as technological efficiencies are attained, new reserves brought into production (often made available by technological breakthroughs), and substitutes developed. A good example of this is natural gas, for which Algeria, Nigeria, Egypt, and Libya are major African exporters. Now the competition is increasing on the continent with new discoveries in Mozambique, Tanzania, and Uganda. Even in well-prospected areas, new technologies are opening up vast new supplies. For example, due to the environmentally controversial process known as hydraulic fracturing (popularly known as fracking), and especially a newer technique known as horizontal slickwater fracking, huge new reserves of natural gas have been opened up in the United States and Canada and have depressed global prices. When adjusted for inflation, natural gas prices are now as low as they were in the mid-1970s (Tverberg 2012).

On top of declining real prices (over the longer term) for most of the world's major commodities, there have been noticeable and consistent declines in terms of trade for African commodity crops over time. In relative terms, the revenue Africa is earning from its commodity exports is enabling it to import less from other parts of the world.

4.2.3 *Foreign involvement in Africa's resource-based economies*

In terms of exports of African commodities, the United States and China are by far the most important destinations, followed by France, the United Kingdom, India, and Brazil (Carmody 2011). To some extent, there is competition between the United States and China as they scramble to secure access to energy resources (Carmody and Owusu 2007). This competition can be said to have allowed some African states to negotiate better deals. It has also led to aid packages and infrastructure projects that are

directly tied to resource access grants. This new form of aid, in which the private sector and bilateral donors work in tandem, was introduced and honed largely by the Chinese.

China, for example, bid for access to ten million tons of copper and two million tons of cobalt in the Democratic Republic of the Congo in exchange for a US$ 6 billion package of infrastructure investments, including mine improvements, roads, rail, hospitals, and schools. These types of arrangements are now also being negotiated between African governments and those of India, Brazil, and several Middle Eastern states (Leke et al. 2010).

In the realm of food production and exports, there has been a curious confluence of interests between the United States and China in Africa. Both countries have been pushing to increase food production in Africa by way of a Green Revolution approach—the introduction of hybrid seeds, fertilizers, and pesticides used to boost productivity. To "sell" this particular approach, much has been made (by both the Americans and the Chinese) of China's own Green Revolution, which greatly expanded its agricultural productivity. However, while it had successful elements, the dominant narrative of this experience ignores a number of related social and environmental problems (Muldavin 1997). A sanitized version of the Chinese story is now being used to promote a new Green Revolution approach in a number of African countries (Fan et al. 2010). This story is retold by both Chinese and non-Chinese development actors in Africa and used to support both projects with direct Chinese involvement and those without. Most controversial among these projects are those involving long-term land leases (so-called "land grabs").

By pushing for a new Green Revolution in Africa, both China and the West are likely winners. Many Chinese commentators view sub-Saharan Africa as underpopulated and land rich (Moseley 2012a). As such, enhancing agricultural productivity on the continent means that it will have more food to export to China (which increasingly needs such imports). Furthermore, the United States is home to some of the world's major seed companies and agrochemical firms. By encouraging an input intensive approach to agriculture dependent upon imported technology, American firms are destined to profit. Indeed, the level of involvement of American firms in Africa's agricultural sector is now more explicit than ever. For example, in May 2012, President Obama initiated the Group of 8's New Alliance for Food and Nutrition Security, which has an unprecedented level of business involvement (Moseley 2012b).

4.3 Risks of Economies Overly Focused on Primary Production

4.3.1 The external and internal vulnerability of undiversified economies

Global commodity prices are notoriously volatile. This needn't be a problem for a national economy if it is sufficiently diversified across both different types of commodities in the primary sector and different types of economic activity—primary, secondary, and tertiary production. However, when an economy is overly dependent on the export of one or two commodities, it becomes hostage to such vulnerability, not to mention long-term downward trends in real prices for most of the world's major commodities.

Scholars like Collier (2007) have also argued that there is a difference between undiversified economies based on the extraction of oil, gas, and minerals and those based on the production

of agricultural products. For oil, gas, and minerals, wealth generally accrues to a small group of specialized workers, foreign investors, and the state. The state's share of these returns, as well as its ability or desire to redistribute or reinvest this revenue, also varies greatly. In contrast, for agricultural products, the returns tend to be distributed to a much broader workforce, as well as foreign investors and the state. "Nearly all of Africa's approximately six million commercial farm workers, and a very large proportion of its 140 million smallhold farmers, have some involvement with cash crop production" (Moseley and Gray 2008: 3). But the distribution of revenue from cash crops also tends to vary based on the major mode of production for different commodities (as some are grown primarily by smallholders, while others are produced mainly on large plantations). Given the quicker return on investment, annual crops such as cotton and tobacco tend to be more common on small farms, while tree crops, such as rubber and oil palm, are more likely to be grown on plantations. Tea, cocoa, and coffee appear on both plantations and smallhold farms. State and private sector involvement with these different crops also tends to vary greatly across the continent and thus have implications for revenue capture and political interest in the fortunes of different sectors. For example, the state has historically been heavily involved in the cotton sector in a group of former French colonies in West Africa, while private companies have largely taken the lead in East and Southern Africa.

Leke et al. (2010) have divided African economies into four groups based on the level of diversification within their economies. The wealthiest of these groups is composed of Africa's "**wealthy oil and gas exporters**," which have the continent's highest GDP per capita. This group includes Algeria, Angola, Chad, Congo, Equatorial Guinea, Gabon, Libya, and Nigeria. Among this group are those that have been exporting oil for many decades and those that are relatively new to the business. Interestingly, this group of economies is also the least diversified among the four groups. Despite the narrow nature of their economies, rising energy prices over the past decade have likely muted any sense of urgency for diversification. For example, rising oil prices meant that the three largest producers (Algeria, Angola, and Nigeria) earned US$ 1 trillion from petroleum exports during 2000–2008, compared with US$ 300 billion during the decade of the 1990s.

In contrast to the first group, the second group of African economies is equally wealthy, yet its economies are much more diversified, and will be called "**wealthier and diversified.**" The four countries in this group, Egypt, Morocco, South Africa, and Tunisia, have diversified their economies away from primary production and into secondary (manufacturing) and tertiary (services) activities that account for 83 percent of their combined GDP. Domestic services, such as construction, banking, telecom, and retailing, have accounted for more than 70 percent of their growth since 2000 (Leke et al. 2010).

In addition to the aforementioned, there are two other transitional groups. The first consists of Cameroon, Ghana, Kenya, Mozambique, Senegal, Tanzania, Uganda, and Zambia.[2] Overall, this group is not as wealthy as the first two groups discussed (as measured by per capita GDP), but among the two transitional groups it is diversifying at a faster rate, and we refer to them as "**transitional but highly diversified.**" Furthermore, within this group there are also varying levels of economic diversification. For example, some countries, like Zambia and Mozambique, are still heavily dependent on one commodity (copper in the former and aluminum in the latter)

whereas others, like Kenya, Ghana, and Uganda, are already more diversified.

The second transitional group, and last of the four clusters identified by Leke et al. (2010) is still relatively poor and includes countries like the Democratic Republic of Congo, Ethiopia, Mali, and Sierra Leone. Some of these countries, such as Ethiopia and Mali, are relatively poor in terms of natural resources and have large rural populations, and we refer to them as "**transitional and poor in natural resources**." Others are in the process of recovering from wars, such as the Democratic Republic of Congo and Sierra Leone, but have much wealthier resource endowments. All of these countries have grown steadily in the 2000s, but their growth is precarious and erratic.

4.3.2 *Case studies of undiversified economies*

An interrogation of three countries' economies, all heavily dependent on the production of one or two commodities for export—Mali, with a per capita GDP of US$ 599 and a focus on cotton; Botswana, with a per capita GDP of $7403 and a focus on diamonds; and, Angola, with a per capita GDP of $4322 and a focus on oil (UN 2010b)—provide some invaluable insights. In selecting these countries, a range of income levels (from poor to wealthy) and commodities (agricultural, mineral and energy) were taken into consideration.

i. Mali and cotton

Prior to the recent political troubles in Mali (Moseley 2012c), the World Bank had long encouraged the government to further develop its exports (mainly cotton) as part of its structural adjustment program. While Mali has other exports, such as trade in gold and cattle on the hoof to neighboring countries, cotton has long accounted for the largest share of goods leaving the country. With an annual average of 200,000 tons of production during 1998–2005, Mali was the largest cotton exporter in Africa for several years (FAO 2006a). With cotton accounting for the largest share of GDP and government revenue, the Malian state was interested in maintaining and increasing cotton related exports and revenue. Cotton held such a prominent position in the Malian political economy that it was sometimes referred to as l'or blanc (white gold) (Tefft 2004). Others noted that "coton est or "le moteur du développement"—(cotton is gold, the motor of development)—(GoM 1998). Cotton, thus, became a sort of cure-all for the country's woes. Government officials argued not only that cotton promotes economic growth, but also that it enhances food security and promotes environmental stewardship. When interacting with farmers, for example, agricultural extension agents often asserted that "kori tigi ye nyo tigi ye," (successful cotton farmers are successful millet farmers) (Moseley 1993).

Unfortunately, a long-term development strategy for Mali based on continued increases in cotton production was fraught with problems for the national economy as well as local ecologies and livelihoods. As global cotton prices declined, so did the country's export revenue. In many years, it was often irrational for small farmers to grow cotton, but they did so to have access to credit. As the state or donors were not willing to actively support agricultural diversification, the over farming of cotton became deleterious to soil quality and yields began to decline in the oldest production areas (Moseley and Gray 2008).

Mali was also unable to diversify its economy along the cotton value chain. Although, to be fair, one has to acknowledge that there are historical examples of such a value chain in the

country. For example, there was a lively, traditional weaving sector that was destroyed during the French colonial period (Roberts 1996). Furthermore, a local textile industry was built up during the import substitution era of the 1960s and 1970s. Although the state-run textile industry known as COMATEX was never really that competitive, its demise was cemented by a combination of structural adjustment, the international second hand clothing trade, and cheap Chinese imports (Baden and Barber 2005). In contrast, the similarly endowed Burkina Faso has been more successful at developing a value chain from its cotton farmers to the manufacture of cotton pajamas and other organic cotton products (Bassett 2010).

ii. Botswana and diamonds

Botswana is considered an African success story and development miracle (Samatar 1999). At independence in 1966, Botswana was suffering from a drought and had less than five kilometers of road network, little to no physical infrastructure, and 23 college graduates. In fact, the country didn't have a capital city, as the protectorate had been administered from Mafeking in South Africa. No one could have predicted the economic growth that was to come. The discovery of diamonds a few years after independence, and the astute management of this resource, allowed the country to invest heavily in education, infrastructure, and health care. These investments, combined with a relatively small national population of two million people, allowed the country to become one of Africa's most well to do. Botswana has been one of the fastest growing countries in the world over the past 40 years in economic terms. This rate of growth is comparable to that of the Newly Industrialized Countries (NICs) of East Asia, yet Botswana did this under democratic governance. Today Botswana has a per capita GDP of US$ 13,100 and US$ 8 billion in reserves, enough to cover imports for 20 months. It is the world's leading exporter of precious diamonds.

However, despite all of its success, Botswana's economy is still narrowly dependent on diamonds, as these precious gems account for 76 percent of export revenue, 45 percent of government revenue, and 33 percent of GDP. Hillbom (2008) among others has argued that while Botswana may have experienced tremendous economic growth, it has not developed. Botswana's "pre-modern growth, as opposed to development, allows for significant poverty rates and extremely unequal resource and income distribution to prevail in the midst of plenty" (Hillbom 2008: 191).

Unfortunately, mining employs only 4 percent of the labor force and is not complemented by other forms of industry. It mainly has spin-off effects on the public sector via government employment and spending. An unfortunate result of an economy narrowly focused on diamond mining that produces few jobs, and a government sector that largely employs highly educated urbanites, is that Botswana is a deeply unequal country. In fact, with a Gini-Index of 60, Botswana has one of the most unequal income distributions in the world. This inequality means that although Botswana is a middle-income country, 47 percent of its population lives below the national poverty line (UNDP 2012a). As a result, much of the population suffers from the interlinked phenomenon of persistent poverty and food insecurity (Frayne 2010).

iii. Angola and oil

Angola's crude oil production has skyrocketed in recent years. It is now the second largest producer of crude oil in Africa, after Nigeria, and the main supplier to China. As a result, Angola now has the third largest economy in sub-Saharan Africa, behind South Africa and Nigeria, and is perhaps the continent's hottest market at

this time because of its oil boom. Between 2004 and 2008, Angola's gross domestic product (GDP) grew by an average of 17 percent a year (reaching a high of 22 percent in 2007). The economy is expected to grow by 9 percent in 2012 (GGA 2012b).

However, despite this tremendous economic growth, government statistics show that half of the population still lives on less than US$ 2 a day, and the infant mortality rate remains high: one in five children dies before the age of five (GGA 2012b). The cost of living in Luanda, in particular, has skyrocketed with the oil boom and arrival of large numbers of expatriates. In many instances, this has made it difficult for ordinary Angolans to make ends meet.

Not unlike other economies that are dominated by mineral extraction (such as the Botswana case discussed previously), the level of employment created for Angolans by the oil industry is quite limited. As such, Angola's economy needs to be diversified to ensure that a broader segment of Angolan society prospers from this natural resource wealth. To that end, economists at the World Bank and the International Monetary Fund have been urging the Angolan government to diversify its economy by establishing a stronger private sector that can create jobs and help distribute the wealth. There have been tepid steps in this direction, with various "investments designed to restore the once-profitable agricultural sector, boost local manufacturing and give small businesses start-up loans" (GGA 2012b: 6). An underlying problem may be that an estimated three-quarters of Angola's government revenue is derived from oil sales. As such, the motivation for members of government to diversify the economy may be muted if they are in a good position.

4.4 Approaches to Economic Diversification in Resource-rich Africa Countries

The literature is replete with policy approaches aimed at economic diversification. The following discussion looks at three—import substitution, new structural economics and the "trust fund" approach. The case of Botswana which has transformed its diamond value chain by establishing new industries for the cutting and finishing off raw diamonds, a high value-added activity that previously was outsourced, is also highlighted.

4.4.1 The rise, fall, and rebirth (?) of import substitution

Dependency theory and world systems theory led to some real policy changes on the ground in African countries during the 1960s and 1970s. Probably the most significant of these was an approach known as "import substitution" industrialization. It is often associated with the Argentine economist Raúl Prebisch who argued (1959) that tropical countries would be forever stuck as producers of primary products and therefore would fail to develop unless they took proactive steps to change the nature of their economies in relation to those of others. The idea behind import substitution was that manufactured goods needed to be produced at home rather than imported from the core countries. Given a lack of private capital available for industrialization and stiff competition from producers in the core countries, many African governments became directly involved in the creation of such enterprises. Such state-run enterprises came to be known as parastatals. Governments typically also erected tariff barriers to protect such nascent or infant industries until

they could stand up to international competition.

Linked, but distinct from import substitution, were a number of African governments that nationalized foreign-owned industries during this time period, such as the Zambian government's takeover of the copper industry in 1969 (Libby and Woakes 1980). Part of the idea behind nationalization is that the profits (rather than being repatriated out of the country) could be used to develop other types of enterprises. Part of the trouble in the Zambian case was that the copper industry went into decline in the mid-1970s and, rather than being a profit center for the government, ended up being a net expense.

Import substitution was quite popular until the late 1970s, when the so-called "Third World debt crisis" struck. This crisis involved a number of developing countries, including several in Africa, that were on the verge of defaulting on loans owed to creditors (largely public creditors in the case of Africa). The crisis was brought on largely by government involvement with increasingly inefficient state-run enterprises and the energy crisis of the 1970s, when high oil prices were a challenge for many African oil importers.

From the 1980s through the 2000s, public lenders responded to the debt crisis by imposing a new neoliberal economic order that stressed small government, free trade, export orientation, and the privatization of state-run enterprises. Moreover, the neoliberal era brought a decisive end to two decades of experimentation with import substitution in the African context. Critics of neoliberalism suggested that this was a return to the economic policies of the colonial era. Additionally, there was a concern that there had been a selective reading of history in order to make the case that import substitution was overly problematic and that a narrow focus on comparative advantage and commodity exports was the cure (Carmody 1998). With the Newly Industrialized Countries (NICs) of the Asian Pacific Rim being held up as the new development models, the storytellers conveniently ignored the active role that the state had played in initially protecting and nurturing what would become their major export industries. More recently, some economists have begun to argue that import substitution should be revisited in some cases as an economic policy (Bruton 1998; Amsden 2003).

4.4.2 *New structural economics*

A more recent development is "new structural economics," an approach closely associated with the former Chief Economist of the World Bank, Justin Lin (2012). According to Lin, the market is the most effective mechanism for resource allocation at each level of development. However, economic development necessitates that economies evolve (by moving from primary to secondary to tertiary economic activities) and become more diversified. Furthermore, this evolution is often heavily dependent on improvements in what he calls hard and soft infrastructure, or the physical infrastructure and know-how needed to promote certain types of economic activities. Because such improvements in hard and soft infrastructure often require coordination and are a form of public good, government should play an active role in developing such infrastructure. Lin also draws on the ideas of Japanese economist Kaname Akamatsu (1962) and his "flying geese paradigm" to argue for regional economic integration between different types of economies. Writing from the perspective of Japan in the 1960s, Akamatsu argued that Asian nations would catch up with the West by forming an Asian regional block within which the poorest countries produced the commodities that were subsequently transformed in the more advanced countries. The metaphor was a flock of geese in

V-formation, with Japan in the lead, then the second tier of NICs (South Korea, Taiwan, Singapore, and Hong Kong), followed by the lesser-developed countries in the region.

The new structural economics approach holds some ideas in common with import substitution in the sense that it envisions a role for the state in creating new industries. However, the approaches are different in terms of where one might invest resources: import substitution favors direct support to industries (often via protective tariffs or subsidies), while structural economics emphasizes investment in the physical infrastructure and know-how that would facilitate the rise of a new industry.

4.4.3 *Trust fund approach*

A third tactic is the so-called "trust fund approach," wherein one effectively takes a non-renewable resource and converts it to a renewable resource. This is done by reinvesting the proceeds from resource extraction into a trust fund that yields an income flow over time (El Serafy 1991). A side benefit of this approach is that it has the potential to remove the temptation for corruption by taking the resources out of state civil servants' hands, a critical factor identified by some scholars (Gelb 2011). The trust fund approach has been tried in a few countries, both less and more developed. A good example of a less developed nation that has pursued this approach is the Micronesian island state of Kirabati, which has a population of 90,000 spread over 34 islands and a per capita income (2004) of US$ 950. While most of the population (80 percent) is engaged in a subsistence-based farming and fishing economy, the country also has significant phosphate deposits, that are being mined and exported. Since 1956, the proceeds from phosphate extraction have been placed in a trust fund that is invested off-shore by two London-based account managers (Gibson-Graham 2004). The returns on this fund are used to finance government services, including health care and the development of a communication and transportation infrastructure among the islands. This means that most residents in Kirabati are free to continue living a subsistence lifestyle, yet still have access to sustainably financed government services. Another example, but from a developed country is found in Norway, where proceeds from the natural gas industry have been placed in a trust fund that subsidizes government service provision (Bantekas 2005).

Both cases represent situations where non-renewable resources (phosphate and natural gas) have effectively been converted to a renewable resource (a self-sustaining trust fund) that provides for ongoing investments in a country's human capital. A recent African example is the Chad-Cameroon oil pipeline which included a component on investment for future generations, managed by civil society. The Chad-Cameroon and Norway examples are both detailed in Chapter 5.

4.4.4 *Efforts at economic diversification—the case of Botswana*

As discussed earlier, while Botswana is considered to be a highly successful African economy (Samatar 1999) and one of the few to move from being a low income to a middle-income country, it still has a relatively undiversified economy that is highly dependent on diamonds. Despite Botswana's relative prosperity, there is recognition that its overdependence on diamonds is a problem. Most recently, there has been a drop in global diamond demand as a result of the international recession, with a subsequent contraction of Botswana's diamond export revenue.

As such, the Government of Botswana has made it an explicit policy objective to try to diversify the economy. It has set about this in a couple of different ways. First, the government is attempting to foster more value added processing of diamonds within the country. Until recently, most of the country's precious diamonds had been exported in rough form to other locations to be cut and polished, so that the country missed out on critical value added economic opportunities. The goal of the "diamond beneficiation programme" is to maximize the economic benefits of diamond extraction in Botswana (Leach 2011). Tiffany & Co. has recently established Laurelton Diamonds, a local subsidiary, in Botswana to process its diamonds within the country. It is estimated that the partial onshoring of the diamond finishing business in Botswana will bring in an extra US$ 8 million in revenue to the country. At the time of writing, Botswana's capital, Gaborone, was receiving skilled laborers from around the world with experience in diamond cutting and finishing. The plan is for these skills to eventually be transferred to Botswana's own population. While it is still too early to make a pronouncement on the success of this state-led initiative, the early signs look promising.

The Government of Botswana's other attempt to promote economic diversification has been via efforts to encourage entrepreneurialism in the country. In contrast to the previous program described, the results for this initiative have been less promising. The Government of Botswana has launched a number of programs to encourage entrepreneurialism. These initiatives have included training for entrepreneurs through the University of Botswana as well as loans for business proposals (via the Citizen Entrepreneurial Development Agency). To date, the repayment rate on the loan program has been low and the number of successful new businesses launched has not been high. Some argue that there is an inadequate entrepreneurial culture in Botswana. The country's lack of private sector entrepreneurial activity is in part historical, as this was actively discouraged during the colonial period (Samatar 1999). Others suggest that a civil service position remains the ultimate goal in Botswana society, and entrepreneurial activity is perceived as less prestigious, although an important secondary activity (Chart 2012).

An important lesson to be taken from the Botswana experience is that the state is taking an active role in developing the soft infrastructure or know-how needed to support new forms of economic activity. In building a value chain based on the diamond industry as well as a more entrepreneurial culture, the state has seen the need to provide training via a university or by fostering the transfer of knowledge via experienced diamond cutters and those entering this highly skilled arena.

4.5 Achieving Structural Transformation—what to do?

The aforementioned analysis supports the UNECA's *Economic Report on Africa—Making the most of Africa's Commodities* (UNECA 2013) which, argues that Africa should disregard the reproaches of resource-based industrialization. While acknowledging that the road is not easy, with the right economic policies, structural transformation is attainable. The above view, also mirrors the findings of Bigsten and Soderdom (2006) who, in reviewing firm-level surveys carried out across Africa, observed that resource-based industries encounter comparable obstacles faced by any industry. And as Owens and Wood (1997 cited in UNECA 2013) also submit, proximity to a commodity often does not in itself confer sufficient cost advantages to enable an African country to development competitive resource-based industries.

Other factors, notably infrastructure, human capital and the institutional environment (including access to financial resources) may be more crucial in determining competitiveness (see also ACBF 2011, 2012).

Another often heard argument is that commodity sectors rarely promote linkages and externalities. Here again, the experience of many resource-rich countries clearly suggests that commodity sectors foster productivity growth, technological innovation and forward/backward linkages provided there are good institutions, capacity and a knowledge culture in place (Arezki and Nabli 2012; Mehlum et al. 2008; Fontaine 2004). The experiences of select best-practice countries—Norway, Chile and the Gulf Cooperation Council—are highlighted in Chapter 5.

Finally, it has been said that resource-based industries do not match Africa's factor endowments. This argument is increasingly challenged by the emerging dynamics of global value-chains (GVCs) (UNECA 2013; Szirmai, Naudé and Alcorta 2013). Clearly the prominence of multinational companies in the global economy influences access to knowledge and technology (Szirmai, Naudé and Alcorta 2013). And while opportunities may exist for some African countries to industrialize through light manufacturing, resource-rich African countries need to seriously consider embarking on commodity-based industrialization where they may have greater competitive advantage (UNECA 2013).

As reiterated earlier–see Chapter 3–in emerging nations, notably BRICS, hunger for natural resources is keeping commodity prices high (Geda 2012; Moseley 2009) which provides a good opportunity on which African countries can capitalize on. The question then is not whether Africa can industrialize by "ignoring" its commodities, but rather how the latter can be used to promote value addition, new service industries and technological capabilities that span across the sub regions of the continent. In other words, how can African countries add more value to their commodities to reap larger benefits from them? Chapter 8 offers some insightful answers and suggestions.

4.6 Conclusion and Policy Actions

Today, many African countries continue to ride a natural resource and commodity export boom. Furthermore, many experts believe that this expansion is driven by a set of demographic and growth pattern factors that make it distinct from past booms, leading some to conclude that a continued African focus on primary production is the continent's best bet for sustained prosperity. What such thinking ignores is the very nature of commodity markets, which, in the absence of effective cartels, have experienced price declines over the long term because of relatively low barriers to entry for some types of commodity production (as compared to the secondary and tertiary production sectors), price thresholds that trigger the development and expansion of substitutes, and technological advances that expand the size of exploitable reserves. In addition, undiversified, commodity-based economies are highly vulnerable to increasingly volatile global markets.

African economies must diversify away from primary production (resource extraction and agricultural commodity production) if they are to improve their economic position via-à-vis the rest of the world. Some African economies have begun to diversify by developing more extensive value chains in existing extractive industries, whereas others have seized on new windows of opportunity. In both instances, we are seeing the beginnings of effective structural transformation.

A review of development theories and case studies suggests that a number of steps should

be explored in order to transform and diversify resource-based African economies.

First, while the market may be an efficient allocator of resources at any particular stage of economic growth, development necessitates a diversification of the economy and evolution from primary to secondary to tertiary forms of economic activity. As new forms of economic activity are often dependent on certain forms of physical infrastructure and know-how, the state has a key role to play in creating such conditions. As such, African governments need to think critically about strategic infrastructure and education investments. To this end, capacity to design and implement programs of strategic infrastructure, some of which will stretch across multiple countries, is therefore very important for countries to have. Again, skills and programs to put in place a well thought out education system that balances vocational training with analytical skills (science and technology) are also essential capabilities needed.

Second, there is great potential for building value chains based on existing forms of commodity production. Often this means transforming a raw product into something more valuable for export by identifying potential areas for value chain development, encouraging investment along the value chain, and supporting the development of the necessary soft and hard infrastructure. Here, capacity to map out the critical areas for support in a given value chain and the capabilities needed to invest in the appropriate infrastructure are important determinants for country success.

Third, in some cases, as highlighted in this chapter and elsewhere in this Report, it may make sense for African countries with recently discovered natural resource wealth to develop a trust fund approach that converts a non-renewable resource to a renewable resource that generates a steady flow of income over time. This income stream should be used for critical investments in human capital (education and health care) that create the possibility for future economic diversification. In this regard, the strategic capacity to choose the right approach to developing a trust fund and to put in place the governance mechanisms to manage such a trust fund for future generations are necessary capabilities for countries to succeed in the long run.

Fourth, encouraging regional economic integration, as per the flying geese paradigm, may make sense as it leads to the development of industrial activity in a sub-region of the continent and stems the outflow of talent to other regions of the world. These could eventually lead to affiliated economic activity in other areas of the region. The development of such integration hinges on the relaxing of tariff barriers among countries in the sub-region where there are potential economic complementarities (such as between coastal West Africa and interior countries). Achieving this calls for critical capacities to manage complex agreements and programs across multiple countries and the cross-border policies and infrastructure needed for effective regional integration.

Finally, African economies need to be diversified, and should draw lessons from a number of countries that have put in place the right policies, developed the critical skills and capabilities, and invested in developing and strengthening the right institutions for them to successfully manage the risk that natural resources turn from an asset for development to a curse. All of these lessons can be embedded in a program for capacity development that countries could strategically put in place to ensure that the current growth performance does not peter out into limited development results when the boom cycle ends.

Chapter 5

Environmental Sustainability and NRM—The Capacity Question, Leadership and Strategic Choices

5

Environmental Sustainability and NRM—The Capacity Question, Leadership and Strategic Choices

5.1 Introduction

The development of society hinges on the availability and condition of both human and natural resources. Africa, as a region, is endowed with natural resources and possesses the potential to explore these assets to shore up the continental development agenda. This chapter examines the relationship between capacity development qualities at the individual and institutional levels and the broader environment, with a special focus on the implications for natural resources management in Africa. The specific individual factor at the heart of the chapter is political leadership. To this end, the chapter seeks to interrogate the role of leadership and strategic choices in natural resource management in Africa. Such a study, by extension, is also one on the role of the state, and hence the political economy, of natural resource management in national development. Political leadership sets the tone for the institutional and broader context required for environmental sustainability and development. Exploring political leadership across different political regimes, the chapter draws attention to some instances of successful political leadership in both African and non-African countries in the management of natural resources. Finally, the chapter highlights the role of a vibrant civil society in terms of how political leaders manage or account for the way they utilize natural resources for national development.

This introduction section is followed in section two by a discussion on the context and quandary in managing natural resources in Africa. Section three focuses on the conceptual underpinnings required to understand the unique role of leadership in natural resource management. The conceptual notes are followed by section four, which focuses on the major policies of the African state in natural resource management in an attempt to tease out any patterns. Section five analyzes the issues and challenges stemming from the regimes of natural resource management in Africa. In section six, we outline leadership and strategic options for sustainable development of natural resources in the African development agenda. Section seven, follows with a review of the leadership challenges for natural resource management, and section eight discusses sovereign wealth funds. Finally, we sum up the major policy recommendations and outline the way forward in section nine.

5.2 Context and Quandary

The availability of human and natural/environmental resources is central to the meaningful development of society. Relevant aspects of human resources include human capital considerations such as

knowledge endowment and capacity building at the individual and institutional levels; these must be paired with a broad enabling environment. Natural, or environmental, resources include vegetative cover, land, water, biodiversity, oil, gas, and minerals. The extent to which available human and natural resources influence the development process depends on the conditions that frame their accessibility and interaction.

Natural resources provide the foundation for human existence. While the distinction between renewable (animals, plants, trees, grass, and solar and wind energy) and non-renewable (fossil fuels, oil, coal, diamonds) natural resources is a valid one, the two are interrelated. Renewable resources like plants and trees provide the building blocks for non-renewable resources like fossil fuels and oil. Furthermore, as depletion points are reached for the non-renewable resources, global attention becomes focused on where the rare resources are located (geography), how much is known about their quantity and ease of extraction (geology), and what form of contracts can be entered to render them of value for domestic and export purposes (political and economic). Moreover, as a result of Africa's wealth in natural resources, global attention has put the highlight on the interaction between human capacity to manage such resources as defined at individual level, and the national and regional capabilities required to engage in effective strategies for natural-resource-based development strategies within a dynamic geopolitical context.

Africa has abundant natural resources, and their effective utilization is essential in addressing the region's development conditions in the 21st century (UNDP 2003; NEPAD 2003; 2001). At the global level, the Millennium Development Goals (MDGs) include a specific goal (MDG 7) focused on environmental sustainability, which is integral to the attainment of all the other MDGs. For example, sustainable management of natural resources is crucial in any program to alleviate poverty (MDG 1) and childhood mortality (MDG 4) (WWF and AfDB 2012; Ochola, Sanginga, and Bekalo 2010; UNEP 2007). As discussed in Chapters 4 and 5, when natural resource revenue is properly invested (for example, in public health and vaccination programs), it creates a sustainable economic resource to fund dramatic reductions in the incidence of childhood diseases.

The significance of environmental sustainability and the relationship with natural resources has been the basis of several other global environmental treaties. These include the groundbreaking 1992 Rio Summit on Environmental Climate Change, which focused on the notion of biodiversity and sustainable development; the 1997 Kyoto Protocol, which highlighted the issue of global warming; the 2002 Johannesburg World Summit; the 2011 Durban Climate Change Conference; the 2012 Doha Climate Change Conference; and the 2012 Rio+20 summit, which reiterated the theme of sustainable development. The 2002 Johannesburg World Summit is particularly crucial to studies on natural resources management, as it was the site of the United Kingdom's launch of the global Extractive Industries Transparency Initiative (EITI). While most of these global environmental initiatives have not attained the anticipated consensus, attempts to at least discuss or propose the initiatives demonstrate an awareness of the need for a policy framework to guide and inform the delicate business of harnessing the environment for human development.

It is therefore not surprising that the African Union, the continental political body, has spearheaded several initiatives to better understand the role of natural resources and environmental stewardship in the region's development agenda. Two useful reference

points are the Action Plan for the Environment Initiative (NEPAD 2003) and Africa's Capacity Development Strategic Framework (NEPAD 2010). The first document outlines a concerted plan to address poverty, the degradation of the environment, and the loss of natural resources in the region. It is anchored in some of the ongoing global initiatives mentioned above and stresses the need for African leaders to mobilize resources to implement their national environmental action plans. The second offers recognition of the extent to which poverty and natural resources will involve political concerns and a firm and sustained commitment to human development. Recognition of political leadership implies an understanding of the role of state in development (NEPAD 2010). The continental initiatives have provided a background for national policy frameworks on natural resource and environmental management.

Several African countries have launched new policies, including a commitment to the tenets of EITI, to help them better explore natural resources for development. African countries with significant extractive industry resources are currently experiencing a boom (World Bank 2012b; AfDB and AU 2009; Ocheje, 2006). The Gulf of Guinea, which stretches from Nigeria to Angola, has become a haven for the discovery of proven oil deposits. Recent discoveries of oil have occurred in Ghana, Uganda, and Tanzania (World Bank 2012b:16). Bauxite, copper, gold, tin, and zinc are other minerals with significant deposits on the African continent (World Bank 2012b:15).

The wealth implications of these industries for African development are huge and worth celebrating. However, the recent focus on and interest in the extractive industry and its development potential does not take into account the fact that the foundation of colonial rule in most African countries was based on the extractive industry. For example, gold was such an essential part of the colonial adventure in Ghana that the British named the country Gold Coast until the country attained political independence and changed the name in 1957. Colonial development models in countries as diverse as the Democratic Republic of Congo, Gabon, South Africa, Zambia, and Zimbabwe were all sustained by minerals. The colonial past notwithstanding, many contemporary African countries have not been able to harness their mineral wealth for national development; hence the trepidation about the political economy of natural resource-led development (World Bank 2012b; Barma et al. 2012). Sierra Leone, Liberia, and Zimbabwe have been tied to the notion of "blood diamonds," while the oil wealth in Angola, Equatorial Guinea, Libya, Nigeria, and Sudan have linked the fate of the nations and their citizens to the question of how such revenue is managed for national development. In both the colonial and post-colonial era, the "development potential of oil and other mineral wealth has not been realized. Consequently, it appears that poverty is on the rise on the continent even as more and more dollars in mineral wealth flow into the continent" (Ocheje 2006:224). The result is the abysmal performance in African countries on several indicators of human development (UNDP 2012b).

Thus, the recent discovery of oil in Ghana and Uganda, for example, is cause for celebration but also caution regarding the development trajectory of both countries (Okpanachi and Andrews 2012; Gelb and Majerowicz 2012; African Business 2011; Perry and Wadhams 2010). By and large, African countries, in the midst of their natural resource wealth, have occupied a central place in the paradox of plenty debate, following

Terry Lynn Karl's seminal work, *The Paradox of Plenty: Oil Booms and Petro-States* (University of California Press, 1977).

The literature refers to this paradox as the natural resource "curse" and, by extension, "blessing" syndrome (Omojola 2012; Stiglitz 2012; Ross 2008, 2001; Shaxson 2008, 2007, 2005; Collier and Hoeffler 2005; Stevens and Dietsche 2007; Dietz et al. 2007; Humphreys et al. 2007). The argument relates to several factors and outcomes, beginning with how natural wealth distorts the relationship between natural resource prices and the economy, particularly the decline of the manufacturing sector. Further concerns include the decline of democratic governance and the lack of any form of transparency, including corporate rule and elite capture of the economic and political institutions, political instability, and a persistent state of armed conflict. While for several African countries, natural resource wealth has been depleted by war or given rise to prolonged and protracted conflicts, flourishing dictatorships, and the related lack of any representative democracy, human rights abuses, and complete economic disaster, the resource curse argument is not without critique (Obi 2010; Davis and Tilton 2005; Mehlum, Moene, and Torvik, 2008; Karl, 1997). At the heart of the critique are issues of causality, correlation, and the role of institutions. The importance of institutions may stem from the fact that they constitute the basis of the structure required for the effective interaction of political and economic relations, or what North (1990) calls the "rules of the game."

In Africa, as in many other parts of the world, discussions of the institutional structure inevitably lead to the state and its institutional apparatus in the development framework (Haslam, Schafer, and Beaudet 2012; World Bank 2004; NEPAD 2003; Keeley and Scoones 2003). However, the role of the contemporary African state in the development process, like others, has undergone dramatic changes due to or in response to globalization. This is because with the emergence of non-state actors, including both for-profit and non-profit institutions at the national and global levels, national development has become a contested terrain (Beaudet 2012; World Bank 2004). The contestation suggests that policy outcomes are not predetermined, but rather contingent on the complexities in the relationship between state and non-state actors and institutions. A critical variable in shaping policy outcomes, especially for the benefit of the society, is political leadership. Thus, central concerns in the development discourse are the role of political leadership, the space for choices and decision making, and natural resources management in Africa (Swatuk 2005; Lange and Wright 2004).

Given that African countries are not the only ones with natural resources, pertinent questions will include the following: compared to others, how have African countries managed their natural resources relative to the development of their citizens?; what lessons can African political leadership glean from their counterparts in other parts of the world, specifically the successful ones, in terms of the relationship between political leadership and strategic options for sustainable natural resource management?

5.3 Conceptual Framework for Understanding the Role of Leadership in NRM

National development is not an apolitical exercise. Political calculations factor into how resources are explored and allocated in the name of national development. The role of the state or the national government and its political calculations assumes that government institutions have some degree of competence in

planning and making choices relative to resource management. In this chapter, we interrogate the relationship between leadership and strategic choices in natural resource management in Africa by addressing three related objectives. First, we present a survey and contextualize the major policies or practices of the African state in natural resource management. Second, we analyze the issues and challenges surrounding the changing role of the African state in the policy framework on natural resource management. Third, we discuss capacity development in terms of leadership and strategic options for sustainable development of natural resources in Africa.

The following concepts underpin the chapter: **political leadership and choices**, **globalization, and sustainable development**. These concepts and their operational definitions are briefly examined as follows:

- The concept of **leadership,** and specifically political leadership, despite widespread interest, is illusive and contested (Tettey 2012; Cole 1994). This is largely because the concept is examined in general terms, which creates difficulties in making general assessments operational. In a review of the broad literature, Bolden and Kirk (2009) noted four broad categories or perspectives on leadership: essentialist, relational, critical, and constructive. The essentialist perspective attributes leadership to something that leaders do, hence depicts it in a context of "leaders" and "followers." Furthermore, good leadership is presented "as either residing in the personal qualities of the leader, the behaviours they enact and/or the functions they perform" (Bolden and Kirk 2009:70). Leadership, in this context, is premised on Max Weber's work on formal-legal authority and the ideal-type features of bureaucracy as a formal organization (Gerth and Mills 1946). Bureaucratic institutions can best attain their goals with specialized and skilled personnel.

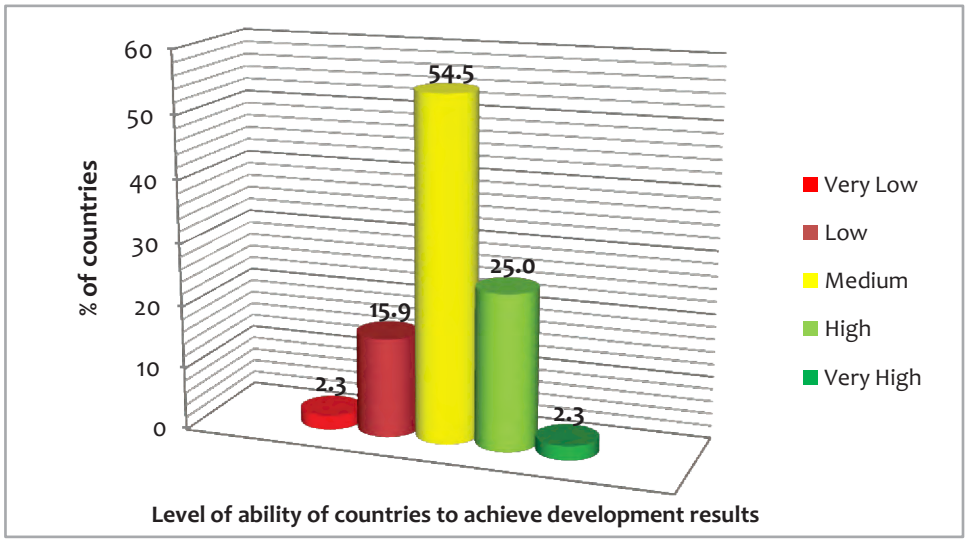
The relational perspectives on leadership stress the relations leaders have with others and focus on underlying social processes and an acknowledgement of contextual and systemic forces (Bolden et al. 2008). Critical perspectives on leadership underscore the power and political aspects of institutions or organizations and argue the non-existence of any definite account on leadership. The constructionist perspective hinges on social constructions of shared meanings and how such constructions enable or provide meaning and sense to people's lives. Issues of process and construction loom large in this perspective (Foldy et al. 2008; Pye 2005).

The foregoing notwithstanding, the point, as van Wart (2005:221) astutely notes, is that "leaders do not act [or emerge] in vacuum." Accordingly, any conceptual analysis of leadership has to pay some attention to context. One significant aspect of context for this Report is the role of leadership in the development discourse. The significance is expressed in the fact that several, if not all, "African governments have at various times claimed that they should be judged on their ability to bring about development. Therefore, development serves as a legitimating norm for many African leaders, but it is the type of governance in

play that, in large part, determines the content and direction of development" (Makinda 2012:67).

As highlighted in figure 5.1, while on average many countries are able to achieve some form of development results, less than a third (27.5 percent) of countries surveyed are able to do so at a high or very high level. This confirms the conclusions of the Paris and Accra agenda for action on aid effectiveness and development results.

Figure 5.1: Ability of African countries to achieve development results



Source: ACIR2013 database

Leadership and governance are essential in the development discourse in the African context where there are ongoing discussions on the region's leadership and governance crisis or malaise (Tettey 2012; Makinda 2012; Arriola 2009; Obi 2001). Whatever the nature and form of leadership in vogue, the workings of the bureaucracy and leadership would inevitably emerge in terms of bureaucratic and managerial leadership (Littrell 2011; Wanasika et al. 2011). These two forms of leadership will pit public civil servants against their political masters when it comes to designing, implementing, and monitoring development policy (Booth 2011; Owusu 2003). Therefore, the key element in the definition of leadership in this Report focuses on state officials (both appointed and elected) and their capacity to forge a vision, consensus, or path for the national development effort. The capacity to forge a vision entails choices. Rational choice theorists contend that choices are made on the basis of rational imperatives (Bates 2008). These imperatives are predicated on associated cost and reward and the existence and availability of the required information to inform rational choices. The limits of rational choice have been exposed in the free

rider effect (Olson 1965) which therefore emphasizes the fact that choices, like leadership, do not come from or exist in a vacuum. There are broader structural limits on choices and leadership options. The political limitations of rational choice are present in the development discourse because development choices are inherently political choices. These complications are brought into sharp focus in an era of globalization.

- **Globalization:** A historical concept, its contemporary manifestations have been made possible by the dramatic breakthroughs in communication and information technologies. The related compression of time and space has changed almost all aspects of human interaction (Giddens 1990). There are significant implications of contemporary globalization for political, economic, cultural, environmental, and ideological relations (Steger 2009; Scholte 2005; Held and McGrew 2004). Political globalization, among other things, includes calls for a minimal role of the state in the economy in particular and social issues in general. With the state ceding its role in the economy, non-state actors, ranging from for-profit to non-profit, multilateral and regional entities have become major actors in public policy. A key aspect of economic globalization is the deepening of market-based transactions and relations. Here again, state institutions are supposed to defer to their non-state counterparts. A common theme in both cultural and environmental globalization is the relationship between the population question and consumption patterns and the broader impact on natural or environment. Ideological globalization investigates the underlying ideas, values and perspectives that frame the theoretical and practical implications of globalization.

An aspect of globalization relevant to this Report is the changing role of the state and the fact that leadership and political choices will be contingent on a complex array of internal and external forces. The complexities notwithstanding, the acid test of leadership and choices is the outcome for citizens. The globalization debate is in two main categories—the hyperglobalists and global skeptics (Steger 2009; Scholte 2005; Held and McGrew 2004). Briefly stated, the hyperglobalists focus on the irrelevance of the state and privilege markets in the decision making, choices, and options of private actors and restructured public institutions. In this argument, policy making is reduced to invisible and inevitable processes emanating from globalization (Wolf 2005; Bhagwati 2007). Global skeptics reiterate that although the state's role is reduced, it is influential in setting the parameters for markets and private actors. The argument from this perspective is that there is an obvious place not for a strong state per se, but rather for one that can arrive at "smart" decisions with an eye on the interests of the society (Saul 2009; Chossudovsky 2003). Discussions on natural resource management in Africa are not immune to forces of globalization, especially if the emphasis is on sustainable development, democratic governance, and institutional choices (Mehlum, Moene, and Torvik 2008; Karl 2007; Ribot 2004, 2003).

- **Sustainable development**: This concept captures the desire to use natural resources in a way that will satisfy the needs of current and future generations. Given that natural resources constitute part of the environment, discussions on sustainable development, by definition, also entail an understanding of environmental factors. Several theoretical antecedents underpin the contemporary discussions on sustainable development. First, the path-breaking work by Meadows et al. (1972), *The Limits to Growth*, situated within the so-called *Club of Rome*, made a strong case to better understand the relationship among population growth, production and consumption because natural resources are finite. In view of the global nature of the underlying factors, the second milestone was when the United Nations established the World Commission on Environment and Development in 1983. The Commission, under the leadership of Gro Harlem Brundtland, produced another informative report, *Our Common Future*, in 1987. That study introduced the concept of sustainable development as the development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987:3). The third important event is the 1992 Rio Earth Summit and its Agenda 21, which highlighted biodiversity as involving plants, animals, and microorganisms and how these ecosystems interact with people and their requirements for food security, medicines, fresh air and water, and a clean and healthy environment (UNCED, 1993). There is an ongoing debate on the extent to which Rio 1992 has attained its objectives (Beckers 2012; Moldan 2012). However, what is not in doubt is the extent to which sustainable development has compelled new ways of thinking about the relationship between the environment and economic development, thus opening up possibilities of working toward rethinking governance systems and institutions, lifestyle choices, and ideas for the future, including discussions around a green economy (Happaerts 2012; Ishwaran 2012).

  Therefore, sustainable development is integral to the development debate and entails the role of political leadership in managing available resources for national development. Sustainable development requires capacity, specifically the capacity "for individuals, organizations and societies to set goals and achieve them; to budget resources and use them for agreed purposes; and to manage the complex processes and interactions that typify a working political and economic system" (ACBF 2011:30-31).

This brief overview of concepts provides the required background for reviewing the discussions on leadership, strategic choices and sustainable development in natural resource management in Africa.

5.4 Political Leadership and Strategic Choices: The Extractive (Oil) Resources Industry in Africa

A critical point of departure in the development process is the existence of a policy framework that outlines how the relationship between human and natural resources can be enhanced for national development. The development

literature on globalization offers important insights into the role of policies, leadership, strategic choices, and sustainable development in natural resource management in the African context (UNDP 2011a; AU and NEPAD 2010; Blaikie 2006; Keeley and Scoones 2003).

The resources at the center of this discussion are extractives—specifically oil, gas, and diamonds. Oil and gas have become pivotal and transformative resources in national development efforts because of their price and significance in world commodity markets and the global development discourse (World Bank 2012b). The global economy has been built on hydrocarbon resources, and oil producing countries have attained a geopolitical significance that runs counter to the traditional notions of economic and political power systems. Most of the major oil producing countries in the world, particularly in the Middle East (for example, Saudi Arabia) are not representative democracies, which highlights one aspect of the resource curse debate: whether oil wealth hinders democracy, especially in the global south (Ross 2001).

The major African oil producing countries affiliated with the Organization of Petroleum Exporting Countries (OPEC) are Algeria (1969), Libya (1962), Nigeria (1971), and Angola (2007). Non-OPEC African countries with considerable production potential are Chad, Gabon, Equatorial Guinea, and Sudan, and there have been recent discoveries in Ghana, Tanzania, and Uganda. By its nature, oil exploration is a capital intensive undertaking that involves multiple partners from the national government's energy or oil agency or department, local and international financiers, and multinational oil corporations. Although most multinational oil corporations prefer to work in locales that have ongoing relationships with their own home governments, they also work in places where there is no strong working relationship with their home governments and thus use their presence to influence government–to-government relations.

Algeria and Libya have been active oil producing countries since the 1960s and present an important framework in which to tease out the relationship among leadership, foreign investment, and changing market conditions. Both countries still have considerable proven oil reserves and contribute to making North Africa one of the few regions in the developing world "where oil companies have full access to [oil] reserves and/or access to reserves with the participation of the state-owned company" (Fattouh and Darbouche 2010:1119). Abdelaziz Bouteflika was elected President of Algeria in 1999, and in 2009, a constitutional amendment made it possible for him to run for a third term as president. Muammar Gadhafi assumed office in Libya through a military takeover and ruled the country for 41 years until he was swept away in the popular citizens' revolt in 2011. Mohammed el-Magarief, following the general elections in September 2012, is the President of Libya. Since Nigeria joined OPEC in 1971, its political leadership has shifted between military dictators (who ruled for the greater part) and constitutional democracies, especially since 1999. By 2012, Nigeria had been under the leadership of an elected president since 1999; yet Nigeria is generally regarded as a poor example of the role of oil wealth in national development (Watts 2004; Khan 1994; Turner 1993). The specific problem is the duality of wealth and misery that has characterized the political and socio-economic spheres in Nigeria, particularly the denizens of the Niger Delta, the hub of the country's oil wealth. Angola's oil wealth and membership in OPEC, dates from 2007, and hence is relatively young compared to that of the

other OPEC members, but to a large extent, it mirrors the duality of wealth and misery associated with oil wealth in Nigeria (Le Billon 2001; Cillers and Dietrich 2000).

Beyond the OPEC African countries, Equatorial Guinea, Gabon, and Sudan are also major oil producing countries, although oil production has declined in Gabon. Equatorial Guinea provides a very good illustration of the transformative potential of oil wealth. It was largely without political and economic significance before oil revenue transformed the country during the late 1990s "into one of the world's fastest growing economies and a sought-after political partner in the Gulf of Guinea" (Frynas 2004). President Obiang Mbasogo, who deposed his uncle Nguema Mbasogo after eleven years in power, has been at the helm of Equatorial Guinea for over three decades. The country continues to make international news with respect not only to oil revenue, but also to the utilization of that wealth within and outside the country and issues related to political governance.

In Sudan, President Omar al-Bashir has ruled since 1989, and by 2012 he had been in power for 23 years. He was in charge when the country began exporting crude oil in 1999 (Obi 2007; Idahosa 2002). Sudan's oil production status has been affected by the plebiscite that divided the country in two, with the attainment of political independence of South Sudan in 2011. Since the oil wealth is located predominantly in South Sudan, Juba (the capital of South Sudan) and Khartoum (capital of Sudan) now have to negotiate the terms of transfer of oil to ports in Sudan.

While Ghana and Uganda, as the latest oil producing African countries, are yet to be transformed in any significant way by their new source of wealth, the state of political leadership in both countries is essential. Currently, both elect their presidents through the ballot box. By 2012, Yoweri Museveni had ruled Uganda for over two decades; he began as a military leader, then later embraced democratic politics—running as a civilian—then in 2006, abolished presidential term limits, which allowed him to run for a third term. In 2012, he was serving a fourth five-year term as president. Ghana, on the other hand, has had democratic transitions of government since the fourth Republican Constitution was adopted in 1992. The president, John Dramani Mahama, was sworn into office barely hours after his predecessor, John Atta Mills, died in office in July 2012. Hence, the political leadership in Ghana, in the context of the oil discovery, is significant. Examples from the Ugandan leadership appear not to have learned about constitutional checks and balances, and the country seems to be going down the same road as that of Equatorial Guinea.

Tullow Oil, the United Kingdom oil and gas company, confirmed the presence of commercial oil reserves in Uganda in 2006. The extraction of the oil in the Lake Albertine Graben, a region between Uganda and the Democratic Republic of Congo, is both ecologically and politically sensitive (Kathman and Shannon 2011; Kasimbazi 2012). Oil production began in Ghana in 2010, from the Jubilee field located offshore southwest of the port city of Takoradi, with Tullow Oil and other partners the major players (Okpanachi and Andrews 2012; Boohene and Peprah 2011). Compared with Uganda, Ghana appears to have democratic credentials relative to the management of oil wealth. Nonetheless, there is general anxiety in the country that oil and gas lead to sustainable and equitable revenue management; be characterized by transparency and engaged stakeholders, including civil society;

and safeguard security and the environment (Ayee 2013; Okpanachi and Andrews 2012; Gyampo 2011; Attafuah 2010; Manteaw 2010; Moss and Young 2009).

While it seems that Ghana is aware of the oil as resource curse phenomenon and is working to transcend it, the increase in the level of competition for the presidency could be a sign to watch out for the future. Consider the fact that the police needed to use tear gas and force to disperse opposition supporters gathered at the Electoral Commission prior to declaring the results of the elections in December 2012 (Reuters December 9, 2012). This is especially significant as the announced margin of the win of John Dramani Mahama over his major challenger Nana Akufo-Addo was larger than the one obtained in the previous election where late President John Atta Mills won by a slim margin of less than one percent following a run-off election (BBC 2009).

Diamonds are another vital extractive product in Africa's natural resource industry. With several countries as active producers, the issue has been, as in the case of oil and gas, its role in national development and the implications for the society at large. The problem with diamonds, like any other natural resource in Africa and other parts of the world, is that it is a global commodity. Their marketing and subsequent consumption take place in sophisticated locales, mostly beyond the influence or ambit of any one particular nation-state, thanks to the alluring image De Beers, the South African mining giant, has fostered on the world with its "diamonds are forever" campaign. The major diamond producing countries include Angola, Botswana, Central African Republic, Democratic Republic of Congo, Côte d'Ivoire, Liberia, Namibia, Republic of Congo, Sierra Leone, South Africa, and Tanzania. The two significant countries for contrast as well as the basis for the subsequent analysis are Botswana and Sierra Leone.

In Botswana, the sound and sustainable management of diamond wealth (Lange and Wright 2004; Auty 2001a) speaks to the significance of political leadership. The role of diamonds in Botswana is in sharp contrast to that in Sierra Leone, where the gemstones, in conjunction with state collapse, contributed to decades of conflict (Silberfein 2004; Hirsch 2001; Alao 1999). The historical context of diamond exploitation and how diamonds came to occupy a central role in the conflict in Sierra Leone involves the chiefs, the business community (particularly the Lebanese business community), the South Africa-based giant diamond company De Beers, and the state. The process of state collapse and the consequent failure of political and economic conditions informed the geopolitics of diamonds, and the subsequent conflict consumed and devastated the country for more than a decade beginning in the early 1990s. It is remarkable to note that the return of peace and stability in Sierra Leone in the early part of the last decade has contributed to the emergence of relatively effective institutions and economic growth, which has been driven by natural resources, including iron ore (World Bank 2012b). Even though the subsequent discussion will focus on the case of oil and gas producing countries, it is important to stress that the arguments apply to non-oil and gas countries and hence to natural resource management in general.

The aforementioned review highlights the different manifestations of political leadership in resource-rich African countries and raises several questions. What are the underlying commonalities or differences of African political leadership

in the extractive industries? Are these commonalities or differences consistent with successes and failures beyond Africa's boundaries? Have the political dynasties that have emerged in some African countries brought about the desired improvements in human development of their citizens?

The political regimes and longevity of most of the leaders raise questions about leadership and the development condition of several African oil-producing countries (table 5.1). The table shows a weak relationship between years in office and the Human Development Index ranking of the major oil producing nations of Africa. The increased contestability of presidential elections in countries that have enjoyed reasonable stability is also an area for further analysis. A useful way to respond to or analyze these questions is framed around the interrelated themes of political leadership, policies and institutions, and the role of civil society.

Table 5.1: Political longevity of selected oil-producing African rulers and the 2012 human development status of their countries

Country	Ruler	Years in Office	Rank in 2012 out of 187 Countries
Algeria	Abdelaziz Bouteflika	13	96
Angola	Jose dos Santos	33	148
Cameroon	Paul Biya	30	150
Congo, Rep	Denis SassouNguesso	15	187
Eq. Guinea	Obiang Nguema Mbasogo	33	136
Gabon	Ali Bongo Ondimba	3	106
Ghana	JohnDramani Mahama	Less than 1	135
Libya	Mohammed El-Magarief	Less than 1	64
Nigeria	GoodLuck Jonathan	2	156
Sudan	Omar al-Bashir	19	169
Uganda	Yoweri Museveni	26	161

Source: Puplampu 2012; UNDP 2012b

5.4.1 Resource nationalism

Political leadership sets the tone, attitude, and behavior of resources-rich countries in various forms. A case in point is resource nationalism. As discussed earlier in Chapter 3 (section3.4.2), resource nationalism (particularly production country nationalism)—a situation where governments assert increased control over the natural resources found in their territories and place a large cost burden on mining companies—has increasingly gained momentum in recent years. This can best be seen with members of OPEC and the consequences of petro-dollars and the petro-political cycle (Bremmer and Johnston 2009; Vivoda 2009; Stevens 2008). Resource nationalism assumes that the high prices of crude oil give governments in oil producing countries sufficient wealth that can be utilized for the national development agenda. They also use the opportunity as leverage in their relations with external actors, particularly international oil companies. Alternatively, downward prices compel the same countries to seek foreign investment to boost production and better manage budget shortfalls and potential deficits, sometimes by drastically loosening the regulatory framework on natural resources. This relaxed regulatory regime is not always consistent with the interests of foreign investors, especially if the national government's attempts to raise further revenue decrease the profit margins of multinational oil companies.

In any case, increases in government revenue from oil wealth do not necessarily give rise to improvements in citizens' living conditions.

Nigeria demonstrates how dramatic increases in oil prices do not necessarily lead to significant improvements in the lives of citizens (Obi 2007; Shaxson 2007). The country's development plan of 1975, for instance, after the first OPEC crisis and oil bonanza in 1973, stated the aim to place the country "within the income bracket of developed countries in two decades" (cited in Shaxson 2005:311). The country, based on overly optimistic revenue projections, enacted ill-conceived projects such as the Ajaokuta steel project. Launched in 1979, it did not produce a steel slab for 25 years and began small-scale production in 2004, following a new investment initiative by an Indian company (Shaxson 2005). The result is that despite the billions of oil revenue generated since Nigeria joined OPEC in 1971, the country on most indicators of human development has performed poorly, and its position on the human development index sustains the argument that the oil wealth has not benefited the citizens (table 5.1).

Equatorial Guinea also provides another instance of resource nationalism—in this case, in terms of relations with foreign oil companies. Oil exploration is a capital intensive undertaking that requires various forms of partnerships, but also clear processes on rewards. One remarkable aspect of the oil business in Equatorial Guinea is that the "government's venture into the oil business has been very modest, especially when compared to the achievements by other" African countries like Nigeria and Angola (Frynas 2004:531). The underlying reason is a lack of capacity, which has "forced the government to rely on various foreign advisers... and left Equatorial Guinea with less favorable deals with oil companies than most other countries in the Gulf of Guinea" (Fyrnas 2004: 531-532). Capacity deficiencies also account for the "discrepancies between what the companies were supposed to pay and how much they actually paid to the government," and as the government continues to place minimal fiscal and geological conditions, it is not surprising that Equatorial Guinea continues to be a destination of choice for multinational oil companies (Frynas 2004:533-534).

Political leadership has a role in setting the policy agenda in the midst of resource nationalism, the cyclical movement of production and price levels, and the consequent national choices. Such choices are conditioned by state ideology, the unique circumstances of the country—for example, the colonial experience—the level of the country's socio-economic development, and its geological characteristics (Stevens 2008). The cases of the Republic of Congo (Congo-Brazzaville) and Gabon are apposite (Shaxson 2005). The first, confident in its oil wealth and eager for post-colonial independence from France, borrowed heavily in setting five-year plans and doubled its budget resources in the early 1970s, even though much of this borrowing came from the French oil giant Elf. Gabon also borrowed heavily from Elf to finance the Transgabonais railway project (later sold to a private consortium for a bargain in 1999) that connected Franceville, near the birthplace of its longtime President Omar Bongo, with the coast. It was built on the basis of projections of economic prosperity and to provide the infrastructure necessary to host the 1977 Organization of African Unity summit in Libreville (Shaxson 2005:314-316). The Republic of Congo, which depends on the oil sector for its development, has been plagued by a history of coups, conflicts and one presidential assassination (World Bank 2012c). As such it has missed the opportunity to benefit from the oil price boom

due to the challenges of a civil war in 1997. The administration of President Denis Sassou Nguesso presides in 2012 over an uneasy internal peace, facing challenges in generating economic growth and development results, despite record high oil prices since 2003.

5.4.2 Role of external interests

Another factor that frames political leadership and the oil and gas sector in Africa is the role of external interests, especially transnational oil companies based in the traditional powerful countries and regions (Europe and North America) as well as emerging development hotspots, particularly Brazil, India, and China (Frynas and Paulo 2007; Alden and Davies 2006). This dimension is particularly significant in a global era and given the related changing role of the state from the perspective of hyperglobalists and global skeptics. The argument presented by either side of the debate on the changing role of the state in economic globalization suggests that non-governmental organizations of all stripes and motivations can influence policies in novel ways.

On one hand, for-profit, non-governmental organizations like multinational oil corporations that have no allegiance to any location and are interested only in maximizing returns on their investment are able to set up economic activities in locales that would ensure such returns. These companies' economic power gives them the ability or potential to overwhelm the state, more so the African state. On the other hand, the supposedly overwhelmed African state can, by working with the broader civil society in either the national or global context, bring considerable pressure to bear on the activities of multinational organizations and influence some policy outcomes. In an era of economic globalization, "states are no longer the only significant actors… civil society advocacy groups… [also] play a major role" (Kobrin 2004:428) in the policy arena. These dynamic relationships found tangible expression in the activities of Canadian mining company, Talisman Energy, in Sudan. In October 1998, the company purchased a 25 percent stake from Arakis Energy, another Canadian company; in March 2003, it re-sold the 25 percent stake to a subsidiary of India's national oil company in what had by then become a controversial oil project (Kobrin 2004; Idahosa 2002; BBC 2003).

Several factors underscore Talisman's investment and the controversy in Sudan: the role of the Sudanese state; how the project, located in the southern section of Sudan, enhanced the human security aspects of Canadian foreign policy in the late 1990s and early 2000s; Canadian investor interests overseas; and, by extension, the role of multinational corporations in national development and the significance of a broadly defined global civil society (Haslam, Schafer, and Beaudet 2012; Matthews 2005, 2004; McBride 2005; Kobrin 2004; Idahosa 2002; Axworthy 2001; McRae and Hubert 2001; Irwin 2001). At its core, the human security agenda "puts people first and recognizes that their safety is integral to the promotion and maintenance of international peace and security" (Axworthy 2001:20). Jim Buckee, Talisman's Chief Executive, was of the opinion that the company's involvement in Sudan contributed to development in Sudan in general and in specific communities. These benefits, the company contends, would certainly not be available, and the communities would be worse off without the presence of Talisman (Idahosa 2002).

Talisman's operations provided revenue that the Sudanese government used to finance the war against its own people during the conflict between northern and southern Sudan (McBride 2005; Matthews 2004). Questions of human rights violations and governance were inevita-

ble, and Talisman's activities invited an analysis of Canada's human security agenda and the investment ethics of Canadian companies abroad (Matthews 2004; Idahosa 2002). The Canadian government found itself under tremendous political pressure from civil society groups, such as the South Sudanese Community Association and Amnesty International, to account for the actions of Talisman Energy (Harker 2000; Federation of Sudanese Canadian Association 2000). In response, the Canadian government appointed John Harker, who documented the depth to which Talisman's oil revenue was implicated in the ongoing war between the Government of Sudan (based in the north) and the southern part of the country, where both the oil producing sites and the unfolding humanitarian crisis were found (Matthews 2004:236; Harker 2000).

Notwithstanding the Harker Report and demonstrations by civil society groups, Ottawa played no part in Talisman's decision to leave Sudan in 2003 (Matthews 2004; Kobrin 2004; BBC 2003). For starters, the company mounted a successful lobbying campaign that revealed that in "striking a balance between the interests of the corporate elite and the concerns of the 'Sudan constituency' advocating support for human security in Sudan... policy makers in Ottawa came down in favor of corporate interests" (Matthews 2004:245). A more fruitful line of argument is that Talisman's decision to leave had to be situated against the backdrop of the civil society groups that engaged in sustained activities "to link Talisman to the massive violations of human rights that have occurred during Sudan's brutal civil war and... [particularly] the successful campaign by these groups to persuade institutional investors to divest the company's stock" (Kobrin 2004:426).

According to Jim Buckee, Talisman's Chief Executive, the company pulled out "because of 'US Pressures' which threatened to exclude Talisman from US financial markets" (BBC 2003). While Buckee might have taken the threat seriously, when the United States "finally gave its approval to the *Sudan Peace Act* in October 2002, the clause that would have prevented any oil company operating in the Sudan from raising capital on U.S. stock exchanges—[the] clause that had given great concern to Jim Buckee—had been removed" (Matthews 2004:246). Talisman might have left Sudan more because of financial concerns of its shareholders who "were tired of continually having to monitor and analyze events relating to Sudan" (cited in Kobrin 2004:426). The controversy might have affected the company's economic interests, and the subsequent rise in Talisman shares after it sold its 25 percent stake in the project might support that contention (Matthews 2004).

While the pressure or threat by the United States to exclude Talisman from US financial markets might have made a difference in the final outcome, the clause that would have actualized the threat was eventually removed. The removal of the clause is consistent with the general stand of the United States with respect to oil-producing countries, not only in the context of Africa, but also in the Middle East. In the African context, analysts have noted a significant policy shift in the tone and relations between the United States and oil-rich African countries (for example, Angola and Equatorial Guinea), an outcome that could well be in response to or the result of China's emerging role in Africa (Chouala 2010; de Oliveira 2007; Campbell 2006; Frynas and Paulo 2006; Klare and Volman 2006; Abramovici 2004; Keenan 2004; Volman 2003; Le Billon 2001).

To the United States, the conditions of access to oil constitute a national security risk; hence it is essential to ensure a continuous flow and access to oil supplies. Beginning with the National Energy Policy Development Group report, "Reliable, Affordable and Environmentally Sound Energy for America's Future," under the leadership of then Vice President Cheney, West Africa—specifically the countries around the Gulf of Guinea, including Nigeria, Angola, and Equatorial Guinea—"were identified as national energy security priorities" (Chouala 2010:146). This declaration also made it possible for several major US companies, among them ExxonMobil and ChevronTexaco, to become involved in what Ghazvinian (2008) calls the "scramble for Africa's oil." Leaders from African oil-rich countries, such as Angola's Eduardo Dos Santos and Equatorial Guinea's Mbasogo, have been well received in the United States at the same time that the country showed some goodwill to Cameroon's longtime dictator Paul Biya (Chouala 2010:157). If oil commands such an importance, it also suggests that the political leaders of Africa's oil producing countries are equally powerful and have strategic options in terms of smart policy decisions. The question, then, is how they have utilized that power or adopted strategic choices or options in the service of their citizens.

5.4.3 *Citizenship engagement*

The final leadership variable relates to citizen engagement in terms of the extractive resources and the broader political sphere. Specifically, this line of discussion focuses on how citizens and society benefit from natural resource management in the case of the oil-rich African countries (Gibbes and Key 2010; Oyono 2004; Shackelton and Campbell 2000). Table 5.1 documents how the performance of the oil-rich African countries on UNDP HDI has been nothing short of a complete disappointment. Consequently, natural resource management in some African countries has been more of a "curse" (Humphreys, Sachs, and Stiglitz 2007; Dietz, Newmayer, and Soysa 2007).

The disappointment, however, has to be reconciled with specific activities of some African political leaders. In the midst of the grinding poverty and deplorable living conditions in Equatorial Guinea, President Obiang Mbasogo decided to endow a UNESCO prize in his name, a proposal that deeply divided the global institution (Sharma 2010). The resultant groundswell of opposition to the initiative may have led to the name change whereby Equatorial Guinea replaced Obiang Mbasogo. The basis for the opposition included not only the unfortunate human condition of the majority of Equatorial Guineans, but the absence of any credible democratic governance, rampant human rights violations in the country, and the perception that the prize was an attempt by the aging leader to placate international public opinion about him and, in the process, garner some international legitimacy (Sharma 2010). The controversy did not abate when the UNESCO-Equatorial Guinea International Prize for Research in the Life Sciences were finally awarded in July 2012 (Sharma 2012). Beyond the global arena, Equatorial Guinea also won the bid as host of the African Observatory for Science, Technology and Innovation (NEPAD 2010).

To a large extent, the above illustrations are indications of political leadership malaise and poor choices in Africa when it comes to managing natural resources for national development (Ghazvinian 2007; Basedau and Mehler 2005; Silverstein 2002). One critical requirement in the management of natural resources is transparency. Chouala (2010:156) sums the record on transparency in the oil industry in Africa as "one of unparalleled opacity…[For instance, in]

Cameroon, oil money has for a long time been excluded from public accounting by not being budgeted. In Angola, oil accounts and revenues remain 'state secrets' and there is no public transparency." In a context of political dynasties and lack of accountability, there is a complete lack of transparency and tangible benefits to the society at large.

5.5 What can Africa Learn from Others?

Natural resource availability offers an excellent opportunity for countries to accelerate development and exit poverty (IMF 2010b). As Gelb and Associates (1988) posit, natural resource availability and consequent revenue emanating from its exploitation should relax the three traditional constraints of economic development: fiscal revenue, domestic savings, and foreign exchange. However, the quality of natural resource management is a major distinguishing factor between countries that have benefited from natural resource wealth and those that have not. Natural resource endowments' effect on economic performance and welfare depends on how they are explored, exploited, and traded as well as how their proceeds are managed (Papyrakis and Gerlagh 2006).

African countries are not alone in being endowed with natural resources. The extant literature is replete with examples of countries that have successfully leveraged their natural resource endowments to kick-start and drive growth. Romer (1996) and Wright (1990) have shown, for example, that the origins of rapid industrial and economic expansion in the United States during 1879-1940 were strongly linked to the exploitation of its abundant non-renewable natural resources. Recent examples drawn from around the world, including Australia, Indonesia, and Norway, make it clear that successfully mainstreaming natural resources as an engine of growth is not impossible in African countries, as the case of Botswana clearly demonstrates (Ogunleye 2008).

This section highlights the experiences of a few resource-rich success stories—Norway, Chile, Australia, and the Gulf Cooperation Council (GCC) countries—to highlight what African countries can and should learn from these case studies.

5.5.1 Norway

One atypical global example in the management of oil wealth for national development is Norway, a small open economy in northern Europe at the very top of the annual global index on human development (UNDP 2012b). When oil was discovered in 1969, Norway, not surprisingly,

> lacked the skills and technology necessary to develop the oil industry [and so the main institutional innovation] was the founding of the Statoil Oil Company in 1972. This state-owned company played a crucial role as parts of the Norwegian manufacturing industry were transformed into an engineering supply industry with specialized knowledge in the production of deep-sea oil drilling equipment, platforms, pipelines and supply ships (Cappelen and Mjøset 2009:8).

By the 1980s, oil exports "accounted for approximately a third of Norway's exports. During the 1990s, production increased to more than three million barrels per day, making Norway for some years the world's largest

exporter of crude oil" (Cappelen and Mjøset 2009:8). There is widespread consensus in the literature on how Norway used its oil revenue to the benefit of the whole society, escaped the Dutch disease phenomenon, and offers a model to other oil or natural resource-rich countries (Cappelen and Mjøset 2009; Velculescu 2008; Wigglesworth and Kennedy 2007).

Norway provides valuable lessons for African countries to develop strong and appropriate institutions for implementing public investment in NRM. At the commencement of its oil production in the 1970s, Norway developed the "Ten Commandments" for the management of the oil sector. Central to these commandments are: 1) reserves must be developed so that Norway becomes independent in the provision of oil, and 2) the oil sector should contribute to new industrial activities. The means for achieving these commandments is channeling public investment into the development of the oil and other sectors. However, Norway has recorded success not simply because these commandments were in place, but because the country has strong and efficient institutions that are able to monitor implementation of the commandments (Mehlum et al. 2008). Norway's example is worth exploring in developing the right institutions to support public investment in mainstreaming natural resource management as the engine of growth in Africa.

While establishing institutions is important, equally critical is an institutional process. Specifically Norway enacted a transparent system for redistributing its oil wealth with fiscal rules for expenditures, savings, and investment. In 1990, Norway established the Petroleum Fund, now known as the Government Pension Fund-Global (GPF), which serves as a pool for the surplus wealth produced by Norwegian oil revenue. Currently worth US$ 450 billion, the GPF has been judged the world's most transparent in terms of its investment and revenue holdings because it strictly follows the Santiago Principles, a set of Generally Accepted Principles and Practices (GAPP) for SWFs (Puplampu 2012). While seeking investment in high yielding assets, the focus is on reducing risks as much as possible through diversification to ensure that the GPF is not eroded but has sufficient resources to cater to future generations' needs. The Fund's purpose is to facilitate government savings that are necessary to meet the rapid rise in future public pension expenditures and to support long-term management of petroleum revenue. To prevent the GPF from being looted and ensure that it is directed toward investment in natural resource management, Norway put in place a fiscal rule for the use of the GPF in a sustainable way over time. This serves as a safeguard for proper management of the Fund and ensures that it is properly channeled to NRM— something that African countries should learn. Indeed, many African countries could learn from Norway how to ensure effective operations of natural resource investment funds. This is especially true for countries that are newly considering establishing Sovereign Wealth Funds (SWF) for investment.

In addition to investing the GPF in offshore assets, the government also invests a substantial part of the Fund in the domestic markets. The Ministry of Trade and Industry and the National Insurance Fund are responsible for the two most important items in the Fund's domestic investment menu. The Ministry of Trade and Industry manages government public investment assets in a number of private companies that either are engaged in business activities in Norway or invest in companies that are engaged in such activities. In addition, the National Insurance

Fund has a large portfolio of investments in listed Norwegian companies. Part of the Fund is channeled to capital market development, especially real estate and private equity. Since the capital market is a very efficient instrument for channeling funds from savers to investors, public investment of the Fund is helping to bridge the financial intermediation process in the economy. This shows that public investment in national resource management could be a catalyst for promoting private economic activities in diverse areas of the economy.

As a rule, public expenditure is limited to 4 percent of the value of the Fund based on the estimated real return to the Fund. Savings are invested for the benefit of both current and future Norwegians. Norway also established a tax system that helps the country to maximize its oil revenue receipts. This is evident in the levy of high royalties on oil extraction by private companies and heavy taxes on cars and gasoline. Fourth, the country actively invested its oil wealth in capacity and technology development and in such innovative areas as renewable energy, offsetting carbon emissions, and post-oil technology. The country also actively channeled investment into supporting companies that innovate in renewable energy technology and electricity efficiency. To this end, Norway endeavors to obtain the maximum value from its natural resources over time and efficiently deploy the resulting revenue to develop the natural resource sector and other sustainable sectors.

In addition to the aforementioned, Norway has one of the world's highest shares of public investment in health as a proportion of GDP. The cultural value of equity in the country's public investment in natural resource management ensures that government prioritizes high quality education aimed at developing human capacity in oil and diverse non-oil activities. The sustained and massive investment in human capital accumulation is a critical factor in the successful transformation of the Norwegian economy in particular and the society at large.

Channeling public investment to natural resource management has enabled Norway to achieve a high level of economic development and, as a consequence, to attain one of the highest quality of life rankings in the world (see the Human Development Index of various years). On the Better Life Index for 2012, Norwegians are more satisfied with their lives than the OECD average of 72 percent, with 75 percent of the people having more positive experiences in an average day (feelings of rest, pride in accomplishment, and enjoyment) than negative ones (pain, worry, sadness, boredom). The country can attribute this feat to its outstanding performances in several other indices. For example: the average person earns US$ 30,465 per annum, more than the OECD average of US$ 22,387; over 75 percent of people aged 15 to 64 have a paid job, above the OECD employment average of 66 percent; 81 percent of adults aged 25-64 have earned the equivalent of a high-school degree, higher than the OECD average of 74 percent; life expectancy at birth is 81 years, compared with the OECD average of 80 years; and there are high levels of civic participation and a strong sense of community living: 94 percent of the people believe that they know someone they could rely on in a time of need, higher than the OECD average of 91 percent (Ogunleye 2012:25).

The aforementioned realization might have informed the statement by Emmanuel Mutebile, Governor of the Bank of Uganda, that "We [Uganda] must be Africa's Norway" and also alluded to Botswana's management of its diamond wealth as another example worth

emulating (cited in Kathman and Shannon 2011:25). One specific aspect of oil management in Norway, as mentioned earlier, is the role of Statoil, the state-owned oil company, and Uganda is keen on exploring how its proposed national oil company can learn from its Norwegian counterpart. The legal framework and the broader corporate governance are critical aspects of Norway's success and the question now is how to establish a viable entity in Uganda and environmental regulation of oil and gas. Finally, whether or not the oil wealth will be for Uganda [political elites] or Ugandans [the broader society] is part of the ongoing debate in the country (Kyepa 2012; Kasimbazi 2012; Gelb and Majerowicz 2011). Beyond Norway, Uganda and other recent oil producing African countries should also pay attention to both Venezuela and Indonesia in terms of the institutional framework in managing oil wealth for national development (Parker 2005; Ascher 1998).

5.5.2 *Chile*

Chile provides another important lesson for African countries on the need to adopt structured, integrated, disciplined, and transparent economic and social cost-benefit analysis in natural resource management. For example, the Government of Chile established the National System of Investments (SNI) at the Ministry of Planning, which works closely with the Ministry of Finance on public investment in all activities related to natural resource management. The SNI provides a set of norms, techniques, and procedures that govern the public investment process in all sectors of the economy. A technique based on cost-benefit analysis and encompassing a social rate of discount and shadow pricing is developed to serve as a framework for public investments. The country has a law that makes it mandatory that public investment budgets sent by the Ministry of Finance to Congress can only include projects within the SNI and must have been favorably assessed by the Ministry of Planning. Prudential planning ensures that SNI is the only entry point for public investment into the budget process and screens out proposals that have the potential to become "white elephant projects." The success of Chilean public investment has been attributed to several factors, prominent among which are sustained strong political will, substantial training and capacity building at all levels of government, rigorous pre-feasibility project review and appraisal, and simplification of the sophisticated methodology through published and regularly updated manuals (Fontaine 2004).

5.5.3 *Australia*

The cornerstone to natural resource management programs and initiatives in Australia is partnership among all relevant stakeholders, including national and sub-national governments and the private sector (Ogunleye 2012). In most cases, NRM initiatives are jointly funded by these different layers of government and private actors. This funding structure allows investment to be scattered and staggered nationally and regionally. Initiatives that are developed in this way allow room for local and community participation by giving the local people a voice and a sense of belonging in deciding which public investments will have the best impact and give them the best results. It also helps in building the capacity of the local people in public investment projects that will be of utmost relevance and use to them. It allows all stakeholders and interest groups to contribute in a coordinated way to public investment in improving national resource management.

Another prominent lesson that African countries can draw from the Australian example is the importance of strong and effective monitoring and evaluation of public investment in natural resource management through the Monitoring, Evaluation, Reporting, and Improvement (MERI) Framework. The framework provides a holistic approach to NRM public investment that encompasses human, social, natural, physical, and financial assets. It has a two-fold purpose. The first is explaining the overarching conceptual framework for evaluating public investment in natural resource management programs, with an emphasis on learning, improvement, and accountability. The second is to guide the development and implementation of program-level and investment-level evaluation plans in support of efforts to reinforce, review, and refine strategies and practices to ensure that adaptive management occurs as part of continuous improvement. The Framework incorporates four important strategies: a) an integrated approach to investment and program design, the planning process, evaluation, and adaptive program management involving partners across jurisdictions; b) an asset-based approach to evaluation that promotes target setting for the key asset classes that contribute to sustainable natural resource management; c) a format for monitoring program performance in addition to the state of and change over time in the condition of assets; and d) a basis for reporting, with an emphasis on outcomes and impacts, including at intermediate outcome stages (Australian Government 2009).

In developing programs for public investment in natural resource management activities, the Australian government (2009) outlined the structured principles that must be followed. First is proper evaluation of programs, including multiple lines of quantitative and qualitative evidence about both the state of and trend in identified NRM assets and key aspects of program performance that describe the causal links between what a program has achieved and how the achievements were accomplished. Second is to establish and foster constructive partnership among all stakeholders, including federal, state, territorial, and local governments, regions, communities, and industries. The partnerships are aimed at ensuring that evaluations of the recommendations for public investment are completed properly and that project ownership is guaranteed. Third is to establish meaningful and efficient partnership arrangements and evaluations that are recognized by all stakeholders to be relevant, timely, clear, concise, and informative. The final principle involves establishing effective evaluation methods and feedback loops from evaluation to policy makers, operational staff, and the community. This is essential if evaluation lessons are to be learned, recommendations adopted, and the required changes and program improvements made.

In February 2011, the Australian government provided a platform for a nationwide, all stakeholder involvement in an evaluation of its natural resource management programs and policies. It received very useful feedback from different stakeholders, including concerns such as: the need to recognize the strength and commitment of the community in delivering natural resource management; the value of farmers and industry groups in ensuring sustainable farming and food security; the risk to conservation outcomes posed by some current investment approaches in weed and pest management; and the importance of indigenous knowledge and stewardship in investment strategies for the future (Ogunleye 2012).

5.5.4 *Gulf Cooperation Council (GCC) countries*

The success of economic reforms in Middle Eastern resource-rich countries rests on high investment in building inclusive institutions as well as high levels of human capacity in public administrations (Arezki and Nabli 2012). This is especially true in the Gulf Cooperation Council (GCC) countries. For instance, Bahrain has invested its oil revenue to establish itself as a financial hub for both the Gulf region and the Arab world, with particular focus on Islamic banking. The country has also invested heavily in tourism and transport services. In addition to investing in services, Bahrain has also focused public investment on developing the aluminum sector, and takes pride in being a major producer of the commodity. United Arab Emirates (UAE) provides another exceptional example in refocusing public investment in natural resource management with a view to achieving economic diversification. As a result of huge investments in financial services, tourism, and transport logistics, Dubai is currently a global hub in trading and distribution of goods as well as a financial hub with the Dubai International Financial Center. The Gulf Cooperation Council in 2011 planned public investment worth US$ 968 billion dispersed across 1,638 projects in different sectors of the economy over the next ten years. Of these, construction, infrastructure, and the oil industry account for 80 percent of all projects. An estimated US$ 97 billion is being directed to roads and railways over the ten year period, with US$ 79 billion for rail, including trains, subways, and trams. Investment in roads construction is put at US$ 18 billion (Ogunleye 2012:29). With the active public investment in the natural resource sector and other sectors of the economy, several Middle Eastern countries have significantly reduced their dependence on natural resources. This experience, again, provides a good lesson for resource-rich African countries.

5.6 Sustainable Development—analysis, issues and challenges

The preceding examination provides a range of critical factors that are integral to the success or failure of political leadership and its role in the oil and gas exploration in particular and national development broadly. Three major categories can be identified: the importance of political leadership, the nature of the state bureaucracy—specifically, the relationship between political leaders and bureaucrats when it comes to initiating, implementing, and monitoring policies and institutions and finally, state-society relations, certainly the place for an active and vibrant civil society.

5.6.1 *Political leadership*

The successful African and non-African cases in dealing with natural resource wealth establish one basic point: there is no inherent curse in natural resource endowments. It is rather the capacity implications, especially at the policy and institutional levels, that determine the ability to achieve optimal outcomes. When political leaders are committed to national development via natural resources, they will keep an eye on the underlying principles of sustained economic development. Sustainable development dovetails into the broader development debate and is therefore contingent on the role of political leadership in managing available resources in the name of national development for today and tomorrow.

Political leadership in Botswana accounts for the country's successes in managing the diamond wealth in particular and natural resources in

general, as the leaders ensured that policies and institutions work. Buttressed by this democratic legitimacy, Seretse Khama, the President of Botswana, offered this comment on the refusal of Laurent Gbagbo, leader of Côte d'Ivoire, to accept his electoral loss:

> It is a real tragedy.... It is very sad that we still have [leaders] who allow their power hungry ambition ... to totally ignore the will of the majority of the people....Once people bring their personal self-interest into government, it derails the whole country and people suffer. It should not be an ego trip....This sort of one-man rule that goes on and on must stop.... The only thing is for Gbagbo to step back and be a true statesman (cited in Tettey 2012:37-38).

Gbagbo's refusal launched Côte d'Ivoire into chaos after the 2010 general election. Instances of conflict after election results and the resultant chaos are common in Africa, such as seen in Kenya after the December 2007 general elections. Coalition governments have also been on the rise, as in the Kenyan case and with the managed election outcome in Zimbabwe following the two round presidential elections in March and June 2008. Other countries have seen chaos following the elections, as has been the case in Uganda in February 2011 and Senegal in March 2012. Other countries have witnessed chaos in the run-up toward the elections, such as Mali in March 2012. The examples from elections point to the lack of political leadership that can position the interests of the broader society during electoral campaigns and when preparing electoral manifestos. It is therefore imperative to examine the extent to which the national development framework has the capacity development ethos required to operate irrespective of the political vicissitudes and general short-term mindset of politicians. Such capacity resides in the functioning of the civil service and the quality of public administration, particularly in how it relates to political institutions. It is that capacity that has made Norway a model.

Campbell (2011) argues with reference to Norway that the sovereign wealth fund's management has been characterized by a high degree of transparency and its managers are directly accountable to democratic institutions; hence the continued success has been underpinned by political will, the rule of law and developed democratic institutions. Building capable institutions will obviously take time. However, there has been no correlation between the establishment of capable, sustainable institutions and the longevity of African political leaders.

5.6.2 *Nature of state bureaucracy*

Beyond commitment of leadership is the capacity question of institutions. The focus should be on the nature and role of the state bureaucracy and the overall relationship between political leaders and bureaucrats. One relevant attribute of the post-colonial African state is its "softness." The concept of the "soft" state is useful because it cuts across differentiations on the nature of the state and takes into consideration the processes that limit the power of the state (Faaland and Parkinson 1991). According to Myrdal (1968:896), "soft" states scarcely enforce their policies. The "softness" of the state lies in its inability "to coerce people in order to implement declared policy goals...[because of] the power structure and a gap between real and professed intentions" (Streeten 1993:1282).

At the point of political independence, the bureaucratic structure of the African state administration reflected the inability to initiate and implement effective policies and hence employed clientelism and state patronage as a means of "welding fragmented and fissiparous ruling coalitions into regimes capable of maintaining a hold on state power" (Boone 1994:110). With highly centralized and understaffed departments, the state machinery was unable to enact, let alone implement, effective policies to address emerging problems. The post-colonial bureaucracy therefore operated in an atmosphere where the "functional notion of government... did not distinguish between decision making and implementation roles" (Chazan et al. 1992:42). Without qualified personnel, the same bureaucrats initiated and implemented state policies, and "because of the incompetence of existing administrative agencies, political leadership respond[ed] by administrative shortcuts, and by setting up new and hopefully more responsive administrative units" (Berg 1971:210).

In some cases, most of the expanding state institutions became dumping grounds for political appointees and targets of political interference as a way to expand their power base (Arriola 2009; van de Walle 2006). Government employment, as Azarya (1988) noted, is highly valued because it increases one's social status. Increases in social status also implied increases in obligations to kinsfolk and the ability to dole out social and political largesse. Lacking clearly defined roles, and unable to separate responsibilities of working in state institutions from social expectations, the bureaucratic structure was hampered by red-tape, poor administration, nepotism, and administrative corruption (Crook 1983; Price 1975; Le-Vine 1975).

The implications of a "soft" state account for inadequate or ineffective development policies. To be sure, the international financial institutions, particularly the World Bank (1981), at the height of the African crisis in the 1980s, acknowledged these difficulties of the post-colonial African state. The policy recommendations under the structural adjustment, specifically the wholesale restructuring and diminishing presence of state institutions, left a capacity vacuum that has continued to affect the overall effectives of post-colonial African public service (World Bank 1989).

5.6.3 State and society relations

The final issue for analysis is state and society relations, specifically an active and vibrant civil society. Drawing from the case of Norway once more, the role of a vibrant civil society has been critical in the social usage of oil revenue. It is generally known that groups with a significant power base would prefer the status quo, as the cases of Nigeria and Chad attest (Moss and Young 2009; Obi 2007). There was a real desire in both countries for reforms that would deepen the role of the oil wealth in the national development process. However, in both cases, political elites basically helped themselves to the national wealth, while ordinary citizens looked on helplessly from the sidelines. In Nigeria, there was continuous bickering among government departments on the formula used to determine oil revenue disbursements to state and local governments (Ahmad and Singh 2003). The remarkable aspect of the Nigerian case is the absence of any consequence for mismanagement; until 2003, no one was criminally convicted of the wanton looting of the national wealth (cited in Moss and Young 2009). The Chad-Cameroonian oil development and pipeline program is a good case study.

Case study: Chad-Cameroonian Oil Development and Pipeline Program

On June 6, 2000 the World Bank's Board of Executive Directors approved the Chad-Cameroon Oil Development and Pipeline Program. The project involved the following principal actors: a) the Governments of Chad and Cameroon; b) the World Bank Group; c) an oil consortium initially made up of Exxon, Elf, and Shell, and then from 2000 ExxonMobil (40 per cent and project operator), Pretronas (35 per cent) and Chevron (25 per cent); and d) civil society organizations within and beyond the two countries.

The importance of this project, within the context of natural resources management and development, was obvious right from the start. Chad is a fragile landlocked country with a challenging governance environment. In terms of its human development, Chad ranks 183 out of 187 countries (UNDP 2012b). The current President, Idriss Déby Itno, assumed power by the force of arms in 1990, later regularized this power through elections in 1996, and was re-elected in 2001. However, by 2005, he had abolished the two-term limits on the presidency, suppressed other political groups, and held another re-election in 2005, which other political parties boycotted. He is thus gradually taking on a "president-for-life" persona. Itno's Cameroonian counterpart, Paul Biya, has also been in power for three decades and stifled any form of political pluralism in his country. In terms of human development, Cameroon ranks 150 out of 187 (UNDP 2012b). As in other resource-rich countries in Africa and beyond, the role of natural resources management and national development has not been problem-free.

The Chad-Cameroon Oil Development and Pipeline Program has been the focus of several studies (Winters and Gould 2011; Gérin and Houdin 2010; Arbogast 2009; Emmerson 2005; Finkle 2004; Jobin 2003). The major issues in the literature revolve around the importance of the project for human development in both countries; the World Bank's leadership in bringing together the major players identified earlier; the extent to which the agreement between the World Bank and Chad, for example, focused on institutions and capacity-development initiatives; the specific emphasis on environmental sustainability; and finally, the pivotal role of civil society. The project also had some novel features. The Oil Revenue Management Law agreement between the World Bank and the Government of Chad, spelling out how to spend oil revenue, was unique and innovative in the development discourse. Elaborate in nature, the law outlined specific types of accounts that were to be operated and the specific conditions that should inform the utilization of the funds. For example, the World Bank requested, and the Government of Chad agreed, to "put all direct oil revenues into an escrow account" with specific and strict requirements on spending; for example, "80% would go for direct development and poverty reduction expenditures, 10% set aside for a Future Generations Fund, 5% on the oil-producing region, and the remaining 5% for discretionary spending" and also establish a civil society watchdog (cited in Moss and Young, 2009:10; see also Gérin and Houdin 2010:17). What is known about the Chad-Cameroon Oil Development and Pipeline Program is the following: the Government of Chad reneged on spending oil revenue along the lines of the agreement and eventually enacted legislation that abolished the agreement that required it to commit funds to a broader human development; it also failed to allocate funds to support the creation of civil society groups as a watchdog mechanism. The Government of Chad utilized oil revenue to repay the World Bank loans, after the

Bank pulled out of Chad. The departure of the World Bank also had a negative impact on the commitment of other players, such as the European Investment Bank, and has been cited as an example of the obsolescence bargaining theory where a host government renegotiated the terms of its contracts as bargaining parameters changed over time (Gould and Winters 2007). However, that departure was counterbalanced by the arrival of China, when the China National Petroleum Corporation purchased the interests of one junior player, EnCana, a Canadian oil company in 2007.

Civil society organizations (CSOs), among others, drew attention to the labor and human rights concerns, as well as environmental stewardship issues. There were two major groups: those at the national level in both Chad and Cameroon and international groups (Gérin and Houdin 2010; *Association Tchadienne pour la Promotion et la Défense des Droits de l'Homme and Centre pour l'Environnement et le Developpement and Environmental Defense* 2002). The prominent national CSOs included the *Commission Permanente Pétrole de N'Djamena* (Permanent Oil Commission N'Djamena) and *Commission Permanente Pétrole Locale* (Permanent Local Oil Coalition) in Chad and joint ones like the *Groupe de Recherches Alternatives et de Monitoring du projet Pétrole Tchad-Cameroun* (Alternative Research and Monitoring Group of the Chad-Cameroon Oil Project). The Catholic Relief Services and the Centre for Environment and Development in Cameroon were also significant CSOs. Beyond the national organization, prominent international CSOs included Amnesty International, Germany; Friends of the Earth, France; and Forest People's Programme, United Kingdom.

An analysis of the plight and role of CSOs shows how the role they played, and the questions they asked, as well as their approach to the development model of the Chad-Cameroon pipeline contributed to the final outcome of the bargaining. Specifically, CSOs played a major role in the investment for the Future Generations Fund, which became a specific aspect of the oil revenue management law, and had significant contributions to democratic governance in the country. The analysis of the CSO role in the Chad-Cameroon pipeline brings into sharp focus the role of the African state in managing natural resources for development in an era of globalization and lessons on state-civil society relations in the natural resources and development discourse.

The Governments of Chad and Cameroon, for different reasons and not unexpectedly, pursued different strategic interests. For example, Cameroon opted for a "fixed levy per barrel of oil flowing, dividends from its participation in the company that owns and operates the pipeline in Cameroon (the Cameroon Oil Transportation Company) and income, business and other taxes" (Gérin and Houdin 2010:7). However, due to low flow volumes, currency deterioration (the US dollar, the Euro and FCFA), and steep increases in oil price, the Government of Cameroon did not accrue sufficient oil revenue (Gérin and Houdin 2010:12). This illustrates that like its counterparts elsewhere, the state of Cameroon, which remains a major player in setting the macroeconomic frame, suffers the negative consequences of its decision-making capabilities when it comes to negotiations on energy and other big projects on the continent, with impacts extending to society at large.

Chad, on the other hand, reaped sufficient oil revenue, especially during 2003-2008 and utilized the funds to pay its public service and military staff (Gérin and Houdin 2010). However,

in the midst of the worsening security situation from 2005, which became a major problem after 2008, the Government of Chad was not only prepared to arm its security apparatus, but also called for a larger space to utilize oil revenue to meet national development priorities. The Government of Chad was firm on its demand for greater latitude in using oil revenue to support what it deemed were national urgent needs. Chad took a solo move through the Parliament and amended the revenue management of oil (Winters and Gould 2011; Gérin and Houdin 2010). The lessons here are worth stressing: the state commands enough influence in using wealth from natural resources to push the national development agenda. Even the supposedly fragile African state of Chad was, once it had the revenue, in a dominant position to dictate to the World Bank, which on several occasions gave in to the demands of the Government of Chad. President Idriss Déby Itno understood the fact that given the financial investment in the oil project, Chad had the landlord's advantage; he was in a position of strength and did not hesitate to use those strengths in negotiations with partners in the project (Winters and Gould 2011; Gérin and Houdin 2010).

Furthermore, the role of foreign development assistance in the Chad-Cameroon oil project is also worth noting. Historically, foreign assistance was equated to the ideological concepts of the United States, Western Europe, and Japan. This one source of development assistance gave the West the required leverage to dictate the terms of any form of assistance. However, the emergence of China, not only in Africa, but in the rest of the world, has introduced a creative dynamic in the global development assistance framework (Gérin and Houdin 2010). Specifically, when the World Bank and other Western based partners were signaling their displeasure with the position of the Government of Chad over revenue management and other legal problems and their desire to pull out, the Government of Chad clearly indicated the existence of alternative forms of financing from China. Indeed, China did assume a role in the subsequent activities of the project and the question becomes whether China's presence altered President Itno's strategic behavior in negotiating the project. What has been ventured in recent commentary relates to the shift from competition to cooperation between the various multinationals active in the Chad-Cameroon oil corridor (such as ExxonMobil) and the new entrants into the game, China National Petroleum Corporation (Badgley 2011).

Equally significant is President Itno's approach to democratic governance. First, he was able to champion changes to the revenue management law through Parliament and engineered changes to the constitutional term limits on the presidency. The constitutional changes allowed him to run for a third term, and he could well be on his way to becoming "president-for-life" in Chad. Second, other political parties, in view of the constitutional changes, did not participate in the third presidential elections. This enabled Parliament to serve as a rubber stamp for all government proposals. The absence of opposition parties in the third presidential elections serves as a backdrop to discuss the role of CSOs in the Chad-Cameroon Oil Development and Pipeline Program.

The national level CSOs assumed a higher profile because of the equally high profile of the project. They were thus more noticeable and their critique of the project was taken seriously. Many CSOs drew attention to the lack of capacity in Chad to manage the project and thus called "for a moratorium to delay investment until adequate

conditions had been achieved," and the appropriate question becomes whether or not there is "any country [in the world] delaying its access to resources until it was deemed ready to do so by the international community or in its own judgment?" (Gérin and Houdin 2010:25-26). Under the terms of the project agreement, funds were supposed to be allocated to civil society initiatives. However, with the changes that Chad initiated to the revenue management law, it became obvious that there would be difficulties in accessing the funds required to keep the government accountable. Governments tend to find it problematic to allocate public funds to entities that will, in turn, take them to task over their policy initiatives. This is a classic problem many national CSOs are confronted with—the source of funds to support their activities and whether or not the source of the funds can call the tunes. The lesson here is how CSOs can mobilize funds for their activities and whether public funds can be utilized to hold governments to account.

The funding difficulties of national CSOs compel or explain their partnerships with international counterparts. Consequently, several international CSOs have been active in the Chad-Cameroon oil and pipeline project. Specifically, the international CSOs have focused on human and labor rights, as well as environmental issues. The posture of national governments has been to depict such international CSOs as outside forces intent on fomenting trouble, even though they welcome the financial commitment of outside investors. In other words, national governments cannot label international CSOs as troublemakers while openly embracing international financiers, if their fundamental argument is about the role outside forces.

International solidarity among CSOs is perhaps possible with the dramatic breakthroughs in communication technologies. However, the possibilities of such collaborations still have to confront the politics of "national" vs "international" identity and its implications for global development. In spite of all the trends toward a global village, which assumes a common understanding of the problems of each other, society is still hostage—first and foremost—to the ethos of national governments. How to transcend this framework or replace it with a global framework remains a problem in how natural resources are exploited in different parts of the world, sometimes in a way that might not benefit the site of the resources.

From the aforementioned, it is clear that the discovery of oil in Chad set into motion a complex series of forces (Barma et al. 2012; Moss and Young 2009). First, as a landlocked country, it required a country willing to offer a point of delivery, a role that Cameroon accepted. Second, the World Bank and other financiers requested that the government of Chad "put all direct oil revenue into an escrow account" with specific and strict requirements on spending and also establish a civil society watchdog (Moss and Young 2009:10). The Government of Chad accepted this requirement but, in the final analysis, failed to allocate funds toward the creation of the civil society watchdog. Parliament abolished the legislation that committed the country to the Future Generations Fund and used the oil revenue to repay the World Bank loan, after which the Bank pulled out of Chad (Barma et al. 2012; Moss and Young 2009).

Two important issues flow from the Chadian case: the role of parliaments in the development of policies on how to utilize oil wealth for national development, and the disjuncture between the theoretical and practical aspects of democratic governance, which in turn reflects the extent to which the citizenry can influence

parliament's work in particular and hold government in general accountable. It is also clear that given the national security interests of powerful global countries, when it comes to oil issues, only a concerted local initiative or push for accountability may make the required difference. With that in mind, several analysts suggest that governance institutions and processes are required in Ghana, a new oil producing country, if the country is to benefit from its oil revenue and avoid the outcomes that have unfolded in Nigeria and Chad (Ayee 2013; Gyampo 2011; Boohene and Peprah 2011; Attafuah 2010; Moss and Young 2009). Countries can also learn from the obsolescing bargaining positions they can take in negotiations around natural resource extractions, particularly when there are many unknowns.

5.7 Sovereign Wealth Funds—A possible panacea? (case of Angola, Botswana and Nigeria)

Sovereign Wealth Funds (SWFs) currently appear to be a must-have for every resources-rich African nation. A spate of sovereign wealth funds are opening across the continent as resource-rich nations look to manage their resources. This is not only a powerful sign that African nations are embracing fiscal prudence; it also helps keep society's attention on the extractive industry (Giugale 2012). Data and information on public investment in natural resource management in African countries are scant. Nigeria and Angola both launched such funds recently, and many more nations who have just discovered resource wealth—Tanzania, Uganda, Ghana, Mozambique, and Kenya—have established or are planning to establish such a fund.

Globally, it is estimated that since 1990, the number of countries that have built such funds tripled, and together, they hold almost US$ 5 trillion, the majority of which came from the sale of commodities (Giugale 2012). While Africa still accounts for approximately 0.3 percent of global sovereign wealth fund assets under management, this figure is expected to grow (African Globe 2013). Beyond promoting domestic growth, SWFs help boost credit ratings and have the potent to lower borrowing costs on international markets (African Globe 2013). Angola had its credit rating upgraded by the three international agencies between May and July 2011, in each case with a stable outlook. In spite of the upgrade occurring before the launch of the Fundo Soberano de Angola (FSDEA), Moody's—which raised Angola's rating to a Ba3—cited Angola's reform program and the establishment of the FSDEA in its reasoning. Similarly, Nigeria, which last November received a first-time Moody's rating of Ba3—three pegs below investment grade—owes this positive development to the establishment of the Nigerian Sovereign Investment Authority (African Globe 2013).

The following section profiles three African countries—Angola, Botswana, and Nigeria—that have invested in sovereign wealth funds to ensure that their resource wealth benefits the current populace as well as future generations

Angola

In 2011, the Angolan government established a new modality for channeling public investment into natural resource management. Known as Fundo Soberano de Angola (FSDEA), the US$ 5 billion fund is the second largest fund in sub-Saharan Africa behind Botswana's Pula Fund (US$6.9 billion). The vehicle was created to ring-

fence critical financial resources needed to pay for high priority, shovel-ready projects to build essential infrastructure that will further improve economic diversification and the economic base of the country (IMF 2011b). The fund comes from revenue received from oil and gas exports and is financed by earmarking the equivalent of 100,000 barrels of daily oil production to fund high priority basic infrastructure projects. The initial focus of public investment through this Fund is on water distribution and power generation. Operations of the fund are fully integrated and reflected in the annual budget.

This investment vehicle has been touted as an innovative means of improving public investment in natural resource management. The main objective is to fund investments in basic infrastructure using profits from state oil production. The FSDEA will take on the role as the state's official investment vehicle, taking from a fund managed by the state oil agency—Sonangol. This fund already has an impressive portfolio, particularly in Portugal where it owns significant shares in a number of banks and energy companies (African Globe 2013). Unfortunately, allegations of Sonangol's mismanagement suggest that the government needs capacity to effectively manage the Fund. According to Human Rights Watch, almost US$ 32 billion (approximately 25 percent of GDP) of Fund revenue is unaccounted for in Sonangol's books (Boyce and Ndikumana 2012). That said, Angola has indicated that in implementing the FSDEA, it will apply the Santiago Principles,[1] a voluntary set of 24 regulations designed to keep sovereign wealth funds transparent and accountable. In line with this, Angola will have to set very specific investment policies and publicly justify whenever it seeks to withdraw money from the fund.

Botswana

Botswana is another African country with a modality for channeling public investment into natural resource management. The vehicle, known as the Pula Fund (US$ 6.9 billion), is a long-term investment portfolio established in 1994. Its main aim is to preserve part of the foreign exchange reserves from diamond exports for future generations by creating a separate investment portfolio for diamond revenue. The success of the Pula Fund lies in its investment strategy. Its asset portfolio includes only foreign currency denominated assets, the bulk of which are long-term instruments—equity and fixed income instruments (IMF 2012: 59) However, it has recently experienced a substantial fall in revenue as a result of the establishment of the Public Officers Pension Fund, which caused substantial transfers from government. The 2008–2009 global economic crisis also had an impact on this fund as a result of the adverse market conditions and outflows needed to maintain the liquidity portfolio at the required levels (IMF 2012). This said, "Botswana has generally been able to ao smoothen out government spending despite the volatility of natural resource revenues by accumulating reserves during periods of relatively high commodity prices and then drawing them down when prices slacken; and b) transform revenue from natural resources into sustained economic growth by reinvesting it effectively in additional productive capacity [as highlighted in Chapter 3]" (IMF 2012:35).

The Pula Fund also has a vehicle for deploying national savings to improve sustainable economic development. To this end, it serves to diversify sources of income away from dominant commodity sale income to include financial investment income. This involves making

offshore investments for the purpose of redirecting demands for immediate use for possible unproductive or unsustainable projects. A means for financial capital accumulation for use in public investment, its goal is to deepen the mainstreaming of NRM as the engine of growth (Acemoglu and Robinson 2012; Acemoglu et al. 2003).

Nigeria

Nigeria launched its sovereign wealth fund—the Nigerian Sovereign Investment Authority (NSIA)—in August 2011, after much political wrangling, with a seed capital of US$ 1 billion. While much smaller than Angola's FSDEA and Botswana's Pula Fund, this new strategy for savings and investing resources is much needed and timely. Its goal is to receive, manage and invest in a diversified portfolio of medium and long-term revenue of the federal, state, federal capital territory, local government and area councils to prepare for the eventual depletion of Nigeria's bicarbon resources for the development of critical infrastructure in Nigeria that attract and support foreign investment, economic diversification, and growth in Nigeria.

As an independent statutory corporation, the NSIA has a mandate to build a savings base for future generations of Nigerians; enhance the development of Nigerian infrastructure; promote fiscal stability for the country in times of economic stress; and carry out such other matters as may be necessary to further these objectives. The fund has three vehicles for investment: the Future Generations Fund, Infrastructure Fund, and Stabilization Fund, each of which received at least 20 percent of the initial value of the fund. With assets of US$ 1 billion, its initial value is a sliver of Nigeria's US$ 236 billion economy, equivalent to less than half a percentage point of GDP (African Globe 2013). And the fund's development has been hamstrung by opposition from the country's 36 state governors, who challenged its legality with the claim that it violated constitutional requirements that national income be shared between federal, state, and local governments (African Globe 2013).

Among others, Nigeria's Fund will invest in development initiatives such as social infrastructure projects that promote economic development in underserved sectors or regions in Nigeria with less favorable economic return potential. Well managed and implemented, the fund can serve as a major vehicle for channeling investment into NRM in Nigeria and establishing it as the engine of growth. However, the fund as currently implemented does not contain any explicit provision for public investment in the development of the oil, natural gas, and other minerals, especially in discoveries.

5.8 Conclusion and Policy Actions

There are no predetermined outcomes in the relationship between political leadership and the use of natural resources for development. Although several African countries have not adequately accounted for natural resource revenue in the national development plans, emerging global and continental initiatives on accountability might hold some promise.

At the heart of the failure is the leadership question. At the dawn of the millennium, African leaders and their international counterparts and partners recognized the need to formulate a new economic vision for the framework, which also led to new models for leadership assessment (Tettey 2012). One specific instrument is the African Union's African Peer Review Mechanism (APRM), which covers four main areas: democracy and political governance;

economic governance and management; corporate governance; and socio-economic development. A critical review of the APRM shows the mixed record of the mechanism and points to "the discomfort or disdain of many African leaders towards objective performance assessments and/or an acknowledgement of the deficit in leadership that they represent" (Tettey 2012:41).

One major missing link in Africa's leadership deficit is a consistent place for civil society engagement in the management of natural resources for development. It is an omission that also has implications for democratic governance. That is why the vibrancy of civil society groups focusing on the oil and gas sector in Ghana holds some promise with respect to governance of the country's oil wealth (Gyampo 2011). Then again, state-society relations will require a firm institutional framework. Some global initiatives that have found expression at the country level are worth mentioning. The Kimberley Process Certification Scheme on diamonds has not been problem-free (Wright 2012). The prospects of the Extractive Industries Transparency Initiative (EITI) are tied to capacity building elements (Ayee 2013). EITI requires transparency in accounting, and this can take place only when the requisite institutions are in place. These institutions can be established and adequately supported only if political leaders choose to provide the required leadership.

Political leaders in Chad first signed on and then reneged on establishing an institution that would be accountable for ensuring that oil revenue is actually used for national development. Nigerian leaders have presided over a situation in which oil revenue belongs to political elites alone. What is obvious in both cases is the absence of a vibrant civil society or any form of outrage from citizens. Again, leaders should seek to promote the welfare of their citizens and not divide and conquer them through identity based political calculations. The rhetoric of development has to be replaced by a concerted and sustainable path of development. One viable path embraces diversification, sustainable investment, and a governance framework of the national wealth from natural resources (Okpanachi 2011). "In fact, mining value added as a percentage of GDP has actually increased in most resource-rich African countries. In Chad, Equatorial Guinea, and Sudan this share has ballooned from less than 1 percent in 1980 to 44, 92, and 15 percent, respectively in 2010" (World Bank 2012b:18). The lack of diversification or any major structural transformation of the economy is a manifestation of lack of strategic thinking and creative choices. Wealth from natural resources is finite; hence the need to invest in rainy day funds and manage these funds with an eye on the future (World Bank 2012b). Sustainable environmental development should mean proper planning of revenue from the sector to shore up and transform other aspects of the political economy. If the Rio +20 document, *The Future We Want*, is to have the desired impact, there clearly must be close collaboration between the public and private sectors and the civil society (Ishwaran 2012).

Second, it is obvious that established democracies will not insist on democratic credentials in oil-rich African countries that offer multinational oil companies uninterrupted flow of oil. This demonstrates the complicity of companies from the global north in the pillaging and corruption in the global south. The reality suggests that changes or attempts at sustaining democratic and economic governance will have to begin from internal social forces. That is why efforts such as "Nigeria's shot at redemption" (Okonjo-Iweala 2008) that turn oil wealth into blessings are worth celebration. Part of the drive was the

decision "by Nigerian authorities to prosecute former US Vice-President, Dick Cheney, for bribes given to Nigerian officials when he was head of Halliburton, and the subsequent settlement with the company, illustrates the fact that corruption is not the exclusive preserve of Africans, but is largely fuelled by companies in the global North" (Tettey 2012:37).

The revelation that French presidents, from Charles de Gaulle to François Mitterand, sanctioned the payment of "commissions" to foreign governments that hosted French companies speaks to the internal and external dimensions of corruption (Quetteville 2001). These practices are behind the current legal troubles of Le Floch-Prigent, the former head of Elf, the French oil giant, and his subsequent repatriation from Côte d'Ivoire to Togo to face fraud charges (Telegraph 2012). Part of the problem is that, so far, global governance initiatives, from either the political or economic perspective, are mostly talk and little to no action. Booth (2011:1) attributes the problem to how "programmes to improve governance continue to reflect what ministers and parliaments in donor countries will support, rather than a relevant body of knowledge and experience." Rather than attempt to completely discard local institutions, multinational corporations should attempt to integrate them. Rather than discard local culture, multinational corporations should explore those aspects of the culture that can be beneficial. A specific and deliberate focus on enabling local problem-solving should be at the center of global governance initiatives (Booth 2011). Botswana's successes stem from a careful integration of local cultural practices into the large national development conversation. While periodic and free elections are consistent with democratic practices, governance extends beyond that to include effective controls on political power.

There is no universal model to inform the interaction of political leadership, natural resources, and national development. However, to the extent that resource wealth can propel the overall development of the society, citizens can demand accountability from their leaders. This is why Moss and Young (2009) call for direct cash payments or dividends to Ghanaians. Drawing from the experiences of Alaska, the argument is that once citizens receive a direct cash benefit, it will be incumbent upon the state to institute effective taxation policies to collect the required taxes for the public good. Even though direct payments will also compel the general public to remain vigilant and demand accountability and transparency in the management of the oil wealth, questions still remain. For example, will leaders improve taxation instruments and thus tax the payments appropriately and utilize the funds for national development? In the final analysis, not only is it important to have policies and institutions, but also leaders of goodwill whose raison d'être is the national good.

Chapter 6

Climate Change, Green Growth, and Natural Resource Management in Africa

6

Climate Change, Green Growth, and Natural Resource Management in Africa

6.1 Introduction

Mainstream economics focuses on economic growth and often neglects the environmental consequences of the growth process. From the 1960s through the 1990s, vested interests from major polluting nations and industries kept environmental movements at bay and undermined their influence in development thinking. However, this "growing dirty and cleaning up later" approach is no longer a valid rationalization for focusing only on economic growth.

In recent years, ecologists, some development economists, and environmental economists challenged mainstream thinking and introduced the concept of "environmentally sustainable economic growth," which is now often referred to as "green growth" (Ekins 2000; Hahnel 2011). This paradigm shift in designing and implementing economic policies (Weigand 2011) recognizes the place environment holds in the process of economic development, as demonstrated in the 2010 World Development Report (World Bank 2010) and in writings of other influential development thinkers who have supported this growth with nature approach (Collier 2010). The emphasis on green growth is an insightful shift in development thinking in its focus on both the quantitative aspect of growth and on its qualitative dimensions. Indeed, there is intensified discussion on the green economy among academics and policy makers in summits and conferences such as the December 2011 climate summit in Durban, the January 2012 Green Growth Knowledge Platform inaugural Conference in Mexico City, and the May 2012 Global Green Growth Summit in Seoul.

African countries have also embraced the green growth idea and are initiating strategies for achieving it. For instance, the African Development Bank (AfDB) projects that every African country will be on a green growth development pathway by 2022. Encouraging measures are already underway in countries such as Ethiopia[1] (hydro); Kenya (geothermal); and Tunisia, Egypt, Mozambique, and Morocco (solar and wind) following the initiatives by major emerging economies such as China, Brazil, and Indonesia. Other African countries, notably South Africa and Ghana, are also developing initiatives aimed at promoting greener development pathways. African countries, however, face an uphill battle in reconciling their respective national development strategies with these initiatives. It remains to be seen whether the September 21, 2010 adoption of the Libreville Declaration by over 30 African countries represents a serious step toward green economy, but it demonstrates at least a political commitment on matters of green growth.

Green growth is one of the most challenging issues of our time, and its implications for global development (in Africa and elsewhere) are increasingly being flagged by major development actors,

policy makers, and research centers (OECD 2011a; World Bank 2012d; UNEP 2011; UNESCAP 2011; CMI 2012; AfDB 2012a). The theme of the 2011 African Economic Conference was also green growth—a concept intensively discussed at the 2012 Rio+20 Summit. The long-term (2012-2022) strategy of the African Development Bank (AfDB) emphasizes green growth alongside its key message of inclusive growth for the continent (Schut et al. 2010). The World Bank believes that it is necessary, efficient, and affordable, and it will not be surprising if it mainstreams green growth principles into its operations (World Bank 2012d). We should note that even if Africa is not a major contributor to the global climate chaos, it might jeopardize its green economy dream by its increasingly intensive use of chemical fertilizers, which are major sources of greenhouse gas emissions (Stern 2007).

Green growth has short-term costs but offers long-term gains in tackling poverty meaningfully, even if there is resistance to it (Resnick et al. 2012; Tandon 2011; Arndt et al. 2010; Hallegatte et al. 2011). Some argue that the green growth dream is not feasible and has gone wrong (Rogers 2010) and that the external aid givers exploit Africa's lack of expertise in green growth to switch climate aid to emission reductions and ring-fence sources of finance for sustainable development (Development Today, 2011). Some aid commentators suggest that major donors might use the need to adopt green growth strategies as conditionality to provide loans and grants to developing countries. Some researchers point to the oversimplified contexts within which green growth is discussed and emphasize the importance of innovation as a precondition for green growth (Aghion et al. 2009). Green growth is not merely the management of natural resources, which is the preoccupation of most researchers and policy makers; it also seeks to change the way we think about the whole development process and push for designing the economic growth process to promote optimal use of scarce environmental resources.

Questions remain as to Africa's institutional and human capacities to negotiate and deal with complex problems of climate change, design and implementation of sustainable development projects, and raise funds for a better future. Fundamental and neglected topics of green growth include coordination with national development strategies, biofuels, chemical fertilizers, food security, renewable energy sources, financing options, institutions, and sequencing of Africa's priorities.

This chapter discusses policy debates on climate change and green economy. It pays particular and detailed attention to case studies and issues of capacity development and policy choices for green growth. The chapter also seeks to link the climate change, environmental degradation, and green growth discussion with the themes of the two previous ACI reports (ACIR2011, on state fragility, and ACIR2012, on agricultural transformation and food security). The logical link across the three reports in the context of this chapter can be articulated as follows: Climate change mitigation and green growth cannot be pursued separately without linking them to food security and fragility of states. Unchecked climate change will lead to flood, drought, and undermining of African societies. This could turn relatively stable countries into fragile ones (ACIR2011) and/or make them food insecure (ACBF 2012). The chapter motivates further debates and discussions on matters of Africa's current development and raises issues of economic and environmental development with a long-term perspective.

The chapter is organized as follows. In section two we focus on the critical interface between climate change, environmental degradation, and natural resource use in Africa. Section three addresses conceptual matters relating to green growth, where we define green growth, green economy, and green jobs. Section four will discuss the alignment of green policies with national development strategies, technology, infrastructure, finance, human capital, and feasibility of green growth. Section five highlights strategic capacities required in light of the emerging issues and new frontiers. Section six concludes and maps a way forward.

6.2 Climate Change, Environmental Degradation and Natural Resource Use

Climate change is a leading human and environmental crisis of the 21st century. This is true globally, but more so for developing regions such as Africa. The Intergovernmental Panel on Climate Change (IPCC) singles out Africa as being very vulnerable to climate variability and change owing to multiple stresses and low adaptive capacity, and despite the fact that some adaptation is taking place this may be insufficient for future changes in climate (IPCC 2007a).

Globally, the impacts of climate change are transforming international relations and progressively reorienting national development agendas as new forms of spatial organization appear, compelling countries to rethink economic development strategies and policies. For Africa, this calls for rethinking each country's complex relations with the environment and with each other so as to put in place collaborative strategies. The fact that the impact of climate change transcends national boundaries calls for renewed efforts at regional integration, cooperation, and transboundary natural resources management (an issue addressed in Chapter 7).

While the actual and potential impacts of climate change are large and wide ranging, affecting many aspects of people's everyday lives, many models predict its negative role in agricultural production and food security across much of Africa (FAO 2008). The effects and the resultant environmental degradation fall disproportionately across the continent—with the poor and most vulnerable feeling the brunt (Kofi Annan 2006, cited in Tadesse 2010:1).

Regardless of which path or environmental position African countries choose, there is no denying that resources—especially the extractives, but also some renewables such as water, forests and arable land—are finite if mismanaged. Furthermore, the process of extraction of oil, gas, minerals, and timber is itself a cause of negative effects on ecosystems, an issue that becomes more pressing as demand of these resources increases and society presses for further measures in the search for hydrocarbons and other scarce resources. Aren't we inevitably pushing toward a tipping point? While perhaps not deliberate, current resource-use trends seem to be progressing in this direction. While the temperature thresholds for large-scale disruptions to social and environmental systems—tipping points—are unknown, "a global mean temperature rise of more than 2°C above pre-industrial levels will make such events more likely" (PACJA 2009:5). Averting the tipping point thus calls for careful policies that take into account the bigger picture and needs of all.

Indeed, without strategies in place for adapting to the anticipated changes, Africa will be seriously affected—particularly its agriculture

sector. This will, in turn, have serious ramifications for the continent's food security and malnutrition levels. Economic growth and development might be disrupted, ultimately giving rise to severe social and environmental problems (PACJA 2009:3; Ndiaye and Niang 2011; FAO 2008; UNDP 2008a; IPCC 2007a).

6.2.1 *Climate change and Africa: nature and impacts*

Climatic change is already having serious consequences across Africa, and is projected to result in potentially larger impacts in the future. According to the UNDP (2008a), the effects of climate change—sea level rise, droughts, heat waves, floods, and rainfall variations—will push millions of people into malnutrition and increase the number of people facing water scarcity. The scale of climate change is likely to be heightened with high anthropogenic emissions, greenhouse gas (GHG) concentrations, and average global temperature (PACJA 2009). Climate change and its causal effects will further impact Africa's ecosystems, requiring a better understanding of its functioning with the aim of implementing effective management policies. Changes to freshwater availability, the productive capacity of soils, and patterns of human settlement are all expected impacts of climate change. Human factors are and will continue to further exacerbate these disruptions, unsettling systems of production (Yaron and Ndiaye 2011; Ndiaye and Ndiaye 2012).

Viewed from this perspective, climate change is best conceptualized as a threat multiplier that exacerbates existing trends, tensions, and instability. The core challenge is that climate change threatens to overburden already fragile and conflict–prone states and regions.

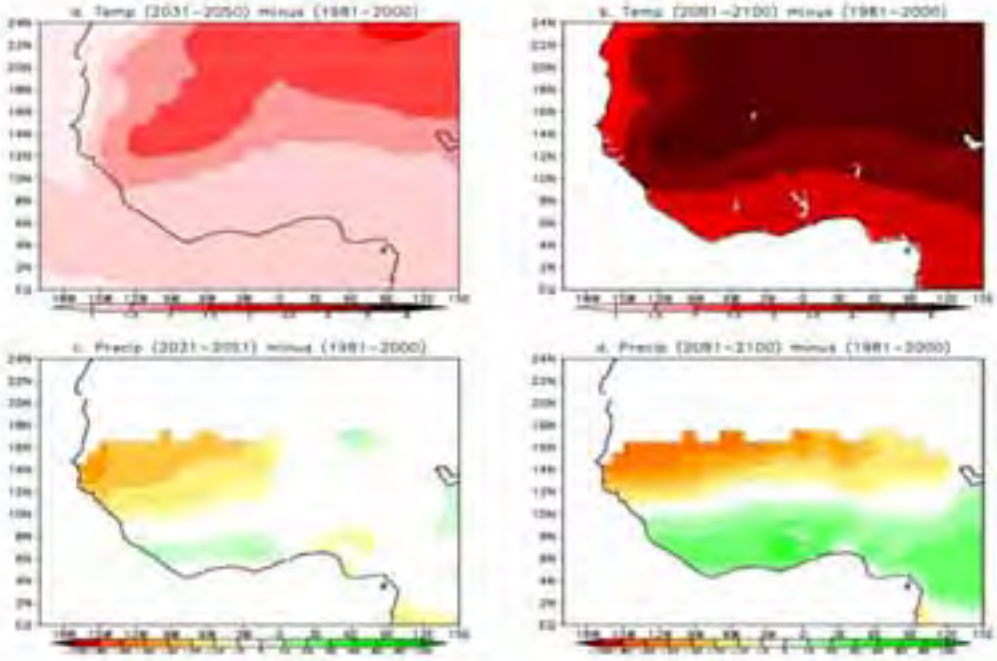
The extant literature on climate change impact can be divided into three phases: a) climate change manifestations (pluviometric variability and rising temperatures); b) ecosystems degradation; and c) adaptation strategies of actors.

a) ***Pluviometric variability and differential temperature rises:*** According to the IPCC's climate scenarios (2007), average increase of global temperatures will be approximately 2°C over the next 15-20 years, and it will reach 4–6.5°C by the end of the 21st century. In Africa, temperature rises will affect every geographic zone. However, the effects vary for each country: +3°C on the coast (Senegal, Gambia, Côte d'Ivoire, Benin), and +4°C inland (Mali, Burkina Faso, Niger) (UNEP 2009).

   Gaye (2010), highlights that the rise in average temperatures (figures 6.1a and b) will coincide with reduced total rainfall (figures 6.1c and d), and with more marked succession of rainfall and dry periods. There will be more frequent dry days (figures 6.2a and b) and extreme situations will be more recurrent (figures 6.2c and d).

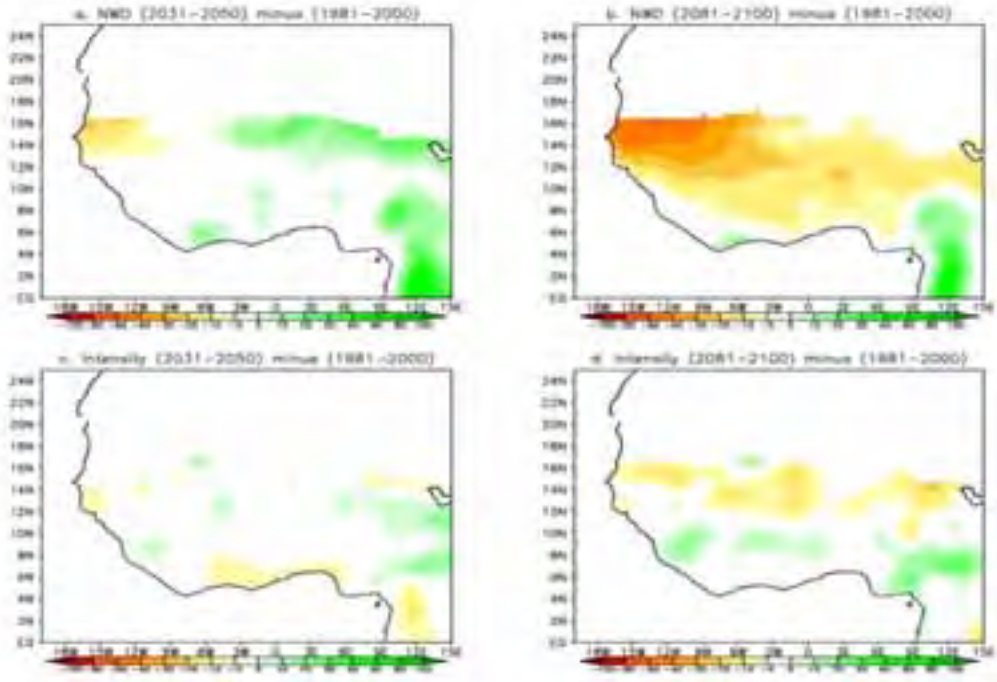
   The Climate and Development Knowledge Network (2012) concurs with Gaye (2010) and scenarios also reported in a recent IPCC (2011) document. According to Lebel et al. (2009), disruptions in rainfall patterns will be more pronounced in the Sahel—a region that has been experiencing variable spatial-temporal patterns since the 1950s.

Figure 6.1 : Projection of climate parameters (temperatures: a and b; rainfall: c and d)



Source: Gaye 2010

Figure 6.2 : Projection of climate parameters (dry days: a and b; intensity: c and d)

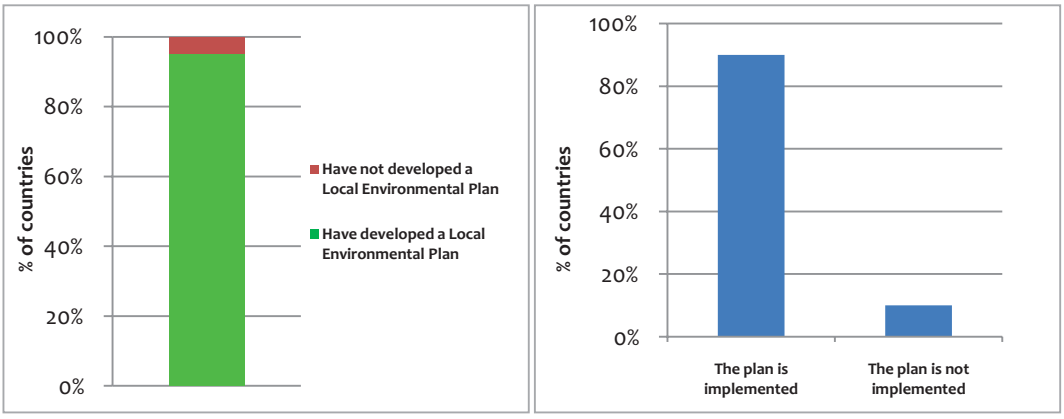


Source: Gaye 2010

The continent as a whole has experienced general increases in warm spells since the industrial era (IPCC 2007a). Rainfall variability has also become more significant. In West Africa, mean annual rainfall has declined steadily since the end of the 1960s. Other regions, particularly Eastern and Southern Africa, "have seen more intense and widespread droughts and a significant increase in heavy rainfall" (PACJA 2009:9). Studies identify three reference periods: the wet period (1950–1969) (P1); the dry period (1970–1990) (P2); and the period of "apparent return" of rainfall to normalcy starting at the end of 1990s (P3).

Across Africa, environmental awareness and preparedness are improving. Of the 44 countries surveyed, approximately 96 percent have put in place well developed national environmental frameworks, of which an impressive 90 percent have gone ahead to implement their environmental plans (figure 6.3).

Figure 6.3: Development and implementation of a national environmental plan



Source: Computed from ACI2013 database

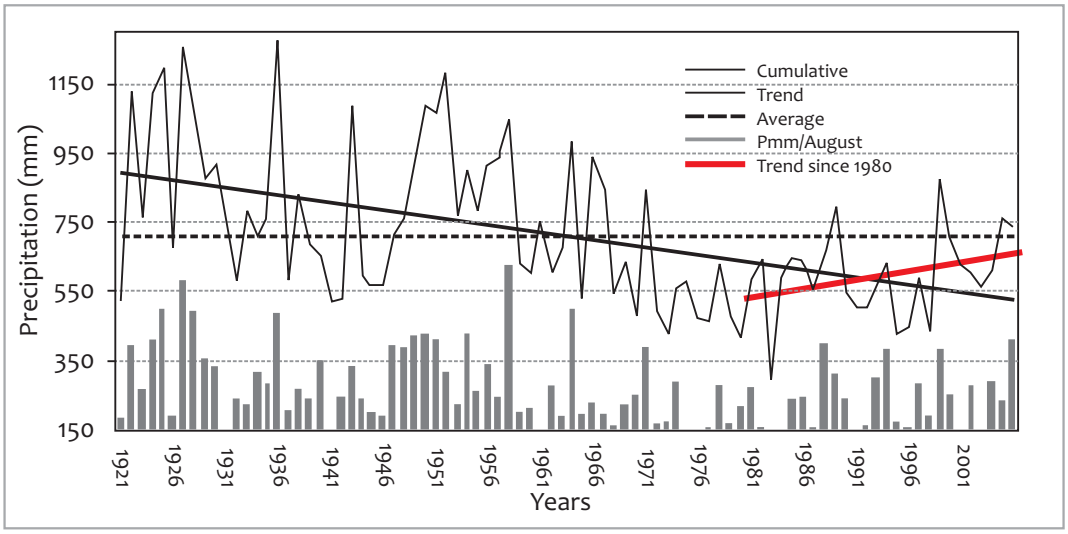
Today, seasonal rainfall disturbances are evident everywhere with: a) generalized decreases in rainfall totals (deficits from -20 percent to -50 percent), a phenomenon more pronounced in the rainy (Sudanese and Guinean) regions, even if it is less visible there, because of high annual totals and a peculiar availability of water; b) disturbance in the sequence of rainy seasons, marked by late starts and early stops, with a narrowing short rainfall and winter seasons, depending on the region considered; and finally c) long or short pluviometric breaks during the season that consequently affect the vegetative cycle if they happen during the vegetative season (germination, flowering) (Salack et al. 2012).

In spite of an "apparent return," analyses suggest that pluviometric tendencies are below the global average (figure 6.4, broken line) and that consequently the optimum of

the 1950s is far from being reached. This position is confirmed by the ten-year tendencies highlighted in figure 6.5.

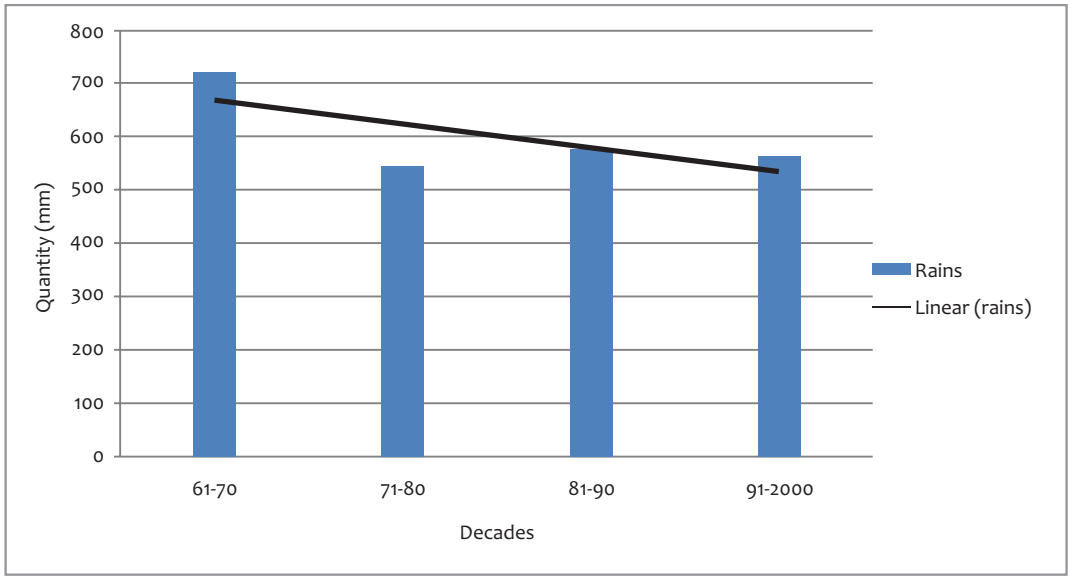
In line with the aforementioned, a recent SREX report emphasizes that: "Most large African cities located on the coast are at risk of flooding" (SREX/GIEC 2012:11). Over the past decade, this rather dramatic development has caused panic and misery for the predominantly poor and vulnerable populations inhabiting these coastal areas (Ndiaye 2011).

Figure 6.4: Pluviometric tendencies in Senegal: northern Sudanese region (1921-2006)



Source: Ndiaye and Sané (2010)

Figure 6.5: 10 year rainfall variability tendencies in Senegal, northern Sudanese region (1961 to 2000)



Source: Ndiaye and Sané (2010)

b) ***Ecosystems degradation: human pressure, land and water salinization:*** According to UNEP (2006), natural ecosystems along Africa's coastline are undergoing critical changes due to their fragility and vulnerability in light of climate change. This view mirrors the findings of Niang-Diop (2001) and Diop (2007), both of whom emphasize that this phenomenon concerns the entire Atlantic coast and more particularly the West African coastline. In fact, essential socio-economic activities such as agriculture and fishing are now taking place in a fragile environment. Furthermore, the coastal stretch (from Lagos to Dakar) has the highest concentrations of human population in the region.

Accordingly, the environmental and socio-economic impacts are very significant. As Diop (2007) and Blivi (2007) both note, coastal erosion is taking place concomitantly as the coastline retreats. Furthermore, sea-level rises are resulting in saltwater intrusions that affect mangrove swamps and cause their progressive degradation; they also are destroying the preferred water sanctuaries for ornithological fauna. All the conditions for decreasing biological diversity and a vulgarization of the ecosystem are present. Saltwater intrusion further contaminates surface sheets in coastal areas and islands. As Niang-Diop (2001) cautions, salinization is destroying potable water supplies for communities and disrupting socio-economic activities linked to the agriculture sector.

Since the 1970s, inland forest resources across Africa have been degraded by the persistent variability of the rainy season, heightened by anthropic actions; significantly reducing the productivity and the ligneous potential, even in forest countries (CIFOR/CIRAD, 2007; Republic of Congo 2004). This consequently impacts rural incomes and livelihoods. Further, in other areas, the trade winds have intensified as forest cover has diminished; fine and small sand particles with thin surface vegetation are being blown away (Ndiaye 2009) and, in recent years, on the edge of settlements such as Nouakchott, Mauritania, houses and roads have been buried as shifting dunes advance.

In many other places, particularly across West Africa, demographic growth has heightened natural resource use (Ndiaye 1992). In urban and peri-urban areas, for example, this has resulted in deforestation brought about by an increased demand for fuel wood and charcoal.

The pressure on renewable resources also affects pastoralists, especially in Eastern Africa (Wellard-Dyer 2012). Elsewhere, from Mauritania to Niger, pastoralists are experiencing shrinking pasture, causing a migration of herders toward the cities and disrupting the livelihoods of some nomadic societies, particularly the Tuaregs (Pourtier 2005).

c) ***Adaptation strategies of actors: policies, populations, foreign actors:*** According to Ndiaye and Niang (2011) in light of these landscape changes, many countries have initiated multiple programs and support projects aimed at sustainable environmental management. NGOs and international agencies such as the IUCN have also put in place biodiversity

conservation programs for integrated resource management, poverty reduction, and capacity development (Yanon and Ndiaye 2011; Sylla et al. 1998).

While there are no definitive approaches to addressing climate change impacts across the continent, solutions must be context specific and grounded in knowledge of local conditions (PACJA 2009). Relatedly, ample attention need to be given to "effective adaptation strategies in the form of predictable finance, capacity [development] and appropriate technologies, [if Africa is to] minimize the costs of future climate change, particularly on behalf of those who are most vulnerable to the impacts of climate change" (PACJA 2009:3). It is, however, important to note that many African countries have already developed National Adaptation Programs of Action (NAPAs) that they have integrated into their poverty reduction strategies.

While a wide range of country-specific adaptation strategies exist, at a broader level, Africa needs holistic approaches some of which transcend national boundaries. For example, water resource programs for integrated management have been created almost everywhere in Africa (Parent 2004; Valensuela 2005), as well as adaptation programs under the aegis of institutions such as the UNDP. Similar initiatives for agriculture, biodiversity, coastal settlements, and tourism, among others, are also in place. In all these, the collaboration of key stakeholders—local communities, CSOs, governments, private sector actors and the international development agencies—is critical for success and sustainability. Such initiatives should be premised on principles of: a) increasing awareness and knowledge; b) strengthening institutions; c) providing financial assistance; d) developing context-specific strategies; and e) facilitating local participation, ownership and buy-in (PACJA 2009:24).

The exact costs remain uncertain, although the UNFCCC estimates that African countries will need approximately US$ 220 million per year to adapt meaningfully to climate change by the year 2030 (UNFCCC 2007, cited in Tadesse 2010). Others similarly submit that the potential costs of climate change for Africa to be in the range of 1.5-3 percent of its GDP by 2030 (PACJA 2009).

6.2.2 *Dynamics and consequences*

Raleigh and Urdal (2007), drawing on the 2007 impact assessments of climate change from the IPCC, identify three major processes expected to follow from climate change: degradation of cropland, increasing freshwater scarcity, and population displacement. Moreover, "climate conditions will combine with social, economic and environmental factors to exacerbate African's vulnerabilities in the future, including lack of water, food insecurity, diseases, conflict and degradation of natural resources" (PACJA 2009:9). In other words, climate change will impact Africa, especially in the following ways:

a) ***Agriculture:*** Across Africa, the agricultural sector employs most of the active population (ACBF 2012). Even if it accounts for less than 30 percent of GDP in most countries, it has a front seat role in the total export (Cleaver and Schreiber 1994), it is the principal user of derived

products (fertilizers), and it supplies raw materials for the textile and the food-processing industry.

According to the UNEP (2009), more than 40 percent of Africa's agricultural population lives in poverty. Their situation is expected to further deteriorate with climate change, adversely impacting community production and increasing vulnerability. In much of Africa's tropical areas, where dry land farming dominates, even minimal increases in temperature are expected to be detrimental to food production (IPCC 2001). The impact on maize, for example, is of paramount concern in western and southern Africa, while decreases in North Africa's wheat yields could heighten famine (Warren et al. 2006). Relatedly, rising sea levels along Africa's coastline and resulting saltwater intrusion into inland freshwater systems will disrupt fisheries in mangroves and lagoons, as well as trigger crop failures—and consequently contribute to migration from coastal and riverine settlements (IPCC 2001). Coastal farm crops that potentially will be impacted include rice in Guinea, palm oil and coconuts in Benin and Côte d'Ivoire, and shallots in the Volta Region of Ghana (IPCC 2007a).

Climate change will also have considerable effects on African agriculture and food security, with direct effects on the rural exodus (Yanon et al. 2010). The resultant displacements could potentially engender tensions and create problems of housing affordability in rural, peri-urban, and ultimately urban areas (see Kahl 2006).

On a potentially positive note, increased rainfall and temperature could lead to longer farming seasons and a resultant increased production in areas such as the Ethiopian highlands and Mozambique.

b) ***Water:*** Water resources in particular comprise one sector that is highly dependent on and influenced by climate change. A number of countries in Africa already experience considerable water stress as a result of insufficient and unreliable rainfall, a result of changing patterns that cause drought and floods. Increased temperatures and variable rainfall could place added pressure on freshwater availability (see Chapter 8).

With 9 percent of the world's freshwater resources, Africa[2] has enough for its consumption, with 4.979m³/person/year (CIA.gov 2010), even if the hydrological resource is not homogeneously distributed. Mauritania, a desert country for three-quarters of its surface, does not have the same potentialities as the Democratic Republic of Congo, which has a river that accounts for 35 percent of Africa's freshwater reserves—but also is the epitome of the resource paradox, as most citizens do not have access to potable water.

According to the IPCC WGII (2007 cited in PACJA 2009:16) by "2055, 350-600 million more people in Africa will be at risk of increased water stress, especially in northern and southern Africa."

While large hydrologic systems have a latitudinal course, the consequence is

that water resources go more often than not across borders, generating huge management problems. Such shared resources are up to 80 percent of surface water and are at the heart of essential sub-regional interdependency initiatives (FIDA 2001).

In most African countries, the climate change challenges combine with a lack of efficient planning for a judicious water use. The most visible consequences are: lengthening water gauge periods, land salinization, and floods. Lake Chad is a good example of water stress linked to climate and environmental degradation. Here, it is believed that unplanned socio-economic exploitation, high evaporation, and deforestation have combined to shrink the lake from a surface area of 25,000km² in 1963 to less than 1,500km² in 2001 (PACJA 2009).

Reduced water sources have a major impact on fragile ecosystems, farming and health—leading to a loss of life, flora, and fauna, and causing humans and animals alike to migrate (PACJA 2009). The Horn of Africa's pastoralist areas (Ethiopia-Kenya-Somalia) have already experienced severe recurrent droughts (Tadesse 2010).

Policymakers across Africa are working toward improving water management and limiting climate change impacts. At the regional scale, initiatives have been set in motion by institutions like the *Comité permanent Inter-Etats de Lutte contre la Sécheresse au Sahel* (CILSS) [The Permanent Interstate Committee for Drought Control in the Sahel] and the Inter-Governmental Authority on Development (IGAD) in Eastern Africa. On an international scale, it should also be acknowledged that projects supported by the IUCN and the World Bank aim at going beyond sectoral approaches for an integrated management of water resources. Still, most of these efforts have been insufficient to create important long-term economies of scale and enable countries to reach the MDG targets in this domain.

c) ***Land degradation:*** According to Brabant (1992), land degradation resulting from climate change will affect almost 15 percent of Africa's surface. Nevertheless, with 18.8 million km² of arable land, the land capital remains important and gives income to 60 percent of the population. This explains why, considering the increasing number of land conflicts, it is urgent to protect this fundamental resource.

Across Africa, long-term declines in rainfall have increased the advance of deserts resulting in shifting dunes in places such as Mauritania. Similar dynamics can be seen in coastal areas confronting rising sea levels and consequent saltwater infusion.

Africa's forests are also being been destroyed for varied purposes (mining, logging, urban sprawl, agricultural expansion). As a result, Africa's forest cover is fast being depleted, and old protected forests from the colonial era (for example, the "forêts classées" in Senegal and elsewhere across Francophone West Africa), are no longer protected. Deforestation also engenders

biodiversity loss, sometimes amplified by aggravating factors such as armed conflicts. According to the IPCC (2007b), climate change will influence biodiversity and account for loss of some plant species.

Another factor, exacerbating land conflicts, is land grabs—a development of the last decade. According to Oxfam (2012), among the 45 million hectares of land sold to foreign investors in the world in 2008–2009, two thirds were in Africa. Land grabs reflect two key issues—resource use and globalization. And linked to this is the critical issue of capacity—to contract and manage Africa's resources.

d) ***Population displacements:*** Climate change effects—drought, floods, rising sea levels—all will impact human settlements. With climate change and rising sea levels, many coastal settlements and their populations will be displaced. Floods will again force people to move. In 1999–2000 in Mozambique, floods displaced over a million people and killed countless others. Pastoralists and other nomadic populations in the Sahelian zone are already being threatened by desertification.

Industries in Africa (even if very limited) and human activities contribute to the degradation of Africa's urban environment. Effluents from tanneries in Addis Ababa, Ethiopia, poison rivers and inhabitants living downstream. In Abidjan, Côte d'Ivoire, women salvage waste from the Blohorn plant to make home-made soap at the risk of their health (Pourtier 2005; Ndiaye and Ndiaye 2012).

e) ***Other Impacts:*** Africa is endowed with extractive resources. However, the exploitation of these resources is often accompanied by a massive destruction of flora, fauna, and the pollution of water systems. Rock fracturing and infiltration techniques, input effects, and by–waste products (such as mercury in the case of gold) pollute underground water sources, soils, the atmosphere, and the entire food chain. These factors need to be acknowledged and addressed. Resources localization in ecologically sensitive areas (such as designated or protected nature reserves, estuaries, internal water bodies, and seas) often trigger exploitation problems and appropriation conflicts.

Many countries have experienced conflicts related to natural resource management in the last five years. In fact, 57 percent of the ACI countries surveyed have experienced some form of conflict related to the management of natural resources.

The nature and patterns of conflict can be illustrated by the case of Nigeria. Offshore oil and gas production in Nigeria is located in the highly populated Niger Delta region, which has been the epicenter of violent conflicts linked to the destruction of local environments on indigenous populations—such as the Ogoni. The Dutch multinational oil company involved, Shell, despite its various efforts at handling the arising issues, remains the symbol of the aggression against the natural and

human environment of the Niger Delta: polluting water courses; destroying fisheries and farmlands; and flaring gas (Pourtier 2005). Oil exploitation here has not improved the livelihoods of locals. Actually, despite the more than 30 billion barrels reserves, approximately 70 percent of the population lives on less than a dollar a day (Ngodi 2005), and the degradation of the Niger Delta is a huge ecological catastrophe.

Similar outcomes can be found in Liberia and Sierra Leone, where timber and ivory exploitation, together with diamonds, have served to destroy local environments and livelihoods. In Eastern Democratic Republic of Congo, Rwandan and Ugandan military support for rebels, are a smoke screen for the robbery of natural resources—timber and precious minerals (Pourtier 2005). Weak dispute resolution mechanisms further complicate the role of government in managing the conflicts related to natural resource extraction. Among the ACI surveyed countries, 19 percent have not yet set up an effective dispute resolution mechanism; 14.3 percent have such mechanisms in place, but they are being implemented by government independent of other stakeholders.

6.2.3 *Programs sustainability—experiences to preserve*

In light of the aforementioned, Africa needs to ensure that the current development impacts of climate change on its economies and populations are recognized and that a development agenda is integrated into climate negotiations (World Bank 2010). There are no definitive ways to tackle climate change across a continent. Solutions must be context specific. Selecting which adaptation options to implement must be based on knowledge of local conditions (PACJA 2009). And while the figures remain uncertain, PACJA (2009) estimates the "potential economic costs of climate change for Africa to be 1.5–3.0 percent of GDP by 2030" (PACJA 2009:6). The study further posits that "Africa's potential adaptation financing needs to address [climate change] costs are also highly uncertain, but are likely to constitute a minimum of US$10 billion a year by 2030" [PACJA 2009:6).

That said, African nations have already begun taking steps. For example, in the forest sector, the *Commission des Forêts d'Afrique Centrale* [Central African Forests Commission] and the *Programme de conservation et utilisation des ecosystèmes forestiers en Afrique central* [Program for the Conservation and Rational use of Forest Ecosystems in Central Africa] are based on the need for dialogue on forest resources management policies in the sub-region. *Agence Française de Développement* [French Development Agency] is also working toward the sustainable management of the Congo basin forest. NEPAD, AfDB and the UK government have also instituted the Congo Basin Forest Fund to enhance capacities for better forest management. In the Sahel, numerous collaborative initiatives aimed at combating climate change, such as the CILSS and the OECD Sahel and West Africa Club are in place.

Since the mid-1990s, most African states have adopted National Environment Management Action Plans (NEMAPs), following the 1992 Rio Earth Summit. The prerequisites for every environmental action are: the definition of priority domains of intervention and public powers involvement. Nevertheless, the institutional state weakness and the insufficient material resources impede realization of numerous projects (Pourtier 2005).

At the local scale, a successful joint management between government agencies and local communities explains the successful experiences made in the aquaculture sector in the lakes of Bagré and Kompienga in Burkina Faso, Kossou in Côte d'Ivoire, Volta in Ghana, and Sélingué in Mali. Using shared responsibilities and involving local fishing communities in defining the fishing companies' managing objectives, their realization, and results evaluation, these examples of joint management provide a clear confirmation that they improve local communities' conditions as well as resources' sustainability.

At the scale of individuals, popular "informal" initiatives like market-gardening of shoals in urban peripheries or in interstitial spaces (Abidjan, Niamey, Nairobi) must be controlled and reoriented toward green agriculture, because they alleviate poverty and relieve pressure on natural resources.

6.3 Debating Green Growth in Africa—conceptual issues

Going forward, African leaders must do more to generate green growth, and the following sections lay out the way for doing that. However, to do this meaningfully, there is a need to distinguish between green growth and green jobs.

6.3.1 Green growth

There is confusion about the conceptual distinction between green growth and green economy. The following definitions clarify the confusion and highlight some of the subtle differences.

Green growth is about making growth processes resource-efficient, cleaner, and more resilient without necessarily slowing them (Hallegatte et al. 2011).
Green or climate-smart policies are those that enhance development, reduce vulnerability and finance the transition to low-carbon growth paths (World Bank 2010). But as we explain later, green growth in Africa is not only about low carbon development.

Green growth is gaining support as a way to pursue economic growth and development while preventing environmental degradation, biodiversity loss, and unsustainable natural resource use (OECD 2011a).

Green economy results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy is low in carbon, resource efficient and socially inclusive (UNEP 2011). A green economy can be thought of as an alternative vision for growth and development—one that can generate growth and improvements in people's lives in ways consistent with sustainable development. It promotes a triple bottom line: sustaining and advancing economic, environmental, and social well-being (World Resource Institute 2011). However, due to the huge upfront cost of greening an economy, we might witness an increasing global inequality due to green growth. Some countries can afford it and move faster along a green trajectory than others. Hence, green growth might not be inclusive.

One may note that green growth shares some parallels with Structural Adjustment Programs (SAPs) of the 1980s and 1990s, which aimed to address unsustainable economic mismanagement (Resnick et al. 2012). Both green growth and SAPs entail significant economic transformations by design. Green growth is a reaction to continued environmental mismanagement that does not guarantee sustainable growth. Some

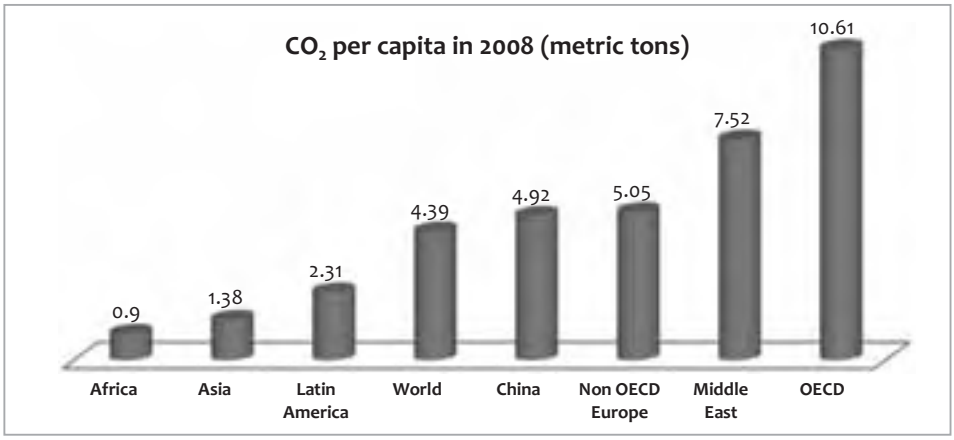
argue that the case for green growth has an analytical basis (World Bank 2012d); specifically that "green policies can contribute to economic growth over the short term... Green policies can contribute to growth through for effects; an input effect (increasing production factors), an efficiency effect (bring production closer to the production frontier), a stimulus effect (stimulating the economy in times of crisis, and an innovation effect (accelerating development and adoption of technologies)" (World Bank 2012d:29). That said, governments will take a lot more convincing to undertake policies that will yield benefits only in the longer term. Nevertheless, governments in Africa have undertaken to put in place environmental policies that foster protection and sustainable use of natural resources and management of pollution (air, water, waste, conservation management, coastal zones management, and natural resources management).

An assessment of the extent to which environmental policies are engendering the protection and sustainable use of natural resources, and management of pollution (air, water, waste; and from conservation management), suggests that many countries are doing well. ACI field findings point to 73.8 percent of countries surveyed having policies of this nature in place.

But what is green growth in Africa? One needs to recognize that green growth for Africa is premised on different criteria/conditions from green growth for the developed part of the world. Green growth in Africa relates not to manufacturing electric cars or reducing corporations' carbon footprints, but rather to a sustainable development pathway that promotes job creation, investment, and growth with sustained access to food, safe water, sanitation, and energy (AfDB 2012b). The African Development Bank is determined to direct its activities along the lines of its Green Growth Strategy with this in mind and also with efforts to limit greenhouse gas emissions from economic activities.

As highlighted in figure 6.6, on average, Africa is the region with the lowest carbon emission per capita (figure 6.6). However, carbon emissions vary greatly (standard deviation = 1.45). In the countries surveyed, CO2 emission per capita ranged from 0.02 metric tons per capita (Burundi) to a high of 8.98 (South Africa). The distribution is skewed very much to the right. Indeed, of the 44 countries surveyed, 80 percent emit less than one

Figure 6.6: Carbon emission per capita by world regions (2008)



Source: Computed from 2010 Key World Energy Statistics, IEA

Africa has limited capacity to adapt to climate change and faces a very uncertain future in greening its economies given the current global financial crisis, shrinking aid, and rising malnutrition and hunger (Stern 2007). Transforming its agricultural sector in an environmentally friendly way, feeding its people using its land wisely (instead of jeopardizing livelihoods with commercial scale biofuel production), finding the money for climate change mitigation and adaption, and aligning the development strategies of nations are the significant challenges that should be tackled in the context of green growth.

6.3.2 Green jobs

Green growth policies have employment consequences. In this sub-section, we focus on measurement of employment effects and a conceptual framework of labor market consequences of green growth. A framework of Keynesian involuntary unemployment is often used to examine the employment effects of economy-wide green growth policies. This is defensible in developing countries given their vulnerability to macro shocks (for example, GDP volatility and deterioration of terms of trade). In addition, surplus labor models and multi-sector models (such as general equilibrium models) provide useful insights about the consequences of environmental policies. It is evident that labor markets in the agricultural sector behave differently from those in the industrial sector. Therefore, it is important to note the job creation consequences in the two sectors.

Successful phased implementation of green growth leads to the creation of jobs in clean environment project areas, such as the development and financing of green projects in renewable energy sources like wind, solar, hydro, geo-thermal, and bioenergy. The private or the public sector will generate employment depending on the clean energy project financing arrangements. Green growth requires huge investments and radical innovations to materialize new growth possibilities with environmental sustainability. However, this depends on the scale of green projects and the scope of the technological, infrastructure, financial, and human capacity implications involved.

Even if it is generally believed that green growth generates decent green jobs (UNEP 2011; Pollin et al. 2008) that make a positive contribution to welfare and poverty reduction, some researchers consider environmental policies detrimental to jobs (Morriss et al. 2009; Michaels and Murphy 2009; Hughes 2011; Alvarez et al. 2010). Alternatively, the definition of green jobs is based on the attributes of the goods and services produced in a given economy. Therefore, any job that leads to energy efficiency, de-carbonizes the economy, or reduces waste and degradation can be considered a green job (UNEP/ILO/IOE/ITUC 2008). For example, an entrepreneur in Ethiopia has become a global phenomenon by using local materials (for example scrap rubber) that could have been polluting the environment to produce shoes for local and international markets. The literature on the double dividend from environmental/green taxation highlights how labor markets are affected by the allocation mechanism of the revenue generated from carbon taxes or carbon limits (Fullerton and Metcalf 1997; Sartzetakis and Tsigaris 2007).

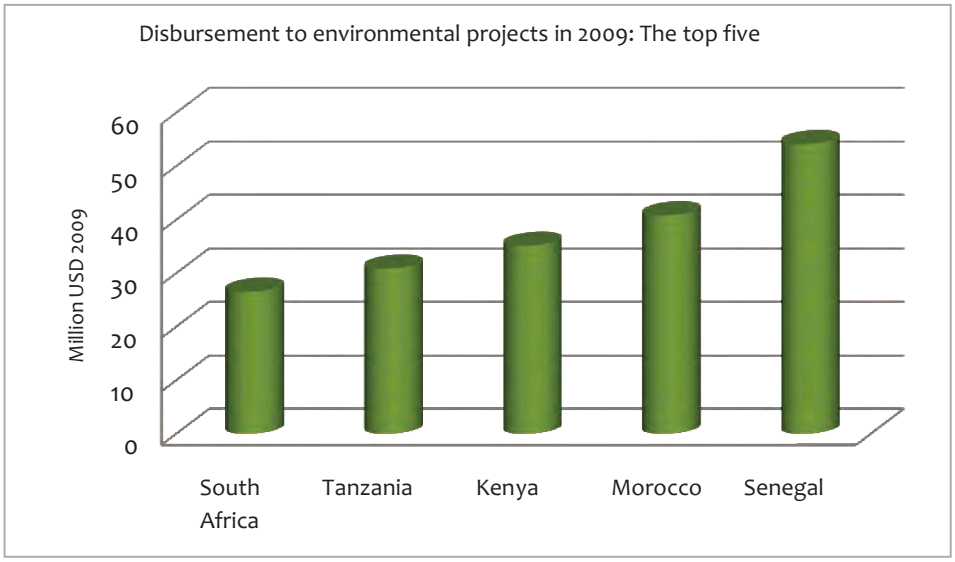
There is no single definition of green jobs. Not only the attributes of the goods and services produced, but also other subtle aspects of greening an economy, can constitute the generation of green jobs. Therefore, the issue at

hand is measurement. How do we count those engaged in green jobs in a given economy? Green policies can have direct, indirect, and induced employment effects that can be for a short, medium, or long term. Most modeling approaches focus only on direct effects (Kammen et al. 2004; Wei et al. 2010) and use simple spreadsheet-based analytical models and engineering estimates. Green jobs can create capacity development initiatives that promote environmentally friendly growth because training and support are part of the green economy agenda. Input-output tables are adopted to make both direct and indirect estimates. To capture the multiplier effects and all the economy-wide ramifications of green policies in the form of long-term effects or induced effects requires a general equilibrium framework such as CGE modeling. This approach is not at an advanced level of application or in widespread use in Africa.

In 49 percent of the countries surveyed, government provides sufficient funds for educational and training institutions, research and development organizations, and public sector institutions that regulate the mineral sector, such as geological surveys, mine safety departments, and environmental monitoring agencies.

One route to capture induced employment effects is to trace the impact of green policies on foreign direct investment or other inflows of capital via the Clean Development Mechanism. Another route is to assess the extent to which a country has contributed to international and bilateral funding of environmental projects and development aid. The gross ODA aid disbursement for general environment protection in the 44 countries surveyed amounted to approximately US$ 500 million in 2009, albeit unequally distributed (Average = 11.4 million, Standard deviation = 11.6 million). The top 5 countries (Senegal, Morocco, Kenya, Tanzania and South Africa) account for 37.6 percent of ODA (figure 6.7).

Figure 6.7 ODA disbursement to environmental projects in 2009: The top five



Source: ACIR 2013 Database

In addition to the technical requirements of counting the green jobs created, one should also make a conscious effort to capture estimates of jobs destroyed due to green policies, which can, for example, lead to initiatives to abandon coal mining or displace food crop production for biomass crop plantation based on less labor-intensive technology. Even if the long-term dynamics of green growth are not fully understood, the most important determinants of the overall employment impacts of green policies are the structure of the labor market and the nature of policy interventions (Bowen 2012). This implies the presence of country-specific heterogeneity given variations in institutional arrangements and endowments of natural assets. Reforestation (Barbier 2009), renewable energy jobs such as in the hydro power sector (Rutovitz 2010; GCN, 2010), transport infrastructure (such as the major long distance railway construction planned in Ethiopia), and biofuel production and conversion are some of the green jobs relevant in the African context.

6.4 Critical Considerations for Africa's Policymakers

6.4.1 Comparative advantage, political economy, and national development strategies

Africa is diverse. Most countries are dependent on agriculture, some are mineral rich, and others simply occupy vast tracts of barren dry land or desert. This diversity breeds heterogeneity in the type of green policies that can potentially be pursued. Resnick et al. (2012) pointed out the differences in three case study countries—Malawi, Mozambique and South Africa—that have, respectively, favorable agro-ecological conditions, bio-fuel, and a coal mining industry. Table 6.1 highlights the CO2 emission per capita for the three countries, and their energy use in 2008.

Table 6.1 CO2 emissions and energy use—Malawi, Mozambique, and South Africa

Country	CO_2 per capita in 2007 (Metrics tons)	Energy use in 2008 (kg of oil equivalent per capita, 2008)
Malawi	0.07	83.3
Mozambique	0.12	416
South Africa	8.98	2756.3

Source: 2013 ACIR database

A favorable condition that can be exploited is not always environmentally friendly, as in the case of coal mining in South Africa, because it is counter to the basic tenets of green growth. In fact, South Africa is one of the major contributors of greenhouse gas emissions globally and is ranked as one of the 13 largest polluters (World Bank 2011b). Therefore, one challenging policy consideration is finding a green alternative that is not based on the country's comparative advantage. On the practical side, it might benefit from green trade, such as electricity imports to satisfy its high demand for electricity (Boonyasana 2012).

Malawi's agro-ecological condition is suitable for agricultural productivity expansion, but its farming is based on intensive farming techniques. This again is counter to green growth, because the country's national development strategy promotes subsidizing and encouraging farmers to use chemical fertilizers

to boost agricultural yields. However, if the government designs a green growth development strategy, it may lose its support base during elections due to the popularity of the fertilizer subsidy scheme. This case illustrates the complex interrelationships among African nations' comparative advantages, their current development strategies, and the political and economic consequences of transitioning to potential green policies. Indeed, the capacity to manage the macroeconomic challenges of natural resource revenue, which would allow countries to exploit their natural resource wealth in a sustainable manner, is another factor that interacts with the capacity to choose among a series of green-growth strategies. Field survey findings suggest that Mozambique managed the macro-economic crisis much better than Malawi did.

Hence, the discussion of green growth in Africa cannot be devoid of recognition of each country's comparative/competitive advantage and considerations of alignment with national development strategies and political economy concerns (Clapp et al. 2010). Few countries have the necessary infrastructure to exploit natural resources effectively. Of the 44 countries surveyed, only 35.7 percent reported having the necessary infrastructure (roads and rail) vital to exploit their natural resources. Ethiopia, for example, has made notable progress in this regard with its plan for a nationwide railway transport system and the construction of one of the biggest hydroelectric dams in the continent (FDRE 2011; MOFED 2010).

These fundamental issues are often disregarded, and the needs for developing green economies are handled superficially. Countries advance their development strategies based on comparative or competitive advantages that are not necessarily environmentally friendly. Deviating from the potential of economies and growth linkages has detrimental political economy consequences because new development strategies are inevitably followed by distributional consequences to the majority or some strong interest groups in society. Therefore, the green growth agenda requires a careful overhaul of existing policymaking framework, and cannot be discussed separately from the comparative advantage and complex political economy issues, such as support for or opposition to a green policy initiative by the electorate, prevailing in a given country. This poses the single most difficult challenge to African states.

6.4.2 *Technology implications*

Technology and innovation are important elements in implementing a transition to a green economy. The technological requirements of green growth lead to drastic departures from existing ways of doing business. They can also increase imports of expensive technologies and innovations from rich economies. This weakens the existing investment in human and physical capital in Africa, which is often aligned with past development strategies that reflect minimal attention to long-term environmental concerns (Weigand 2011). One area of huge importance is biotechnology. Issues that are intrinsically linked with biotechnology are environmental risk/benefit assessment of biotech products (genetically modified crops), protection of intellectual property rights for biotech inventions, and the R&D expenditure implications and fiscal effects of biotechnology development. Green growth implies an expansion of green chemistry and biological research. From a policy and regulation perspective, the standardization of biotech products is required, as it is done for products based on fossil fuel and its derivatives. Strong

institutional and legal frameworks, which are absent in most African countries, are needed to implement green growth strategies (OECD 2012).

The question is how, in an era of austerity, African countries can afford to allocate limited resources to meet demands for new technologies while there are immediate choices to be made on sustaining livelihoods in the short term. Better technological diffusion and development of innovations in poor countries is possible through foreign direct investment (Dutz and Sharma 2012). Some governments are realizing the importance of increased R&D expenditure geared toward green technology development. In the grand scheme of economic development, countries can facilitate innovation and technological absorption by training for specific skills and retaining the relevant experts with competitive incentives. This, in turn, reinforces the case for green growth. Governments that do well are those that have successfully created a domestic and regional policy environment in which extractive activities can thrive and therefore have a responsibility to align mining policies to the national development vision.

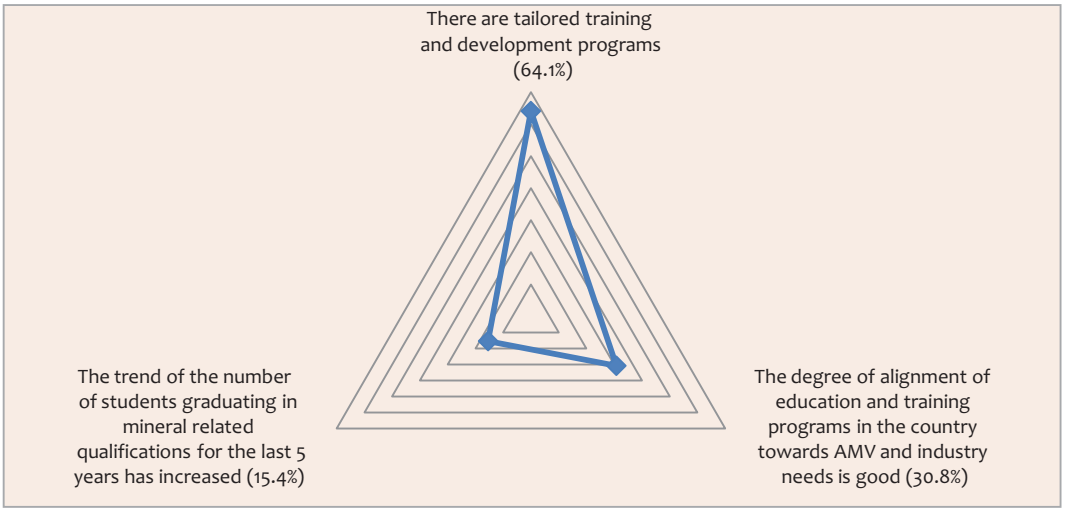
Notwithstanding the recommendations of the Africa Mining Vision Action Plan adopted by the AU Conference of Ministers responsible for mineral resources development, 29 percent of the 44 African countries surveyed have still not taken any action to create a domestic or regional policy framework (with policies aligned to the AMV) in which mining activities can thrive. For the remaining 71 percent, some actions on establishing such policy frameworks are underway.

6.4.3 Capacity building in human capital and skills

For African countries to make a transition to a green economy, there needs to be the right mix of skills in the population. So far, there is a training shortage across the board, and available training is inadequate. Skill shortage will impede the transition to green economies in much of Africa. Even in developed countries such as Germany and the United Kingdom, there is a shortage of specialized "green" engineers. This is a daunting challenge in Africa, where the shortage extends from the high end of the skills spectrum to teachers, curriculum designers, and trainers of new skills. Bowen (2012) maintains that there are at least three ways through which the demand for skills and human capital are affected in this transition. First, there is a structural change across industries or green restructuring (such as the decline in or closure of coal mining activities). The labor intensity of a given economic activity varies by sector. For instance, most African economies are better off from an employment perspective if they focus more on renewable energy sources. This is because renewable energy is more labor intensive than fossil fuel energy, which has a relatively high skill requirement (Pollin et al. 2009). Second, there will be new green jobs (among them, carbon footprint assessors, biofuel crop farmers, laborers in big commercial plantations). Third, the nature of existing jobs changes as they reflect energy efficiency and lower levels of application of potentially harmful technologies (such as the reduced use of chemical fertilizers).

Drawing on the field survey, we realize that over 60 percent of countries surveyed have established tailored training and development programs to strengthen capacity; another 30.8 percent have good alignment of their education and training sector to AMV and industry needs. These notwithstanding, only 14.4 percent of countries surveyed, report an increase over the past five years in the number of students graduating in minerals-related field (figure 6.8).

Figure 6.8: Area of skills training and capacities



Source: 2013 ACIR database

The following list of measures, adapted from ILO and CEDEFOP (2011) and Bowen (2012: 30), demonstrate the capacity development requirements in relation to transition to green growth. There is a need for:

1. Capacity development for employers in the informal economy and micro and small enterprises to enter green markets in localities where they are most needed;
2. Entrepreneurship training and business coaching for young people and adults to start up green businesses in conjunction with microfinance projects;
3. Environmental awareness among decision makers, business leaders, administrators, and institutions of formal and informal training systems;
4. Capacity development of tripartite constituents to strengthen social dialogue mechanisms and to apply these to dialogue about accessibility to training for green jobs; and
5. Increased capacity of formal education and training systems and institutions to provide basic skills for all and to raise the skills base of the national workforce. This includes improving apprenticeship systems and building synergies with NGOs that provide education and training.

Advisory groups, workshops, and stakeholder consultations offer critical support of sustainable solutions for effective natural resource management. Institutions such as the Climate and Development Knowledge Network promote sustainable human development outcomes. Established in 2010, this network of think-tanks

works for the benefit of developing countries to design and implement climate friendly development. Its policy design advice and sustainable growth thinking offers Africa a good alternative to reliance on western aid and technical assistance with conditional ties attached to them. This network also maximizes opportunities for funding, such as climate finance. There are recent initiatives in Ethiopia, for example, that fund projects aimed at building capacity for the staff of higher education institutions in the area of natural resource management and eco-tourism. Another important project is UNEP's Capacity Development for the Clean Development Mechanism, which helps countries to meet their sustainable development targets. Only a few countries are targeted by this project, such as those in North Africa.

Among the countries surveyed, 77.5 percent reported having a rolling program of advisory groups, workshops and stakeholder consultations—all aimed at building the capabilities of target stakeholders along the NRM value chain.

Given its commitment to knowledge management and capacity development, the UNDP's support programs are relevant. The UNDP has been supporting sustainable development initiatives and capacity development projects in support of green economy since the early 1990s. There is increasing recognition that a programmatic approach based on long-term investment is a key to success (UNDP 2012c). In Mozambique's semi-arid Guija district, a UNDP initiative is training communities to grow drought-resistant crops like sweet potato, cassava, or sorghum. Communities are trained in weather forecasts, climate information, adaptation techniques, sustainable charcoal production, and fodder production. The training led to changes in water management and pastoralist practices. Such behavioral shifts should be scaled up at the continental level, as they hold the key to making green growth practicable in the future.

In Zimbabwe, for example, farmers from four villages were trained in crop mix diversification, infield rainwater harvesting, fodder conservation strategies, and production of drought resistant crops. The lessons learned from these training programs are being disseminated through workshops, print, and radio and form part of the Climate Development Knowledge Network's strategy. For such training and capacity development initiatives to have any impact, we need large-scale, Africa-wide action. The UNDP manages the Cap-Net global network, which is a system set up for capacity building in sustainable water resources management. The network promotes resource efficiency, social inclusivity, and low carbon emissions. "Train the Trainer" programs at the local level reduce the need for external consultants. Equity and gender balance foster social inclusivity, and promotion of energy efficiency and maximum use of renewable energy (such as wind, solar, hydro, and geothermal) foster low carbon development.

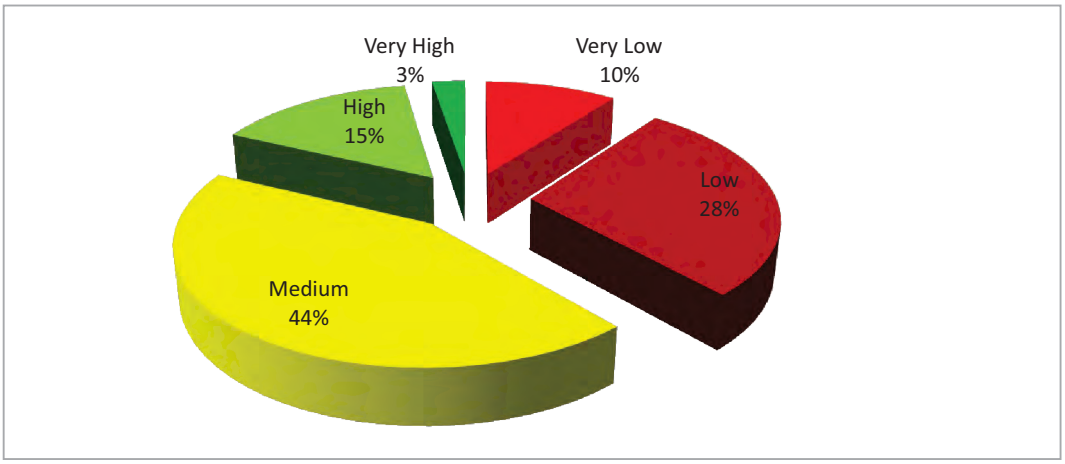
6.4.4 Infrastructure

If the physical capital accompanying growth is not the right type and scale, green policies will not achieve the desired objectives. Building the "right" infrastructure is a serious undertaking due to the irreversible nature of such investments or the long timeframe required to make changes. In Africa, the tradeoff facing decision makers is not a choice between using existing infrastructure and making modifications to align with green strategies. In the first place,

there is inadequate infrastructure to serve the continent's population of one billion. This absence can be perceived as both a challenge and an opportunity. It is a challenge because most Africans do not have adequate roads, railway systems, water, sanitation, irrigation, energy, and transport services. The absence is an opportunity in the context of green growth because nations have the chance to build the right type of infrastructure, one that adapts, mitigates the impact of climate change, and contributes to sustainable economic development. However, the initial investment requirements and the overall cost of building "right" are not modest (World Bank 2012d).

Interrogating the extent to which governments provide infrastructure finance and related support to mining investment—either as standalone projects or via public-private partnerships—the field surveyed observed that the picture was rather dismal; only 18 percent of countries acknowledge such support as being high or very high. A little over a third (38 percent) said such support was either low or very low; the remaining 44 percent flagged the support as being satisfactory (medium) (figure 6.9).

Figure 6.9: Extent of government infrastructure and financial support to mining sector



Source: 2013 ACIR database

Weather and climatic conditions are very much linked to the type of infrastructure that is needed. Table 6.2 lists examples of sectors sensitive to climate change and the required infrastructure with varying lifetimes.

Table 6.2: Sectors with high sensitivity to climate change

Sector	Example	Time scale (years)
Water	Dams, reservoirs	30-200
Land use planning	New development in flood plain or coastal areas	>100
Coastal and flood defenses	Dikes, sea walls	>50
Building and housing	Insulation, windows	30-150
Transportation	Port infrastructure, bridge, roads, railways	30-200
Urbanization	Urban density, parks	>100
Energy production	Coal-fire plants	20-70

Source: *Adapted from Hallegatte (2009)*

6.4.5 *Feasibility of green growth: what about green revolution rhetoric?*

Within the framework of a specific definition of green growth in Africa, we provide an assessment of the feasibility of green growth in Africa. Two critical elements of our focus are chemical fertilizer use due to the green revolution/agricultural transformation drive in Africa and the production of biofuels. Additional complex cases are discussed at a later stage in the chapter.

i. Chemical fertilizers

The last two decades saw a sharp increase in the continent's use of chemical fertilizers. This technology was funded historically by major donors such as the World Bank, particularly in the 1970s and 1980s. The intensification of agriculture is behind the recent rhetoric about green revolution in Africa. Fertilizers and high yielding varieties are at the heart of this movement. Hence, in a bid to feed its population and increase productivity per hectare of land, Africa is becoming a non-negligible user of chemical fertilizers (Morris et al. 2007). Most national development strategies incorporate fertilizers as one of the key inputs for agricultural transformation or green revolution.

Ethiopia's agricultural development–led industrialization policy is a case in point. Even if some countries are trying to move in the direction of green revolution using fertilizers and irrigation, many remain unable to attain food security. Rather, most have an agricultural sector characterized by declining agricultural productivity, mainly for reasons of scale of operation and the nature of the means of production. Green economy suggests a reduced application of fertilizers; this will exacerbate the existing food insecurity and lead to lower productivity per unit of input used. Therefore, green growth in agriculture might put a brake on the need to transform the agricultural sector and impede the capability to combat food scarcity (for example, see ACIR 2012) because it requires less use of chemical fertilizers. Many governments in Africa either subsidize (as in the case of Malawi) or support a credit scheme (as in Ethiopia) in chemical fertilizers to expand food production. Chemical fertilizer utilization boosts food production, but in light of its long-term effects on the environment, it is facing opposition. Thus, green considerations as well as those related to political economy and farm-level soil quality are at work when it comes to its widespread use. For instance, in Ethiopia, the fertilizer credit program is subjected to increasing criticism and is believed to be unpopular among some farmers due to its effect on household indebtedness and its detrimental effect on soil quality (Kedir 2012). Some farming communities contend that regular use of fertilizer destroys the long term productive capacity of their land and jeopardizes the livelihood of many households.

How can one reconcile fertilizer use, food security, and climate change mitigation in the context of Africa? This is another significant challenge in a continent with high dependence on agriculture in the face of an expanding population. In a recent study of Kenya and Tanzania, Palm et al. (2010) provide insight into what

policy makers have to grapple with in a bid to make Africa food secure and, at the same time, mitigate the adverse impact of climate change. The study compared three agricultural intensification scenarios and found that at low population densities and with large arable land availability, climate change mitigation and food security goals are compatible, while it is difficult to improve yields and reduce greenhouse gasses under high population densities because there is a requirement to use fertilizers more intensively (Palm et al. 2010).

ii. Biofuels

Despite political commitments and rhetoric, the major culprits of greenhouse gas emissions—oil, gas, and coal—are still major global energy sources (Addison et al. 2011; IEA 2009). In a continent where there are 42 net oil importing countries, secure and affordable renewable energy technologies (biofuels) are critical ingredients for sustainable development. However, in the recent wave of discovery of oil in some parts of Africa (notably Ghana and Uganda), the widespread use of renewable energy technologies is very unlikely in those countries and will take a long time to mainstream. Finding alternative energy sources is of vital importance in the context of the MDGs, high energy prices, perpetual food crisis, and the global economic slowdown. Most countries will have to introduce energy efficiency measures to stretch the capacity of existing energy resources.

The landscape of GDP per unit of energy use (PPP $ per kg of oil equivalent) in Africa (reference year = 2008), is captured in table 6.3 below.

Table 6.3: GDP per unit of energy use (2008)—high, low, average and standard deviation

Minimum = 0.914 (DRC)	The DRC is the least efficient, as the country produces less than one dollar (PPP) of GDP per unit of energy used.
Maximum = 12.679 (Botswana)	Botswana is the most efficient country in Africa. One unit of energy used yields US$ 12.7 of GDP (PPP); Republic of Congo and Gabon follow with US$ 10.5 and US$ 10.3 respectively.
Average for Africa = 4.440 (Standard deviation = 3.448)	Efficiency is very varied across Africa.

Source: 2013 ACIR database

Hydropower and renewable energy production make up only a small percentage of total energy consumption in African countries, and many need to find alternatives as water scarcity is further impacted by climate change. Biofuels are promoted as more environmentally friendly than fossil fuels but are acknowledged to have indirect social and economic impacts (Rogers 2010). They are produced using edible crops such as maize and soybeans, and if they are pursued as a substitute for fossil fuels, it might be counter-productive due to the likely food price hikes triggered by locking the essential crops to biofuel

production, as it happened in 2007. Large-scale biofuel production leads to increased demand for large plots of land, which might facilitate deforestation in the absence of readymade arable land. Hence, biofuels might not be as environmentally friendly as suggested, and if they lead to the displacement of communities to make way for foreign investors that grab land for biofuel production, the political costs can be dire. The biggest problem for Africa is feeding its growing population and satisfying energy demands without compromising agricultural production systems. And growing crops for fuel seems a misplaced priority or a hard objective to reconcile with the most vital food security objective.

Africa generally depends a lot on combustible renewables and waste—solid biomass, liquid biomass, biogas, industrial waste, and municipal waste. Of the 44 countries surveyed, 46 percent depend on combustible renewables and waste for as much as 70 percent of energy use. The most dependent country is the Democratic Republic of Congo (93.4 percent). Others with relatively high dependence—of over 80 percent—are: Ethiopia, Mozambique, Nigeria, Tanzania, Togo, and Zambia. The least dependent is Morocco (3.2 percent); with laudable levels for South Africa (10.4 percent), Namibia (11.2 percent), and Tunisia (13.6 percent). The average for all countries is 43.4 percent.

Collier (2010d) argues that conversion of the biofuel crops into ethanol uses as much energy as it produces and is simply "an American fantasy." In Africa, ethanol is the most promising biofuel product that can be produced from different raw materials. For sustainable energy source generation and accelerated green economy via biofuels, policy makers should consider country specific environmental and socio-economic conditions.

What is the state of biofuel production in Africa? It is very scant and limited in scale despite the existing huge potential. This is not a bad outcome given the difficult challenges that come with the production of biofuel crops and their conversion to fuel. For a transition at the continental level, there is a need for coherent biofuel development strategy. This can be one of the solutions for the ever-increasing fuel problem, which is exacerbated by instability in oil-producing countries. Biofuel production has been started in only 13 African countries since the 1980s, is not backed by investment, is small in scale, and is hampered by poor facilities and erratic raw material supply.

Africa is at a crossroad when it comes to biofuel production using its vast arable land potential and the subsequent use of the crops for energy purposes. The European Union is taking legislative measures to encourage member countries to produce and use biofuels to reduce the carbon intensity of major sectors such as transportation. However, Europe has no large unused arable land to produce biofuel crops. Hence, it targets places like Africa to produce the crops via foreign direct investment projects. Not

only Europe, but also emerging economies such as China, attempt to secure access to huge tracts of land for biofuel crop production. China has accomplished this in the Democratic Republic of Congo and Zambia; Germany in Ethiopia; Sweden in Mozambique; and Ghana, Nigeria, Tanzania, and Kenya have also been involved in this trend. This development led to the recent debate on land grabbing. If policy makers in Africa are not careful, the continent will simply be exploited to produce crops for others instead of converting them to green energy sources, and food security will suffer. If biofuel crop production by multinationals comes at the expense of dislocating crop land, Africa risks not only losing the potential to green the economies within its shores, but also inadvertently contributing to the extant food insecurity and poverty situation. Policy makers in Africa should make smart decisions to avoid land use patterns that have detrimental consequences for the potential development of clean energy sources, food availability, and overall welfare. Hence, policy and regulatory frameworks are important and as complex as the technological, raw material, and investment requirements of biofuel production (Amigun et al. 2011). There needs to be a serious consideration of the 2007 Addis Ababa Declaration on Sustainable Biofuels Development. The decision is not limited to land development for biofuel crops with energy conversion in mind. It involves a difficult choice between food and biofuel production for a greener future. This makes the whole matter of biofuel development complex, and requires careful examination by every African country.

6.5 Mapping the Complex Issues

6.5.1 Constraints and policy options

Much of Africa suffers from high dependence on natural resources (both renewable and non-renewable), climate vulnerability, lack of basic infrastructure (transport, sanitation, energy, and water), and financial and technological capacity. In such a context, the immediate actions that need to be taken include avoiding and effectively restricting open access to natural resources, increasing productivity/efficiency of resource use, assessing climate risk of country development strategies, investing heavily in infrastructure, and taking the environmental consequences very seriously. This is the only way society can be trusted as custodians of the environment for current and future generations. Table 6.4 summarizes some of the broad and key policy options available to countries in the face of difficult challenges.

The constraints in table 6.4 are long–standing challenges. Other constraints include the ever expanding size of the African population, subsequent rapid urbanization, the cost of green policies, and the limited degree of political/investment commitment to make the most of the continent's resources, such as wind and solar power. The exceptions are the North African states, such as Egypt and Morocco, who are by far more advanced in developing their renewable energy sector with clearer strategies (particularly in the case of Egypt). These countries have future ambitions even to export clean energy to Europe. Egypt established its New and Renewable Energy Authority in 1986 and is aiming to make concentrated solar power its key green energy source and also to export it to Europe. The challenge is for other African countries to replicate good green development practices given the widely available natural

Table 6.4: Possible policies to address green growth constraints

Green growth constraints	Policy options
Inadequate infrastructure	Taxes, tariffs, transfers, and public private partnerships
Low human and social capital and poor institutional quality	Taxes, Subsidy reform/removal
Incomplete/insecure property rights, subsidies	Review and reform or remove
Regulatory uncertainty	Set targets, create independent governance systems
Information externalities and split incentives	Labeling, voluntary approaches, subsidies, technology, and performance standards
Environmental externalities	Taxes, tradable permits, subsidies
Low returns on R&D	R&D subsidies and tax incentives; focus on general-purpose technologies
Network effects	Strengthen competition in network industries; subsidies or loan guarantees for new network projects
Barriers to competition	Reform regulation; reduce government monopoly

Source: Adapted from OECD (2011b).

capital, such as solar and wind. Undoubtedly, green energy sources are very costly, particularly in terms of high upfront fixed costs, which create a challenge that does not seem immediately feasible for Africa.

What is at stake with regard to solar and wind power? Africa has huge potential for solar energy due to abundant sunlight, unlike the colder and darker temperate places in the northern hemisphere. Hence, there is scope for developing renewables. However, renewable energy sources like wind and solar are not as scalable in the way that nuclear power (which is carbon-free) is. The scale issue can be addressed if enough resources are invested for research purposes.

Population growth, which leads to overcrowding in cities and degradation of the rural and urban environment, remains one of the most potent challenges of overall economic development and environmental sustainability in Africa (Kedir 1994). In addition, the challenge to policy is to build future infrastructure based on less carbon, land, and water intensity. To circumvent the ever expanding slum-like settlements in many big African cities, urban planners should carefully plan conducive settlement patterns that ensure a certain minimum standard of human dignity and protection in the face of natural disasters, such as floods, and human accidents such as fire.

Despite challenges, some countries are good examples of prudent use of natural resources and provide useful lessons for other countries. This is largely based on a technology called co-generation that is well established in Africa (Baguant 1992). Mauritius, an extensive user of this technology, has a sugar industry that is self-sufficient in its electricity needs and efficiently uses the excess power by making it available to the national grid. By 1998, a quarter of the nation's electricity needs were met by the sugar industry, and this is expected to rise to 33 percent or more in the next few years. Karekezi

(2002) maintains that modest capital investment, careful equipment selection, efficient use of energy in sugar production, and proper planning can lead to a 13-fold increase in the amount of electricity generated. Other countries, such as Uganda, have plans to boost their biomass energy efficiency (Kedir 2012; Kyokutamba 2012).

The main policy options for a transition to a green economy include regulation (limits on fishing, emission targets); taxation (development impact taxes, carbon tax, tax credits, and exemptions); expenditure/investment (R&D on green technologies, urban transport and dwelling infrastructure, afforestation, human capacity development) and institution (secure property rights).

6.5.2 *Cost, benefits, and financing mechanisms of green growth*

There is a broad consensus on the benefits of taking action to combat climate change. There are multiple benefits that can be achieved at relatively low cost. The benefits are long term and non-market, which makes them difficult to quantify. The costs are short term (for example, the upfront cost of providing the infrastructure for renewable energy). There is a call for action now to avoid costly retrofits in the future (UNDP 2012c). Green growth has net gains in employment compared to the old paradigm of development (UNEP 2011). Social and environmental costs are reflected in prices (taxes) and subsidies (for example on fossil fuels or fertilizers). Subsidies to fossil fuel consumption in developing and emerging economies have contributed to limiting inflation and cushioning the welfare effects of global fuel price hikes. The transition to green growth suggests removal of subsidies, which converts this cost element to benefits for governments. However, many countries (especially in Africa) are not in a position to remove subsidies on fuel and/or fertilizers as they matter for survival. Their removal will have dire welfare consequences and lead to undesirable political dynamics, as seen in fuel price protests in major cities of African countries such as Nigeria.

Economic modelers argue that the cost of green growth is not going to slow growth by much and provide estimates for major economies such as the United States. The existing estimates show that annual growth of GDP of the United States will fall by 0.03 to 0.09 percentage points for the period from 2010 and 2050. It is believed that the decline in growth for the globe (including Africa) is smaller than the above estimate for the United States (Krugman 2010). However, modeling costs and benefits of green growth are complex. For instance, no one knows the precise likely cost of solar energy when there is a focus on large-scale use. Assuming that nations take green growth policies seriously with a belief that it generates sustainable benefits with manageable costs, we must resort to finding ways to finance the strategies that will be put in place.

i. Clean Development Mechanism (CDM)

Clean Development Mechanism is an ambitious emission offset mechanism that will be beneficial to Africa, as it is often the least culpable polluter but the most affected by adverse climatic conditions that have global triggers. The caveat with the initiative relates to its piecemeal and specific framework, which creates incentives not to reduce overall/aggregate carbon emissions while specific emissions are avoided (Collier 2010d). There are some attempts to finance projects that reduce

greenhouse gases via the CDM, such as the African Development Bank's Africa Carbon Support Program, which supports regional member countries' access to funds for green projects and efforts to improve their financial feasibility. Africa has a long way to go, because it accounts for only 2 percent of the existing CDM registered projects globally (AfDB 2010). CDM projects receive Certified Emission Reduction units for the actual amount of greenhouse gas reduction achieved (AfDB 2010). Such units can be purchased by rich or emerging nations that are often the major culprits of GHG emissions.

CDM's success is contingent on several concerns. One financial option relates to maintaining or increasing the carbon stored in forests. Carbon constitutes an opportunity for accessing new and emerging revenue streams. An example is the performance–based payment transfer scheme known as Reducing Emissions from Deforestation and Forest Degradation (REDD+) (Santos 2012). However, following a failed bid to have a global deal on REDD+ in the 2009 Copenhagen conference, there is a raging debate about the effect of REDD+ on corruption in many African countries. Thus, instead of improving forest governance and management, the initiative might be a source of environmental, social, and economic harm to the continent (Kedir 2012).

One important source of finance is the need for African institutions themselves to declare the revenue they get from natural resources and allocate them to matters of economic importance, such as infrastructure, R&D, and technology for renewable energy. This is closely linked to transparency and accountability as promoted by the EITI (see discussion in Chapter 2).

A significant proportion of Africa's financial constraints can be addressed if there are weakened incentives to plunder in most of the resource-rich countries. Fund raising from local income streams should not be patchy, but rather systematic and scaled up across many countries. The need for effective international initiatives that require transparency, especially from resource-rich countries, is urgent (Collier 2010d). Effective governance is essential to make this a reality. It is also the most guaranteed form of funding source and more reliable than the volatile tap of foreign aid, which can be turned off unexpectedly due to escalation of diplomatic or other rows between donor(s) and recipient(s).

The Payments for Ecosystem Services (PES) is an excellent example of a mechanism that can be used to generate income in rural areas mainly for the benefit of sustainable agriculture and forestry (UN 2012). However, this payment tool only works if there is a critical mass of users of services of agriculture and forestry who are environmentally aware and ready to pay a premium for environmentally friendly services and products. Then this money can be used to mitigate climate change and promote other green activities that preserve biodiversity and reduce

degradation.

ii. ***Carbon tax, carbon limits, and Certified Emissions Reduction units***

Taxation is a powerful instrument and a strong disincentive to those who are responsible for greenhouse gas emissions. The need for environmental tax reform has been discussed in the extant literature since the 1950s; in fact, the proposal to tax those responsible for generating negative externalities dates to the 1920s, when Pigou took a position in favor of it in his book *The Economics of Welfare* (Krugman 2010). But the idea is gaining momentum now that society is faced with an impending environmental crisis, global green new deal, and carbon tax (Bovenberg and Goulder 1996; RSA 2010).

The resources needed to tackle climate change in developing countries by 2030 are estimated to range between US$ 140-175 billion (World Bank 2010). The climate adaptation cost is estimated to be an additional US$ 75-90 billion (Addison et al. 2011). The current official development assistance is far less than the amount required for climate change related developments. Hence, carbon tax and other similar instruments (for example, auctioning carbon emissions licenses) are promising sources of revenue (Dervis 2008). When one can fairly calculate the social cost of emissions, it is possible to use carbon tax as an instrument, while carbon permits can be invoked when one knows the socially desirable level of quantity. Price instruments that limit carbon emissions can provide a cost effective means of dealing with climate change threats.

Another instrument, conceptually equivalent to a Pigovian tax, is a system of tradable emissions permits that is often referred to in the literature as cap and trade. As a tax instrument by design, cap and trade creates a disincentive to polluters (Krugman 2010). One important aspect often ignored in green growth discussions is the potential opposition to taxes by the taxpayer/voter. Therefore, it is not always certain that taxes are the solution to raise funds for green growth. For instance, the introduction of carbon tax to reduce energy demand in South Africa led to increases in coal prices and real electricity tariffs. Simulation studies also show that the high cost of investment in new energy-efficient technologies poses a potential harm to the growth of the economy by 2030. Thus, the introduction of a carbon tax is met with opposition in South Africa, and the country faces tricky political economy complications (RSA 2011).

The market for Certified Emissions Reduction units is not developed. Its trading is much in doubt and insignificant with the expiration of the Kyoto protocol at the end of 2012, and there is no clear alternative vision after the expiry date. There are other financial instruments to promote green growth. These include the African Green Fund established by Environment Africa for southern Africa; the African Development Bank's African Green Fund (AfGF); and multilateral and bilateral trust funds for capacity development in environmental management (for example, the Norwegian Trust

Fund for Environmental and Social Sustainable Development and Norway's remarkable support of REDD+).

There is concern in some quarters that these funds could suffer dysfunctions similar to some of their predecessors, which were less operational than symbolic. An exception is Botswana's Pula Fund, which is similar to Norway's Sovereign Wealth Fund: a useful funding source for future generations. There is a need to establish natural resource funds and fiscal rules to maximize the benefits that countries realize from natural resource extraction and exploitation (Humphreys, Sachs, and Stiglitz 2007). A notable multilateral funding source is the World Bank Climate Investment Fund, although there is increasing criticism about its usefulness. Some NGOs argue that the fund could do more harm than good to poor nations due to its ring-fenced and conditionality-based disbursement of green funds mainly in support of the interests of rich nations.

Climate change mitigation and adaptation were discussed extensively in November 2011 at the 17th Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC) and within the Kyoto protocol.To mitigate the impact of climate change and adapt to new circumstances, financing is paramount. As one of the continent's pioneer multilateral organizations, the African Development Bank is supporting small and medium entrepreneurs in Africa via the Sustainable Energy Fund for Africa, which is funded by Denmark and is expected to develop into a multi-donor fund. In addition, the Scaling up Renewable Energy Program in Low Income Countries (SREP) supports the development of pilot renewable energy strategies in the context of poverty reduction in Ethiopia, Kenya, and Mali. Similar initiatives can target other countries. For example, Angola has massive potential for expanding hydroelectric power, while South Africa has potential for solar power where renewable energy potential is the greatest. This is one of the programs under the Climate Investment Fund's Strategic Climate Fund, which helped to kick start a number of large-scale clean projects. The African Development Bank is doing quite well in terms of its commitment to fund green growth targeted initiatives. It supports energy, transport, and other sectors in Africa that promote clean energy solutions using a Clean Technology Fund (CTF) to the tune of US$625 million (AfDB 2010). Table 6.3 lists some of the key funding allocation plans for Africa.

Table 6.5: Approved clean technology fund investment plans by location

Location	Type/source of funding	Amount (in US dollars)
Worldwide	Total funding	4.4 billion
All Africa	Total funding	1.9 billion
	Via AfDB	625 million
Egypt	Total funding	300 million
	Via AfDB	50 million
	AfDB co-financing	140 million
MENA region (Egypt, Jordan, Morocco, Tunisia, Algeria)	Total funding	750 million
	Via AfDB	250 million
	AfDB co-financing	>250 million
Morocco	Total funding	150 million
	Via AfDB	50 million
Nigeria	Total funding	250 million
	Via AfDB	100 million
South Africa	Total funding	500 million
	Via AfDB	150 million
	Co-financing	>230 million

Source: AfDB (2011b) Climate Finance Newsletter

Approved funds so far are concentrated in countries located in the north of the continent, large and richer sub-Saharan nations. The plans are approved to develop renewable energy sources such as wind (Egypt, Morocco, and South Africa), solar (MENA region) and energy conservation (in urban transport in Morocco and Nigeria). Given the significant funding gap for the rest of Africa, there is a need for aggressive and genuine continued commitment from the African Development Bank, along with the other sources and instruments identified above. It requires efforts within Africa and, more important, a commitment for a coordinated global action with a strong backing for funding (Sandler 2004).

There is scope for private sector financing, which is critically important. The Donor Committee for Enterprise Development (DCED) is "a forum that unites 21 donors and UN agencies to promote sustainable poverty alleviation through the development of a dynamic private sector" (DCED 2011:2). In Africa, the private sector can be an important source of green jobs by focusing on environmentally friendly enterprise development. Private actors can work on a range of green projects, such as recycling, waste management, and renewable energy product development. Governments can also put in place effective regulatory procedures to let the private sector get green loans, grants, and seed funds. When governments encourage the private sector to engage in green activities, they can target their efforts at both domestic and foreign private investors.

iii. Regional and global solutions

The green growth agenda has multilayered and complex national, regional, and global dimensions. Implementation of multi-country declarations and conventions that are in

place is one of the biggest challenges. The Libreville Declaration on Health and Environment (2008) and the Libreville Declaration on Biodiversity and Poverty Alleviation in Africa (2010) are political commitments of many nations to move toward a green economy. Both encompass the principles of the Rio 1992 and Rio+20 declarations on environment and development.

There are calls for electricity trading to reduce CO_2 emissions and global warming.Regional integration and global trading arrangements can facilitate this exchange.Using insights from international trade theory, Boonyasana (2012) rigorously examined whether international cooperation (such as electricity import and export) can reduce CO_2 emission levels. The panel data analysis covers 131 countries and also divisions of countries by continent, with yearly samples for the period 1971-2007. The results show that electricity cooperation is highly significant in decreasing CO_2 emissions per unit of generation. At the continent level, Asia shows the highest decline in CO_2 emissions from electricity import, with the lowest decline being for Africa due to a number of barriers to electricity trading. This rigorous and promising study reveals that electricity cooperation can have a positive impact on efficient management of the environment, promote decarbonization of energy supply, and serve as an instrument for governments in the fight against global warming. If more countries become involved in electricity trading/cooperation, our planet's burden of CO_2 emissions will decrease. This is one of the complex cases of global collective action that can only be handled in multinational forums (Sandler 2004).

iv. Mismatch between green growth and existing development strategies

The development strategies of many countries around the globe (not only those in Africa) are at odds with green growth principles. That is why policy makers' and development practitioners' engagement with green growth represents a paradigm shift in thinking and practice. The key contribution of opinion formers, academic researchers, and institutions such as the African Capacity Building Foundation is to draw lessons on sequencing, coordinating, and exploiting the potential synergies of existing development policies of African states and showing how they can be developed to incorporate the principles of green growth. This is a huge, ambitious undertaking that needs to be carried out urgently by all African countries to avert a mismatch between existing policies and the future of green oriented growth. Table 6.4 outlines the key planning and implementation processes required to integrate green growth principles with existing national economic development strategies for any given country.

Table 6.6: Integrating green growth into economic policy

Strategic priorities	Priority issues, actions and actors
Assessing the enabling environment (overall policy process, strategic development process, public dialog)	Assess existing institutional arrangements with respect to existing economic development strategies (alignment with PRSPs and country strategy papers (CSPs) via mainstreaming exercise of the World Bank); link to key national policy issues (infrastructure, poverty, food security); enlist experts with knowledge of links between environment and economy (AfDB's vision to mainstream green growth in all of Africa by 2022)
Identify key actors	Finance and economic development ministries; environment and natural resources agencies; civil society ministries and the private sector
Identify opportunities to shape organizational incentives (enhance transparency and accountability and take corrective policy measures)	Assess weaknesses in institutional set up; enable environmentalists to participate in designing development strategies and institute incentives for economic development agencies to consider environmental issues; identify best-available "entry point" in national development plans cycle and potential role of "champions;" prioritize according to realistic assessment of opportunities
Identify awareness and knowledge needs (briefing, training, and knowledge products)	Ensure key actors in environmental agencies understand the framework and process for economic management and development; raise awareness on links between environment and social impacts; provide knowledge products (case studies)
Identify analytical tools to be adopted and develop relevant training (country specific evidence, making the economic case, policy development)	Technical support on ecosystem services assessment and economic analysis of environmental assets and services; technical support to economic analysis targeted at planning processes (value of environment to specific long-term economic and social objectives; for example, preserving the African rainforest is valuable to serve as a lung for the continent or to lower global warming); technical support to cost-benefit and effectiveness analysis of environmental policies and investments
Address options for policy influence (revise policy priorities—green growth vs. green revolution, implementation strategies— and how to sequence Africa's priorities or the priorities of its heterogeneous/diverse group of countries)	Provide support on using results of technical analysis to fit decision making process; support making the economic case for specific environmental policy measures; develop skills in communication and negotiation for environmental agencies staff (one model is the capacity training used to produce experts who defend Africa's position in WTO negotiation); engage civil society organizations with the potential to contribute positively to policy debate.

Source: Adapted from OECD (2011c) with modifications to reflect the African context

Globally, multilateral organizations that play a big role in national policy making, such as the World Bank, should integrate green growth principles into their operations. The expectation is that this will happen soon, as the World Bank has pushed the green growth agenda in different forums in recent years. For instance, the World Bank, supported by a new Green Growth Trust Fund financed by the Korean government, has recently been working on green growth issues with the aim of incorporating them into project design; technical assistance; and country, regional, and sectoral strategies such as agriculture, urban infrastructure, and transport. This will be the right move for more rapid integration of national economic policies, PRSPs, CSPs, and green growth ideals. The same integration effort should be pursued by regional development institutions without creating inconsistency with the global level effort to bring green growth and national strategies together.

6.6 Conclusion and Policy Actions

Climate change poses a huge threat to African economies, and the commitment to green growth is aimed at averting the dire environmental, economic, and social consequences of inaction. As national development plans, financing gaps, and food security all interconnect with climate change, green growth strategies must take all these key issues into consideration to succeed (Addison et al. 2011). In current economic development thinking, "growing dirty and cleaning up later" is no longer a valid rationalization for focusing only on economic growth. Many African countries are dependent on natural resources, and enhancing the value chain development and structural transformation in the natural resource sector is essential.

Africa is at a critical stage when it comes to managing its natural resources. Policy making should be honest, discourage corruption, and curb the plunder of the continent's natural resources. This is true now more than ever given the increasing awareness of the environmental consequences of growth policies that neglect nature.

Green growth is warmly embraced by most of the influential policy making bodies in Africa. However, there is lack of depth in debating issues surrounding the development of a green economy that benefits both current and future generations. The obvious impediments are a shortage of skills, technology, infrastructure, and finance needed to transform the economies along a green trajectory. More important, most discussions do not focus on countries' comparative/competitive advantages of and lack appreciation of the heterogeneity of green growth policies within the continent. Many institutions and organizations are still working on the basis of the old development paradigm. There is growing grassroots frustration due to policy makers' inaction (Bond and Desai 2011; Bond 2011). Hence, the transition to green growth is complex and requires a web of reforms with sequencing at its heart.

There are also few political economy considerations in the discussions, an outgrowth of thinking that all green growth policies are going to be supported by voters. More worryingly, African countries' green growth strategies neglect existing national development strategies developed based on comparative advantage positions that are not necessarily environmentally friendly. There are multilateral declarations (for example, the Abuja declaration of 2012–2015 on fertilizers) that are at odds with the green growth agenda. The world

continues to struggle to implement the decisions of the United Nations Conference on Environment and Development (UNCED) and Rio+20 (Puppim de Oliveira 2012). Hence, there needs to be coordination of policies (green growth with green revolution; green growth with PRSPs; CSPs) because green growth strategies that create standalone documents might lead to parallel dysfunctional and uncoordinated economic policies.At a global level, recognition of Africa's position in geopolitical terms is crucial for any global deals that have an impact on the environment and, in turn, on the continent's green development agenda.

Energy self-sufficiency initiatives such as biofuel crop production and conversion to ethanol pose a tricky challenge for Africa. The continent's nations are far behind in terms of integrating all these issues and coming up with a clear, workable green growth strategy. However, there are encouraging developments, such as the renewable energy initiatives in Morocco, Egypt, and other North African states, along with co-generation pioneers such as Mauritius,that need to be scaled up at the continental level.

Green growth is a long-term goal. Obstacles are political, behavioral, and financial. The future solution lies in an interdisciplinary approach of economics, law, engineering, political science, and social psychology. A complex interplay of political, economic, and social objectives must be evaluated in an African context and must take into consideration the continent's often contentious and unequal interaction with others in a global setting. Different countries can have different green growth models. For instance, wind technology might be appropriate in coastal Africa; not all countries have hydropower potential; and for most of Africa, solar is a reasonably viable long-term option. With expectations that rich nations make clean technology available to poor countries, a realistic goal is for African governments to take the initiative to commit to green regulations, institutions, and policies and collaborate with the private sector to transform economies along green pathways (Aghion et al. 2009).

Chapter 7

Managing Natural Resource via Regional Cooperation—a Special Focus on Africa's Riparian States

7

Managing Natural Resource via Regional Cooperation—A Special Focus on Africa's Riparian States

7.1 Introduction

As briefly reviewed in Chapter 2, there are a number of lessons to be garnered from managing a depletable resource such as water, which is an essential resource for life and one with which Africa is well-endowed. Africa is home to some 55 of the world's 200 major international rivers—more than any other continent. These river basins may be shared by 10 or more African countries (map 7.1). This makes the continent's transboundary river basin management (TRBM) complex (Sadoff et al. 2002; UNECA 2006). The colonial legacy of arbitrary sub-division of geographical areas into various states is one source of complexity. Africa's highly variable and unpredictable rainfall patterns, which lead to extremely variable river flows even during years of normal rainfall, further complicates the challenge (SIWI 2009).In recent decades, analyses of drivers and constraints to international water cooperation have received increasing attention in the international scientific literature. However, knowledge and understanding about the key factors that determine successful technical cooperation and capacity development interventions in this area remain limited. Further research is required on challenges, barriers, and lessons learned in transboundary river basin management.

In several cases, a nation's entire water supply system originates outside its borders, and it must rely on the goodwill of the upstream countries to sustain that supply. These countries include Egypt (99 percent); Mauritania (95 percent); Botswana (94 percent); and The Gambia (86 percent) (Rieu-Clarke et al. 2012). In such cases, a transboundary river basin management forum involving all the affected stakeholders is essential. Unfortunately, only 16 of Africa's transboundary river basins are governed by basin-wide agreements; 3 are partially covered by agreements, and 40 have no basin-specific agreements (Merrey 2009). Thus, the search for effective inter-state water cooperation and proactive solutions for addressing potential conflict remains an ongoing effort in Africa (Sadoff and Grey 2002; GWP 2012).

Key objectives in transboundary river basin management include finding ways to turn potential conflict into constructive cooperation and to turn what is often perceived as a zero-sum predicament—in which one party's gain is another's loss—into a win-win proposition (Zaag and Savenije 2001).

Figure 7.1: Africa's major river basins

Source: Adapted from Transboundary Freshwater Dispute Database (2000); Jacobs (2009)

Africa's water resources, especially the transboundary water resources, are less developed than those in other parts of the world. Moreover, recurring cycles of long droughts, sometimes followed by floods, exacerbate water scarcity across the continent(Falkenmark 1989;Chenje 1996; Rieu-Clarke et al. 2012). Most dominant projections of Africa's water profile and climate change patterns in the coming decades paint a picture of worsening scarcity in various "hot spots" such as the Nile, Niger, Zambezi, and Okavango river basins (IFPRI 2007; FAO 2004; Rockstrom and Gordon, 2001; Chenje 1996). Dams and other large storage reservoirs are required to reduce the impacts of annual rainfall variations and to store water for irrigation and power generation (Merrey 2009). Such large projects have serious transboundary

implications because, in many cases, their construction is feasible only on rivers shared by two or more countries, and it becomes necessary to identify and address topical inter-state issues that may arise in this context. There is currently a well-articulated need to systematically build capacity at various levels and enhance the ability of key actors in the development fraternity to lead or facilitate collaborative and effective transboundary river basin management (Chikozho 2012a).

Using evidence from selected case studies and the extant literature, this chapter assesses Transboundary River Basin Organization (TRBO) performance and generates specific recommendations that can inform future capacity development interventions. Strengths and weaknesses of existing forms of TRBM regimes as instruments for regional economic integration are also examined with a view to producing alternative policy options, strategies, and institutional steps. Emerging challenges, opportunities, and pathways for improved TRBM are highlighted and tentative recommendations made for capacity development efforts.

7.2 Transboundary Natural Resource Management

7.2.1 *Discourse on transboundary river basin management*

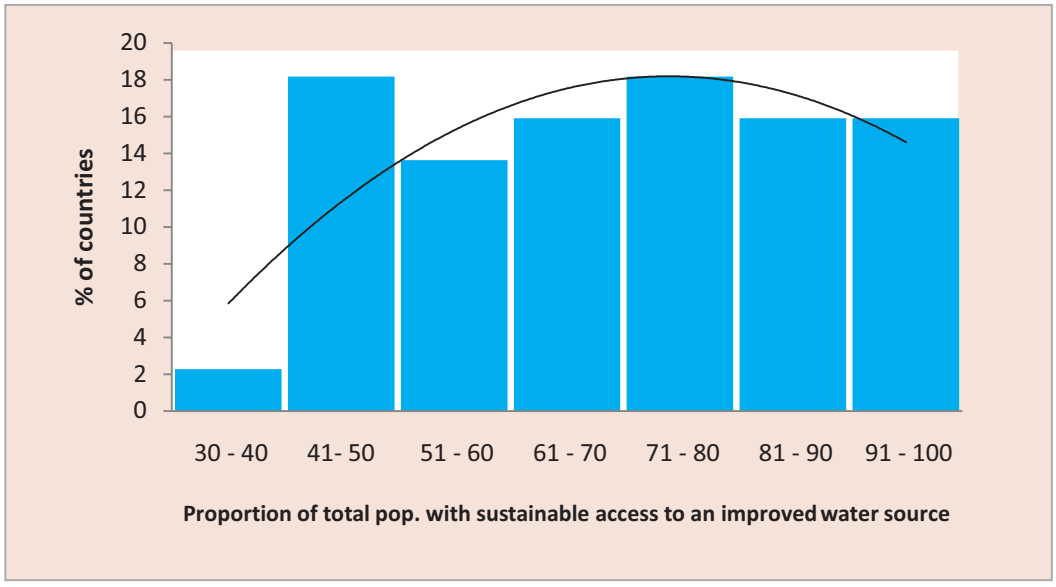
Scholars argue that conflicts over water and other natural resources increase and escalate in tandem with worsening resource scarcity (Sadoff and Grey 2005; Wirkus and Böge 2006; SIWI 2009). By definition, scarcity entails increased competition for a resource with increased economic value (UNECA 2006). Because Africa is one of the world's drier continents, the diminishing availability of usable water in the face of rising demand creates the potential for disputes and armed conflicts over water, both within and among countries (Falkenmark 1989;Ashton 2000; Biswas and Tortajada 2009). The problem lies at the nexus of what is essentially a zero-sum game and the peculiarities of the upstream-downstream dilemma in which water withdrawals by one upstream state reduce the quantity of water available to the other riparians downstream (UNECA 2006). Thus, most water conflicts have traditionally been about dividing the quantity of water in a river among riparian states, but they may also be about water quality, as pollution means a scarcity of usable water for downstream recipients (Zaag and Savenije 2001).

The voices of the proponents of the so-called "water wars thesis" may have sounded loudest in the last two decades, but a substantial body of opposing scholarship essentially posits that the violent international conflicts and dire consequences predicted by proponents of the waterwars thesis are unnecessarily alarmist and based on speculation as opposed to solid empirical evidence. They argue that one can hardly find historical cases in which countries actually engaged in violent conflict due solely to disagreements over transboundary water sharing (Uitto and Duda 2002; Jacobs 2009; Douven et al. 2012). Water—narrowly defined—is unlikely to be or have been the sole source of any war, just as war is unlikely to be or have been fought for any single interest or purpose. Factors outside the water domain, and not water per se, are usually decisive in aggravating transboundary tensions (Sadoff and Grey 2002).

Historically, water is known to more often unite than divide societies; globally, there have been only 37 incidents of acute conflict over water

since 1948 (Chikozho 2012a). During the same period, approximately 295 international agreements for cooperation over water were negotiated and signed (Wolf 2005; Conca 2006). Thus, despite the tensions inherent in the international water setting, riparian states have actually shown tremendous creativity in initiating joint regional development projects, often through preventive diplomacy and the creation of broader "baskets of benefits" that allow for positive-sum allocations of joint gains (Wolf 2002; GWP 2012). They have been able to get past the narrow view of water as a commodity only to be divided and have instead developed an approach that equitably allocates the benefits derived from engagement and collaboration (FAO 2006b; Douven et al. 2012). Such historical outcomes on the capacity to peacefully allocate water resources provide comfort for the future, particularly in light of the proportion of people with sustainable access to water source. Drawing on the ACI survey findings, the picture for Africa is varied regarding sustainable access water (figure 7.2). Mauritius, however, stands tall with 99 percent access to potable water for all.

Figure 7.2: Proportion of population with sustainable access to water (2008)



Source: Computed from ACI 2013 database

Consequently, the emerging paradigm around transboundary water management has moved thinking beyond a presumed causal relationship between water scarcity and violent conflict to a much broader notion of cooperation and benefit sharing. There is a remarkable shift away from a single focus on polarized claims for water sharing in volumetric terms to the sharing of multiple benefits and costs derived from more optimal water use and development arrangements within basins (UN-Water 2008). Although the water war thesis seemed far-fetched, it has already raised substantial awareness and refocused the attention of development theory and practice toward more proactive responses and lasting solutions to real and potential

transboundary water conflicts as well as new regional economic cooperation opportunities. The number of international water cooperation arrangements and transboundary river basin organizations continues to increase, and efforts in that direction should be promoted further (Wolf 1998; Giordano and Wolf 2003; Conca 2006).

However, the establishment of many transboundary river basin organizations in various parts of the world does not necessarily imply that all the challenges have been overcome. On the contrary, establishing workable agreements on water sharing, resolving water conflicts, and facilitating greater regional economic integration remain enormous challenges in Africa and elsewhere (Gerlak 2007; Merrey 2009). Furthermore, international disagreements and tensions that often arise in transboundary hotspots are politically and economically disruptive and tend to reduce the pace of regional economic integration. Therefore, limiting the occurrence and impact of such events remains a priority, and it is essential to identify more robust institutional frameworks, capacity development interventions, tools for deployment, and options on which transboundary river basin organizations can rely as they execute their mandate.

Dialogue mechanisms can go a long way to reducing the risks of conflict over use of water resources. Involvement of a cross section of the public sector, private sector, and civil society in forums for decisions around the use of scarce natural resources is a capacity that is much needed. At present, 55 percent of the 44 surveyed countries have such mechanisms in place.

7.2.3 Water and regional economic integration—Africa's story

Most of the major transboundary river basins in Africa hold tremendous but untapped potential for cross-boundary hydropower generation, large-scale multi-country irrigation schemes, inter- and intra-country navigation, joint inland fisheries development, joint water supply, environmental protection, wildlife conservation, recreation, and eco-tourism (UNECA 2000). Joint development of these opportunities can provide mutual benefits for riparian countries and alleviate national natural resource constraints (Bach et al. 2012). Water resources planning at the national and sub-basin levels rarely generates optimal socioeconomic benefits, while basin-wide planning and use can result in benefits that exceed the sum of those resulting from fragmented national efforts (Giordano and Wolf 2003; GWP 2012). In addition, cooperation that yields greater benefits from the river and reduces costs enables much greater cooperation among states, promotes regional economic integration, and generates benefits beyond the river (Sadoff and Grey 2002). Regional economic communities in Africa are now more aware of all this potential than ever before and are taking action to translate the awareness into specific regional development programs and projects (UNECA 2006; GWP 2012).

It is, however, critical to note that overlapping membership in several regional economic communities and the shifting nature of such membership by nation states ensures that transboundary river basins are part of an increasingly complex landscape of institutions, policies, trading relations, and sectoral demands (Jacobs 2009). For sectors that are directly or

indirectly involved with water issues, the relevance of the existing institutional complexity presents challenges and opportunities to increasingly integrate in terms of decision making (GWP 2010). Thus, the main focus of current and future transboundary river basin management capacity development efforts should include the examination of the role of regional economic communities in facilitating use of water as an instrument for better regional economic integration. Appropriate policies and institutions would also need to be crafted to support the efforts and deal with this complex reality.

African countries began making transboundary river agreements in the 1960s mainly with the intention of jointly developing transboundary basins as an extra source of freshwater. With few exceptions, little attention was paid to the development of policy, legislative instruments, and common visions for broadening and sharing the basket of socio-economic benefits deriving from the joint actions. The analysis by UNECA (2006) suggests that several African regional economic communities have already established water resource management committees and programs, but only a few have actually been able to develop meaningful regional water policy and strategic action plans for integrated water resources management and facilitate implementation of some regional projects (Böge, 2006; Jacobs, 2009). The following boxes on TRBOs demonstrate the extent to which water can be used as an instrument for regional economic integration. An exploration of TRBOs' mandates, achievements, and challenges also highlights some of the areas requiring targeted capacity development.

Box 7.1: The Niger Basin Authority

The Niger River Basin covers more than 2 million km^2 and is shared by 11 countries, namely Algeria, Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Sierra Leone, Mali, Niger, and Nigeria (Bach et al. 2012). The Niger Basin Authority (NBA) was established to undertake a number of activities, including the gathering, standardization, and dissemination of data; the development of joint plans for infrastructure development and transport; the establishment of norms and activities for preventing and reducing environmental threats, especially in the field of water pollution; and the promotion of agriculture, forestry, and fisheries (AMCOW 2007). The NBA thus seeks to harmonize and coordinate the national water policies of the member-states.

Some of the detailed operational objectives already attained include establishment of a sustainable basin development action-plan derived from a collaborative decision-making process; an institutional framework that lays the foundation for dialogue among the riparian countries; and adoption of a consensus-building approach in the development of the shared vision (Burchi and Spreij 2003). Three dams have been commissioned for construction to provide for hydroelectricity, irrigation, and navigation in the basin. Anticipated outcomes of constructing these dams include a fivefold increase in irrigated agriculture by 2027 and creation of many jobs (Bach et al. 2012). The Authority has conducted several projects to tackle specific problems in the basin, such as aquatic weed control, desertification control, and the promotion of biomass gas production and use. One of its major projects, titled HYDRONIGER, is designed to establish an operational hydrological forecasting system, assist the member-states in their drought and flood control activities, and provide data for agriculture, hydro-power, navigation, and other development activities in the basin (NBA/GEF 2002; Bach et al. 2012).

Each member state contributes to the budget of the NBA on the basis of a sharing formula that was agreed upon by the states. The contribution to the budget ranges from 30 percent for Nigeria to 1 percent for Chad (NBA 2004). The basin and the NBA face various challenges. These include land degradation and desertification, water resources reduction, unsustainable exploitation of natural resources, limited institutional capacity, limited stakeholder involvement, and funding (NBA/GEF 2002). Historically, one of the key factors contributing to the shortage of finances is that some of the member countries have often failed to remain up to date with their financial contributions.

Source: Bach et al. 2012; AMCOW 2007; NBA 2004; Burchi and Spreij 2003; NBA/GEF 2002

Box 7.2: Lake Chad Basin Commission

Established in 1964, the Lake Chad Basin Commission (LCBC) is composed of five riparian states: Cameroon, Niger, Nigeria, Chad, and the Central African Republic; in addition, Sudan has observer status. Its primary functions include preparing joint rules and ensuring their effective application; collecting and disseminating information on projects prepared by member states; facilitating joint planning and research programs within the Basin; facilitating efficient water use; promoting and coordinating regional cooperation projects; and examining complaints and resolving disputes (UNECA 2000; Burchi and Spreij 2003).

To date, the main result of the LCBC's work has been establishing a master-plan, ratified in 1994, for the development and environmentally sound management of the natural resources of Lake Chad (UNECA 2000; Odada et al. 2004). It should also be noted that the existence of the LCBC for several decades now in a region that has almost constantly been the scene of civil and international strife and other violent conflicts is positive and has ensured that communication over water among the member countries does not break down, even in times of severe crisis (Scheumann and Neubert 2006). The member countries make contributions to the commission's funding based on an agreed-upon formula that requires Nigeria to pay 52 percent, Cameroon 26 percent, Chad 11 percent, Niger 7 percent, and Central African Republic 4 percent of the commission's annual budget (UNECA 2000). Numerous donors, technical partners, and international NGOs have provided funding and technical support for the collection, processing, and exchange of data as well as reversal of land and water degradation trends in the Lake's ecosystem (Scheumann and Neubert 2006).

Poor coordination and lack of broad-based stakeholder participation are perhaps the most critical managerial problems confronting the Basin. Initially, the member states made a commitment to share use of the Basin's natural resources and refrain from implementing, without consulting the Commission, any measures likely to significantly affect water availability and ecosystem health (LCBC Convention and Statutes 1964, Article 5). In practice, however, the member states have violated these commitments on several occasions by constructing dams and irrigation projects without prior notification (AMCOW 2007). Consequently, economic development in the Basin involves national schemes that are conceptualized in isolation, and individual member states still pursue their own water policy, largely without informing the other members or the LCBC (Odada et al. 2004). The Lake has also suffered massive impacts of environmental degradation and existing plans for over-dimensioned, ecologically doubtful, and unsustainable projects. (Bach et al. 2012; Isiorho et al. 2000). Recent efforts to strengthen and improve the commission and Lake Basin management in general are certainly a good sign, although the future prospects of these efforts are still uncertain (Bach et al. 2012).

Source: Bach et al. 2012; AMCOW 2007; Scheumann and Neubert 2006; Odada et al. 2004; Burchi and Spreij 2003; Isiorho et al. 2000; UNECA 2000

Box 7.3: The Okavango River Basin

The Okavango River Basin extends through Angola, Namibia, and Botswana. Namibia and Botswana are two of the driest countries in Southern Africa, and the Okavango River plays an important role not only in the lives of local populations residing along the river, but also at national levels (Klaphake and Scheumann 2006).The Permanent Water Commission on the management of the Okavango River Basin (OKACOM) was established in 1994 and given the main role of anticipating and reducing unintended impacts that occur due to uncoordinated water resource development (Heyns 2002; Turton 2004). It advises its member states on measures and arrangements to determine the long-term safe yield of water available from all sources in the Basin and anticipate demand. It sets criteria to be adopted for the equitable allocation, conservation, and sustainable utilization of water resources in the Basin; investigates the construction, operation, and maintenance of any waterworks in the Basin; and controls water pollution and aquatic weeds in the Basin. OKACOM also facilitates ongoing dialogue among the Basin stakeholders to address topical issues (AMCOW 2007).

The Commission carried out a Basin-wide transboundary diagnostic assessment to identify key areas of concern and gaps in knowledge regarding the physical and socio-economic system of the Basin, with the full participation of all key stakeholders (UNECA 2000). The Agreement that brings together the three countries stipulates that the riparians should notify the Commission and each other of any proposed development (Turton 2004). A number of donors and international NGOs have provided financial and technical support to enable OKACOM to flourish. The member states also share equally some of the costs of running the Commission (Heyns 2002).

Technical cooperation in the Okavango Basin faces a typical upstream-downstream challenge because water use in one country could affect water availability to the other riparians (Turton et al. 2003). Of the three riparian countries, Botswana is the most vulnerable to upstream uses and relies heavily on transboundary cooperation to avert crises (Heyns 2002). No specific provisions have been made so far for local stakeholder participation. Other key challenges include lack of Basin-wide organizations for water resource management, inadequate political dialogue on and limited capacity for integrated water resource management (IWRM), lack of knowledge regarding water demands in Angola, high variability of available water resources, and lack of pertinent hydrological data (Ashton 2003; AMCOW 2007).

Source: AMCOW 2007; Turton 2004; Ashton 2003; Turton et al. 2003; Heyns 2002

There are a number of lessons emerging from the above case studies; these resonate well with the transboundary river basin management and capacity development experiences of transboundary basins with a long history of water cooperation in other parts of the world. Lessons from such non-African case studies can also inform capacity development interventions in African transboundary river basin management. A couple of these are presented overleaf.

Box 7.4: The Mekong River Basin

Since 1992, governments in the Mekong River Basin (China, Myanmar, Laos, Thailand, Cambodia, and Vietnam) have been pursuing economic linkages, connecting regional infrastructure, and promoting cross-border trade and collaborative responses to social and environmental problems (Bach et al. 2011; Hall and Bouapao 2011). Consequently, from 1999–2008, regional economic growth was twice that of the world's average (CIE 2010). In addition, substantive proposals have already been developed for as many as 12 big projects that can generate substantial energy and wealth. The cumulative effects of these projects, if built— together with existing Chinese dams—are projected to transform the region and enhance meeting the region's energy and food security needs (Grumbine et al. 2012). The Mekong River Commission (MRC) acts as the focal point for inter-state cooperation and assists in achieving Basin-wide objectives by providing shared information, technical guidance, and conflict mediation (Kim and Glaumann 2012).

Civil society and stakeholder participatory processes at the Basin level have also been systematically promoted (Hall and Bouapao 2011; MRC 2011). The member countries have also agreed to undertake joint Basin planning and projects to achieve their full potential of benefits and prevent wasteful water use (Bach et al. 2012). The need to strengthen human and institutional capacity has been well articulated, and programs have been developed to address these needs (MacQuarrie et al. 2008). Various donors are providing technical and financial assistance to support these efforts. Regional training and mapping of hydrological hot spots are some of the examples of collaborative cooperation in the Basin (Sadoff and Grey 2002). However, there are questions raised regarding the extent to which the MRC is capable of managing all these projects and overseeing equitable distribution of resources. Another key question relates to the damage on ecosystem services that the new projects in the Basin may cause (MacQuarrie et al. 2008).

Source: Grumbine et al. 2012; Kim and Glaumann 2012; Bach et al. 2011; Hall and Bouapao 2011; MRC 2011; CIE 2010; MacQuarrie et al. 2008; Sadoff and Grey 2002

Box 7.5: The Danube River Basin

Shared by 19 countries and stretching for 2,870 kilometers from Germany to the Black Sea, the Danube is the world's most international river basin. It is Europe's second largest basin and supports the livelihoods of more than 80 million people (UNOPS 2001; Bach et al. 2012). Profound inter-state cooperation arrangements have dominated water management in the basin for many decades. For example, all its riparian countries are contracting parties to the Danube River Protection Convention, which represents the main institutional framework for water cooperation in the Basin. With its permanent secretariat in Austria, the International Commission for the Protection of the Danube River (ICPDR) serves as the coordinating platform for multilateral and Basin-wide development issues and plans (Bach et al. 2012).

Since its establishment in 1998, the Commission has grown into one of the largest and most active transboundary river basin management bodies in Europe and beyond. It deals with issues that arise in more than 300 tributaries and ground water aquifers (UNOPS 2001). The ICPDR's key objectives include ensuring sustainable water management; fostering conservation, improvement, and efficient use of surface and ground water; and controlling water pollution and floods (ICPDR 2009). To make the ICPDR effective, international expert groups have been set up to develop

strategies and guidelines for themes of importance in the Basin. Groups meet regularly to ensure close cooperation and efficient information exchange among the basin countries (UNOPS 2001).

Member countries contribute an equal share of the Commission's annual budget (ICPDR 2009). Much of the ICPDR's work is done directly by member countries. Their contributions in terms of staff and material resources are, therefore, also considerable, even though this is not reflected in the ICPDR budget. Most of the costs of participation in the Commission's and expert groups' work are also covered by the parties themselves. Other sources of funding for projects include the European Union, UNDP, GEF, and the private sector (ICPDR 2009; Bach et al. 2012). However, over-exploitation of the river's resources has caused serious environmental degradation. Water pollution is clearly a major challenge, and hydromorphological alterations have led to the disconnection of wetlands and floodplains as well as to changes in the waterflow (UNOPS 2001).

Source: Bach et al. 2012; ICPDR 2009; UNOPS 2001

7.2.4 *Lessons learnt*

The experiences of all the basin case studies presented indicate that the quest for regional economic growth and minimization of inter-state conflicts tops the agenda in international water cooperation. In that respect, the primary objective behind the establishment of transboundary river basin organizations becomes the optimal utilization of the riparian states' collective capabilities and realization of common interests. A key lesson for capacity development interventions is that given the wide range of functions that the TRBOs and inter-state commissions assume, they require an equally wide range of technical expertise. Data gathering, information sharing, hydrological modelling and development of more robust decision support systems are consistently highlighted as key factors for successful transboundary river basin management. Activities to maintain ecological sustainability of the river system are also quite prominent across all the case studies. Thus, targeted capacity development may be applied as an instrument for optimizing the use of transboundary waters, maintaining ecosystem health, and enhancing regional economic integration (Falkenmark et al. 2009). Failure to embrace and facilitate more broad-based participation of transboundary basin stakeholders stands out as a serious blemish on the history of the African case studies presented.

The demand for capacity development in transboundary river basin management is high, and this is reflected in the large number of internationally funded projects and extent of technical support provided to the transboundary basin states. For example, the Food and Agricultural Organization (FAO), the Global Environmental Facility (GEF), German Federal Ministry for Economic Development Cooperation (BMZ) and the United National Development Program (UNDP) have been helping many transboundary basin countries to establish legal and institutional environments conducive to stable and mutually beneficial interstate cooperation (UN Water 2008). The international Network of Basin Organizations (INBO) is also very active; and, since July 2002, the African Network of Basin Organization (ANBO) has also been actively promoting the sharing of information through the creation of the African system of information about water (SADIEU). The case studies presented also demonstrate that creating and

sustaining TRBOs is a very long process that requires the long-term commitment of financial and technical support from all participating governments and other players.

It would be fair to ask what African countries have gained from all the technical assistance received in the area of effective management of transboundary environmental issues. While there is no direct measure collected to date, a proxy is the extent to which existing environmental policies foster the protection and sustainable use of natural resources and the management of pollution of existing resources; 74 percent of the surveyed countries do so at a level of good or above. Such a result supports the positive expectation from the case studies that the capabilities to manage water at a transboundary level could be easily enhanced.

An important message cuts across all the case studies and is articulated in the extant literature: initiatives that enhance transboundary water cooperation invariably contribute to, or even result in, political processes and institutional capacities that open the door to other collective actions and enable inter-state cooperation beyond the river (Wolf 2005). In fact, the 2002 Dakar declaration establishing the ANBO emphasizes that good governance at the scale of every basin is indispensable to effectively reducing poverty, improving health and hygiene, and achieving sustainable socio-economic development. Reduced tensions among riparian states may also enable them to pursue joint economic development ventures unrelated to water that would not have been feasible under strained relations—for example, improvements in regional transport infrastructure (Saddoff and Grey 2002). These positive externalities may be realized only if the key actors have the capacity to drive the process forward.

7.3 Approaches and Imperatives for Capacity Development

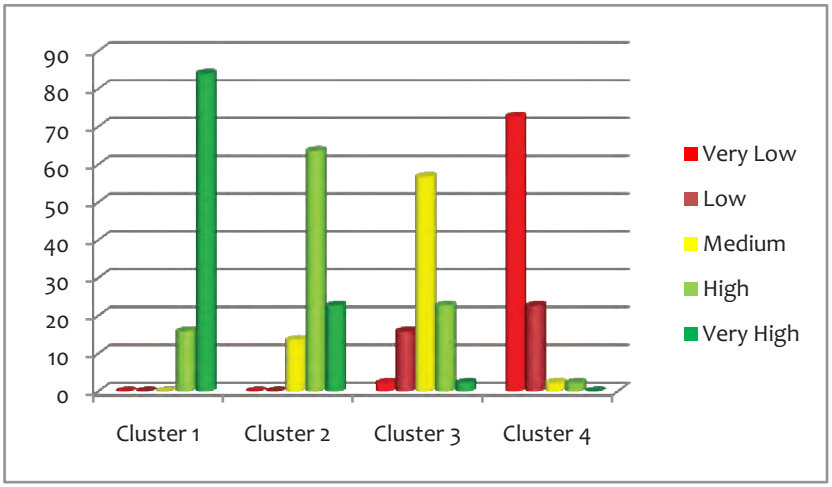
As an analytical construct, the concept of capacity development lacks a universally shared definition. Fully articulated frameworks for assessing capacity needs, designing and sequencing appropriate interventions, and determining results are also lacking (Boesen and Ravnborg 2004; World Bank 2005). Emerging approaches, however, emphasize a much broader definition that encompasses individual, organizational, and societal capacity (ACBF 2011; Fukuda-Parr et al. 2003) and relates to their ability to perform functions, solve problems, and set and achieve objectives in a sustainable manner (Saasa 2007). It entails improving a set of systemic attributes and human capital resources and, in the process, enabling individuals, organizations, and societies to sustainably define, articulate, engage, and actualize their developmental goals by building on their own resources (AU/NEPAD 2009).

In a review of 40 years of development experience, the OECD concluded that donors and partner countries alike have tended to look at capacity developmentas mainly a technical process, or a transfer of knowledge and institutions from north to south. It further warned that development efforts in many of the poorest countries will fail if the development of sustainable capacity is not given greater and more careful attention (OECD-DAC 2006). The AU-NEPAD Capacity Development Initiative calls for a wider and deeper analysis of capacity needs based on a broader understanding of actual deficiencies and how they can be best addressed by innovative and transformative processes (AU-NEPAD 2009). In this context, capacity is also understood to encompass a holistic analysis of the system as a basis for the development of appropriate and sustainable solutions.

This discussion, therefore, utilizes ACBF's conceptualization of capacity development—the process through which individuals, organizations, and societies (in transboundary river basin contexts) draw on their aptitudes, resources, relationships, and facilitating conditions to act effectively to achieve specified mandates (ACBF 2011; see also UNDP 2008b; UN Water 2009). Thus, in the literature and case studies presented here, three key areas of focus in capacity development initiatives are articulated and promoted in transboundary river basin management contexts. First is ***human capacity development,*** whose main product is individuals with the skills to analyze development needs, design and implement strategies and programs, deliver services, and monitor results. Second is ***organizational capacity development,*** which produces professionals who share a common purpose and vision for the river basin, with clear objectives and the internal structures, systems, and resources needed to achieve them (World Bank 2005). Third is ***institutional capacity development***, which focuses mainly on improving the formal rules of the game and informal norms that set the boundaries of human action—for example, regulations for water development and use in the river basin (Baser and Morgan, 2008).

Crafting appropriate policies and institutions improves the enabling environment and incentives within which transboundary river basin management organizations operate. And since human capacity, organizational processes, and institutional frameworks are closely interrelated and do not change quickly, capacity development efforts are necessarily long-term and systemic (SIDA 2002; World Bank 2005; BMZ 2006). High priority should also be given to building shared understanding about what works and what does not in terms of improving the enabling environment (OECD-DAC 2006). Contrary to traditional perceptions, this requires a longer term perspective focused on organizational systems capacities rather than on individuals or hardware alone (AU-NEPAD 2009). At the individual level, water managers should be able to design and facilitate the process of integrated water resource management in transboundary contexts by identifying water-related problems and hot spots early on, carefully defining the problem, understanding the interests of all stakeholders, designing appropriate solutions, and facilitating implementation to a satisfactory conclusion (Savenije and Hoekstra 2002). The fact that Africa has seen an increase in the capacity to shape and implement the appropriate policies indicates that channelling efforts toward the issues of transboundary river basin management would yield a positive return. Indeed, as captured in figure 7.3 below, the policy environment (ACI cluster 1) across all countries surveyed is either high or very high.

Figure 7.3: Percentage of countries by cluster and level of capacity (ACI2013)



Source: Computed from ACI2013 database

Creation of transboundary river basin organizations has often been assumed to be the answer to transboundary river basin management challenges in several parts of the world. This assumption has, in many cases, proved incorrect, and some of the institutions established for this purpose in Africa have remained functionally weak and ineffective (Merrey 2009). Most of the constraints they face relate to the ineffectiveness of leadership and management practices; administrative and delivery mechanisms; information and communication systems; skills and knowledge gaps; and sub-optimal allocation and utilization of resources (UNDP 2007).The AU-NEPAD (2009) argues that much of Africa's inability to implement programs with far-reaching impact stems from systemic weaknesses at various levels. Sometimes TRBOs lack the capacity to attain the best possible economic improvements within their respective basins while simultaneously respecting the national sovereignty of riparian countries (Nielsson 1990; Phillips et al. 2008).

There is also a realization that previous efforts at, and approaches to, capacity development have not delivered the desired results and that capacity constraints remain one of the major obstacles to transboundary river basin management in African. While some transboundary agreements seem to be effective, some are violated, and others are simply not implemented (UNDP 2007; Vollmer et al. 2009). This implies an urgent need for capacity development if the initiatives are to have any positive impact and efforts by riparian states and donors to build this capacity should continue (Adams 2000; Jacobs 2009). As transboundary river basin management capacity development gains momentum, new basin management organizations emerge, motivated by sustainable development imperatives and continually retooling their business toward a broader mandate of socio-economic development and ecological sustainability (Hooper and Lloyd 2011). It is critical for such basin management organizations to be linked to national institutions for a seamless development

strategy and framework. At present, 85 percent of ACI survey countries have a national institution with the mandate to oversee the process of identifying, inventorying, and holding spatial natural resource management information in a GIS format. Moreover, some 68 percent of these countries have institutions capable of updating such information, given new knowledge and equipment in the area of assessing natural resource wealth (including water, forests, minerals, and oil or gas).

Capacity development initiatives for TRBO officials should address a mix of knowledge areas and skills that enhance the understanding of bio-physical, socio-economic, institutional, legal, and integrative aspects critical for success (Olsen et al. 2006; Douven et al. 2012). FAO (2006) identifies the paucity of accessible international training materials that succinctly integrate negotiation skills with international water law as a critical element in capacity development for TRBOs. The challenge for the national and international community is to help develop institutional capacity and a culture of cooperation in advance of costly and time-consuming crises that threaten livelihoods and regional stability. The academic and professional background of transboundary river basin process leaders matters. The water resources management profession has traditionally been dominated by people coming from engineering or hydrological backgrounds. Typically, such managers will be well-versed in water issues but may lack the skills needed to engage in international negotiations; develop legal frameworks for TRBM; and understand international hydropolitics, stakeholder participation, and strategic communications (Zaag and Savenije 2001; Earle et al. 2010). Targeted capacity development in these domains would be most appropriate for TRBO officials.

7.4 Main Pillars and Challenges

a) ***Policy and institutional frameworks:*** Building reliable and accountable institutions to manage transboundary waters is an essential component of transboundary river basin management, but it is not the end goal. Activities that promote cooperation are more process oriented than outcome oriented. At the same time, establishing effective policies and institutions for managing river basins is one of the most complex challenges facing African countries, one that has even generated a large body of academic and advocacy literature (Merrey 2009). In many cases, a shared regional water and economic development vision should be crystalized in specific legal frameworks, harmonized policies, and strategic action plans that promote cooperation and build trust among the riparian states. Therefore, a continuing capacity development challenge in this context is the development and deployment of simple, low-cost, but effective institutional frameworks.

Some scholars argue that the use of existing institutional frameworks established under Regional Economic Communities to achieve the agenda for transboundary river basin management and economic integration is strategic, as it is likely to be less costly and more effective than to custom build separate structures for each regional water agreement reached (Qaddumi 2008; Bach et al. 2012). By increasing the degree of contact and interaction among member countries, Regional Economic Communities (RECs) foster trust and

mutual understanding and generate practical experiences in problem solving. They can also easily expand the range of potential issues at stake by integrating cooperation over water within a wider framework and thereby increase the possibility of finding a configuration of benefits that is acceptable to all parties (UN Water 2008; Jacobs 2009).

Already, there are several examples outside Africa in which RECs have helped to facilitate TRBM cooperation. For example, France, Germany, the Netherlands, and Switzerland reached an agreement to battle the effects of upstream salt pollution on downstream agricultural production on the Rhine. Negotiations were facilitated by several factors: three of the four countries belong to the European Union; the countries have a history of cooperation; and the agreement's value expanded future cooperation in a variety of realms (Schiff and Winters 2002).

There are also a few examples in Africa. For instance, initiated in 1995, the Southern Africa Power Pool seeks to establish regional power trading arrangements among Southern African Development Community (SADC) member states and leverage their comparative advantages in the production of hydropower and coal (Schiff and Winters 2002). The ECOWAS Water Resources Coordination Center (CCRE-CEDEAO) also emphasizes a specific process for the West African region focused on sustainable development of water infrastructure. These cases suggest that capacity development interventions must also promote integration of transboundary river basin management in existing regional political and administrative structures.

Defining the interface between shared watercourse institutions and national water management institutions is one of the main institutional challenges for transboundary water management in Africa (Savenije and Zaag 2002). Although national water laws often require that international obligations be met, domestic water management institutions are usually not well informed about their role in this process and how it relates to their other obligations resulting from the respective national laws. To ensure the effective implementation of international water agreements, it is crucial that capacity be built into institutions at all levels; this fosters understanding of the nature of the interrelated government framework and the resulting institutional responsibilities within transboundary river basin management (Wolf 2002). However, the absence of national and regional water institutions promoting integrated water resource management practices in some of the transboundary basin countries makes it very difficult, if not impossible, to initiate capacity development interventions (Hooper and Lloyd 2011). Evidence from various river basins demonstrates that constraints to capacity development in this context often include institutional arrangements established in an overly top-down manner without recognition of the broader context. Similarly, they are often characterized by a rigid allocation of organizational responsibilities that

reinforces existing boundaries and undermines inter-state collaboration (SLIM project 2004). Failure of the more formal institutions to deal with current challenges and fulfill their core functions might also lead relevant stakeholders to turn away from them and act unilaterally (UN Water 2009).

Use of legislation as an enabling tool for transboundary basin management varies among most of the basins. UN Water (2008) states that with a few exceptions, for example SADC, little attention has been paid to the development of legislative instruments and a common vision for sharing water. The role of national and regional legislatures gains importance as a mechanism to ensure horizontal equity in the use of water resources that stretch local government or national government jurisdiction. It is therefore heartening to see that 95 percent of surveyed countries have legislative mechanisms to execute environmental governance.

These results notwithstanding, relevant experience with water resource management issues in some basins is weak, and it becomes necessary to develop appropriate legislative and regulatory frameworks that can be used to ensure the effective management of each basin. For example, the Niger Basin Authority, the Lake Chad Basin Commission, and the Lake Victoria River Basin are charged with the management of their basin water resources, but individual countries still rely on their own setup for managing water resources in their own sections of each basin. According to Sadoff and Grey (2002), international law provides guidance but no clarity in terms of competing claims on shared waters. Salman and Boisson (2005) state that despite decades of study by the International Law Commission, the international legal community still needs to bring more clarity to both substance and procedure in this area of law. Therefore, capacity development initiatives that target policy and legislative development and harmonization across the riparians would add value to sustainable transboundary river basin management.

b) ***Power dynamics and neutral dialogue platforms:*** The asymmetry between riparian countries in terms of socio-economic development, capacity to manage water resources, and political and military muscle is a challenge to inter-state cooperation, joint management, and protection of transboundary water resources (UN Water 2008; Hooper and Lloyd 2011). Typically, the more powerful basin states can draw on greater resources and thus dominate the discourse and control the direction of negotiations (Earle et al. 2010; Kim and Glaumann 2012). In other words, basin hegemons may influence other riparians in agenda setting and decision making by executing various forms of power; if all the riparian countries disagree on the fairness and justice in transboundary river basin management, the cooperative management of the shared water may become more challenging (Allan and Mirumachi 2010). Even significant gains to cooperation in a river system may not be sufficient motivation for cooperation if the distribution of those gains is, or is

perceived as, inequitable (Sadoff and Grey 2002; Zeitoun and Allan 2008).

Indeed, any perceived unfairness in water allocation and decision making may lead to disagreements and conflict. At the same time, these differences also open up opportunities for capacity development and more broad-based economic cooperation. Jacobs (2009) argues that building the capacity of less powerful basin states enables them to negotiate more effectively and participate in a more meaningful way in joint basin decision making. This can also be an effective way to challenge power asymmetry and increase equity in transboundary river basin management. When the riparians have unequal capacity to manage shared waters, and they do not regularly share information in a transparent manner, it becomes harder to achieve trust among them, and low levels of trust may prevent full cooperation (UNDP 2006). Therefore, capacity development efforts should seek to level the playing field, build trust and enhance information sharing when it comes to international water negotiations. The role of the media in ensuring society has access to information on critical issues like managing shared waters is critical. A lot of work needs to be done in this area, as at present, only 28 percent of the 44 countries surveyed have media with good or very good capacity for oversight of natural resource issues.

Efforts to create appropriate and enduring dialogue platforms among riparian countries are often lacking in Africa. The absence of institutions specifically mandated to facilitate and coordinate transboundary dialogue initiatives remains a major gap (WWF et al.2010). Where TRBOs already use multi-stakeholder water dialogues, significant progress is notable. For example, the SADC implemented a successful water dialogue approach in 2007 that has been instrumental in serving as a regional, neutral, multi-stakeholder platform for linking governance levels, waterusers, and key knowledge generators such as scientists and academics to policy makers(Bach et al. 2012). The Mekong Water Dialogues, organized by the International Union for Conservation of Nature (IUCN), is another example, with a focus on developing and demonstrating participatory processes for improved decision making in the basin (IUCN et al. 2007). Capacity development programs that facilitate the development of neutral dialogue platforms are likely to make a positive difference in the TRBM process.

In setting up inter-state neutral dialogue platforms, it is also important to note that conflict prevention and resolution are highly political processes in which politicians make decisions on resource use and political structures of the riparian countries have significant impact (Katerere et al. 2001; Earle et al. 2010). This suggests that the management of transboundary water is heavily influenced by "hydropolitics." Any attempt to focus solely on building TRBOs capacity while sidelining the politicians will be futile (Swatuk 1996;Turton 2002; Jacobs 2009). Therefore, capacity development initiatives should target technical experts and politicians simultaneously to develop

their international negotiation skills (UNECA 2006).

A related important element for capacity development that is often missing from the main discourse is awareness and recognition of upstream-downstream water flow interdependencies. These interdependencies are frequently seen as a potential problem, especially when they are not properly institutionalized. This may lead to sub-optimal river management: certain interventions in upstream tributaries with positive impacts downstream may not be economically feasible if considered in isolation (UNESCO-WWAP 2006; Douven et al. 2012). A potential solution to this challenge is to raise awareness among the riparian countries regarding these interdependencies and find ways to institutionalize them. Neutral dialogue platforms present the possibility of enabling all riparians to understand each other's major concerns and upstream-downstream interdependencies to enable the involved stakeholders to craft win-win solutions that boost regional integration (SIWI 2009; Chheang 2010).

c) ***Participation of basin stakeholders:*** Key stakeholders' participation in decision making processes is increasingly recognized by scholars as an important pillar of the institutional TRBM framework (Ashton 2000;Biswas and Tortajada 2009). The literature calls for more local stakeholder and civic participation in TRBM. But operationalizing this pillar into a meaningful process that adds value to overall TRBM remains a key challenge, perhaps compounded by the fact that the majority of basin managers and experts tend to be engineers who may not have the academic training and mindset necessary to effect broad-based stakeholder participation. Thus, the actual nature and objectives of stakeholder participation at the transboundary level remain hazy and unclearly defined. Some of the international agreements on TRBM do not even specifically call for stakeholder participation. An enduring challenge, therefore, is the formulation, incorporation, and implementation of stakeholder participation plans.

Merrey (2009) states that at the national level, most efforts to find institutional mechanisms for managing river basins emphasize the critical role of stakeholder participation, but this dimension is largely lacking at the international level. Agreements are usually reached among technocrats and politicians in a closed room, and only in rare cases can national level meetings or councils, if they exist, influence higher level agreements. Earle and Malzbender (2006) argue that the management of shared watercourses has traditionally been the domain of national governments that operate with inputs from TRBOs. The private sector, local government, water user groups, local communities, traditional leaders, women's groups, academia, and research institutions all have a critical role to play in the management of shared watercourses in a sustainable manner but have generally been sidelined. What needs to be determined is how, when and where to involve these various stakeholders and if there should be common minimum conditions for their participation.

Stakeholder participation is fundamental to maximizing agreement, enhancing transparency and decision-making, creating ownership, and facilitating the acceptance and enforcement of decisions and policies. It is also a mechanism for gaining a better or common understanding among stakeholders on the nature of a given problem and the desirability of specific outcomes (Wolf 2005). Awareness creation and improved information flow is also likely to be enhanced by stakeholders' involvement in decision-making processes, particularly at the management level, where water allocation decisions are made. Stakeholder involvement should thus be promoted and linked to awareness raising activities (Earle and Malzbender 2006). In the context of TRBM, stakeholder participation strengthens integration and thereby contributes to conflict prevention and risk reduction—important issues in large infrastructure development projects (UN Water 2008). Jansky andUitto (2005) state that public involvement holds the promise of improving the management of international watercourses and reducing the potential for conflict over water issues. Bruch and Treoll (2011) point out that civil society represents a resource that can assist TRBOs in the formulation and implementation of projects, policies, regulations, and laws related to managing water resources. In fact, in 66 percent of ACI countries surveyed, the government has set up an operational resolution mechanism in partnership with stakeholder.

But despite the many articulated advantages, numerous challenges to public participation exist, as well. Differing legislation and management, language and culture, public participation systems and priorities in neighboring countries may become serious barriers to broad-based stakeholder participation. The public itself can be insufficiently aware of how to take part in TRBM decision-making (Wolf and Newton 2001). In addition, mechanisms for public participation are not well developed in many countries, and even less so at the transboundary level (Merrey 2009). Basin communities usually have their own traditions, values, priorities, and institutional mechanisms for resolving natural resources management problems, and these may have little in common with those imposed through institutional structures. This disconnect between local level perspectives and the principles underlying budding transnational institutions may be an additional impediment to achieving effective cooperation on river basin management (Merrey 2009).

It is also important to acknowledge that each situation is unique and no two basins are identical. Therefore, no blueprint exists for public participation, and the public participation process should be organized and adapted to national, regional, and local circumstances (Jansky and Uitto 2005). Most analyses of transnational river basin governance are state-centric. They view states as the dominant actors, and states require formal institutions, such as TRBOs, through which they can make all the important decisions. Besides being ineffective in most cases, these formal

institutions exclude civil society voices, especially those espousing alternative visions of sustainable development (Wolf 2005; Merrey 2009). In addition, public participation requires adequate financial resources to be effective, and these are often lacking.

Despite the numerous critiques of conventional state-based approaches to TRBM, few among the implementing agencies and their development partners seem to be listening. And it is clear that few experts are thinking in terms of developing these institutions from locally-based indigenous foundations (Wolf 2005). Nevertheless, evidence from efforts in several basins, such as the Danube, the Murray-Darling, and the Rhine, demonstrates that stakeholder participation efforts can be successful, and capacity development initiatives that facilitate and enhance this component will make a big difference to the whole landscape (UN Water 2008).

d) ***Protecting ecosystem goods and services:*** Without proactive prevention mechanisms, transboundary river basin economic development initiatives invariably lead to unsustainable exploitation of the rivers' natural resources. High economic outputs lead to high costs for ecosystems and livelihoods arising from water pollution, over-fishing, and highly degraded deltas and coastal zones (Bach et al. 2012). Therefore, TRBOs should play a critical role in solving transboundary environmental problems and protecting ecosystem goods and services. Capacity development efforts that enhance the TRBOs' environmental management capabilities will go a long way in addressing this challenge (McBeath 2004; Lindemann 2005).

e) ***Scientific information generation, exchange, and management:*** Effective TRBM requires that TRBOs, individually and collectively, generate and share credible data on available water resources with the riparians. In so doing, they enable more effective monitoring of water quantity and quality. These are key ingredients for building inter-state trust.

Moreover, only when these ingredients are present and sufficiently supported by appropriate capacity development initiatives can the riparians jointly plan and implement economic development programs that foster better regional integration. Jointly developed plans have more credibility and effectiveness than plans developed by individual states in isolation (UNECA 2006). Areas of focus for capacity development in this regard include developing the skills to undertake joint basin studies; establish joint databases; quickly exchange information in cases of impending crises such as floods and pollution; establish disaster preparedness plans; strengthen regional research; and prepare joint basin development plans (Savenije and Hoekstra 2002; Savenije and Zaag, 2002; BMZ 2006). Comprehensive capacity development interventions should seek to improve officials' competencies and skills in implementing the broad range of activities constituting integrated water resources management, including application of the transboundary diagnostic analysis framework (GWP

2012). Information based on credible measurement tools and monitoring programs is a prerequisite for accurate assessments of water resources and problems. Assessment is essential for making informed decisions and formulating policy at the local, national, and transboundary levels. A common basis for decision-making requires harmonized (if not standardized), compatible assessment methods and data management systems as well as uniform reporting procedures (UN Water 2008).

f) ***Role of scientists, scientific tools, and volunteer actors:*** Increasingly, the scientific community is displaying an enhanced degree of involvement in TRBM (Kranz et al. 2005). Universities and research institutions show a very significant production of data and information from all kinds of perspectives. Wolf (2002) points out that universities and research agencies can best contribute to addressing the challenge by acquiring, analyzing, and coordinating the primary data necessary for good empirical work; identifying indicators of future water disputes and/or insecurity in regions most at risk; and training tomorrow's water managers in an integrated fashion. An international network of scientists and policy makers has emerged whose joint work has included generating publications that analyze transboundary aspects thoroughly and even place these in the African context. Indeed, in many countries, various organizations commission and fund research on TRBM. Both the amount of research done and the interaction between the scientific community and policymakers add value to the process.

The main challenge for capacity development efforts, then, is to ensure that funding for such research is sustained over a long period of time until required results are generated and disseminated. Within the confines of this landscape, there are several experts who promote and make use of tools such as Transboundary Diagnostic Analysis (TDA) to establish baseline conditions for challenges. This science-based analytical framework is used to identify root causes, scope of challenges, opportunities, and priorities for joint action in transboundary basins and thus serves as the basis for formulating reforms and investments to be included in action programs (GEF 2002). Specific steps in the TDA process include identifying and determining initial prioritization of transboundary problems; gathering and interpreting information on environmental impacts and socio-economic consequences of each problem; conducting causal chain analysis; and performing analysis of institutions, policies, and projected investments (Wang 2004).

TDA basically focuses attention on transboundary problems without ignoring national concerns and priorities; it identifies information gaps, policy distortions, and institutional deficiencies (Duda 2002). The process allows complex transboundary situations to be broken up into smaller, more manageable components for action as specific sub-areas of degradation and hotspots are geographically identified within the larger complex

system (Sherman and Duda 2002). The Global Environment Facility (GEF) has been supportive of the tool in various river basins throughout the world. This tool holds a lot of promise for more acceptable and collaborative basin analysis, and TRBO officials should be capacitated to apply it in their own contexts (see Earle et al. 2010).

g) ***Funding and the role of donors:*** Effective TRBM requires adequate financing. Major costs arise from developing policy and institutional frameworks; advancing managerial capacity; creating monitoring, data-gathering, and assessment systems; and investment programs that optimize equitable use and protection of the shared water body. While the level of necessary financing varies broadly from one basin to another, sustainable funding repeatedly emerges as a key challenge in most discussions of TRBM (UN Water 2008). In some cases, TRBOs develop overly ambitious programs that do not focus on priority areas. Administrative, managerial, technical, and financial problems may arise, leading to internal and external pressures that cause poor performance (UNECA 2006). The limited resources available are often overwhelmed. Member states also often fail to sustain the initial political will and commitment by reneging on financial contributions promised. The TRBOs formed become plagued by financial, administrative, and managerial problems (UN 2003).

Potential sources of finance for TRBM initiatives range from national budgets and external donor-funded projects to more strategic public-private partnerships. But the funding and investment needs invariably exceed the resources available to riparian countries (UN Water 2008). The international donor community has contributed important financial and technical support to nearly all TRBOs in the world. This has enabled baseline assessments, data exchange, development of specific programs of action, and funding of infrastructure projects, even though this support may create new challenges regarding ownership of the cooperative process and sustainability of the institutions established (Scheumann and Neubert 2006; UN Water 2009). For example, arrangements in the Mekong Basin, which is commonly considered a success story, would not survive without the dedicated support over several decades of the UNDP and other donors. The same is true of third party support for water cooperation in the Indus and Nile Rivers (Qaddumi 2008). Regional economic communities and actors such as the SADC, AMCOW, and NEPAD also play a key role and often pave the way for better inter-state water cooperation (Sadoff and Grey 2002; Klaphake and Scheumann 2006). Capacity development interventions should, therefore, also target relevant water departments in these regional economic communities and institutions.

h) ***Study tours:*** The possibility that TRBOs can learn from the experiences of river basins is often presented as a potentially beneficial capacity development approach. Given the enormous differences among river basins, a fundamental question facing policymakers and managers working on large river systems is what they can learn from the experi-

ence of their colleagues working on other rivers (Bach et al. 2012). Some technical skills and experiences in using tools, such as modelling techniques and geographic information systems, are directly transferable, but limited in number. There is a better prospect of applicability across basins at the level of principles. In trying to learn from other basins, analysis of different manifestations of the same type of problem promotes strategic thinking about the range of options available (Bach et al. 2012). Central to all these discussions is the importance of developing the capacity for critical thinking within each basin to enable TRBOs to make good choices and react appropriately to the vast multitude of competing demands with which they engage (Zaag and Savenije 2001; Douven et al. 2012). While there is obviously no linear pathway that all basin organizations should follow, there is wide scope for basin organizations to learn from one another as well as from their more experienced compatriots. Capacity development interventions that facilitate networking and learning visits will promote this approach directly. A scan of relevant host institutions and facilitating exchange of best practices and learning experiences will go a long way in enabling this objective.

7.5 Conclusion

The discourse on TRBM and capacity development reveals that while cooperation, not conflict, is becoming the norm in TRBM, basic challenges remain. For a long time, the view has persisted that in cases where multiple users share the same source, water allocation is a zero-sum game in which some win and others lose. More recent perspectives discount this perception in favor of benefit-sharing approaches. Capacity development interventions should address the challenges and exploit the opportunities evident in this landscape to support the broader objectives of regional economic integration. The interventions should seek to change perceptions and capacitate key players in the TRBM sector to understand and apply key tenets of benefit-sharing and collective action. Capacity development objectives should be realistic rather than a long wish-list of vague statements from the riparians. This can be achieved through targeted awareness-raising sessions and training programs focusing on proactive conflict prevention.

Recent evidence and scholarship indicate that many experts and citizens fail to appropriately conceptualize and understand the whole river basin as a management unit with important upstream–downstream implications. Therefore, capacity development interventions that promote application of the IWRM framework as a basis for TRBM will enhance this understanding. Trust among riparian countries remains one of the key drivers of effective transboundary water cooperation. Joint basin biophysical analysis, data-sharing, planning, and environmental monitoring that may be enhanced by application of TDA and other relevant technical tools should be promoted in specific capacity development interventions. However, before the implementation of any intervention, there is need for an in-depth analysis of the fundamental capacity constraints and challenges that TRBM players face in relation to these key drivers. This enables the design and implementation of more integrated and sustainable capacity development interventions that address the deep-

rooted systemic constraints to functional and institutional performance. Transforming transboundary water institutions is a slow process requiring long-term commitment from governments and their technical cooperation partners. Reliable long-term funding is, therefore, the absolutely necessary ingredient for activities that capacitate people to assume new TRBM responsibilities. If previous efforts and approaches to capacity development have not delivered the desired results and capacity constraints remain one of the major obstacles to African TRBM, then a more systematic approach based on lessons learnt in the past decades will enhance chances of success.

As Chikozho (2012b) submits, the higher the net benefit perceived, the greater the likelihood of cooperation among riparians. Moreover, the possibility that a nation could improve its well-being by avoiding conflict and coordinating its actions with other riparians acts as a strong incentive to create institutions that could sustain basic cooperation. He adds that, "working toward effective governance requires an enabling environment and institutional structures that enhance stakeholder cooperation" (Chikozho 2012b:157). To this end, systematic efforts should be concentrated on policy harmonization and the implementation of mechanisms for conflict avoidance, conflict management, and inter-state cooperation. Incentives for stronger interstate cooperation should be found or created, perhaps through cost and benefit sharing agreements that could be created and sustained by transboundary river basin organizations, which provide neutral platforms for dialogue in the basins and bring seemingly disparate riparian nations to the negotiation table.

Chapter 8

Strategic Capacity Imperatives for Natural Resource Governance In Africa

8

Strategic Capacity Imperatives for Natural Resource Governance In Africa

8.1 Introduction

The capacity of the actors and stakeholders involved in high value natural resource extraction, processing, marketing, and management of revenue, is of fundamental importance in turning the resource curse into a benefit for broader society. Such capacity, however, ideally needs to be balanced among stakeholders. There is a good deal of emerging evidence that "capacity imbalance"—wherein one set of stakeholders enjoys significant capacity while the other stakeholders experience inferior, and in some case much lower, capacity—can result in corruption and exploitation due to a lack of effective checks and balances. The resulting animosity then can have profoundly negative outcomes as the lower capacity stakeholders realize the imbalance and its repercussions. While capacity development in the natural resource sector, with regard to Africa, is usually thought of as being most needed by African stakeholders such as the government, civil society, and local communities, a great deal of capacity is lacking on the part of the international investor, who is in many cases unable to "read" local socio-political, ethno-cultural, and economic environments in Africa so as to be able to innovate and outline arrangements that work and are mutually beneficial. Thus, capacity development is not only needed for government stakeholders, but also for stakeholders engaged in international and domestic processes in the investments sector.

This chapter examines the role of capacity and capacity development at different levels and for the diverse actors in the management of high value natural resource extraction in Africa. Following the introduction, section two addresses the capacity needs of the key actors—government at different levels, law enforcement, civil society, and domestic and international investors—in terms of prospecting, negotiating, and regulating natural resource use. Section three draws attention to the capacity imperatives required for economic diversification in resource-rich countries. Section four highlights the capacities required to transcend resource conflict as well as key ingredients needed to overcome mismanagement and criminality within the natural resource value chain. Section five maps the way forward and highlights efforts that can be realized in the short-term and those that require a longer term strategy. Finally, section six concludes the discussion.

8.2 Prospecting, Negotiating, and Regulating NRM—what capacity is needed?

Addressing capacity needs in the various sectors that intersect with natural resource exploitation will require approaches that are tailored to the sector. This section looks at the capacity needs of govern-

ment at different levels, of law and enforcement, and of rural civil society. Finally, it examines the capacity improvements needed on the part of the domestic and international investors and their partners.

8.2.1 Capacity needs - government

Institutional capacity, particularly that of government, is decisive in the translation of natural resources into economic development (Rustad et al. 2012). In countries with higher institutional capacity, the negative effects of natural resources on economic growth are minimal; and furthermore, in countries with the highest capacity institutions, the negative effects do not occur at all (Mehlum et al. 2006). In conflict-affected situations, the capacity to establish commodity-tracking systems, renegotiate contracts, complete agreements on revenue-sharing arrangements, and effectively invest resource revenue depends, to a significant degree, on the quality of governance and capacity of governing (Rustad et al. 2012).

While it is often unrealistic (and potentially destabilizing) to engage in extensive institutional capacity development all at once in conflict-affected settings, various incremental strategies can be used to build capacity in government institutions (Rustad et al. 2012). A staged strategic approach to institutional capacity building that focuses on a few select institutions—such as those that are most important for specific resource management needs or responsible for certain resources—is likely to be more effective than attempting to build capacity in all institutions at once (Rustad et al. 2012). For example, Liberia's post-conflict forest sector reform was undertaken as one of the requirements for the lifting of UN sanctions, and focused specifically on enhancing institutional capacity in the Forestry Development Authority (FDA) (Altman, Nichols, and Woods 2012).

Another approach to incremental capacity development is to first gain experience in awarding smaller concessions and managing smaller resource projects and then later award larger projects. In Liberia, the first timber contracts after the war were for only three-year licenses for exploiting less than 5,000 hectares. Once this small-scale effort had led to a significant accumulation of experience, progressively larger awards were put out for bid (Altman, Nichols, and Woods 2012).

Yet a different strategic capacity development approach, particularly in conflict-affected settings, is first to develop extraction capacity along with institutional capacity in the more peaceful regions first. This may be difficult, of course, in cases where resources are exploited manually by many unofficial small-scale stakeholders. And indeed, attempting to ban such small-scale efforts can have negative repercussions on local livelihoods (Rustad et al. 2012).

Ideally, institutional capacity development in government should come prior to resource exploitation, but governments and international donors and investors can often fail to understand this need until contracts have already been issued. When capacity does take place, often it is much slower compared to the development of the resource extraction project (Rustad et al. 2012).

Institutional capacity development attends to the issue of violence being an easy alternative with which to pursue land resource issues because state institutions designated to deal with such issues are crippled, corrupt, not

legitimate, or nonexistent. In such a situation, working to purposefully include customary institutions that are able to garner legitimacy from a local population and place these within the statutory legal system can be a very worthwhile consideration in the context of capacity development in conflict-affected settings. At the same time, providing forms of state legitimacy to certain customary institutions can be a shortcut to building capacity in workable institutions. Ethiopia has had particular success with this approach in its restive regions. In the Somali Region, specific customary institutions of elders and leadership were provided with state legitimacy as a way to resolve a variety of societal issues, including those involving land and resources. Increased recognition of customary institutions by the Ethiopian state as national policy has meant that the Guurti, a traditional council of Somali elders, was instituted formally at different levels in regional government. An official Guurti comprised of elders has been instituted at the regional level (36 members), at the zonal level (seven members), and at the smallest administrative unit, the wareda level (three members). These council members receive salaries from the government and advise on policy. While not all in Somali Region see this arrangement in a positive light—some believe it co-opts of Somali institutions—others see it as empowering these institutions.

8.2.2 *Capacity in law and the problem of enforcement*

Building capacity in law goes together with strengthening capacity in government institutions, with these two acting together and reinforcing one another. In conflict-affected settings, in order to prevent specific interest groups from capturing resource and/or revenues and also to reduce the risk of restarting conflict, legal capacity development in governing resources should prioritize transparency, accountability, representation, and equity (Rustad et al. 2012). Laws should ensure that resource revenue goes toward investments that will result in long-term development and should seek to prevent, to the degree possible, major social and environmental impacts (Rustad et al. 2012). Some of the conflict-related legal capacity development approaches that have experienced some success are illustrated below.

a) ***Land and resource policy reform:*** Land and resource policy reform includes a broad-based process of interaction with affected communities and other sectors (such as villagers, ex-combatants, internally displaced persons (IDPs), refugees, commercial interests, and local and regional government) and is usually undertaken by a consortium of donors together with a government. Land and resource policy reform after crises (and especially after wars) is an involved process, that requires capacity development, coordination, political will, donor involvement, money, and often a good deal of time (usually years). It is generally beyond the mandate of UN agencies after conflict to carry out such a multifaceted reform process alone, and associates in the international community (for example the World Bank, the AfDB and bilateral donors like USAID and CIDA) are usually sought for both capacity and financing. As this is a significant legal reform and national capacity is frequently quite low at the beginning of the process, expatriate staff are often used for a period of years (Unruh 2008).

b) ***Capacity development in legal actions aimed at specific problems:*** This approach is much quicker than land and resource policy reform, and more easily achievable with the in-country support of agencies like the United Nations after conflict—albeit with less scope than national land and resource policy reform offers. Specific legal actions that are able to attend to certain resource-related problems in a crisis context are quite useful for management of such problems until a broader policy reform effort can be considered. Examples of such actions include:

Legal decrees that focus on specific society-wide land issues and are quickly conceived, disseminated, enforced, and then terminated when the objective is obtained. Decrees can be used to temporarily manage resource speculation, fraud, and evictions and to validate or invalidate specific forms of claims that are proving destabilizing. Decrees and their effects are largely seen as temporary, to be replaced by more robust forms of law later.

Legal rulings that resolve specific but potentially volatile problems for certain post-war communities. Liberia's experience with the problem of adverse possession (uncontested occupation for a period of time resulting in legal ownership) dealt with the question of whether the wartime and post-war periods should count as part of the period of "uncontested occupation" needed for ownership claims via adverse possession. This affected squatters in long-term occupation situations but also returning commercial interests and individuals with titles to valuable real estate who fled the war early on and were returning. In such a situation, if there is no clear legal ruling on the issue, then powerful interests can seek to violently evict squatters who are claiming, or may be about to claim, ownership under adverse possession.

Rendering legal decisions that affect or resolve an entire category of land and property claims and/or dispute problems. Both Liberia and Mozambique have had positive experiences with this tactic. The Johnson Sirleaf administration in Liberia cancelled all of the forestry concessions as a legal decision due to pervasive fraudulent acquisition and the societal instability this causes. And Mozambique dealt with whole categories of problematic land claims issued before and after its war that involved, for example, 1) whether Portuguese colonists or their descendants would be able to return to lands, 2) the need for concession holders to reapply under new rules that included more adequate interaction with local communities, and 3) the cancellation of certain categories of concessions due to fraudulent acquisition.

Application of specific articles of existing law in order to contribute to the resolution of immediate problems. The application of specific articles of existing law can include use of certain articles that are part of pre-crisis laws, even if overall such laws are unjust or were part of the cause of the conflict. In Sierra Leone, the extreme avoidance of agricultural renting arrangements by the landowning lineages was due to a fear that such

renting would turn into permanent forms of ownership claim by the tenant, and that the lineages would be unable to get their land back at the end of the rental agreement. The overall result in the country was a serious food insecurity problem because very large areas of unrented land went uncultivated. In such a case, the simple "right of reversion" is a specific article of law found in many countries (including pre-war Sierra Leone) and could be applied specifically and quickly to the leadership of the landholding lineages as a first step in assuring them of the return of any rented land. This would have the effect of putting the landholding lineages in a "secure enough" tenure position so as to feel little risk in renting out land. While enforcing a single article of law for some segments of a population and not others might be problematic in a stable setting, and even be seen as the state being partial to one group, in a conflict context, speed, capacity and enforcement problems, combined with acute land and food security problems, make this option a viable consideration (Unruh 2011).

c) ***Specificity in legislation:*** Legislation governing resource management should be as specific as possible. In Iraq, vague and conflicting constitutional provisions regarding the granting of oil exploration and exploitation rights have resulted in serious conflict within government at the central level and among different levels of government, thereby worsening post-conflict instability (Al Moumin 2012). Such laws should also clearly state which entities are in charge of allocating exploration and exploitation rights and how income is shared (Haysom and Kane 2009). With regard to resources such as oil and gas fields, it is important to specify if the relevant legislation refers only to fields that are currently producing, or to all known reserves, or to all current and future reserves, so as to avoid disputes and confrontation. Indonesia and Iraq are examples where this did not happen, with significant negative repercussions (Wennmann 2012; Al Moumin 2012).

d) ***The centrality of enforcement:*** Building legal capacity should be a priority; however, even when laws are in place, it can be difficult to have people abide by them, particularly in conflict-affected settings. This highlights the importance of enforcement, although it is highly problematic in war-affected settings. The primary dilemma is that the enforcement of formal law depends on the direct or implied threat of forced coercion—such as police, courts, and prisons (Sarat and Kearns 1990). This is particularly the case in laws relating to land resources (Blomley 2003). While such a threat may be expected to have the desired outcome with populations who are generally accustomed to peace and want to retain it, with postwar populations this is more problematic. For the latter, the threat of forced coercion connected to enforcement will be much more distant and much weaker than the actual force in the form of violence recently experienced in the conflict itself—considerably reducing the utility of the threat with regard to compliance. Of particular concern is that the threshold for a return to open violence for some groups—ex-combatants, warlords, those who seek to

gain economically and politically—can be quite low after a war (Kamphius 2005). This can particularly be the case because armed groups involved in the exploitation and trade of certain land-based resources can themselves emerge as enforcers of powerful micro informal rule of law systems, and can express considerable reluctance to formalize their activities, especially if they see themselves as "losing" in the peace process (Kamphius 2005). The latter notion risks becoming broadly the case if such enforcement ignores local perceptions of justice and participation, which can, in turn, compromise efforts to get local populations to buy into national reconstruction (Unruh 2008). Legal capacity development in conflict-affected situations should take this enforcement problem into account and focus on laws and their corresponding institutions that already have legitimacy within society. Laws and legal actions by the state should also include incentives for compliance, as opposed to only the threat of negative implications through enforcement.

e) ***Consultation as a form of capacity development:*** Consultation with local communities is widely regarded as a way to include input from local communities into the formal law making process, and this should be included in legal capacity development efforts. While building the needed capacity among government and NGO actors to be able to carry out consultations is valuable, an added capacity development benefit that comes about through the consultation process is the learning that goes on, within local communities, with regard to how statutory law works. Capacity is built on the part of local communities as they learn about how law works and what the connections and similarities are between customary and statutory law.

f) ***Social science research and its linkage with derivation of laws and regulations:*** Important to the capacity of the legal domain is tailoring specific legal remedies to problems as they arise. In conflict-affected settings, the specifics of problems of resource rights, access, and exploitation can be difficult to predict. Moreover, such problems are usually not attended to by legal constructs conceived for stable socio-political conditions. As a result, there needs to be an ability to conduct ongoing research into land resource related problems as they manifest themselves and then to derive legal remedies and communicate those to the law-making agencies in government. The authority to do this is best situated at a national university so as to be able to operate with autonomy and have access to researchers, including student researchers. In East Timor and Mozambique social science research centers were created and funded by the international community, with the purpose of being able to conduct research on socio-legal problems and then work with the relevant ministries to construct legal remedies for presentation to parliament for passage. Such a research center is able to provide ongoing capacity development for university researchers, students, and ministry personnel so as to build capacity in the legal domain generally.

8.2.3 *Capacity needs in rural civil society*

Capacity needs for rural civil society with regard to exploitation of natural resources in community held areas is one of the larger challenges. In the legal domain, there has been a profound lack of authoritative interpretation regarding the rules of customary law, and this is the primary reason why customary law (and customary capacity) in many countries has not responded or adapted to the social and economic changes that have taken place with regard to resource exploitation (Unruh 2008). As a result, customary laws and capacity have remained largely in an isolated, stagnant, and often undeveloped state with regard to dealing with commercial firms interested in the exploitation of natural resources. Often, the various customary courts interpret law according to the traditions and mores of the community, and with little exposure to other interpretations. This lack of exposure of customary laws to statutory law and the customary laws of other groups is the core of the problem and where capacity is greatly needed. This is particularly the case following conflict, because legal and capacity isolation is much more pronounced during the years of conflict. As a result, interacting with commercial interests after a conflict can reflect unrealistic or contradictor expectations, and unpredictable outcomes (Unruh 2008).

Local community leadership is an important subset of civil society where targeted capacity development would achieve much. There is an almost pervasive lack of realistic expectation on the part of local communities in terms of what they are able to obtain from commercial interests operating in their areas. Local leadership plays a large role in this, and a more realistic set of expectations on the part of community leaders would go a long way toward enhancing negotiation with government and commercial interests.

a) ***Tenure security for investors vs. smallholders:*** The need for land resource tenure security for both investors and smallholders in a resource exploitation setting is crucial for the success of the exploitation as well as the livelihoods of the local communities. However, the form this security takes is different for commercial interests vs. smallholders, and capacity is needed in order to appreciate and support both. For the commercial interests, they need the tenure security that will allow them to invest often considerable physical infrastructure without being concerned that they will be evicted once the investments are made, but before resource exploitation has paid for the investments, or returned the planned profit. Thus, they need not only tenure security for land areas where operations are located, but also resource tenure security regarding the specific resource they are exploiting. Often such resource tenure can be provided by lease or license, which can guarantee the exclusive rights to the resources with no competition. However, often what the commercial interest desires is complete private ownership of the lands and resources in question, believing that only under private ownership can they truly have the needed land resource security. Commercial interests, particularly international interests, can interpret the presence of smallholder communities on lands to which they have been granted access and exploitation rights, as a threat

and a sign that their rights are being violated. As a result, they can call on the government to enforce the exclusion of local communities. Such commercial interests can operate on the basis of a signed contract negotiated with government for keeping the agreement binding. They can view requests by local communities that are outside the agreement as a breach of the contract, which can compromise their tenure security.

Smallholder communities, on the other hand, are concerned with permanent loss of lands, homelands, and forest, grassland, and agricultural products for their broader group. While smallholder communities can interact with commercial interests in ways that will allow temporary access to the lands and resources being exploited, their method of keeping any agreement with commercial interests binding is the establishment of an ongoing relationship involving obligations on the part of the commercial interest to provide communities with ongoing benefits. While commercial interests view agreements about resources as extracting or transferring resource ownership from the original owner to them, local communities can see such agreements in the context of the commercial interests becoming part of the local community and thus subject to the provision of needs of the local community.

The gender dimensions of land ownership are of particular importance and usually are forgotten when natural resources are discovered. Across Africa, women account for the bulk of workers in the agricultural sector, and manage natural resources daily in their roles as farmers and household providers (ACBF 2012). In many communities, women are responsible for growing subsistence crops, and often have unique knowledge of local crop species. This notwithstanding, women have less access to and control over them than men (FAO 2011). Gender inequality is most evident in access to land. Custom prohibits women from owning land in many countries. Frequently, women have only use rights, mediated by men, and those rights are highly precarious (FAO 2011). Without secure land rights, female farmers have limited access to credit—and little incentive—to invest in improved management and conservation practices. As the FAO succinctly points out, understanding gender dimensions of natural resources management is a starting point for reversing environmental degradation (see also Drafor-Amenyah and Puplampu 2012) and for avoiding conflicts over resources often originating from or heightened by gender gaps

What is needed, then, is for greater capacity on the part of both commercial investors and local communities. The commercial interests need greater capacity with regard to how local communities work, and how they reason with regard to resources and in many cases claims. There also needs to be greater capacity on the part of investors with regard to the degree of security they can actually expect by trying to own privately the lands and resources they

intend to exploit. Leases may in many cases be more secure than an attempt at outright ownership, as they do not exclude (and therefore anger) local communities. In turn, those local communities need greater capacity with regard to their ability to participate in contracts and agreements and understand how investors think about resources and their exploitation. Third parties need to be engaged at times to ensure that excluded groups like women, ethnic minorities, and indigenous people are not left out.

b) ***Functioning of government and commercial interests in rural area extraction:*** A great deal of improvement is needed with regard to how government and commercial interests function in the process of resource extraction in rural areas, particularly with regard to local communities. Engaging with the public is particularly important to building support for extractive projects and the establishment of the legitimacy of the resource extraction activities (Rustad et al. 2012). Although resource sector capacity development efforts often identify transparency and inclusion of different sectors of society as goals, the implementation record is mixed, and negative outcomes are common. Where communities depend on resources for their livelihoods, the failure on the part of government and commercial interests to engage the public in resource-related decisions can lead to significant problems. But when the public is engaged in decision-making, it can improve the long-term legitimacy of the operation as well as the institutions, laws, and regulations that manage natural resources (Bruch et al. 2012). Thus, stakeholder consultation is important not just for the expression of stakeholders' concerns and needs, but also to build trust and a sense of ownership in the resource extraction arrangements and agreements (Carius and Maas 2012). Effective public engagement on the part of government and commercial interests means interacting with small-scale stakeholders during the beginning of project development and requires ongoing dialogue and interaction regarding negative repercussions of the extraction process, benefit-sharing arrangements, and the expenditure of the money that goes to communities (Rustad et al. 2012). Making this actually happen, however, will require laws mandating informed and prior consent and consultation.

There are several approaches that can improve the functioning of government and commercial interests in resource area extraction. One approach is the "resource compact" (Le Billon 2008), which can enhance the capacity for constructive engagement among stakeholders in addition to improving regulatory capacity. The compact is essentially a forum that is able to both build consensus through participatory decision making and inform civil society by establishing a public forum for discussion of the issues relevant to the extractive sector. At the global level is the United Nations Global Compact, which encourages corporate social responsibility in the context of post-conflict recovery by proposing practices that improve security, economic development, and local relations

while at the same time trying to deal with corruption, grievances, and human rights abuses (UNGC and PRI 2010). The Niger Delta is an example where the use of a resource compact is being tried. However, a lack of the needed political will is preventing its full establishment (Mähler 2012; Rustad et al. 2012).

Investors usually work hard to ensure that they are environmental, social and corporate governance (ESG) compliant, with ESG describing the three main areas of concern that are considered central factors in measuring the sustainability and ethical impact of an investment in a company or business. The ability of stakeholders on the investment side to value non-financial factors when they take equity positions in natural resource companies, or when they form corporations to exploit a natural resource potential, is critical for successful investing (EFFAS 2009).

c) ***Addressing rural civil society capacity—radio and other dissemination programs:*** Dissemination of information regarding the true nature of extractive commercial interests, how they operate, what they need in the conduct of their business to successfully exploit natural resources, and what they can realistically provide to local communities, can go a long way toward building the capacity of civil society generally and local leadership in particular. It can also help to deal with rumors, which can be a primary source of conflict. Dissemination can be difficult given the remoteness of resource extraction areas and the dispersed settlements, along with literacy and other educational obstacles, but radio programs conducted by either government or an independent NGO can prove to be important in this regard. Such a dissemination program needs to be ongoing and can include activities that seek to address specific problems that communities may have with regard to commercial interests and how they operate. A knowledgeable person taking questions from the local community is a format that has worked in some UN operated programs.

8.2.4 Capacity needs for domestic and international investors and partners

a) ***The need to locally tailor investment approaches to local realities:*** International interests can often be in particular need of capacity development in terms of how to deal with local realities and local communities in Africa and how to tailor their operations to the local reality. This capacity development should include how local communities think about land and resources, how to make agreements binding from the perspective of local communities, and what benefits to provide to local communities in order to avoid problems with community members who did not agree to the investment or who were not consulted.

Domestic and international firms will find that in their areas of operation, they will be the highest capacity entity in terms of security, health, education, infrastructure, and service provision, and that they will be called on by the local community, which may desire to access this capacity. In many areas, government (which

should provide such services) is absent or has a low capacity to respond and provide the services that are needed by the local population. In Angola, as in many other post-conflict countries, weak institutional capacity on the part of government can require that private companies step in (or are drawn in) to fill the vacuum. In particular, where local populations have been excluded from formal contract negotiations, commercial interests will be responsible for pursuing a "social license to operate" from local communities. If they are not able to do this, they risk long-term challenges to their operations. Thus, company–community relations, and how these work, can be central to preventing and resolving local grievances (Boege and Franks 2012).

b) ***The need to innovate in leasing approaches, extraction, and trade of commodities:*** In many ways the burden for making resource extraction operations work successfully in the smallholder setting in which they exist, will be on the commercial interest. It is easier for these interests to derive innovative ways of dealing with local communities than it is for communities to learn how commercial interests work in the Western European model. It is often assumed that capacity needs to be built on the part of local communities so that they understand how resource companies work, and then they will cooperate more fully. While certainly local communities need capacity development, commercial interests need considerable capacity development themselves with regard to dealing with local communities. They need to innovate in terms of approaches, agreements, payments, how rights and resource security are divided and combined, and how resource exploitation arrangements are made binding and documented. The significant capacity on the part of the commercial interests in terms of law, science, and business operations should allow this innovation to occur, and yet it by and large does not. There are a great many ways of managing rights that can both achieve investor goals and support local community aspirations as well. The problem for companies is that this requires time, specific investments, and labor that are not part of operating budgets. They can, however, be made part of the often significant budgets allocated to winning a contract or concession from governments by requiring companies to build or factor in such capacity.

c) ***Interaction with government, local communities:*** Although commercial extractive interests have, through their greater capacity, primary responsibility for company to community relations, governments are likewise responsible for providing these interests with an opportunity and a requirement to act reasonably and prioritize the development of good relations with local communities (Boege and Franks 2012). In this regard, commercial interests need to be granted enough time to assess the on-the-ground context in which they will be operating and to engage in the necessary consultations with local communities before they begin the physical component of a resource extraction project. However, the time that a company desires to have in which to conduct a

participatory social impact assessment is usually much longer than what the government allows (Boege and Franks 2012). Development partners also need to include capacity development and financial support in their assistance to government for mining sector reform. The quality and effectiveness of environmental impact assessments are often crippled by the absence of host country capacity to conduct and review them (Brown et al. 2012; Bouma 2012). Consequently, development partners can often separate technical assistance and reform; and while they do see the connections between mining activities and environmental impacts, in most cases economic interests prevail over environmental concerns, as they do for most national governments.

8.3 Transcending the Resource Curse—What capacities trigger effective economic diversification in resource-rich countries?

It has been shown in the previous sections of this Report that effective economic diversification is crucial for Africa's resource-rich countries to avoid negative effects of these resources on the economy and on the entire social body. If diversification is crucial, the following step is to identify the conditions allowing it. To this extent, the emphasis has to be placed again on individual and institutional capacities, where the main deficiencies may be found in African contexts.

Africa can learn from other developing countries that have been successful in diversifying their economies. The most prominent form of diversification seen in recent history has been that of a shift from agriculture toward industry, as can be seen in the change in export patterns. A country like Malaysia went from 34 percent of agricultural raw materials exports as a share of merchandise exports in 1975 to approximately 6 percent of the same in 1995, and just around 3 percent in 2010 (World Bank 2012e). Malaysia did it by developing its manufacturing sector to become a powerhouse in exports of electrical and electronic products, which accounted for 34 percent of total exports in 2011 (MATRADE 2012), but also in other manufacture exports such, as machinery, appliances and parts, as well as optical and scientific equipment. China is the most prominent country that diversified by becoming a major industrial powerhouse, but so did countries like Korea, India, Brazil, Vietnam, Indonesia. and Mexico (Gelb 2010).

To effectively undertake the aforementioned, the state has to play an active and central role to trigger an effective economic diversification. Governments must increase the capacity of their agencies to address impediments to diversification efforts: public sector capacities are then equally crucial. Sectoral strategies and prioritization help focus action for optimal results, given capacity shortages in African contexts. African countries also have to encourage partnerships and allow other stakeholders to improve their capacities to act vigorously in diversifying the economy: it is the case for the private sector, for small and medium enterprises. In their action, governments should also take into account pressing needs in terms of food, energy, technology, and financial needs (NEPAD-OECD 2010).

The state is thus responsible for creating an enabling business climate and a relevant regulatory framework to allow enterprises to shine (OECD 2011c). To create new industries or to improve the already existing industrial platform, there is a need for capital available for

industrialization: including loans for new businesses as well as public trust. The industrial platform is a necessary condition but not sufficient, because skilled laborers are also important for a highly technological industry, the real competitive industry nowadays: university and technical training. Knowledge management capacities must also be improved. Relatedly, communication and infrastructure strengthen industries and give a huge boost to an economy.

The second form of diversification has been to deepen the value chains from their primary products, such as developing worked products from timber and worked metal from unwrought metals and ores. Latin America is a good region to learn from in this form of diversification, as it has increased its share of global markets in metals by 175 percent between 1975 and 2004; the region was able to increase its share of worked metal products eight fold during the same period (Sinnott et al. 2010; Gelb 2010).

A third form has been to diversify up the value chain into more complex primary products, going from basic agricultural exports into more sophisticated exports while developing the supporting service and logistical infrastructure to go along with such diversification. Data from the International Trade Centre shows the extent to which countries have done this (ITC 2012). Malaysia, for example, built export potential in palm oil, which accounted for 7.3 percent of total exports in 2011, while China, India, and Vietnam built up the exports of articles of leather. China was ranked the number one exporter of articles of leather in 2010, the same rank it had in 2006. Similarly, India was ranked number 6 globally in 2010, the same rank it had in 2006. Vietnam went from a rank of 14 in 2006 to 9 in 2010, showing that not only can countries diversify from dependency on agriculture and primary exports, but they can do so while competing with big players like India and China. Within Africa, this pattern of diversification has been the most pronounced. Ethiopia has shown steady growth not only in fresh food exports, thus tapping into the market for fresh fruits and vegetables around the world, but also in diversifying by growing its capacity to export processed food products (table 8.1).

Table 8.1: Differentiated pattern of diversification and sophistication in the agricultural sector (2006-2010)

Rank by Export Growth per annum in (%) of Fresh Food Exports

Country	2006	2008	2010
Burkina Faso	35	163	145
Djibouti	5	3	143
Ethiopia	24	15	19
Liberia	26	83	142
Malawi	68	33	96
Rwanda	1	180	119
Senegal	3	162	155

Rank by Export Growth per annum in (%) of Processed Food Exports

Country	2006	2008	2010
Burkina Faso	67	137	78
Djibouti	7	-	-
Ethiopia	146	72	63
Liberia	-	-	-
Malawi	113	149	54
Rwanda	-	-	-
Senegal	73	130	80

Ethiopia shows a steady growth in fresh food exports, while Rwanda and Senegal reversed declines in fresh food export growth rates. Other countries could not maintain growth in fresh food exports at a high level. Ethiopia managed high growth rates in processed food exports, while Burkina Faso, Malawi and Senegal recovered their growth rates of processed food exports. Djibouti, Liberia and Rwanda do not have a large processed food export business.

Source: Léautier, F. (2012) Leadership in a Globalized World: Complexity, Dynamics and Risk. Book Manuscript Mimeo

A fourth form of diversification has been to add value by exploiting the fixed value of natural resources, such as unique ecosystems, through investments in the logistics and service needs of high end tourism. Examples include Brazil, which invested to attract tourists by building up its air passenger services. The country saw the value of imported passenger air transport grow from US$ 2.2 billion in 2007 to US$ 2.9 billion in 2010 (ITC 2012). Other countries have tried to match their production increases to meet changes in consumption of cultural products. India, for example, has made tremendous progress in building on the cultural value of ayurverda to develop a business in pharmaceutical exports. India rose from the rank of the 17th global exporter by value of pharmaceutical products in 2006 to the rank of 14 in 2010 (ITC 2012).

Gelb (2010) offers the conditions that need to be in place for countries that are heavily dependent on natural resources to undertake successful diversification. The first capability is to successfully manage volatility, particularly around commodity prices, which tend to follow a boom and bust cycle. Countries that have succeeded in diversifying their economies (such as Norway and Brazil) have been able to smooth the cycles of price changes and protect their economies from sharp swings in output, while others (such as Mexico in 1981 and Nigeria in 1984) failed to control public spending, which outpaced revenue when commodity prices swung (Hausmann, Klinger and Lopez-Calix 2010).

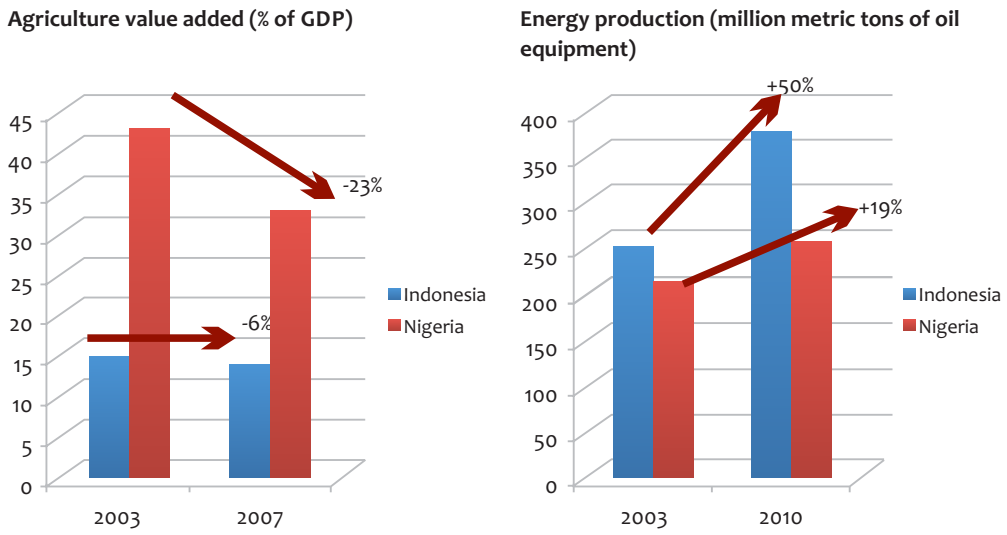
The second lesson from other countries is the ability to maintain good macroeconomic management during periods of boom. Lessons can be drawn from Chile, which is perhaps the best example of how to effectively manage a macro-economy through successful implementation of countercyclical fiscal policy, which stabilized the economy through high savings during the copper boom years and savings depletion during the periods when prices began to fall (Gelb, 2010). Malaysia provides another example, albeit not from the natural resource sector; we can learn from how the country imposed a special reserve requirement on the banking system to discourage diversion from agriculture and industry and into the property market (Gelb 2010).

The third lesson, which bodes very well for capacity development, is the finding that countries that have invested in building human capacity, such as Australia and Norway, have been better able to extract marginal value from their natural resources and deliver development outcomes in general (Bravo-Ortega and Gregorio 2007). Finland, for instance, has been able to manage its renewable forest resources by investing in quality education, science and technology, and have thus used investment in human capital to diversify its economy (Dahlman et al. 2007).

Africa can draw a fourth lesson from Indonesia, which engaged in active policies to encourage agriculture and avoid what happened to Nigeria, which allowed the booming oil sector to mute the potential in agriculture. From 2003 to 2010, Indonesia and Nigeria both faced a boom in oil prices that sparked an increase in energy production of 50 percent in Indonesia and 19 percent in Nigeria (figure 8.1). Indonesia protected its agricultural industry and managed to maintain its contribution to the economy with a slight reduction of agriculture value added as a share of GDP of 6 percent, which represented 0.75 percent reduction per year. Nigeria, on the other hand, saw a strong decline in agricultural value added to GDP of 23 percent, representing close to 3 percent decline per year, during the

same period. Indonesia managed to protect agricultural production due to the wise use of oil revenue to build rural infrastructure (Auty 1994), manufacture and distribute fertilizer at lower costs to farmers, and invest in community based programs of farmer education to spread ideas on new strains of rice from scientific research (Gelb 2010).

Figure 8.1: Indonesia and Nigeria—Different Capacities to Manage Diversification (2003-2010)



Source: Analysis using data from World Development Indicators.

A fifth lesson Africa can draw from relates to the partnership between the state and the private sector. The example of Chile illustrates the role that the state can play to support private investment in a sector it wishes to diversify. Benavente (2006) and Katz (2006) provide detailed descriptions of how Chile managed to bring in strong private sector involvement to grow the exports of salmon and wine. Under partnerships between the state and the private sector, the state provided the basic infrastructure, created space to coordinate small producers so they could go to scale, and promoted development and dissemination of standards so the industry could surmount the tremendous challenges in meeting the phytosanitary conditions of export markets, particularly in Europe. These are some of the examples from which Africa can learn. Cameroon has been able to develop such capabilities and can do more if the appropriate capacities are built as seen in the case of how it has tapped into the export of sophisticated food products (figure 8.2).

Figure 8.2: Cameroon: gaining leadership in fresh food exports and establishing a role in food processing

Diversified Economy:

- Cameroon jumped from the rank of 131 out of 184 countries in growth per year of fresh food exports (valued in US$) in 2006 to the rank of 50 out of 182 in 2010.

Rank	2006	2007	2008	2009	2010
Fresh Foods	131	152	144	55	50
Processed Foods	139	130	54	19	20

Sophisticated Economy:

- Cameroon jumped from the rank of 139 out of 162 countries in growth per year of processed food exports (valued in US$) in 2006 to the rank of 20 out of 168 in 2010.

Source: Léautier, F. (2012) Leadership in a Globalized World: Complexity, Dynamics and Risk. Book Manuscript Mimeo

A sixth lesson relates to financial capacities. To this end, it is necessary for resource-rich nations to reinvest the proceeds from resource extraction to yield an income flow over time, ensure the future and act with a long-term vision. It has already been stated that to develop a trust fund approach can be a positive solution that generates an income stream used for critical investments in human capital. This requires a capacity to choose the right approach and the capacity to put in place the governance mechanism to manage the trust fund. "On-shoring" of value added activities is then the first step: building a value chain, and encouraging investment along the value chain. This requires again the capacity to map out the critical areas for support in a given value chain.

Finally, regional economic integration between different types of economies is crucial for complete success in the diversification process. This means building the requisite capacity to manage agreements and programs across countries and cross-border policies. To achieve this, a real collaboration between governments and a concerted policy creation and implementation is required. This integration is especially needed to implement international trade agreements: an optimal way to encourage regional trade and fill national gaps in this domain.

8.4 Use of Natural Resources in Conflict Recovery Scenarios

There are variety of approaches that can be helpful in managing conflicts related to natural resources, including pre-empting conflict, conflict resolution, and extraction from a conflict scenario (Ballentine and Nizschke 2005; Jensen and Lonergran 2012; Bruch et al. 2011). While there are no easy or universal fixes to natural resource related conflict, this section briefly describes some of the efforts that have made positive contributions.

a) ***Standards:*** While not initially developed for explicit use in natural resource projects, standards can help to ensure that companies investing in extractive natural resource settings are able to seriously consider the social aspects of natural resource projects and contribute to pre-empting the onset of conflict, as well as engage in recovery and peace building by supporting economic, social and development opportunities (Shankleman 2012). Such standards provide a useful set of tools that can move investment in the natural resource sector toward a stronger contribution to the recovery of war affected countries. They can provide a framework that enables investors to be more aware of the difficulties and complexities of conflict environments (Shankleman 2012).

While the standards are voluntary, adherence to them is often a condition in order to receive funding from banks. And while the issue of compliance with foreign companies' own country of origin laws with regard to local communities is one that governments and investment companies struggle with, it would nevertheless help if the legal environment in African countries endowed with valuable naturals resources were significantly strengthened to include the requirements that are part of the standards (Shankleman 2012). It would also be beneficial for Africa to have standards and compliance mechanisms at the regional level. In this regard, the African Union could come out strongly in favor of compliance with host country laws and regulations regarding extraction activities, as well as institute a monitoring and compliance office able to liaise directly with both government and investors. Within the AU, the New Partnership for Africa's Development (NEPAD) is particularly well placed to engage the resource extraction issue in member states. Regional African institutions are also well placed to participate in the monitoring and evaluation of extraction activities. Organizations such as the Southern African Development Community (SADC) in Southern Africa, the Inter-Governmental Authority on Development (IGAD) for the Horn and East Africa, the Economic Community of Western African States (ECOWAS), along with organizations such as the Nile Basin Initiative, all offer significant potential in enhancing capacity, monitoring, evaluation, and assistance with regard to the natural resource extraction sector.

Three sets of standards are useful for extractive natural resource project in general, and for projects in post-affected settings especially (Shankleman 2012): 1) the International Finance Corporation's Performance Standards on Social and Environmental Sustainability (IFC-PS), which take safeguard policy standards as applied to the World Bank in the 1990s and seek to apply them to the private sector (IFC, 2006; Shankleman 2012); 2) The Equator Principles (EPs), which were developed by commercial banks together with the IFC and generally are aligned with previously established IFC standards (Equator Principles, 2006; Shankleman, 2012); and 3) The Voluntary Principles on Security and Human Rights (VPSHR, or

VPs), which were developed by the United States and United Kingdom together with input from a few oil and mining companies and international NGOs (Shankleman, 2012).

The three standards refer to each other: the IFC-PS refers to the VPs, and the EPs incorporate the IFC-PS. The primary advantages of the three sets of standards as tools for dealing with the various aspects of conflict, including peace building, is that they can set reference points for other investment and business practices in the host country. The time that is spent to plan projects so that they are able to meet the standards, and the amount of information that is disclosed, together with the extent of the consultations that are held, all contribute to greater capacity building. This occurs among host-country government officials, the business sector, local communities, NGOs, and consultants regarding the potential impacts of projects and about the need for international standards in order to avoid conflict and effectively resolve conflict (Shankleman 2012). The enhanced capacity can then contribute to revising and updating environmental and natural resource exploitation laws—as in the case of Angola under a joint project between the African Development Bank and the government of Angola (Shankleman 2012). By building capacity in host countries in this way, the standards can contribute to laying the foundation for effective, sustainable regulatory systems (Shankleman 2012). Furthermore, being well versed in the operation of the standards can build capacity for dealing with a variety of problems. In the case of a DRC mining project in which vehicles were appropriated from a company working in the area to transport troops, the company in question, together with its lenders, engaged in an analysis of the issues and developed a new security arrangement so as to prevent a repeat of the event (Shankleman 2012). The same company then shared its manuals and training techniques with other mining companies in Katanga as well as internationally (Multilateral Investment Guarantee Agency, Japan Environmental and Social Challenges Fund, and Anvil Mining 2008).

b) ***Reappraisal and renegotiation of resource exploitation contracts:*** The reappraisal and/or renegotiation of natural resource contracts is an approach that can raise public funding, encourage transparency and accountability improvements, and contribute to monitoring environmental and social impacts in the natural resources sector (Le Billon 2012). In addition, the cancellation of badly operated concessions can attract better quality investments and investors. Further, the reappraisal scheme in-place can provide for enhanced recovery outcomes, allowing the change in project operation as different phases of recovery occur. They also can increase trust and legitimacy of the government through enhanced capacity (Le Billon 2012), which is important after a war when the government can be lacking legitimacy. Such reappraisal can be used to regain control of assets gained illegitimately during conflict, and for prohibiting assets from being used to further armed

conflict. For example, to combat profiteering from war, the United Nations Security Council has made significant use of asset freezing, in which assets can no longer be accessed by their owners, thereby prohibiting the use of such funds to further conflict. Again, UNSC has pursued asset recovery activities in which specific assets are returned to their rightful owners or reallocated to others who require compensation (Le Billon 2012). The recovery of assets is undertaken not only to increase revenue for postwar recovery, but also to present a signal that impunity with regard to war profiteering is at an end so as to discourage banks and natural resource extraction companies from continuing to participate in forms of resource looting (Le Billon 2012).

c) ***Natural Resource Funds (NRFs):*** The use of NRFs is an approach that facilities the use of resource revenue for specific conflict—recovery purposes, such as to stimulate economic development, for compensation, or to manage the volatility of markets and contribute to development objectives (Bell and Faria 2007). The more effective NRFs stipulate the types of revenue sources and which projects the sources come from, as well as how much is to be spent and what it is to be spent on. Transparent and publicly available information on these aspects of NRFs add to their effectiveness. Detailed records regarding payments and withdrawals, can, when made public, ensure oversight. So as to remove the NRFs from domestic political pressures and temptations, one approach is to have the fund administered from abroad. For example, the oil fund of São Tomé and Príncipe is administered by the New York Federal Reserve (Bell and Faria 2007; Radon 2007). While administering such funds from abroad works in some cases, in others it does not. The resource fund set up by Chad together with ExxonMobil and the World Bank is one such example. In this case, not only did Chadian politics thwart the intended operation of the fund, but the World Bank administered the fund poorly and ExxonMobil did not place the needed priority on the fund (Coll 2012).

d) ***Leveraging high-value natural resources to restore the rule of law:*** This approach seeks to use the high-value natural resource sector (and access to it by domestic and international commercial interests) to re-establish strong rule of law after conflict. It uses the desire for access to high-value resources by commercial interests, and the political/diplomatic counterparts in their home countries, as a way to get support for the establishment of rule of law programs. The rationale is, if the commercial interests want access to resources in a way that provides for a competitive bidding process (which is how they normally operate and where their strengths lie) then they need to assist in establishing the process of open competition and rule of law. As an example, the government of Liberia took significant steps toward restructuring the forestry sector while at the same time mitigating threats to peace being made by certain commercial actors who wanted to continue with unfettered access to high-value timber resources

(Altman et al. 2012). The reforms represent significant and formidable steps toward re-establishing the rule of law in Liberia. What has made it work include strategies such as notice-and-comment rule making, social agreements, and benefit sharing, along with transparency and the application of prescribed legal procedures, such as planning, granting concessions, and allocating benefits. These are aimed at building capacity in government and hence inspiring greater trust in government from the general population (Altman et al. 2012). In addition, open and lawful commercial transactions that exist in a new accounting system, transparent reporting requirements, and the chain-of-custody system for timber are intended to create the opportunity for competition between commercial interests, and for real development—and, most importantly, will remove timber as a source of funding for renewed conflict (Altman et al. 2012).

e) ***United Nations initiatives to regulate access to resources:*** Beginning in the late 1990s, the United Nations Security Council has used sanctions, expert panels, and peacekeeping forces in order to try to manage the relationship between high-value natural resources and conflict (Rustad et al. 2012). The strength and influence of UN missions and the UNSC on the natural resource sectors in conflict-affected countries has increased as the number and diversity of the interventions has grown. Since the mid-1990s, seven sanction regimes have included high-value natural resources, and these have become increasingly effective due to improved targeting and increased awareness and diligence on the part or resource importing countries and companies (Rustad et al. 2012). In addition, the practice of "naming and shaming" efforts of UN expert panels and NGOs such as Global Witness and Partnership Canada has increased the effectiveness of sanctions. For eight wars between 1999 and 2007, expert panels dealt with high-value resources (Rustad et al. 2012). The work of these panels has included assessments of resource management—for example, determining compliance with international certification regimes such as the Kimberly Process or compliance with host country laws for resource exploitation—as well as evaluating the transparency of contracts or revenue (Rustad et al. 2012).

f) ***Transparency and accountability initiatives:*** As noted earlier in this Report (see Chapter 3), the EITI was designed to monitor transparency in the oil, gas, and mining sectors and is the most widely known of transparency initiatives (Rustad et al. 2012). In Liberia, the EITI increased the awareness of the public with regard to revenue flows and has enhanced greater participation in civil society (Rich and Warner 2012). While participation in the EITI is voluntary, by 2012, out of 18 countries that have implemented the EITI protocols globally, 10 of these were African (Mauritania, Mali, Zambia, Mozambique, Tanzania, Central African Republic, Ghana, Liberia, Niger, and Nigeria). Another nine African countries are candidates for compliant country status, having implemented some of the protocols but not yet

satisfying all requirements (EITI 2012). A number of additional initiatives are attempting to extend EITI-like transparency conditions to government expenditures and also to make available to civil society at large information regarding exploration and exploitation contracts, along with prices agreed to between companies and governments (Rustad et al. 2012). Among these, the Natural Resource Charter includes transparency as one of its central objectives, and the European Union's FLEGT initiative is intended to increase transparency in the forest extraction sector by widely publishing information on audits and the allocation of rights (Brack 2012; Rustad et al. 2012).

g) ***Compensation efforts:*** While peace processes and peace agreements generally cannot make compensation a priority, specific compensation efforts drawing on revenue from natural resource extraction can have a large influence on avoiding reigniting tensions and conflict (Rustad et al. 2012). For example, in Iraq, in order to compensate specific ethnic and religious groups that had suffered under the Saddam Hussein regime, the new 2005 constitution awarded such groups a larger percentage of oil and gas revenue (Al Moumin 2012). Compensation efforts are variable and can be quite innovative. In Sierra Leone, one model under consideration would require companies to finance environmental cleanup through a remediation bond, which would be paid before extraction begins (Rustad et al. 2012).

h) ***Coordination of commercial interests and local communities:*** There is a great deal of potential in the coordination and mobilization of extraction firms and local communities to create synergies on the ground. With the realization that a thriving and supportive local community is often the best guarantee of successful business ventures, extraction firms can provide, or at least advocate to government for, improved socioeconomic development. By providing jobs and constructing water points, roads, and other infrastructure as part of extraction projects, they can support and reinforce a variety of peace building priorities, such as security; reviving local economies; reintegrating former combatants; and ensuring access to water, food, and basic services (Rustad et al. 2012). It should be noted, however, that such commercial–community coordination would ideally be a subset of a broader coordination effort involving the state that sets out precise and binding obligations with regard to who will provide what, and with associated accountability.

i) ***A regional approach outlining normative and NRM policy frameworks:*** The potential and gains from this are numerous and include opportunities for sharedlearning, coordination of policies and practices, and regional law enforcement (anti-criminal) systems in the natural resource value chain. Existing bilateral agreements, regional integration schemes and the African Union's CADSP framework provide platforms for a regional approach and for transforming

normative frameworks into practical policy initiatives. Similarly, existing voluntary initiatives (EITI and PWYP), already used at national levels, could be adapted and adopted as regional natural resource governance systems.

8.5 Mapping a Way Forward for Africa

8.5.1 *Are shortcuts possible?*

While broad capacity building of all actors (for example, investors, civil society and government) is desirable, it is usually unrealistic in the timeframe of resource exploitation priorities and processes, and in particular given the other needs that prevail in the African context. What is needed are more focused approaches able to attend to near-term capacity problems, particularly in the acute settings of fragile and conflict-affected countries, while at the same time pursuing deeper institutional capacity development in the broader set of African countries. Where tensions are high, it can be dangerous to build capacity for a party that resides on only one side of a set of tensions and not the other. At the same time, if one side enjoys enhanced capacity over another, then the prospect for taking advantage of the lower capacity actors is enlarged. The United Nations has done considerable work on this problem of capacity imbalance, particularly in the context of peace negotiations, to which high value resources always relate. One shortcut in acute settings, then, would be to enhance capacity of opposed sets of actors, who will be able to act as checks on one another. A second option will be to begin capacity building with the lower capacity party. Of course, one caution in doing this is to possibly expose the effort to accusations of taking sides in whatever the tense issue may be. By selecting specific issues that are the subject of high tensions, and then building capacity on both sides of the issue, a targeted capacity development effort can be deployed.

8.5.2 *Continental and international actors*

a) ***Development Agencies:*** Since the early 1990s, African and other international development agencies have, through multilateral and bilateral aid, become increasingly involved in the natural resource sector and its exploitation. For example, the UN Security Council has issued resolutions with significant repercussions for resource sectors, along with the imposition of sanctions and supervision regimes (Rustad et al. 2012). Thus UN peacekeeping missions have occasionally administered, in a transitional way, the natural resource sector, as in East Timor and Kosovo. In addition, specialized UN agencies, FAO, UNDP, and UNEP are becoming more active in reforms of institutions and capacity building in many conflict-affected countries, such as the Democratic Republic of Congo, Sudan, and Sierra Leone. Both the World Bank and the International Finance Corporation have provided significant support for resource management reform and assistance, for example with the drafting of the mining code in the Democratic Republic of Congo (Rustad et al. 2012).

A number of development agencies actively and directly engage in encouraging reform of the extractive resources sector. USAID has conceived programs to promote awareness of certain conflict

commodities, such as timber; DfID encourages adoption of the EITI; and the IMF was among the first to encourage transparency of revenue flows in Cambodia for logging and in Angola for oil. Regional organizations, like the European Union, have pursued improved regulation of market access, most notably for timber (Brack 2012). The United States and the European Union also participate in the Kimberley Process in the regulation of the diamond trade (Wright 2012). Conditions imposed by aid giving nations can be, depending on the situation and how they are issued, an important and time-sensitive instrument in conflict-affected settings (Rustad et al. 2012). In the immediate post-conflict period, when countries are most dependent on external aid, development agencies can exert a great deal of influence over reform of the resource extraction sector. Development agencies might encourage or pressure domestic authorities to conduct contract reviews and undertake initiatives to increase transparency, accountability, and public participation along with the establishment of safeguards for revenue collection and expenditure. However, in countries with high-value extractable resources, the leverage sought by aid conditions can easily be undermined. Such conditionalities for reform can be bypassed due to large volumes of revenue available from actors who sign contracts outside established protocols (like direct investments by non-OECD countries) and the role of other important actors providing resources to Africa, such as the BRICS countries.

In many cases, development agencies can encourage conflict-affected countries to pursue a quick increase in resource revenue. However, once revenue begins to flow, domestic authorities can choose to bypass reform and capacity-building initiatives in the hope that the quickly gained resource revenue will resolve the country's problems (Rustad et al. 2012). In a number of cases, this has proven to be a significant error, because the combination of weak institutions and a resource boom can easily worsen the resource curse. To avoid such a scenario, aid conditionality should focus on resource sectors, and development agencies need to provide governments with the capacity to carry out reform. Unfortunately, however, although bilateral development agencies have significant budgets, little of that money is usually put toward capacity building in government. In Sierra Leone, for example, less than 10 percent of the US$13 million allocated for diamond reform by the United States and the United Kingdom aid agencies was used explicitly to build government capacity (Le Billon and Levin 2009). Strictly investment driven interactions with host governments can aggravate the capacity situation by importing their own skills force—sometimes including manual labor such as the case of Chinese interests.

One significantly negative influence that can undermine the bilateral aid relationship is the attempt, on the part of development agencies, to advantage the interests of their own nation's extractive commercial interests. This produces two

fairly frequently encountered problems: 1) competition among development aid givers with commercial interests; and 2) potential collusion among development partners, such as the priority to have the oil sector be completely open to foreign companies. The reality is that limited resource exploitation opportunities offered by the host nation can indirectly weaken support—financial, diplomatic, and military—from these aid givers, who can be less inclined to provide robust assistance to countries that are experiencing a resource boom but do not offer significant trading opportunities. Thus commercial interests, often together with their development agencies, may need to compete with each other by offering to build infrastructure in return for access to resources (Le Billon and Levin 2009). Such a situation highlights the approach of China in Africa—an approach that is less donor driven and more trade driven. The astute host country government, however, can use such competition to its advantage by encouraging competing bids that offer an array of benefits to governments and civil society. While some African governments are already quite good at this, capacity development for those who are not would be worthwhile.

b) ***The Kimberley Process and similar mechanisms for other commodities:*** Commodity-tracking systems, which trace the path of high-value commodities from source to production to market, can have the purpose of reducing the value on the market of non-certified commodities by making them difficult to sell (Rustad et al. 2012). The overall idea behind such tracking systems is that they formalize previous informal forms of exploitation, transport, and trade and thus can be controlled so as to curtail illegal resource exploitation and direct more revenue toward the state (Rustad et al. 2010).

As mentioned earlier, the Kimberley Process Certification Scheme is the best known and most fully developed of the now several tracking systems (Grant 2012). Its success derives from the fact that it brings together as equal partners governments, civil society, and the diamond industry (Wright 2012; Bone 2012). As the number of Kimberley certified diamond producing sites increased, greater revenue flowed into state coffers and contributed to recovery and peace building (Mitchell 2012). However, in countries where certification capacity is low and corruption is high, the process has had less success, which highlights the important role that capacity development has in the performance and effectiveness of the certification scheme (Mitchell 2012).

From the success of the Kimberley Process Certification Scheme, other commodity-tracking schemes were derived. One of these is the Forest Law Enforcement Governance and Trade (FLEGT) initiative of the European Union. This process encourages countries endowed with high-value timber resources that export to European Union markets to comply with a voluntary timber-licensing system (Brack 2012). In exchange for compliance, the European Union is then able to fund forest sector

capacity building and institutional development. By August 2011, Cameroon, Central African Republic, Ghana, Liberia, and the Republic of the Congo had all concluded negotiations with the European Union; the Democratic Republic of Congo and Gabon had begun negotiations; and Côte d'Ivoire and Sierra Leone had expressed interest (Brack 2012).

Another certification scheme is the ***Organization for Economic Co-operation and Development's (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.*** This guidance is intended for commercial interests involved in mineral exploitation and trade and is meant to help these interests protect human rights while they avoid contributing to conflict (OECD 2011). The guidance applies to all parts of the supply chain that reside in conflict-affected and high-risk areas, and it specifies the activities that firms need to take to be in compliance including the following (Brack 2012):

- Freezing or stopping trade operations with questionable suppliers;
- Exercising leverage over suppliers in order to bring them into compliance;
- Establishing relationships with local government, which is involved with implementing the standards;
- Transparently reporting on the findings of due diligence examinations and on the measures that were taken to guarantee compliance with the guidelines.

The OECD guidance was first endorsed in 2010 by the International Conference on the Great Lakes Region (ICGLR 2010), an intergovernmental organization that works on sustainable peace and development in the Great Lakes Region.

Another commodity tracking scheme, from the United States, is the ***Dodd-Frank Wall Street Reform and Consumer Protection Act,*** whose purpose is to curtail the marketing of conflict minerals, such as coltan, and is aimed specifically at the Democratic Republic of Congo. The law requires any U.S. company that purchases specific minerals from the Democratic Republic of Congo or bordering states to engage in a process of due diligence and to provide detailed information about the chain of custody to the public at large and the U.S. Securities and Exchange Commission (Kersch 2010). Yet another initiative is the Tin Supply Chain Initiative (iTSCi) of the International Tin Research Institute. This is an industry-based scheme, designed to track the tin supply chain, also in the Democratic Republic of Congo, from the mining location to the export point (Pistilli 2010).

Countries need the capacity to measure, monitor, track, and assess a variety of supply chains in order to ensure compliance with these initiatives aimed at transparency.

c) ***International "spoilers"***: While the notion of the spoiler is well known in conflict-affected situations, usually this is thought to be a local, domestic actor who is attempting to profit in some fashion from continued instability. There are, however, a good number of international actors that can engage in spoiler behavior. These can be individuals, groups, or firms that seek to connect with

whoever appears to have local control over high-value resources or can facilitate the logistical and power arrangements necessary to extract the resources and get them out of the country. During wartime in Sierra Leone and Liberia, members of international organized crime rings were regular visitors and were engaged in trafficking of a number of commodities. Semi-legitimate business interests in logging and other forms of extraction also were present during and after the West African wars, and sought to maintain their entrenched positions and control over certain vulnerable points in the supply chain. In addition, certain international commercial interests are quite adept at operating in unstable settings, and while they may or may not themselves engage in spoiler activity, out of necessity they engage in a wide variety of relationships with others who may be reluctant to give up exploiting a lucrative arrangement. The capacity of countries to spot and regulate such spoilers is a key requirement, which can also be aided by international blacklisting mechanisms and policing institutions like Interpol.

8.6 Conclusion and Policy Actions

The enormous potential for natural resources to benefit African societies is clear. However, the challenge with management has and continues to detract significantly from this potential, and in a number of cases has resulted in worsened situations of criminality, conflict, dislocation, and underdevelopment. The primary avenue proceeding from the resource curse to realized potential is through capacity development. This is because it is the management of the resources which will determine if broad prosperity is realized. The hurdles are formidable but certainly not insurmountable. Cases exist where success at managing natural resources is evident—Botswana and South Africa being notable examples, and Liberia and Sierra Leone presenting spot examples of success.

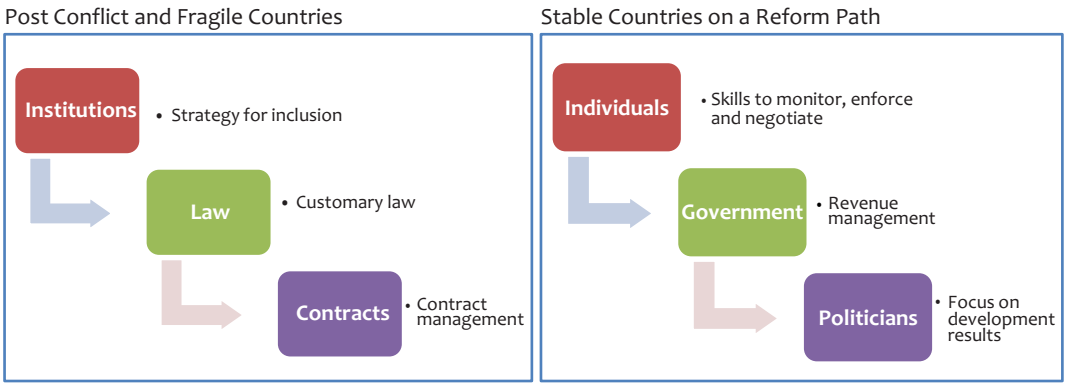
While capacity development is needed broadly across a range of issues and countries in the context of natural resources management, a capacity development strategy is also needed for a variety of reasons. Among these is the fact that it can be dangerous to build capacity in an unbalanced way among actors who are in a relationship of tension, especially over resources, or are emerging from armed conflict. The specific aspects of capacity development will need to be thought out in the context of sequencing. In different cases, it may be more appropriate to pursue capacity development in institutions first, as opposed to individuals. In other situations, it will be better to invest first in capacity of law, as opposed to capacity of government. Many cases will require capacity development for customary communities and for investors, and how this occurs, how long it will take, and the approach taken will be different for dissimilar countries.

The different aspects of capacity are linked in terms of desired outcome. For example, it may not be worthwhile to build capacity for reviewing resource contracts in a comprehensive manner when the capacity for acting on the results (political will) is lacking (Lujala and Rustad 2012b). Thus, knowing what these linkages are can be a good indicator of where to start in the capacity development process with regard to natural resource management. With improved capacity, African countries will experience the

benefits of sound resource claim, use, and exploitation.

As highlighted in figure 8.3 below, the linkages for post-conflict and fragile states (for example, Democratic Republic of Congo, Liberia, or Nigeria) will vary significantly from those for stable countries on a reform path (for example, Ghana). Accordingly, it is critical to map out how to most effectively use a combination of approaches in the pursuit of development objectives. Deriving, regularizing, and formalizing the right mix of approaches to natural resource exploitation can support exploitation objectives and go a long way to ensuring sustainable natural resource use across Africa.

Figure 8.3: Key linkages for NRM in post-conflict/fragile vs stable countries



The political will to engage in capacity development in a sustainable manner across diverse ethno-cultural, religious, geographic, socio-economic, linguistic, autochthonous, and migrant populations will require leadership to take the long view. This will involve building capacity among groups that are historically (or currently) opposed to each other. With some groups in positions of greater power than others (based on, for example, their role in government, numerical advantage, or claims to resources) building capacity in a balanced way can be difficult, while at the same time not doing so runs the risk of aggravating other problems, among them effective natural resource management.

While political will at the topmost positions of government is important, such political will can be very effectively applied at many levels of government and civil society, in a wide variety of training and education settings. Small examples of political will often can have significant repercussions, both because those engaged directly in capacity building will have a number of students or trainees from different parts of society, and because examples set in capacity development environments can have ongoing effects. While history has shown that broad capacity gains in a society do not always result in predictable outcomes (certain economic alliances or forms of government), it does facilitate the economic and political self-determination needed for countries to navigate their own way in a world where effective management and exploitation of natural resource endowments will become increasingly important.

Chapter 9

Natural Resource Management Policies for Africa—Getting it Right, Protecting the Future

9

Natural Resource Management Policies for Africa—Getting it Right, Protecting the Future

9.1 Introduction

Many African countries are undoubtedly endowed with natural resources. Despite their potential to improve the socioeconomic conditions of their citizens, and contrary to expectations, natural resources have not always had a positive impact on many countries' development trajectory. In fact, some natural resource-rich countries have been bedevilled by conflicts, civil wars, and observed instances of mismanagement that have a direct connection to natural resources discoveries and exploitation. It is in this regard that adopting the right measures and policies is crucial to ensuring that natural resources become a blessing in Africa. Initiatives such as the Natural Resource Charter, Kimberley Process Certification Scheme and Extractive Industries Transparency Initiative are a positive first step; however, these initiatives face challenges, the most significant being their voluntary nature. Based on the evidence presented in preceding chapters, this Report submits that capacity development programs, institution building, and the promotion of good governance—as seen, for example, in Botswana—represent the most significant step toward the efficient management of natural resources in African countries. Good governance does not come about easily, but it must be effected through transformative leadership and incentives (de Soysa 2011; Arthur 2012a; Puplampu 2012). Ensuring that the benefits from natural resources are equitably distributed will be a step in the right direction in terms of ensuring that good governance is attained in resource-rich African countries.

As highlighted throughout this Report, several countries across the globe have successfully managed to effectively mainstream natural resource governance as an engine of growth. It is thus not beyond African countries to achieve this feat. However, crucial policy actions are required to succeed. First, the current gaps in human, institutional, and infrastructural capacity must be addressed. For instance, governments must invest in empowering institutions and individuals to secure the requisite skills for effective natural resource management and governance. There is also need to develop indigenous technical capability to enable countries to independently map out and explore known and unknown natural resource deposits; appraise finds; properly evaluate their worth; and evaluate investor work plans so as to maximize the real rate of recovery and return from natural resources. Appendix 3, attempts to succinctly capture the capacity gaps as well as propose solutions. Invariably, capacities built in these strategic areas will help advance the real and potential revenue accruing to the country from natural resource endowments and minimize seepages.

9.2 Fostering Good Governance—transparency, accountability, rule of law, and participation

One of the first steps to promote efficient and effective natural resource governance is to pursue policies that ensure that **benefits are equitably distributed.** As the inequitable distribution of benefits contributed to tensions and violence in countries such as Nigeria, Liberia, and Sierra Leone, successful resource management will be dependent on how benefits accrue to citizens and the communities where the natural resources are located. By ensuring that some of the wealth from natural resources is repatriated to the communities in the form of productive community projects, countries can lay the foundation for effective resource governance. In Nigeria, for example, actions devoted to resolving the conflict in the Niger Delta must encompass providing public goods, initiating infrastructure development projects, and instituting income-generating investments to help protect the communities in the region against some of their social and economic challenges and problems (Ahonsi 2011). Thus, it is necessary to formulate a strategy by which both national and local economies can benefit from a more effective and sustainable form of exploitation of natural resources. The essence of such a strategy is that it should ultimately be in the interests of communities to operate both efficiently and transparently in the natural resource sector. But this will occur only if a fair proportion of the benefits are returned to local people and if, both nationally and locally, there are tangible gains from natural resources (Maconachie and Binns 2007).

Botswana, for example, not only has established a rainy day fund to hedge against future unexpected economic shocks, but has also used its diamond resources to invest heavily in the health, infrastructure, and education sectors. Public health facilities are distributed across the country and are now close to providing antiretroviral therapy to all citizens infected with HIV and in need of antiretrovirals. Thousands of miles of paved and well maintained roads allow travelers to move effortlessly throughout the large country. Free public education is provided to all children up to age 13, after which only a small tuition fee is required. Government finances almost the entire cost of the education of 12,000 students to study at the University of Botswana. Another 7,000 young persons study overseas on full government scholarships. High quality game parks and wildlife management areas cover one third of the country and generate substantial tourism revenue (McFerson, 2009a:1543). The situation in Botswana suggests that the country's approach is in keeping with the decision chain and precepts advocated in the Natural Resource Charter. Moreover, by collecting and efficiently managing the revenue and investing for development, Botswana is demonstrating how good natural resource management and governance can address social inequities and improve the lives of citizens.

As shown in previous chapters, other countries have made tremendous progress as well, if not as comprehensively as Botswana. These include, but are not limited to, Liberia in the forest sector reform. This is noticeable in the reform of policy formulation, institution building and operational responses in curbing corruption and insecurity and reducing transnational illicit timber trade. Another post-conflict state, Sierra Leone, has made remarkable strides since the return of peace and stability by putting in place relatively effective institutions and realizing economic growth, which has been driven by natural

resources, including iron ore (World Bank 2012b).Sierra Leone, today, presents a spot example of success. In Mozambique, after an audit of investments between 2002 and 2008, the National Directorate of Lands and Forests cancelled or reduced the land area of 1500 investor contracts due to non-compliance with their investment plan (Hanlon 2011). In Ethiopia, government is funding projects aimed at building capacity for the staff of higher education institutions in the area of natural resource management and eco-tourism.

Relatedly, Nigeria in 2007 became the first candidate country with a statutory backing for the implementation of EITI (Idemudia 2009). Again, Nigeria together with Angola have both launched Sovereign Wealth Funds recently, and many more nations who have just discovered resource wealth—Tanzania, Uganda, Ghana, Mozambique, and Kenya—have established or are planning to establish such a fund. These developments, are not only a powerful sign that African nations are embracing fiscal prudence and taking charge of their destiny; it also helps keep society's attention on the extractive industry (Giugale 2012). These efforts need to be continued to enhance the chances that resources will benefit development.

Good governance affords a second means by which effective and efficient natural resource management can come about in Africa. A system of governance based on the **rule of law, transparency, and accountability** can address some of the challenges associated with resource mismanagement in African countries (Collier 2010b; Arthur 2012b). Transparency is a critical factor in reducing corruption and other dysfunction related to the resource curse (Idemudia 2009). The strategy linking transparency with accountability is based on the assumption that the greater the transparency around natural resources revenue earned by African states, the greater the opportunity and possibility for these governments to be held more accountable for the use of such revenue. Similarly, as the AUC/AfDB/ECA (2011) note, transparent and participatory governance processes at all levels can assist mineral-rich countries in attaining sustainable economic growth and socio-economic development. This is because public participation gives legitimacy to a project and reduces the costs and risks emanating from the social tensions that can result from an externally imposed project. In fact, the idea of accountability in resource management is consistent with the need for citizen transformation, which is one of the cornerstones of NEPAD's Capacity Development Strategic Framework (CDSF), and which calls for an informed and organized citizenry that demands accountability and quality service.

Moreover, the existence of transparency and accountability ensures that political elites do not take advantage of their position to enrich themselves and family members through corrupt sub-contracts and oil trading practices while the rest of society is marginalized and impoverished (Arthur 2012b). It also ensures that revenue from natural resources is not controlled by ruling cliques and government officials who enter into convenient negotiations with companies operating in the resource sector. The promotion of good governance helps not only to mobilize and enhance the performance of the untapped potential of many African countries, but more importantly, to achieve the Africa Mining Vision (AMV) and CDSF's goal of leadership transformation and utilizing African skills, potentials, and resources for development. If governance structures and institutions are transparent, strong, well

defined, and functioning as society expected, the prospects for proper management of natural resource revenue are enhanced, and revenue from natural resources will become a source of blessing for African countries (Gary and Karl 2003). It is in this regard that resource-rich countries that are already engaged on the road to promoting good governance represent a vital opportunity to transform Africa's natural resource landscape. These countries merit energetic international support so that they can reset their institutional incentives toward accountability and away from the norms they have inherited (Siegle 2005:50).

As stated earlier, nowhere has a positive resource management strategy been more evident than in Botswana, where the establishment of strong and transparent governance structures, anti-corruption systems, and integrity of public institutions has contributed to economic success. In addition to establishing a well-functioning judicial system that respects property rights and the rule of law, it has adopted a consultative process in its decision-making process that involves traditional authorities (Hillbon 2008; McFerson 2009a; Taylor 2012). Aside from that, there exist independent, professional, and competent institutions, and there are clear rules as to how discontents ought to be monitored and dealt with in a manner that ensures that all have some share in the diamond resources (Gyampo 2011). Other countries have made progress in this regard, as well. Consider the achievements of Nigeria in involving civil society in the oil sector and Liberia's approach to increased transparency in the logging industry.

Furthermore, given the capacity constraints that many African countries face and the critical technical challenge they present to the African natural resource sector's competitiveness (AUC/AfDB/ECA 2011), providing**training and other capacity development programs** for state and non-state actors in resource-rich African countries can complement the good governance process and thus be a key part of efforts to ensure efficient and effective resource management.

When a country has a paucity of the trained and skilled human resources required to tackle its particular problems, it struggles to resolve its development challenges (Ahonsi 2011). For example, Nigeria's ability to resolve the violent conflict in the Niger Delta will require considerable investment in human capacity and institutional strengthening (Ahonsi 2011). By developing capacity, being well-informed, using knowledge and analysis, and striving to achieve what NEPAD calls in its Capacity Development Strategic Framework (CDSF) a knowledge-based and innovative-driven decision and development process, African countries can improve their individual and institutional performance. For this reason, one cannot underestimate the important role of universities and other tertiary institutions in efforts to achieve the goals, objectives, and cornerstones of the CDSF and AMV. Increasing funding to universities and research institutions and providing training and capacity building programs in negotiations, agreements, and dispute settlements, among other areas of expertise, will allow African countries develop the practical knowledge and skills that can ultimately help them with natural resource management (Arthur 2004). There is thus the need for African countries to develop initiatives and policies that will address the lack of capacity at all levels, and thereby offer opportunities for local expertise to actively participate in and manage the natural resource sector.

To realize this, it is important to increase the number of graduates with training in natural resource management and foster an institutional and supporting environment that enables those in the sector to thrive in their work. Moreover, programs should be created to build the capacity of research institutions and establish a positive relationship among the research institutions and workers in the resource sector through a process by which trained technical extension specialists serve the resource sector. Support for management training at the tertiary level will help provide the necessary expertise and working professionals involved in the natural resource sector.

To improve capacity development in the resource sector, the Africa Mining Vision proposes **increased investment in improving the resources knowledge infrastructure.** This will ensure that resource-rich African countries know not only the actual level and quality of their natural resource potential, but also the optimal strategy for determining and collecting adequate rent. Another goal should be creating African capacity to sustain auditing, monitoring, regulating, and improving resource exploitation regimes and developing resource sector linkages into the domestic economy. The Africa Mining Vision proposes that this can be facilitated by ensuring that there is a skills transfer dimension in all contracted consultancies during lease/license negotiations as well as a targeted policy around the development of such an ongoing resource governance capacity (African Union Commission et al. 2011).

In this vein, a welcome development in Ghana, for example, is the effort to build local capacity in the oil sector. According to Daily Graphic (2012), Tullow Oil Plc, Africa's largest independent oil company, in partnership with the British Council in Accra, launched the Tullow Group Scholarship Scheme to provide annual scholarships to 50 Ghanaians to pursue postgraduate programs abroad.The British Council manages candidate recruitment and selection according to criteria agreed with Tullow.A pilot phase of the scheme, which began in September 2011, provided funds to 24 Ghanaians from the public sector to enroll in master's degree programs at leading universities in the United Kingdom. The scholarship scheme aims to enable local people to participate in the oil and gas industry and other sectors that promote macro-economic diversification. The scheme will address both existing industry skills gaps and national capacity development requirements consistent with Tullow's aim of supporting long-term socio-economic growth in the company's operational areas. Additionally, as part of the effort to develop Ghanaian capacity in the oil and gas sector, the World Bank in 2011 approved a US$ 38 million concessional loan to the government of Ghana for implementation of an oil and gas capacity building project (World Bank 2011a). The project is intended to help improve public management and regulatory capacity and enhance transparency by strengthening the institutions managing and monitoring the sector. It is also expected to promote the development of indigenous technical and professional skills needed by the petroleum sector.

9.3 Addressing Dilemmas in the Natural Resource Value Chain

The Report findings suggest that there are five key crosscutting structural and proximate causes underlying inappropriate practices (thefts, misappropriation, corruption, and side-stepping official processes) in the natural

resource value-chain:

a) ***Weak capacity for official oversight of the natural resource sector***: In many resource-rich nations, there is a lack of capacity by the relevant government agencies to effectively monitor, regulate, detect, investigate, document, and impose sanctions where and when criminal practices occur in the natural resource value chain. In some cases, the basis of this lies in outdated and/or inadequate laws and regulatory regimes, with criminal syndicates either adopting more sophisticated methods to evade official detection or resorting to co-opting relevant officials.

b) ***Complicity of state officials***: Where and when some measure of capacity exists, evidence suggests, it is easily compromised by the active collusion of state officials. This underscores the extent to which official mismanagement is a critical factor in the perpetuation of unlawful acts in the natural resource value chain.

c) ***Poverty and material deprivation of local communities***: More often than not, the poverty levels in such communities are much higher than the national average, which makes resorting to a "self-help" strategy attractive to individuals in those communities. It is critical to understand the involvement of local communities and their inhabitants in the illegal exploitation of natural resources from this perspective, rather than purely from an unlawful, law-enforcement stance.

d) ***Insecurity and violence signposted by the activities of armed groups***: The onset, intensification, and sophistication in the illegal exploitation of natural resources have paralleled the proliferation of small arms and light weapons. Armed conflicts often mask the illicit tapping of natural resources and blur the divide between criminality and genuine protest against socio-economic, geo–political, and environmental injustices.

e) ***Globalization of economic production***: Globalization, marked by the increased demand for Africa's natural resources—generally referred to as the "new scramble for Africa" (Obi 2009)—and the resulting increase in prices have emerged as key variables in the expansion in illicit practices in Africa's natural resource value chain. Indeed, the rapid increase in illegal practices in Africa's natural resource sector appears to have started from the 1990s, a period synonymous with increased globalization.

The impacts of illegal practices in Africa's natural resource value chain, as captured in the Report, are fourfold. First is the apparent loss of official revenue as criminal networks and practices undercut the capacity both to collect, and to know the true the level of, revenue accruing to the government. Second is the onset or transformation of grievances into violence or the escalation of existing armed conflicts. Levels of violence tend to rise with increases in criminal practices in the natural resource value chain in Africa; criminality in the natural resource value chain often mutates into armed conflicts and vice versa. Third are the cross-border and regional dimensions and impacts. In Liberia and Nigeria, for example, criminal practices in the natural resource value chain encompass cross-border collaboration and region-wide networks

to transport and market stolen resources.

In addition, the insecurities generated by profiteering from the natural resource value chain do spill across borders, as underscored by the cross-border contagion effect of the conflict in Liberia in the Mano Basin area and by the spread of piracy in West African waterways. Fourth are the often hidden long-term impacts on the local communities, marked by the distortion and disruption of local economies (agriculture) and damage to environmental sustainability.

The landscape of policy responses to illegal practices in the natural resource value chain in Africa is characterized by at least five observations. First is that the core of policy responses have a national base, notwithstanding emerging international civil society led initiatives such as the Extractive Industry Transparency Initiative and the Publish What You Pay scheme. There is limited synergy between national, regional, and international policy responses to wrongdoing in the management of most natural resources in Africa. Second, current responses continue to be marked by the lack of genuine capacity to properly translate existing laws and policies into action or match the increasing sophistication of unlawful syndicates. Complex bureaucracies, lack of clarity, duplication of agencies and functions, limited coordination, and corruption also beset a majority of extant policy responses. Third is the focus on formal, government-led responses. Despite the imperatives of formal processes, there remain crucial limitations related to the need for formal processes to respond to or capture unofficial practices. In a majority of cases, there are gaps between legal and official approaches to natural resource management, informal practices connected with socio-cultural practices, and unresolved contestations over the ownership and control of natural resources. Fourth is the lack of a robust approach to addressing profiteering from the natural resource value chain by transcending law enforcement and addressing underlying socio-economic, political, environmental, and cultural issues. Fifth is the absence of concrete regional approaches and policies (notwithstanding fleeting mentions and debates at the level of the Regional Economic Communities). Moreover, efforts to address misconduct lack concrete action and are loosely integrated into economic, conflict prevention, and peace-building initiatives at the regional and continental levels.

There are, however, elements of extant policy responses that have proved effective or have the potential to address wrongdoing in the natural resource value chain:

a) ***Local perspectives and the participation of civil society groups are crucial to the success of sustainable efforts at addressing challenges within the natural resource value chain***: There is a distinction between a government led approach and local ownership; policy initiatives must reflect and be anchored on the perspectives, concerns, and interests of local communities and civil society groups. In Nigeria, for example, local communities' demand to be recognized as and given roles as stakeholders (as reflected in the draft PIB bill) in the oil sector has been crucial to resolving armed insurgencies and reducing sabotage on oil infrastructures, two things that aided bunkering. Similarly, the protests by civil society groups and local communities against aspects of the PUP initiative in post-conflict Liberia

underscore their role in the improved regulation of the logging industry. More important is the need to recognize informal socio-cultural practices and approaches to natural resource management in host communities and empower locals through incentives to move them into official realms (rather than simply outlawing and criminalizing their practices).

b) ***The development and implementation of regional approaches that outline normative and practical policy frameworks for natural resource governance in Africa***: The prospects and gains from this are numerous and include opportunities for shared learning, coordination of policies and practices, and regional law enforcement (anti-criminal) systems in the natural resource value chain. Existing bilateral agreements, regional integration schemes, and the African Union's CADSP framework provide platforms for a regional approach and for transforming normative frameworks into practical policy initiatives. Similarly, existing voluntary initiatives (EITI and PWYP), already used at national levels, could be adapted and adopted as regional natural resource governance systems.

9.4 Developing Coherent Frameworks Embedded in National Policies

Another critical step required to radically transform the African natural resource landscape is the need for well-articulated national integrated frameworks for natural resource value chain development for specific natural resources. Such frameworks should provide detailed step-by-step information on each existing natural resource being exploited, the expected relationship within the sector, and its relationship and use in the development of other activities. In addition, it should map out vertical and horizontal linkages. For crude oil, for example, detailed projects/programs should be established with regard to how components such as refineries, petrochemicals, and gas plants will be developed in an integrated way. Adopting a value chain approach will help domesticate the natural resource industry, create jobs for the citizenry, promote sustainable development, and advance the potential for global competitiveness of the specific natural resource industry.

Structured, systematic, and well-designed mechanisms for converting natural resource capital into more productive capital (physical, human, and financial) through public investment offer another meaningful way to mainstream natural resources management as a driver of growth. This, however, must be done with the short-, medium- and long-term needs of society in mind. As articulated in Chapter 6, African countries should continue to tap into international best practice models and learn from successful countries. To this end, the apparent interest in sovereign wealth funds is a welcome development. African states and stakeholders must continually seek new opportunities and policy options for translating their comparative advantage in natural resources into competitive advantage. Specific approaches include, but are not limited to, the following:

a) ***Invest in capacity development and expansion of the natural resource base with a focus on new discoveries of known***

and unknown natural resources: This is especially true for non-renewable and depletable resources such as oil, gas, and minerals. It is recommended that a specific percentage of the revenue from natural resource exports be devoted to the exploration and comprehensive mapping of all known natural resources endowments within each country's domain. One way to deliver on this is to establish a specific fund for exploration and mapping of a natural resource database. The fund will serve as a vehicle and modality for channeling resource rents into expanding the natural resource base, which will further generate revenue for additional investment in natural resource management. The fund should be devoted to investment in natural resource discovery initiatives such as geological mapping, prospecting, and exploration in wider and more difficult terrains. The decision regarding what percentage of resource revenue to allocate to the fund will normally be taken at the country level, just as other national fiscal rules and policies are done.

b) ***Advance investment in knowledge creation, utilization, and dissemination***: African countries' current human and institutional capacity for managing its natural resources is generally limited. The natural resource sector is still dominated by foreign entities that have the expertise in the exploration, exploitation, and export of the natural resources. Aggressive efforts should be devoted to developing capacity in basin modeling, structural geology, geochronology, geophysics, different fields of engineering, remote sensing, petrology, and a host of other geophysical and geochemical disciplines. All of these will aid predictions on natural resource deposits, both known and undiscovered. Also essential are skills and capacities in natural resource economics. Advancements in capacity development should be complemented by investments in geophysical and geological instruments that will be useful in gathering the requisite geological data necessary for exploration and exploitation. Substantial investment should be made in acquiring the instruments necessary to undertake exploration activities for the use of professionals in the field. Relatedly, investment should be channeled to equip the laboratories of selected universities with state of the art equipment. This may require creating centers of excellence in selected universities to undertake rigorous training of qualified professionals in diverse areas of natural resource professions. To ensure consistent and guaranteed funding for these initiatives, national governments and corresponding regional economic communities, with natural resource deposits within their territories, should set up Knowledge Hubs that will serve as a conduit for investment to natural resource knowledge creation. Investment in these streams of activities will help create a critical mass of indigenous capacity and knowledge needed for mainstreaming natural resource management as the engine of growth.

c) ***Investment in developing the value chain of natural resources: upstream and downstream***: Absence of effective forward and backward linkages across the entire natural resource value chain—from extraction through processing and

on to sale and end use—is a major gap and weakness in mainstreaming natural resource management as the engine of growth in Africa. Inadequate linkages with other sectors of the economy follow as a consequence. Managing the value chain can be viewed from two complementary perspectives: ***government*** (deciding to extract; getting a good deal; ensuring revenue transparency; managing volatile resources; and investing for sustainable development) and ***industry*** (exploration, extraction, refinement, sales, and distribution), and should be developed in tandem.

d) ***Invest in the "dynamic sectors" of the economy*:** Given that exploitation will deplete many natural resources, especially extractives, there is need to refocus natural resource revenue flows from exports to public investment in more dynamic, sustainable sectors with increasing returns, learning, foreign direct investment, and technology transfer. Dynamic sectors of focus should include agriculture, services, and manufacturing. It may even include some natural resources within the renewable energy sector. Investment in these dynamic sectors has high potential for raising the productive capacity of the economy, promoting technological progress through embodiment of new techniques, and engendering inclusive growth and poverty reduction.

e) ***Establish natural resource funds with well-defined/structured components for investment in natural resource management*:** At present, most natural resource funds in African countries are focused on savings and investment in offshore financial assets as opposed to public investment in domestic national resource management. While saving is vital, relaxing current constraints is equally important. Such funds can be integrated into the overall system of the national long-term and medium-term poverty reduction framework and annual budget. The process should be as open and transparent as possible and provide avenues for wide public and civil society consultation, engagement, and participation with a view to determining public priorities in public investment in natural resource management. This will help reduce potential leakages and misappropriation while promoting transparency. Rules should be established that prevent the government from arbitrarily using the fund to finance deficits and other contingent liabilities. For this to succeed, the rule should outline clear procedures for making withdrawals from the fund and ensuring checks and balances.

f) ***Build political consensus*:** To effectively, genuinely, and sustainably invest in natural resource management as the engine of African growth, leadership and political will are essential. As most African countries operate under a democratic system of governance, most employ some form of political consensus to determine the appropriate strategic choices related to natural resource revenue in diverse areas of interest. However, strategic choices should be guided by knowledge (about renewability vs. non-renewability; volatility vs. non-volatility of the international market

price; benefits to both current and future generations of resource owners; need to further develop existing natural resources and discover new ones; and the importance of economic diversification in moving toward a more sustainable economic base). Thus, specific action must be taken to enlighten and adequately inform the political leadership vested with authority to make decisions about the process and the importance of public investment in natural resource management. Such political buy-in is indispensable to the process.

This Report submits that while there are no universal models to inform the interaction of political leadership, natural resources, and national development, emerging initiatives on accountability at the global, continental, regional, and national levels hold major promise for the future of Africa's natural resource sector. In handling emerging issues such as green growth, the Report contends that the future lies in an interdisciplinary approach that draws on economics, law, engineering, political science, and social psychology. A complex interplay of political, economic, and social objectives must be evaluated in an African context and take into consideration the continent's often contentious and unequal interaction with others in a global setting. Different countries will need different green growth models, and the realistic goal is for African states to commit to green regulations, institutions, and policies and collaborate with the private sector to transform economies along green pathways.

Likewise, with regard to transboundary natural resource management, working toward effective governance requires an enabling environment and institutional structures that enhance stakeholder cooperation. Here again, systematic efforts should be concentrated on policy harmonization and the implementation of mechanisms for conflict avoidance, conflict management, and inter-state cooperation. Incentives for stronger inter-state cooperation should be advanced and neutral dialogue platforms encouraged.

Ultimately, political will at the topmost positions of government and leadership is imperative. And while history has shown that broad capacity gains in a society do not always result in predictable outcomes, they do facilitate the economic and political self-determination needed in order for countries to navigate their own way in a world where effective management and exploitation of natural resource endowments will become increasingly important.

9.5 Crystalizing Vision, Intention and Creating Strategic Scenarios

The African natural resource landscape, especially its mining and extractives sector, constitutes a major share of exports and tax revenue for resource-rich African countries and holds enormous potential to finance rapid economic development and poverty reduction. Africa holds 15 percent of the world's known oil reserves, 40 percent of its gold, and over 80 percent of its platinum metals (World Bank 2012f). Of the ten biggest resource deals concluded in 2011, seven were in Africa (*The Economist* 2012).Whereas the resource extraction contracts negotiated in the 1980s and 1990s often earned very little for host nations,African governments are now pressing for reviews of old contracts and asserting greater demands in negotiations for new ones

(African Renewal 2009). Makhtar Diop, the World Bank's Vice President for Africa, observed, "Being able to negotiate the best-possible deals is essential for African countries to convert more of their natural resources wealth into inclusive and sustainable growth" (World Bank 2012f).

However, as clearly articulated in this Report, negotiations over resource exploitation between African governments and multinational investors tend to be asymmetrical. Host governments typically lack the technical and geological expertise of private extractive companies and the legal resources and negotiating capacity necessary to successfully manage highly complex, multi-contract negotiations. Aware of their own weakness and low negotiating capacity, African governments often prefer to delay decisions on important resource contracts rather than conclude a bad deal. Moreover, renegotiations at a later stage of the resource extraction project tend to be legally difficult and send negative signals to investors.This is particularly relevant for mining licenses, which tend to have tenure of 20 to 30 years (African Union 2009). As a result, African countries lack much needed foreign direct investment. Natural resources may also be underdeveloped, or their revenue disproportionately given to multinational corporations. There is, however, reason for optimism in the negotiation of Africa's natural resources. Through a further understanding of the issue and its obstacles, African countries can negotiate natural resource contracts that better serve its economic and environmental interests.

9.5.1 Key challenges

Negotiations over resource extraction contracts may be complicated by a number of issues. African countries in particular have been subject to these challenges, which can result in unfair contracts and a lack of real economic development. Developed countries are not subject to the same challenges and tend to have natural resource contracts that contribute more positively to various economic indicators. Addressing these challenges is crucial for negotiating fair resource contracts in Africa. Among the most pertinent challenges are:

a) ***Capacity, knowledge and information imbalances:*** African governments may be much less informed about technical details and geological endowments compared to established oil, gas, and mining companies. This asymmetry is caused by multiple factors, including a lack of experience by government officials managing complex negotiation processes while accounting for complex economic, social, and environmental considerations, as well as problems of high staff turnover and an inability to attract qualified negotiating staff due to enormous salary differentials relative to the private sector (World Bank 2012f).This information imbalance creates a problem by giving multinational corporations even greater leverage and the ability to take a disproportionate share of resource revenue when negotiating a contract.

b) ***Complexity and duration of resource contracts:*** Negotiating asymmetries are exacerbated by the scale, complexity and lengthy time frames of these contracts, which have multiple dimensions that address delicate trade-offs, risks, and liabilities. For instance, negotiations must take into account not only revenue-sharing and fiscal concerns, but also mechanisms to mitigate the environmen-

tal and social footprint of extractive projects. Evidence points to a significantly higher frequency of costly and conflictive renegotiations in cases where the initial contracts are perceived as unbalanced, poorly drafted, or inflexible (World Bank 2012f).

c) ***Poor infrastructure and limited country capacity:*** Even where contracts specifically stipulate requirements for local development or re-investment, there may be inadequate physical infrastructure and human and technological capacity to capitalize on the potential downstream benefits of extractive operations. China addresses this problem by building physical infrastructure and brining in Chinese labor and expertise. Of course, this situation often benefits China more than it does the African countries. It also does not address the root problem of Africa's limited capacity, which, if addressed, would help to drive economic growth from the extractive industry.

d) ***New investors and methods of negotiation:*** The traditional "two-tier" bargaining model—in which donor governments and resource firms negotiated with host governments independent of each other—is being replaced by a "modified one-tier" bargaining method. In this model, used mostly by China, the Chinese government represents the collective interests of multinational enterprises and uses offers such as loans and development projects in infrastructure or agriculture to secure specific opportunities for Chinese firms. Thus, China's government acts as a "central contractor," organizing the provision of activities normally associated with corporate social responsibility programs at the company level (Beedie School of Business 2012). A fair revenue-sharing agreement is more intricate to negotiate in one-tier contracts, but such contracts are appealing to many governments (Hilsum 2005). African countries need the capacity to determine in advance what they would like to push forward in negotiations and embed as obligations in contracts.

e) ***Weak institutions***: Negotiating a better contract is ultimately pointless if a country does not have the institutional capacity to enforce the contract terms. A number of African governments are highly ineffective at enforcing regulations. Even when adequate laws and contracts are in place to protect communities and the environment, companies can often operate in direct contradiction when there is no higher authority enforcing the rules. Not surprisingly, institutional vulnerability also creates a higher risk of corruption (Le Billon 2012). If the terms of laws and contracts are understood to mean little, both governments and businesses are then more likely to use bribery, violence, and other corrupt methods. African countries therefore must strengthen institutions and increase their transparency so that regulations for the extractive industry will be followed and enforced. Improved governance of natural resources will happen only with improved institutional capacity.

The aforementioned challenges are exacerbated in fragile and post-conflict countries. In particular, post-conflict countries have an even greater information imbalance due to brain drain; infrastructure and country capacity is even weaker due to the conflict; and institutions are more ineffective and even non-existent following certain conflicts. Negotiating resource contracts is an even greater challenge that first requires the establishment of peace and a basic level of trust. Contracts made in post-conflict countries "may reflect the limited bargaining power of post-conflict states" (Le Billion 2012). In these settings, investment is particularly risky because of damaged infrastructure, regulatory uncertainty, and the possibility of contract cancellation. This puts the country at a distinct disadvantage and tends to attract high-risk companies that are more likely to use bribery, employ private armed protection, and fall short on corporate social responsibilities (Le Billon 2012).

Many of these issues have led to unfair resource contracts in the past, and it is these same issues that African countries must overcome in order to get the best value for their natural resources. The policy options listed below aim to address some of these challenges and to offer hope and optimism that Africa's abundant natural resource endowments can serve to reduce poverty and increase economic growth. For this to happen, countries would need to be aware of the opportunities, undertake to map out the relevant policy options, and engage the needed capabilities to achieve desired results.

9.5.2 *Opportunities/Policy options*

One of the critical interventions identified by the Africa Mining Vision is to improve the capacity of African states to negotiate with resource investors through contracting world-class consultants to support African states in contract/license negotiations, and to develop domestic capacity for future negotiations (African Union 2009). Similarly, the World Bank has recently launched a pilot project for a new fund to help African countries "level the playing field" and ensure equitable deals for natural resource contracts. Working closely with the African Development Bank, this new fund will cover several key priorities:

1. ***Legal advice*** to negotiate better deals with private investors. This may include advice during negotiations, on methods of negotiation (competitive bidding, bilateral negotiations) and on transaction fees. This support will be provided by professional consultants and legal firms.
2. ***Help to reduce environmental risks***. Consultants are also needed to provide more accurate environmental impact assessments and ensure that effective remedies are built into resource contracts. African governments are slowly recognizing the importance of mitigating mining projects' environmental impacts, but expertise in this area is still much needed. Environmental stipulations should not simply be included in resource contracts, but also in country-wide legislation. When dealing with a mining project, there are specific requirements that can best be written into resource contracts. However, governments must also implement effective environmental regulations that can cover all extractive projects across the country. Consultants can help to draft this environmental legislation, which will serve countries long-term.
3. ***Technical assistance to address social risks***. This will include advice on benefit-

sharing arrangements with local communities, assessment of social impacts, health and livelihood effects, and local service delivery. Countries that have greatly reduced their poverty rates are best able to provide this assistance by drawing on relevant experience.

4. ***Promote transparency***. Contracts supported under the fund will need to meet the Extractive Industries Transparency Initiative (EITI) standards, allow for legal benchmarking and promote greater security in the investment climate. EITI has been fairly successful thus far in increasing transparency and accountability in the extractive sector. In Liberia, for example, it has helped communities better understand the financial relationship between companies and the government (Lujala and Rustad 2012). Increasing transparency on its own is not enough to result in economic development, but it is a crucial component.
5. ***Creation of downstream linkages***. The fund will also aim to catalyze broader investments in infrastructure and local development. This will include: 1) adequate transfer of revenues to the country and affected region; 2) mitigation of social and environmental risks; 3) appropriate incentives to unleash local development and growth through backward and forward linkages, including mineral beneficiation, investments in local technological and human capacity and local-content requirements (World Bank 2012f).

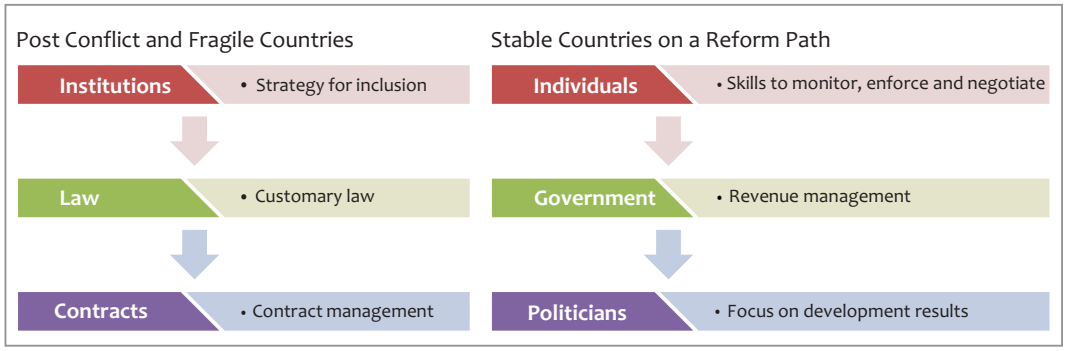
Countries qualifying for assistance from the initial pilot phase of the fund will need to meet the following criteria: (1) countries with significant oil, gas, or mineral reserves currently in the process of negotiating contracts; (2) demand from the country and willingness to receive advisory services; and (3) significant social and environmental challenges (World Bank 2012f). Many African nations fit these three criteria, as they are rich in resources but lack development.

A clear benefit of multi-contract negotiation is that it spreads out the risk, much like diversifying an economy. If one contract is unfair or if one company or subcontractor behaves unethically, there is less of a chance that the country will suffer as a result. The De Beers diamond company offers an example of the risk of a single contract. Its pseudo-monopoly in the diamond sector gives it significant bargaining power and leverage. It can operate against the interest of the host country with relative confidence of future contracts and revenue. And, since De Beers is often the only diamond mining company in operation, its unethical behaviour can greatly impact a country's economy. It is for this reason that De Beers has focused on enhancing its programs in corporate social responsibility, and built in-house capacity to negotiate and work with local communities. Countries need to develop their capacities as well.

Consider Namibia, particularly before independence, where De Beers' had an exclusive diamond contract, whichresulted in exploitation (Kempton and Du Preez 1997). Though Namibia has gained some bargaining power following its independence in 1990, the situation simply goes to show how countries can benefit from multiple contracts in the extractive sector. The De Beers approach in Botswana has been quite different, with the company entering into a 50-50 joint venture with the government in the 1990's, where it built roads and schools and focused on handling the risks of HIV and AIDS in the country.

The Government did its part of ensuring good policies were in place. Therefore it is the good intentions of countries as well as of the companies concerned that make the difference in the outcomes of multi-contract negotiations and their enforcement.

Figure 9.1: Sequencing the Capacity for Natural Resource Management



For countries to do their part, they require investments in not only improving the quality of institutions involved in developing an effective strategy for inclusion, but also in ensuring legal capacity is in place to manage the interface between customary law and international law. This is more challenging for countries coming out of conflict or with fragile coalitions for governing. Capacity to manage contracts that have been negotiated with purchased support and skills is another area needing attention. For countries like Botswana that have stable economies with mature political and policy institutions, the critical issue relates to developing the skills needed to monitor, enforce and negotiate contracts (figure 9.1). How government manages revenues and the approach politicians use policies and implementation arrangements to focus on development results is also critical.

As African companies continue to grow in prominence and expertise, there is also the potential for contracts to favor local companies rather than multinationals. This will tend to keep more revenue and jobs in Africa, rather than succumbing to the problem of capital flight. Regardless, natural resource contract negotiations can be done right and for the benefit of the population. As highlighted in Chapters 2 and 3, President Ellen Johnson Sirleaf of Liberia, for example, renegotiated an iron ore mining contract that had allowed the company to determine the price of iron ore and, therefore, its own taxation level. (Le Billion 2012) Other contracts were also renegotiated, including a Firestone rubber concession. The new iron ore contract quadrupled the lease price, reduced the risk of transfer pricing, reduced the duration of the contract by fifty years and improved housing for workers.

9.6 Conclusion

This Report has explored the complex network of issues, processes and actors involved in the management of the natural resource value chain in Africa. It identified underlying causes to include weak oversight mechanisms, capacity

deficits, corruption and collusion by government agencies and officials, gaps between legal (official) and informal (socio-cultural) approaches, unresolved contestation about natural resource governance, armed conflicts and insecurity, and globalization.

The Report also notes the cross-border and regional dimensions and implications of natural resource management in Africa. The listed impacts include loss of revenue to governments, mutation into armed conflict (and vice versa), contagion effect across borders and regions, and long-term damages to local socio-economic and environmental sustainability. Most importantly, the Report notes the limitations of extant policy responses to include narrow focus on law enforcement, rather than alongside addressing underlying socio-economic, political and environmental issues; strong emphasis on national-level initiatives with limited synergies with international approaches; and the absence of strong regional and international policy actions. Finally, the Report pinpoints extant resources and initiatives either working or with potentials to contribute to addressing governance of natural resource in Africa. This includes a whole-of-the-government approach, enhanced national and regional initiatives; region-level adaptation and adoption of emerging best practices in the management of natural resources; and the integration of local perspectives and practices (rather than simply criminalize them) and civil society into official policy responses.

The Report submits that we can assess capacitation efforts in Africa, in general, in terms of policy and operational aspects. The policy element covers the extent to which extant legislation, institutions, and implementation processes reflect the scale, dynamics, and sophistication required to effectively address criminality in the natural resource value chain. More important is the extent to which they capture daily realities and host communities' perspectives and practices in relation to the ownership, extraction, and transfer of natural resources in Africa. Because building capacity takes time, this report has also highlighted the importance of getting the sequencing right, in terms of what to do first, and ensuring that needed capabilities can be purchased or borrowed to ensure top-notch teams are engaged in the whole value chain for natural resource management.

The operational aspect of capacity assesses the context and environment of the natural resource value chain, specifically the availability of practical tools, actors, mechanisms, and practices capable of promoting greater transparency and accountability in the management of natural resources. This includes six elements: 1) Promoting security, especially as part of post-conflict reconstruction initiatives that offer one of the best guarantees for preventing criminal activities in natural resource exploitation; 2) Strengthening monitoring agencies' operational efficiency in the natural resource value chain to reduce the scope for corruption in natural resource management; 3) The extent to which civil society organizations (especially at the local level) perform concurrent, independent oversight functions of the management of natural resources in Africa. Although this is generally a missing link in the natural resource sector in Africa, it nonetheless harbors huge potential for improving transparency, accountability, and best practices in natural resource management; 4)The extent to which the management of, and efforts to address corruption in, natural resource sector reflects a holistic approach that integrates and

widens the principles, mechanisms and processes of improving natural resource governance across the government (system-wide) rather than limiting it to the natural resource sector; 5) The extent to which policy responses incorporate subtle mechanisms (disincentives) against illegal practices in the natural resource value chain at local, national, regional and international levels. This could mean better socio-economic and political integration (through, for example, sustainable employment) for youths, and inhabitants of host communities; formalization of traditional practices; and promotion of local participation (business ownership) in the natural resource value chain. This serves to undercut the grievance narrative that tends to figure as a justification for criminality in natural resource sector; and, 6) Local, national, regional and international efforts in foster good governance must be firmly integrated as part of a holistic approach such as the Africa Mining Vision.

In fact, as capacity and information imbalances are redressed, infrastructure strengthened, new bargaining models embraced, and institutions capacitated, the dynamics are clearly shifting. Today, old contracts are being renegotiated; new resource-rich countries are putting in place robust and transparent governance structures; and local and international civil society organizations and initiatives are pressurizing multinational companies to honor their corporate social responsibilities, the natural resource management landscape in Africa is undergoing a revision. These winds of change are reflected in the ACI index scores on natural resource management.

End Notes

Chapter 1

1. Natural resources are "stocks of materials that exist in the natural environment that are both scarce and economically useful in production or consumption, either in their raw state or after a minimal amount of processing" (World Trade Organization 2010: 2).
2. According to Basedau and Lay (2009), the main function of the state in rentier economies is to distribute rents. The rents provide ruling elites with vital revenue and other resources through which to address and offset any potential pressures for violence and instability.
3. The reference year for the 2013 ACIR data and analysis, is 2011. Similarly that for ACIR 2012 and 2011 are 2010 and 2009 respectively.
4. See methodology in Technical Note
5. As of December 31, 2012, the 2011 ACI Report (on state fragility) had been cited 5,060 times; and the 2012 ACI Report (on Agricultural Transformation and Food Security) 1170 times.
6. Sheryl Hendriks, Professor in Food Security, University of Pretoria, South Africa (March 2012)

Chapter 2

1. We use the definition of "commanding heights" put forward by Yergin and Stanislaw (1998) titled: The Commanding Heights: The Battle for the World Economy.
2. This development was generally the orthodoxy of the time, and the practice was not limited to Africa.
3. This term was first coined, in print, in The Economist of November 26, 1977 (Cordon, 1984). An overreliance on a small set of commodity exports results in the simplification of a nation's economy (Gylfason 2001a). The phenomenon gets its name from Holland, because the Dutch economy suffered from such a simplification in the 1960s after its discovery of natural gas. The phenomenon occurs when a more highly valued currency makes a nation's other exports more expensive and less competitive in the global market. In chapter 3, more attention is focused on the issue and its impact on booming resource-rich economies.
4. The Orange River Basin is one of the international watercourse systems in the SADC and is of strategic importance to South Africa, Lesotho, Namibia, and Botswana (Heyns, Patrick, and Turton 2008).

Chapter 3

1. The terms natural resource and primary commodity/commodity are used synonymously in this Report.
2. We assumed that the recent commodity price increases will not be reversed at least in the coming few years. This is because the price hikes are to a large extent driven by the demand surge in emerging economies. Africa has exploited only a fraction (less than 15 percent) of its potential trade with emerging economies such as China, which suggests the sustainability of this demand surge in the coming few years.
3. In this Report the term commodity boom refers to a rise in export earnings due to a rise in price of primary commodities since 2000, as shown in figures 3.1 and 3.2. Bringing into use of new discoveries will also have a similar macroeconomic effect since the owners of the new discovery also benefit from the price rise.
4. Fardmanesh (1991a, 1991b) has undertaken a similar analysis for oil exporters. He notes that, contrary to the core Dutch disease model, the manufacturing sector of oil exporting developing countries has in fact expanded following the oil boom, notably in Egypt and Nigeria. Neary and Wijnbergen (1986) build this phenomenon into their model by relaxing the assumption of free trade. They stress that in many countries, these sectors are protected (semi-traded). Benjamin et al. (1989) explain this through the imperfect substitution assumption, while Fardmanesh (1991a, 1991b) prefers to attribute this to a rise in the world price of manufacturing that was witnessed in the wake of the two oil price hikes.
5. Love (1994) has undertaken an excellent political economy analysis of the spending effect from the booming sector in Botswana. He notes how government expenditure unduly favors livestock development in an effort to facilitate the transition by a traditional dominant group of cattle owners to a contemporary capitalist class of commercial farmers. He observes how the interests of this group is maintained and legitimized by orthodoxy in economic thinking.
6. The theory of rentier states holds that countries that receive substantial amounts of resource revenue on a regular basis tend to become unaccountable to their citizens and less prone to promote political competition and representation (Moore 2004).
7. UNSC (2003) Resolution 1478 S/RES/1478 (2003) of May 6. Other relevant UNSC resolutions on Liberia include: UNSCRs 1306 (2000); 1689 (2006) and 1819 (2008).

8. Located in southern Nigeria, the Niger Delta is the epicenter of oil exploration in Nigeria. With a proven reserve of over 36 billion barrels of crude, it suffers from serious environmental challenges, of which oil-related pollution and gas flaring are central. Despite the huge financial investments in, and revenue from, oil and gas exploration, the local inhabitants are generally poor. This has spurred serious social agitation and grievance that has mutated into a mix of insurgency and criminality.
9. Official investigation and conviction (payment of fines) of Western companies involved in Nigeria's oil and gas sector, including Siemens and Halliburton, by their home governments since 2008 have revealed huge levels of corrupt practices, especially the bribing of high-level state officials, including ruling elite, in return for the award of contracts. Admittedly, recent judicial convictions of the Abacha family in Geneva also show that the practice predate 1999 (Vanguard October 14, 2010).

Chapter 4

1. This boom continued for all but a few luxury items such as diamonds (of critical import to African exporters such as Botswana, South Africa, and Congo-Brazzaville).
2. Tanzania and Mozambique have recently discovered natural gas resources, while Ghana and Uganda have found oil reserves. These developments may result in a change of their classifications.

Chapter 5

1. A discussion and listing of principles can be found at http://www.iwg-swf.org/pubs/gapplist.html.

Chapter 6

1. Ethiopia has already prepared a green economy strategy and aims to achieve transformation to middle income country status by 2025 (FDRE 2011). Its commitment to environmentally sustainable development activities such as biofuel production, efficient use of forest resources, and adaptation to climate change are also highlighted in its Growth and Transformation Plan (MOFED 2010).
2. Another African peculiarity is its non-renewable underground water reserves, located in large water-bearing sedimentary systems (notably the Nubian, Sahel, Chad, and Kalahari catchment basins). These systems are an important resource for arid regions, by reason of limited availability of renewable water resources.

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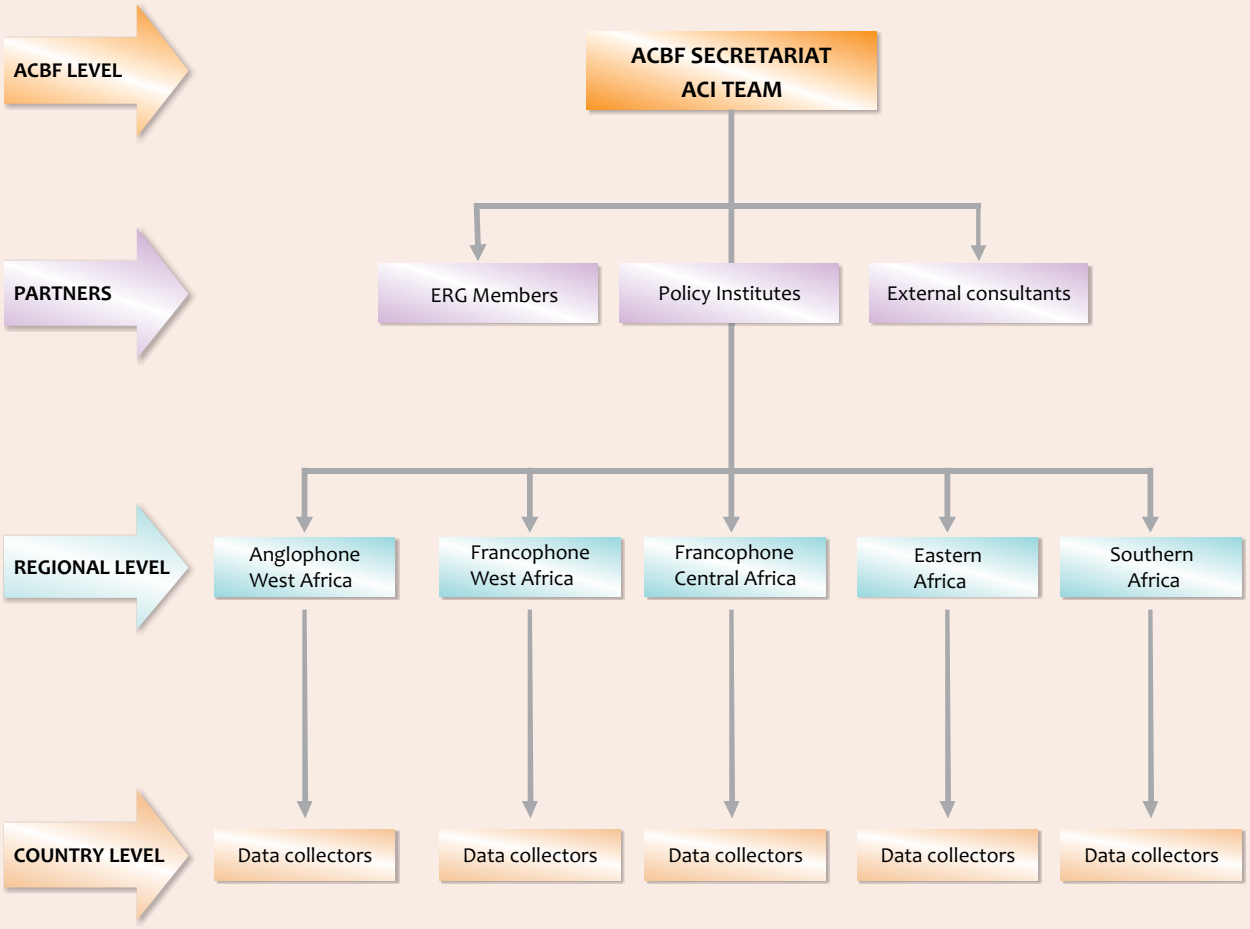
Technical Notes

A - ACIR TEAM ORGANIZATION

The ACIR Team comprises a dedicated ACBF group supported by various stakeholders and partners at different level as presented in the chart below.

CHART 1
ACIR Team Organogram



ACBF ACIR Team
A dedicated group of individuals (ACIRTeam) within the ACBF Secretariat is constituted to spearhead the process from conceptualization through to the publication of the ACI Flagship Report. Team members come from the various units and departments within the Secretariat.

External Reference Group (ERG)
The ERG is created to provide motivation and intellectual guidance, as well as to challenge the ACBF ACI team to develop its thinking behind the assessment and ensure that the team achieves its objective of delivering a quality publication. To this end, the External Reference Group acts as the ACI team's strategic partner to ensure that:

- The approach and methodologies employed in preparing the Flagship are theoretically sound, conceptually appropriate, rigorous, balanced, and draws in divergence as appropriate;
- The data capturing instruments are adequately reviewed and appropriate;
- Comments on the ACI survey template, selected indicators, case studies and stories are provided in a timely manner;
- Presentation of findings balances views from across the broad spectrum of opinion and reflect current and innovative practice;
- The review and report balance public, legal and operational perspectives appropriately;
- There is feedback on implementation support and costing tools for specific topics examined in the ACIR, and on the appropriateness of, for example, the costing assumptions and the approach adopted within the tools as well as peer

review of the background papers;
- Where needed, ACBF is supported in the identification of appropriate networks and/or experts with whom to engage to assist in the development of the tools; and
- All conclusions drawn and policy recommendations provided are sound and evidence-based.

Background papers

The goal of the competitive consultancy was to provide detailed background papers on agreed upon thematic issues that will assist the ACIR Team to better grasp and contextualize the issues of capacity development for natural resources management. Thirteen (13) thematic papers were commissioned out of which eleven (11) were accepted following the extensive peer-review processes. The approved papers, covered the following topical issues/areas: a) The status of natural resources management in Africa – capacity development challenges and opportunities; b) Resource flows from booming natural resource/primary commodity sectors in Africa and their macroeconomic policy and capacity building challenges; c) Governance of natural resources management in Africa: contemporary perspectives; d) Conflict resolution and management of Africa's natural resources; e) The capacity question, leadership and strategic choices: environmental sustainability and natural resources management in Africa; f) Refocusing public investment in NRM as the engine of African growth; Structured transformation and natural resources management in Africa; g) Climate change, environmental degradation and the quest for natural resources exploitation: miracle or mirage!; h) Criminality in the natural resources management value/supply chain; i) Transboundary natural resources management in Africa: assessing the policies and strategic capacity-building imperatives vital for riparian state cooperation over water; and j) Debating critical issues of green growth in Africa: thinking beyond our lifetime.

Focal regional points

On the basis of their geographic and linguistic affinity, the targeted countries were grouped into five broad regions – Anglophone West Africa; Francophone West Africa; Central Africa; East Africa and the Horn; Southern Africa and the Indian Ocean. A Policy Unit was tasked with coordinating and supervising the country data collection process within each of the above-mentioned regions.

Data collectors

At the country level, a national familiar with the country context, was identified and selected through an open and competitive process, invited to a 3-day training session on the ACI survey instrument; following which he/she conducted the administration of the questionnaire. However Section G of the survey instrument on the CPIA was administered by sixteen (16) nationally and internationally recognized Policy Institutes in surveyed countries.

B - DATA COLLECTION

Coverage

In line with the target of covering all African countries, the number of countries covered during this second edition increased from 34 (in 2010) to 42(see list below).

TABLE X

List of countries covered by the study

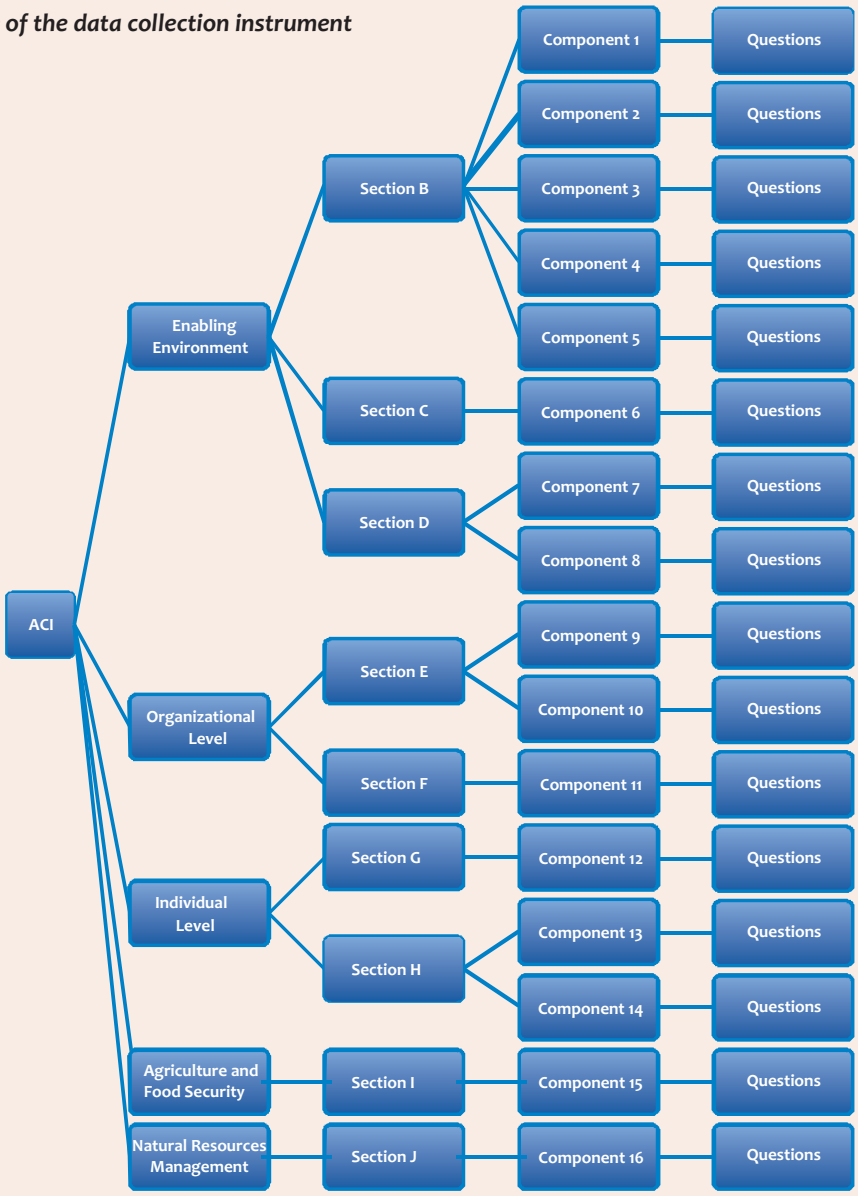
Group 1 West English -speaking countries	Group 2 West and North French -speaking countries	Group 3 Central Africa and other French-speaking countries	Group 4 Eastern Africa	Group 5 Southern Africa
Cape Verde	Benin	Burundi	Ethiopia	Angola
Gambia (The)	Burkina Faso	Cameroon	Kenya	Botswana
Ghana	Côte d'Ivoire	CAR	Malawi	Lesotho
Liberia	Guinea	Chad	Rwanda	Mauritius
Nigeria	Guinea Bissau	Congo (Rep. of)	Tanzania	Mozambique
Sierra Leone	Mali	Congo (Dem. Rep. of)	Uganda	Namibia
	Mauritania	Djibouti		South Africa
	Morocco	Gabon		Swaziland
	Niger	Madagascar		Zambia
	Senegal	Sao Tome and Principe		Zimbabwe
	Togo	Tunisia		

Data collection instrument

The data collection instrument is designed along the three dimensions of capacity: (i) Enabling environment; (ii) Organizational level; and (iii) Individual level. These dimensions constitute the three primary components of the data collection instrument. However, three specific sections are dedicated to explicit issues: the Section G on the Country Policy and Institutional Assessment (CPIA), the Section I on Agricultural Transformation and Food Security, and the Section J on Natural Resources Management, the thematic focus of this year's Report. The structure of the questionnaire is presented in Chart 2 below. One single questionnaire was administered in each of the countries covered by the study.

CHART 2

Structure of the data collection instrument



Training workshop

As alluded to above, a training workshop was organized from 16-21 July 2012 for the all the selected in-country data collectors who were to administer the main questionnaire (excluding Section G on CPIA which was done by the Policy Institutes). During the workshop, the data collection instrument was reviewed, revised and the final version adopted. Also during the workshop, the potential sources of information per country were discussed and agreed upon. However, it was acknowledged and agreed that the list could be adjusted during the field data collection to suit country-specific needs (e.g. Ministry of Women Affairs in country A,

could be Ministry of Gender in country B, etc.). A separate workshop was organized for the sixteen (16) Policy Institutes that were to lead the CPIA country self-assessment in their respective countries.

Period of field data collection

The field data collection was conducted from July 23rd through September 21st 2012. Reporting was done on a weekly basis. At the end of the field data collection, the data collectors submitted their completed questionnaires along with their final field report.

C - COMPUTING THE INDICES

C.1. Scoring the answers to questions

Each question is assigned an associated variable indicator whose nature depends on the type of question asked. The scoring of the variable indicators is in relation with their respective natures. The scores are standardized on a scale ranging from 0-100.

Qualitative variables

A value is attributed to each expected answer. Questions with a YES or NO answer are scored 0 or 100. Questions with three possible answers are scored 0; 50; and 100. Questions with 4 answers are scored 0, 33.3, 66.7 and 100. Questions with 5 answers are scored 0; 25; 50; 75 and 100.

Some few examples:

Question No.	Question	Expected answers	Score
B1	Does the country have a National Development Strategy (Poverty Reduction Strategy Paper, National Development Plan, Vision Strategy, etc) ?	YES	100
		NO	0
B4	Is Capacity Development (CD) integrated in the country's Poverty Reduction Strategy/National Development Plan?	*CD is not mainstreamed in the current PRSP/National Development Plan*	0
		CD is mainstreamed, but with no clear objectives and targets	50
		Clear objectives and targets set in the PRSP/National Development Plan	100
B13b	How effective is the dialog mechanism with development partners?	*Very High*	100
		High	75
		Average	50
		Low	25
		Very Low	0

Numerical variables

a- ***The answer is a proportion***
The score is the answer (assuming that moving from 0 to 100% is improving, otherwise, one may just read backwards)

b- ***Numerical variable in the form of ordinal scales***
The values on the predetermined scale is brought to a scale ranging from 0 – 100.

Example:

C4: On the scale1 (Very weak) to 6 (Very strong), assess how support to capacity is being coordinated in the country Very weak = 1 2 3 4 5 6 = Very strong						
Answer	1	2	3	4	5	6
Score	0	20	40	60	80	100

c- ***Numerical variable in the form of absolute value***
Three different options wereconsidered.

Option 1 (Best achievement)
From the minimum and maximum values observed (among the 42 countries), define a range 0 - 100 where 0 is associated with the minimum value, and 100 with the maximum value. One disadvantage for this option is that it may not capture sufficiently the progress made by a country, as its efforts are assessed with respect to those of other countries.

Option 2 (Best progress)
A country may be assessed with respect to efforts it made the previous years with regard to the concerned variable. The indicator would measure the variation in the efforts it is making on its own. This is another way to measure investment in capacity development.

$$\frac{Y_t - Y_{t-1}}{Y_{t-1}} \ (in\ \%)$$

$$Y_t = Value\ at\ current\ date\ t$$

$$Y_{t-1} = Value\ at\ previous\ year\ (t\text{-}1)$$

One disadvantage of the above option is that positive variations may range from 0 to infinity. Two countries shifting respectively for example from 0 to 1 and from 0 to 1000 would have the same infinite rate of increase.

Option 3 (Best relative change)
This option is the same as option 2, but with a formula that mitigates the disadvantage with the formula in option 2.

$$\frac{Y_t - Y_{t-1}}{Y_t} \ (in\ \%)$$

$$Y_t = Value\ at\ current\ date\ t$$

$$Y_{t-1} = Value\ at\ previous\ year\ (t\text{-}1)$$

A minor disadvantage presented by this formula is that if a country experiences a drastic decrease (more than 50%), then the indicator will be less than -100%. This situation, though rare, may apply to a country facing some turmoil.

The option 1 is used so far. The other options will be tested in further years, when a time series of ACI variables is constituted.

C.2 Computation of the Indices

C.2.1 The ACI Composite Index

During the first edition of the ACI Report, the exploratory approach was used to define the components of the ACI composite index. To this end, the hierarchical cluster analysis was carried out, using the Ward's method applying squared Euclidian distance as the distance or similarity measure. From the findings of the analysis, 4 groups of factors appeared to be the most relevant. They are the following:

i. Cluster 1: Policy environment
ii. Cluster 2: Processes for implementation
iii. Cluster 3: Development results
iv. Cluster 4: Capacity development outcomes.

Four cluster indices are then calculated, each one being the arithmetic mean of its cluster variable indicators.

Cluster Index j (j = 1, 2, 3, 4) is the arithmetic mean of variable indicators within cluster j.

$$CLj = \frac{1}{n_j}\sum_{i=1}^{i=n_j} VI_{ji}$$

V_{ji} = Score assigned to variable i within Cluster j

n_j = Number of variable indicators within Cluster j

The ACI Composite Index is the harmonic mean of the four cluster indices. The rationale for choosing the harmonic mean formula is that capacity development is an indivisible whole of its dimensions. As such, none of the capacity development factors as given by the four clusters should be neglected. Weakness in one of the four components should be easily captured by the harmonic mean formula, which is sensitive to small values.

$$ACI = \frac{1}{\frac{1}{4}\sum_{j=1}^{j=4}\frac{1}{CLj}}$$

C.2.2 Sub-indices

In addition to the clusters indices, a number of sub-indicators are also calculated. They are built around the component and the sections of the questionnaire (see structure of the questionnaire, Chart 2)

Component Indicators

Twelve component indices are calculated as follows:

Component Index j (j = 1, 2,… , 12) is the arithmetic mean of the variable indicators within that component.

$$CI_j = \frac{1}{n_j}\sum_{i=1}^{i=n_j} VI_{ji}$$

VI_{ij} = Score assigned to question i within Component j

n_j = Number of Variable Indicators associated with Component j

The list of the component indices is presented below.

No.	Name of the Component
1	Strategic choices for capacity development
2	Policy environment/Efficiency of instrument
3	Dialogue mechanisms for capacity development
4	Strategic policy choices for improving the capacity of statistical system
5	Financial commitment for capacity development
6	Aid effectiveness related to capacity development activities
7	Gender Equality
8	Social inclusion
9	Partnering for capacity development
10	Capacity profiling and capacity needs assessment
11	Inputs related to capacity development
12	Outputs related to capacity development

Section Indicators

Seven thematic Indices are calculated with the same formula as for the component indices.
Thematic index k (k = 1, 2,… , 7) is the arithmetic mean of Component Indexes within that thematic section.

$$SI_k = \frac{1}{m_k} \sum_{i=1}^{i=m_k} CL_{ki}$$

m_k = *Number of Component indices associated with Section k.*

$m_1 = 5, m_3 = 2.$

The list of the thematic indices is presented below.

No.	Name
1	Policy choices for capacity development
2	Aid effectiveness related to capacity development activities
3	Gender equality mainstreaming and social inclusion
4	Partnering for capacity development
5	Capacity profiling and capacity needs assessment
6	Inputs related to capacity development
7	Outputs related to capacity development

C.2.3 Agricultural transformation and Food Security Index

Specific sub-indices are computed for the agricultural transformation and food security, the annual theme of this report. They cover the following four themes:

- Agricultural strategy formulation and implementation
- Training, research and development/innovations in agriculture
- Role of private sector in the value chain
- Information system

C.2.4 Natural Resources Management Index

Specific sub-indices are computed for the natural resources management, the annual theme of this report. They cover the same clusters as for the ACI overall index.

Each of the four sub-indices is the arithmetic mean of the variable indicators within that theme.
The natural resources management index is the harmonic mean of the four sub-indices.

C.3 Ranking the countries

According to the index values, the countries are ranked into five categories as follows:

	Index value	Category	Color
1	0 to less than 20	Very Low	
2	20 to less than 40	Low	
3	40 to less than 60	Medium	
4	60 to less than 80	High	
5	80 and above	Very High	

ACI Indices

Table A1. ACI Composite Index by countries (in alphabetical order)

No.	Country	ACI 2013 composite value	Level of capacity development	Rank
1	ANGOLA	17.3	Very Low	42
2	BENIN	45.4	Medium	9
3	BOTSWANA	30.7	Low	24
4	BURKINA FASO	66.6	High	1
5	BURUNDI	38.2	Low	16
6	CAMEROON	50.7	Medium	4
7	CAPE VERDE	25.9	Low	34
8	CAR	27.5	Low	29
9	CHAD	22.8	Low	36
10	CONGO (DRC)	35.6	Low	20
11	CONGO, REP	48.4	Medium	8
12	CÔTE D'IVOIRE	30.3	Low	25
13	DJIBOUTI	19.1	Very Low	40
14	ETHIOPIA	48.9	Medium	7
15	GABON	31.6	Low	23
16	GAMBIA (THE)	39.2	Low	15
17	GHANA	53.0	Medium	3
18	GUINEA	15.6	Very Low	43
19	GUINEA-BISSAU	15.3	Very Low	44
20	KENYA	60.1	High	2
21	LESOTHO	34.8	Low	21
22	LIBERIA	36.2	Low	18
23	MADAGASCAR	27.2	Low	31
24	MALAWI	32.4	Low	22
25	MALI	44.7	Medium	10
26	MAURITANIA	24.3	Low	35
27	MAURITIUS	20.7	Low	39
28	MOROCCO	43.9	Medium	12
29	MOZAMBIQUE	28.9	Low	27
30	NAMIBIA	27.9	Low	28
31	NIGER	29.0	Low	26
32	NIGERIA	37.7	Low	17
33	RWANDA	44.4	Medium	11
34	SAO TOME AND PRINCIPE	21.8	Low	37
35	SENEGAL	42.5	Medium	14
36	SIERRA LEONE	27.2	Low	32
37	SOUTH AFRICA	27.3	Low	30
38	SWAZILAND	21.3	Low	38
39	TANZANIA	36.0	Low	19
40	TOGO	18.9	Very Low	41
41	TUNISIA	26.5	Low	33
42	UGANDA	50.1	Medium	6
43	ZAMBIA	43.9	Medium	13
44	ZIMBABWE	50.3	Medium	5

Geographical representation of capacity levels

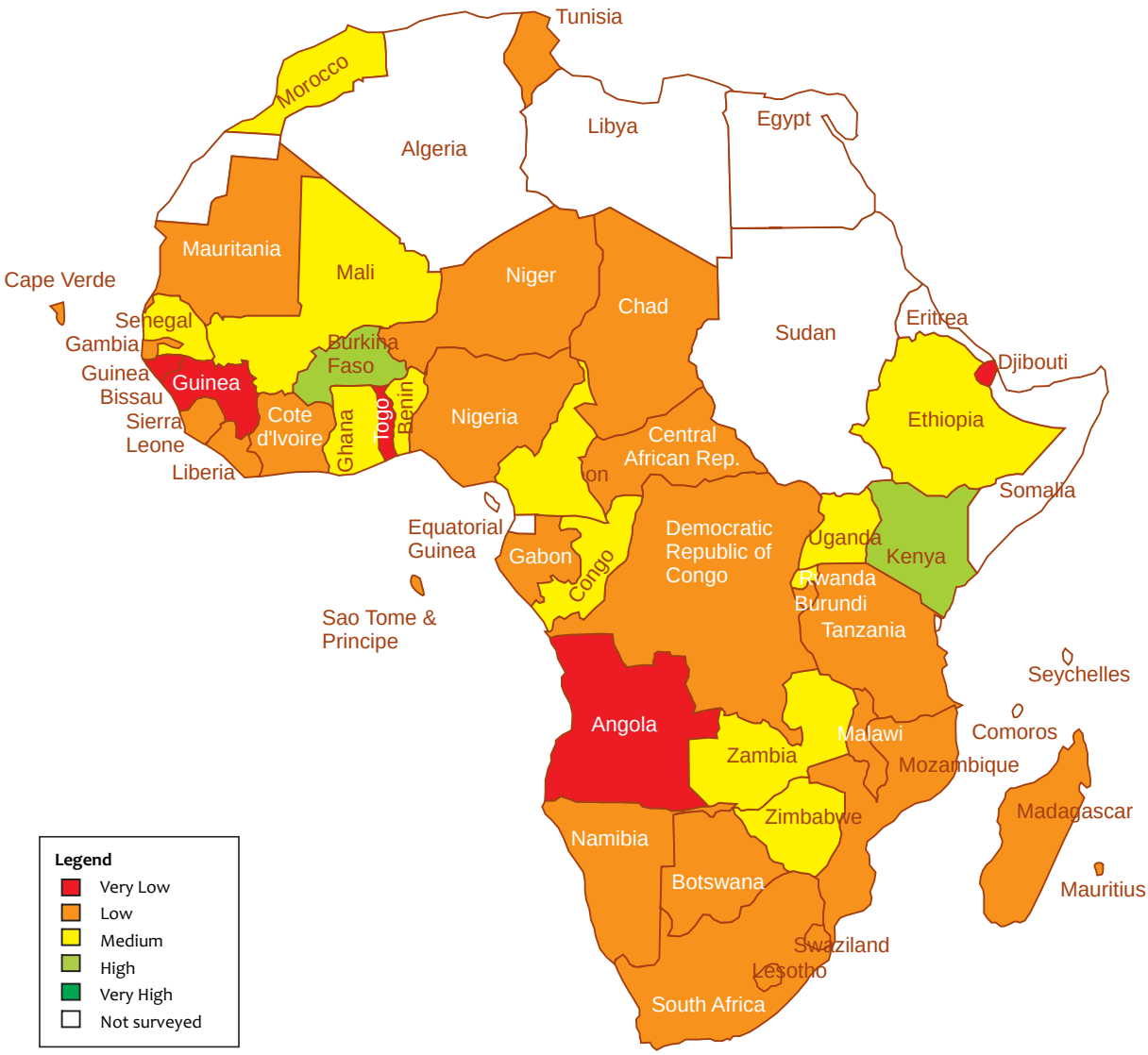
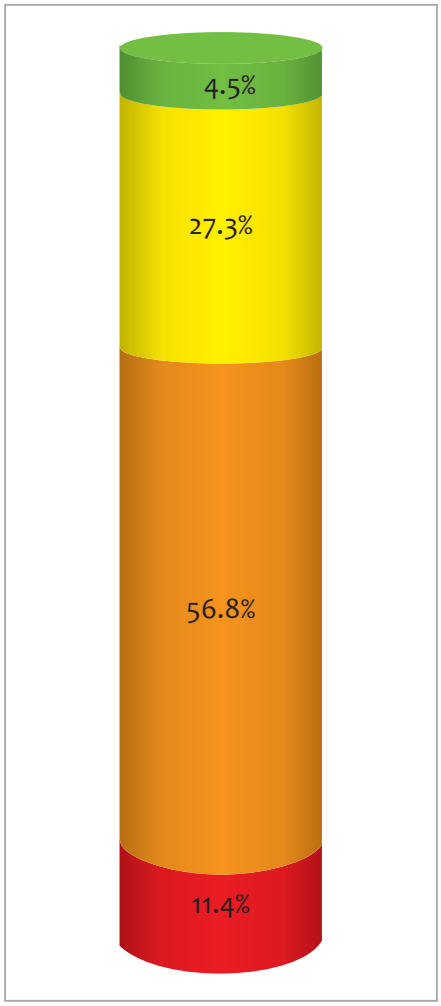


Table A2. Percentage of countries by levels of capacity development

Level	% of countries
Very Low	11.4
Low	56.8
Medium	27.3
High	4.5
Very High	0.0
TOTAL	100



Very High: No country

High: 2 countries
Burkina Faso; Kenya

Medium: 12 countries
Benin; Cameroon; Congo, Rep.; Ethiopia; Ghana; Mali; Morocco; Rwanda; Senegal; Uganda; Zambia; Zimbabwe

Low: 25 countries
Botswana; Burundi; Cape Verde; Car; Chad; Côte d'Ivoire; DRC; Gabon; Gambia; Lesotho; Liberia; Madagascar; Malawi; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Sierra Leone; Sao Tome and Principe; South Africa; Swaziland; Tanzania; Tunisia

Very Low: 5 countries
Angola; Djibouti; Guinea; Guinea-Bissau; Togo

Table A3. Cluster indices values

No.	Country	Cluster 1 Policy environment	Cluster 2 Processes for implementation	Cluster 3 Development results at country level	Cluster 4 Capacity development outcome
1	ANGOLA	91.7	63.0	69.0	5.3
2	BENIN	95.8	81.5	43.0	23.7
3	BOTSWANA	95.8	73.1	76.0	10.8
4	BURKINA FASO	95.8	85.2	74.0	41.0
5	BURUNDI	100.0	77.8	54.0	15.8
6	CAMEROON	100.0	78.7	67.0	24.2
7	CAPE VERDE	83.3	65.7	76.0	8.7
8	CAR	100.0	72.2	29.0	11.5
9	CHAD	83.3	70.4	48.0	7.8
10	CONGO (DRC)	79.2	66.7	59.0	14.8
11	CONGO, REP	91.7	61.1	50.0	28.3
12	CÔTE D'IVOIRE	79.2	61.1	47.0	12.2
13	DJIBOUTI	95.8	83.3	69.0	5.8
14	ETHIOPIA	95.8	67.6	39.0	32.3
15	GABON	79.2	69.4	44.0	13.0
16	GAMBIA (THE)	100.0	78.7	53.0	16.6
17	GHANA	100.0	88.0	48.0	30.1
18	GUINEA	87.5	74.1	19.0	5.6
19	GUINEA-BISSAU	83.3	55.6	62.0	4.6
20	KENYA	75.0	75.9	42.0	61.4
21	LESOTHO	79.2	75.0	58.0	13.9
22	LIBERIA	83.3	81.5	56.0	14.6
23	MADAGASCAR	91.7	63.0	33.0	11.1
24	MALAWI	91.7	86.1	49.0	12.4
25	MALI	87.5	74.1	30.0	32.1
26	MAURITANIA	91.7	66.7	38.0	8.9
27	MAURITIUS	95.8	100.0	48.0	6.6
28	MOROCCO	83.3	74.1	84.0	18.6
29	MOZAMBIQUE	100.0	89.8	68.0	9.7
30	NAMIBIA	87.5	76.9	66.0	9.6
31	NIGER	95.8	83.3	78.0	9.8
32	NIGERIA	83.3	74.1	38.0	18.4
33	RWANDA	95.8	85.2	61.0	19.4
34	SAO TOME AND PRINCIPE	95.8	49.1	34.0	8.1
35	SENEGAL	95.8	72.2	46.0	20.7
36	SIERRA LEONE	95.8	71.3	49.0	9.8
37	SOUTH AFRICA	87.5	56.5	48.0	10.4
38	SWAZILAND	83.3	44.4	41.0	7.8
39	TANZANIA	95.8	60.2	42.0	16.6
40	TOGO	95.8	57.4	47.0	6.1
41	TUNISIA	79.2	65.7	46.0	9.8
42	UGANDA	95.8	70.4	45.0	30.3
43	ZAMBIA	95.8	56.5	44.0	24.8
44	ZIMBABWE	79.2	77.8	41.0	33.8

Table A4. Levels of capacity by cluster

No.	Country	Cluster 1 Policy environment	Cluster 2 Processes for implementation	Cluster 3 Development results at country level	Cluster 4 Capacity development outcome
1	ANGOLA	Very High	High	High	Very Low
2	BENIN	Very High	Very High	Medium	Low
3	BOTSWANA	Very High	High	High	Very Low
4	BURKINA FASO	Very High	Very High	High	Medium
5	BURUNDI	Very High	High	Medium	Very Low
6	CAMEROON	Very High	High	High	Low
7	CAPE VERDE	Very High	High	High	Very Low
8	CAR	Very High	High	Low	Very Low
9	CHAD	Very High	High	Medium	Very Low
10	CONGO (DRC)	High	High	Medium	Very Low
11	CONGO, REP	Very High	High	Medium	Low
12	CÔTE D'IVOIRE	High	High	Medium	Very Low
13	DJIBOUTI	Very High	Very High	High	Very Low
14	ETHIOPIA	Very High	High	Low	Low
15	GABON	High	High	Medium	Very Low
16	GAMBIA (THE)	Very High	High	Medium	Very Low
17	GHANA	Very High	Very High	Medium	Low
18	GUINEA	Very High	High	Very Low	Very Low
19	GUINEA-BISSAU	Very High	Medium	High	Very Low
20	KENYA	High	High	Medium	High
21	LESOTHO	High	High	Medium	Very Low
22	LIBERIA	Very High	Very High	Medium	Very Low
23	MADAGASCAR	Very High	High	Low	Very Low
24	MALAWI	Very High	Very High	Medium	Very Low
25	MALI	Very High	High	Low	Low
26	MAURITANIA	Very High	High	Low	Very Low
27	MAURITIUS	Very High	Very High	Medium	Very Low
28	MOROCCO	Very High	High	Very High	Very Low
29	MOZAMBIQUE	Very High	Very High	High	Very Low
30	NAMIBIA	Very High	High	High	Very Low
31	NIGER	Very High	Very High	High	Very Low
32	NIGERIA	Very High	High	Low	Very Low
33	RWANDA	Very High	Very High	High	Very Low
34	SAO TOME AND PRINCIPE	Very High	Medium	Low	Very Low
35	SENEGAL	Very High	High	Medium	Low
36	SIERRA LEONE	Very High	High	Medium	Very Low
37	SOUTH AFRICA	Very High	Medium	Medium	Very Low
38	SWAZILAND	Very High	Medium	Medium	Very Low
39	TANZANIA	Very High	High	Medium	Very Low
40	TOGO	Very High	Medium	Medium	Very Low
41	TUNISIA	High	High	Medium	Very Low
42	UGANDA	Very High	High	Medium	Low
43	ZAMBIA	Very High	Medium	Medium	Low
44	ZIMBABWE	High	High	Medium	Low

Table A5. Thematic indices by countries

No.	Country	Policy choices for CD	Aid effectiveness related to CD	Gender equality mainstreaming and social inclusion	Partnering for CD	Capacity profiling and capacity needs assessment	Inputs related to CD	Outputs related to CD
1	ANGOLA	51.7	67.5	83.3	100	50	0.0	0.0
2	BENIN	60.8	78.8	75.8	75	100	21.6	22.5
3	BOTSWANA	65.3	63.8	82.5	50	100	12.0	3.2
4	BURKINA FASO	66.7	86.3	80.8	75	100	67.6	39.1
5	BURUNDI	68.3	61.3	79.2	75	100	24.4	7.7
6	CAMEROON	63.3	83.8	87.5	75	100	36.0	20.9
7	CAPE VERDE	54.2	70.0	78.3	50	100	9.1	2.8
8	CAR	48.1	80.0	68.3	100	100	16.6	4.2
9	CHAD	63.4	66.3	60.8	100	0	0.0	0.0
10	CONGO (DRC)	57.8	36.3	65.0	75	100	27.3	3.8
11	CONGO, REP	62.1	68.8	75.8	0	50	17.4	19.2
12	CÔTE D'IVOIRE	49.5	40.0	70.8	50	50	22.7	8.1
13	DJIBOUTI	56.6	80.0	95.0	75	100	0.7	0.0
14	ETHIOPIA	42.0	67.5	78.3	75	50	58.2	31.2
15	GABON	46.3	61.3	70.8	100	50	36.4	2.0
16	GAMBIA (THE)	58.6	72.5	84.2	75	100	8.4	10.3
17	GHANA	64.7	78.8	75.8	100	100	62.4	22.9
18	GUINEA	61.0	36.3	63.3	75	100	0.0	0.0
19	GUINEA-BISSAU	38.6	58.8	82.5	75	100	0.0	0.0
20	KENYA	68.8	21.3	70.8	50	50	72.3	71.9
21	LESOTHO	61.9	41.3	81.7	100	50	9.2	6.9
22	LIBERIA	80.4	45.0	59.2	100	100	8.3	2.3
23	MADAGASCAR	30.6	78.8	79.2	75	50	10.8	3.7
24	MALAWI	58.4	86.3	79.2	100	50	8.5	1.7
25	MALI	58.2	50.0	73.3	50	50	38.4	32.1
26	MAURITANIA	50.3	66.3	70.8	50	100	13.1	2.5
27	MAURITIUS	77.5	72.5	75.8	100	100	0.0	0.0
28	MOROCCO	73.0	73.8	87.5	50	100	0.8	1.7
29	MOZAMBIQUE	68.5	72.5	91.7	50	100	18.7	3.8
30	NAMIBIA	63.6	95.0	79.2	25	0	15.0	3.9
31	NIGER	68.1	85.0	81.7	100	100	11.8	3.9
32	NIGERIA	58.2	60.0	65.8	50	50	22.7	17.7
33	RWANDA	64.3	76.3	86.7	75	100	33.2	9.2
34	SAO TOME AND PRINCIPE	32.6	86.3	68.3	50	0	8.9	2.4
35	SENEGAL	58.3	63.8	70.8	100	0	44.8	14.5
36	SIERRA LEONE	48.3	67.5	78.3	75	100	8.3	1.2
37	SOUTH AFRICA	32.4	66.3	85.0	75	50	30.7	3.5
38	SWAZILAND	43.4	76.3	55.0	100	0	0.8	0.0
39	TANZANIA	45.9	77.5	79.2	50	0	27.2	5.0
40	TOGO	43.4	77.5	85.0	75	0	0.0	0.0
41	TUNISIA	43.8	70.0	69.2	75	100	0.0	0.0
42	UGANDA	55.1	62.5	80.8	25	50	35.9	28.9
43	ZAMBIA	33.9	61.3	84.2	25	100	46.0	16.3
44	ZIMBABWE	55.3	45.0	82.5	50	100	66.7	27.4

CD = Capacity Development

Table A6. Capacity dimension indices values

No.	Country	Enabling environment	Organizational level	Individual level
1	ANGOLA	67.5	75.0	0.0
2	BENIN	71.8	87.5	22.3
3	BOTSWANA	70.5	75.0	5.1
4	BURKINA FASO	77.9	87.5	45.2
5	BURUNDI	69.6	87.5	11.3
6	CAMEROON	78.2	87.5	24.1
7	CAPE VERDE	67.5	75.0	4.1
8	CAR	65.5	100	6.8
9	CHAD	63.5	50.0	0.0
10	CONGO (DRC)	53.0	87.5	8.8
11	CONGO, REP	68.9	25.0	18.8
12	CÔTE D'IVOIRE	53.5	50.0	11.2
13	DJIBOUTI	77.2	87.5	0.2
14	ETHIOPIA	62.6	62.5	37.0
15	GABON	59.5	75.0	9.4
16	GAMBIA (THE)	71.7	87.5	9.9
17	GHANA	73.1	100	31.4
18	GUINEA	53.5	87.5	0.0
19	GUINEA-BISSAU	60.0	87.5	0.0
20	KENYA	53.6	50.0	71.9
21	LESOTHO	61.6	75.0	7.3
22	LIBERIA	61.5	100	3.6
23	MADAGASCAR	62.8	62.5	5.2
24	MALAWI	74.6	75.0	3.1
25	MALI	60.5	50.0	33.5
26	MAURITANIA	62.4	75.0	4.7
27	MAURITIUS	75.3	100	0.0
28	MOROCCO	78.1	75.0	1.5
29	MOZAMBIQUE	77.6	75.0	7.0
30	NAMIBIA	79.3	12.5	6.2
31	NIGER	78.3	100	5.6
32	NIGERIA	61.3	50.0	18.8
33	RWANDA	75.7	87.5	14.4
34	SAO TOME AND PRINCIPE	62.4	25.0	3.8
35	SENEGAL	64.3	50.0	21.0
36	SIERRA LEONE	64.7	87.5	2.7
37	SOUTH AFRICA	61.2	62.5	9.3
38	SWAZILAND	58.2	50.0	0.2
39	TANZANIA	67.5	25.0	9.7
40	TOGO	68.6	37.5	0.0
41	TUNISIA	61.0	87.5	0.0
42	UGANDA	66.1	37.5	30.4
43	ZAMBIA	59.8	62.5	22.7
44	ZIMBABWE	60.9	75.0	35.9

Table A7. Agricultural transformation and food security index

No.	Country	ACIAgric	Level
1	ANGOLA	49.2	Medium
2	BENIN	58.4	Medium
3	BOTSWANA	55.6	Medium
4	BURKINA FASO	64.9	High
5	BURUNDI	55.8	Medium
6	CAMEROON	62.2	High
7	CAPE VERDE	57.0	Medium
8	CAR	38.3	Low
9	CHAD	60.3	High
10	CONGO (DRC)	50.9	Medium
11	CONGO, REP	52.4	Medium
12	CÔTE D'IVOIRE	43.1	Medium
13	DJIBOUTI	49.3	Medium
14	ETHIOPIA	64.9	High
15	GABON	45.9	Medium
16	GAMBIA (THE)	68.2	High
17	GHANA	74.4	High
18	GUINEA	46.2	Medium
19	GUINEA-BISSAU	44.5	Medium
20	KENYA	63.5	High
21	LESOTHO	56.9	Medium
22	LIBERIA	60.9	High
23	MADAGASCAR	72.4	High
24	MALAWI	63.6	High
25	MALI	63.8	High
26	MAURITANIA	51.5	Medium
27	MAURITIUS	55.8	Medium
28	MOROCCO	66.2	High
29	MOZAMBIQUE	51.8	Medium
30	NAMIBIA	34.4	Low
31	NIGER	60.0	High
32	NIGERIA	76.1	High
33	RWANDA	56.2	Medium
34	SAO TOME AND PRINCIPE	32.0	Low
35	SENEGAL	61.0	High
36	SIERRA LEONE	66.5	High
37	SOUTH AFRICA	33.8	Low
38	SWAZILAND	36.1	Low
39	TANZANIA	58.0	Medium
40	TOGO	61.5	High
41	TUNISIA	70.5	High
42	UGANDA	63.7	High
43	ZAMBIA	63.2	High
44	ZIMBABWE	61.6	High

Table A8. Agricultural transformation and food security component indices

No.	Country	Agricultural strategy formulation and implementation	Training, research and development/innovations in agriculture	Role of private sector in the value chain	Information system
1	ANGOLA	44.6	35.7	73.1	58.3
2	BENIN	56.9	43.4	80.8	64.6
3	BOTSWANA	40.5	40.9	88.5	87.5
4	BURKINA FASO	73.9	41.0	76.9	93.8
5	BURUNDI	50.6	43.0	84.6	59.4
6	CAMEROON	53.1	46.2	76.9	92.7
7	CAPE VERDE	64.1	43.5	48.1	92.7
8	CAR	42.0	25.8	36.5	68.8
9	CHAD	59.2	41.6	67.3	94.8
10	CONGO (DRC)	44.7	42.9	44.2	96.9
11	CONGO, REP	48.5	40.4	63.5	65.6
12	CÔTE D'IVOIRE	28.6	38.8	75.0	53.1
13	DJIBOUTI	56.6	36.5	46.2	69.8
14	ETHIOPIA	61.0	51.1	65.4	95.8
15	GABON	45.7	33.4	67.3	49.0
16	GAMBIA (THE)	93.8	41.0	86.5	83.3
17	GHANA	86.7	50.4	90.4	88.5
18	GUINEA	63.5	22.9	61.5	91.7
19	GUINEA-BISSAU	55.6	21.5	69.2	91.7
20	KENYA	69.1	44.5	88.5	67.7
21	LESOTHO	51.9	40.9	63.5	92.7
22	LIBERIA	57.0	41.1	82.7	85.4
23	MADAGASCAR	66.1	58.4	80.8	93.8
24	MALAWI	70.0	40.8	76.9	90.6
25	MALI	61.5	42.9	90.4	83.3
26	MAURITANIA	73.0	36.8	48.1	62.5
27	MAURITIUS	56.9	38.4	84.6	61.5
28	MOROCCO	70.4	47.6	73.1	86.5
29	MOZAMBIQUE	44.9	39.6	55.8	85.4
30	NAMIBIA	25.0	33.7	90.4	28.1
31	NIGER	64.4	37.6	78.8	84.4
32	NIGERIA	63.3	70.8	84.6	92.7
33	RWANDA	76.7	37.2	65.4	62.5
34	SAO TOME AND PRINCIPE	19.2	36.3	42.3	45.8
35	SENEGAL	55.2	41.4	92.3	80.2
36	SIERRA LEONE	80.8	41.0	82.7	88.5
37	SOUTH AFRICA	17.4	38.8	46.2	75.0
38	SWAZILAND	27.6	25.8	57.7	54.2
39	TANZANIA	47.0	42.4	84.6	81.3
40	TOGO	59.0	41.4	75.0	93.8
41	TUNISIA	52.0	65.7	92.3	87.5
42	UGANDA	59.8	44.4	80.8	89.6
43	ZAMBIA	56.5	46.2	80.8	86.5
44	ZIMBABWE	47.2	47.7	92.3	83.3

Table A9. Natural resources management composite index

No.	Country	Index NRM	Level
1	ANGOLA	na	NA
2	BENIN	38.7	Low
3	BOTSWANA	77.3	High
4	BURKINA FASO	54.4	Medium
5	BURUNDI	46.9	Medium
6	CAMEROON	44.8	Medium
7	CAPE VERDE	50.0	Medium
8	CAR	57.4	Medium
9	CHAD	41.6	Medium
10	CONGO (DRC)	29.3	Low
11	CONGO, REP	53.3	Medium
12	CÔTE D'IVOIRE	33.3	Low
13	DJIBOUTI	40.9	Medium
14	ETHIOPIA	50.1	Medium
15	GABON	54.2	Medium
16	GAMBIA (THE)	65.4	High
17	GHANA	80.6	Very High
18	GUINEA	45.2	Medium
19	GUINEA-BISSAU	38.6	Low
20	KENYA	43.1	Medium
21	LESOTHO	22.3	Low
22	LIBERIA	59.5	Medium
23	MADAGASCAR	54.2	Medium
24	MALAWI	53.7	Medium
25	MALI	62.1	High
26	MAURITANIA	51.0	Medium
27	MAURITIUS	73.4	High
28	MOROCCO	63.2	High
29	MOZAMBIQUE	35.9	Low
30	NAMIBIA	77.6	High
31	NIGER	53.4	Medium
32	NIGERIA	73.8	High
33	RWANDA	83.2	Very High
34	SAO TOME AND PRINCIPE	68.0	High
35	SENEGAL	35.5	Low
36	SIERRA LEONE	55.6	Medium
37	SOUTH AFRICA	na	NA
38	SWAZILAND	41.1	Medium
39	TANZANIA	61.0	High
40	TOGO	46.4	Medium
41	TUNISIA	42.6	Medium
42	UGANDA	55.9	Medium
43	ZAMBIA	51.5	Medium
44	ZIMBABWE	62.2	High

na = Data not available
NA = Not applicable

Table A10. Natural resources management component indices

No.	Country	Policy environment	Processes for implementation	Development results at country level	Capacity development outcomes
1	ANGOLA	na	na	na	na
2	BENIN	37.0	53.2	43.0	29.2
3	BOTSWANA	88.9	77.9	69.9	75.0
4	BURKINA FASO	51.8	51.6	50.5	66.7
5	BURUNDI	64.8	39.2	38.0	55.6
6	CAMEROON	72.9	50.5	57.1	26.2
7	CAPE VERDE	62.5	40.0	47.7	55.6
8	CAR	64.8	68.0	47.5	54.2
9	CHAD	79.6	72.9	40.3	22.2
10	CONGO (DRC)	22.2	56.4	48.5	18.8
11	CONGO, REP	66.7	62.5	71.3	33.3
12	CÔTE D'IVOIRE	37.5	50.0	39.3	20.8
13	DJIBOUTI	75.0	54.4	62.5	20.0
14	ETHIOPIA	66.7	45.6	42.3	51.9
15	GABON	55.5	62.0	66.1	40.7
16	GAMBIA (THE)	87.0	63.2	67.7	52.4
17	GHANA	85.2	83.6	79.5	75.0
18	GUINEA	74.1	64.3	34.0	33.3
19	GUINEA-BISSAU	48.1	48.9	26.7	40.0
20	KENYA	50.0	53.2	33.9	40.7
21	LESOTHO	31.5	54.8	25.6	11.1
22	LIBERIA	55.6	66.4	52.1	66.7
23	MADAGASCAR	57.4	59.9	49.1	51.9
24	MALAWI	79.6	61.3	42.0	45.8
25	MALI	75.9	68.8	67.0	45.8
26	MAURITANIA	38.9	61.3	58.5	51.8
27	MAURITIUS	87.5	69.2	62.0	80.0
28	MOROCCO	61.1	77.4	63.3	54.8
29	MOZAMBIQUE	29.6	54.4	23.5	59.3
30	NAMIBIA	87.0	70.8	75.3	79.2
31	NIGER	81.5	64.6	48.8	37.5
32	NIGERIA	79.6	75.3	66.4	75.0
33	RWANDA	100.0	87.8	71.1	79.2
34	SAO TOME AND PRINCIPE	74.1	57.2	72.2	71.4
35	SENEGAL	46.3	58.9	70.6	16.7
36	SIERRA LEONE	70.4	59.4	52.5	45.8
37	SOUTH AFRICA	na	na	na	na
38	SWAZILAND	75.0	55.0	21.4	52.4
39	TANZANIA	61.1	71.6	51.0	64.3
40	TOGO	70.4	46.8	44.6	35.4
41	TUNISIA	31.5	39.7	66.5	45.8
42	UGANDA	63.0	53.4	62.0	48.1
43	ZAMBIA	70.4	70.4	64.6	29.6
44	ZIMBABWE	57.4	70.3	60.1	62.5

na = Data not available

Country Profiles

Angola

ACI Composite Index

ACI Composite Index value 17.1

Level of Capacity Development ..... Very Low

Rank..... 42

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development..... 51.7

Aid effectiveness related to capacity development activities 67.5

Gender equality mainstreaming and social inclusion 83.3

Development agencies..... 100

Assessment of needs 50.0

Agricultural transformation and food security..... 49.2

Natural resources management index ..... na

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.7
- State of Fragility (World Bank Harmonized list FY13)..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development..... 0

Outputs related to capacity development..... 0

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Benin

ACI Composite Index

ACI Composite Index value 45.4

Level of Capacity Development ..... Medium

Rank..... 9

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 60.8

Aid effectiveness related to capacity development activities 67.5

Gender equality mainstreaming and social inclusion 78.8

Development agencies..... 75.8

Assessment of needs..... 100

Agricultural transformation and food security..... 58.4

Natural resources management index..... 38.7

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.5
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.9

ACBF-related activities

Inputs related to capacity development 21.6

Outputs related to capacity development 22.5

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$)..... 679,903

Botswana

ACI Composite Index

ACI Composite Index value 30.7

Level of Capacity Development ..... Low

Rank 24

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 65.3

Aid effectiveness related to capacity development activities 63.8

Gender equality mainstreaming and social inclusion 82.5

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 55.6

Natural resources management index 77.3

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 12

Outputs related to capacity development 3.2

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 683,769

Burkina Faso

ACI Composite Index

ACI Composite Index value 66.6

Level of Capacity Development ..... High

Rank 1

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 66.7

Aid effectiveness related to capacity development activities 86.3

Gender equality mainstreaming and social inclusion 80.8

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 64.9

Natural resources management index 54.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.8
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 4.5

ACBF-related activities

Inputs related to capacity development 67.6

Outputs related to capacity development 39.1

No. of active ACBF-supported projects in 2011 5

Total cumulative grant disbursed in 2011 (US$) 3,539,870

Burundi

ACI Composite Index

ACI Composite Index value 38.2

Level of Capacity Development ..... Low

Rank…… 16

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 68.3

Aid effectiveness related to capacity development activities 61.3

Gender equality mainstreaming and social inclusion 79.2

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 55.8

Natural resources management index 46.9

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.1
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment 3.3

ACBF-related activities

Inputs related to capacity development 24.4

Outputs related to capacity development 7.7

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 842,758

Cameroon

ACI Composite Index

ACI Composite Index value 50.7

Level of Capacity Development ..... Medium

Rank 4

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 63.3

Aid effectiveness related to capacity development activities 83.8

Gender equality mainstreaming and social inclusion 87.5

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 62.2

Natural resources management index 44.8

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.2
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.6

ACBF-related activities

Inputs related to capacity development 36

Outputs related to capacity development 20.9

No. of active ACBF-supported projects in 2011 3

Total cumulative grant disbursed in 2011 (US$) 1,595,782

Cape Verde

ACI Composite Index

ACI Composite Index value 25.9

Level of Capacity Development ..... Low

Rank 34

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 54.2

Aid effectiveness related to capacity development activities 70

Gender equality mainstreaming and social inclusion 78.3

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 34.5

Natural resources management index 50

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 4.0
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 4.2

ACBF-related activities

Inputs related to capacity development 9.1

Outputs related to capacity development 2.8

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 236,914

Central African Republic

ACI Composite Index

ACI Composite Index value 27.5

Level of Capacity Development ..... Low

Rank 29

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 48.1

Aid effectiveness related to capacity development activities 80

Gender equality mainstreaming and social inclusion 68.3

Development agencies 100

Assessment of needs 100

Agricultural transformation and food security 38.3

Natural resources management index 57.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.8
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 16.6

Outputs related to capacity development 4.2

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 498,747

Chad

ACI Composite Index

ACI Composite Index value 22.8

Level of Capacity Development ..... Low

Rank…… 36

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 63.4

Aid effectiveness related to capacity development activities 66.3

Gender equality mainstreaming and social inclusion 60.8

Development agencies 100

Assessment of needs 0

Agricultural transformation and food security 60.3

Natural resources management index 41.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.7
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Congo (Dem. Rep. of)

ACI Composite Index

ACI Composite Index value 35.6

Level of Capacity Development ..... Low

Rank…… 20

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 57.8

Aid effectiveness related to capacity development activities 36.3

Gender equality mainstreaming and social inclusion 65

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 50.9

Natural resources management index 29.3

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.7
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 27.3

Outputs related to capacity development 3.8

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 799,037

Congo

ACI Composite Index

ACI Composite Index value.....48.4

Level of Capacity Development.....Medium

Rank.....8

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development.....62.1

Aid effectiveness related to capacity development activities.....68.8

Gender equality mainstreaming and social inclusion.....75.8

Development agencies.....0

Assessment of needs.....50

Agricultural transformation and food security.....52.4

Natural resources management index.....53.3

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011).....3.0
- State of Fragility (World Bank Harmonized list FY13).....Fragile
- Self-country assessment.....NA

ACBF-related activities

Inputs related to capacity development.....17.4

Outputs related to capacity development.....19.2

No. of active ACBF-supported projects in 2011.....2

Total cumulative grant disbursed in 2011 (US$).....403,177

Côte d'Ivoire

ACI Composite Index

ACI Composite Index value 30.3

Level of Capacity Development ..... Low

Rank 25

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 49.5

Aid effectiveness related to capacity development activities 40

Gender equality mainstreaming and social inclusion 70.8

Development agencies 50

Assessment of needs 50

Agricultural transformation and food security 43.1

Natural resources management index 33.3

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.9
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment 3.6

ACBF-related activities

Inputs related to capacity development 22.7

Outputs related to capacity development 8.1

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 827,512

Djibouti

ACI Composite Index

ACI Composite Index value 19.1

Level of Capacity Development ..... Very Low

Rank..... 39

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 56.6

Aid effectiveness related to capacity development activities 80

Gender equality mainstreaming and social inclusion 95

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 49.3

Natural resources management index 40.9

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.2
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 0.7

Outputs related to capacity development 0

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 76,291

Ethiopia

ACI Composite Index

ACI Composite Index value.....48.9

Level of Capacity Development.....Medium

Rank.....7

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development.....42

Aid effectiveness related to capacity development activities.....67.5

Gender equality mainstreaming and social inclusion.....78.3

Development agencies.....75

Assessment of needs.....50

Agricultural transformation and food security.....64.9

Natural resources management index.....50.1

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011).....3.5
- State of Fragility (World Bank Harmonized list FY13).....Non-Fragile
- Self-country assessment.....NA

ACBF-related activities

Inputs related to capacity development.....58.2

Outputs related to capacity development.....31.2

No. of active ACBF-supported projects in 2011.....3

Total cumulative grant disbursed in 2011 (US$).....1,119,447

Gabon

ACI Composite Index

ACI Composite Index value 31.6

Level of Capacity Development ..... Low

Rank 23

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 46.3

Aid effectiveness related to capacity development activities 61.3

Gender equality mainstreaming and social inclusion 70.8

Development agencies 100

Assessment of needs 50

Agricultural transformation and food security 45.9

Natural resources management index 54.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 36.4

Outputs related to capacity development 2

No. of active ACBF-supported projects in 2011 4

Total cumulative grant disbursed in 2011 (US$) 931,423

Gambia (The)

ACI Composite Index

ACI Composite Index value 39.2

Level of Capacity Development ..... Low

Rank 15

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 58.6

Aid effectiveness related to capacity development activities 72.5

Gender equality mainstreaming and social inclusion 84.2

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 68.2

Natural resources management index 65.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.5
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 8.4

Outputs related to capacity development 10.3

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 125,450

Ghana

ACI Composite Index

ACI Composite Index value.....54.1

Level of Capacity Development.....Medium

Rank..... 3

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development.....64.7

Aid effectiveness related to capacity development activities.....78.8

Gender equality mainstreaming and social inclusion.....75.8

Development agencies.....100

Assessment of needs.....100

Agricultural transformation and food security.....74.4

Natural resources management index.....80.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011).....3.9
- State of Fragility (World Bank Harmonized list FY13).....Non-Fragile
- Self-country assessment..... NA

ACBF-related activities

Inputs related to capacity development.....62.4

Outputs related to capacity development.....22.9

No. of active ACBF-supported projects in 2011 6

Total cumulative grant disbursed in 2011 (US$).....2,332,375

Guinea

ACI Composite Index

ACI Composite Index value 15.6

Level of Capacity Development ..... Very Low

Rank..... 43

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 61

Aid effectiveness related to capacity development activities 36.3

Gender equality mainstreaming and social inclusion 63.3

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 46.2

Natural resources management index 45.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.9
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Guinea Bissau

ACI Composite Index

ACI Composite Index value 15.3

Level of Capacity Development ..... Very Low

Rank 44

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 38.6

Aid effectiveness related to capacity development activities 58.8

Gender equality mainstreaming and social inclusion 82.5

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 44.5

Natural resources management index 38.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.8
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Kenya

ACI Composite Index

ACI Composite Index value 60.1

Level of Capacity Development ..... High

Rank…… 2

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 68.8

Aid effectiveness related to capacity development activities 21.3

Gender equality mainstreaming and social inclusion 70.8

Development agencies 50

Assessment of needs 50

Agricultural transformation and food security 63.5

Natural resources management index 43.1

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.8
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 4.4

ACBF-related activities

Inputs related to capacity development 72.3

Outputs related to capacity development 71.9

No. of active ACBF-supported projects in 2011 7

Total cumulative grant disbursed in 2011 (US$) 1,623,684

Lesotho

ACI Composite Index

ACI Composite Index value 34.8

Level of Capacity Development ..... Low

Rank…… 21

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 61.9

Aid effectiveness related to capacity development activities 41.3

Gender equality mainstreaming and social inclusion 81.7

Development agencies 100

Assessment of needs 50

Agricultural transformation and food security 63.3

Natural resources management index 22.3

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.4
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 9.2

Outputs related to capacity development 6.9

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 181,452

Liberia

ACI Composite Index

ACI Composite Index value 36.2

Level of Capacity Development ..... Low

Rank 18

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 80.4

Aid effectiveness related to capacity development activities 45

Gender equality mainstreaming and social inclusion 59.2

Development agencies 100

Assessment of needs 100

Agricultural transformation and food security 60.9

Natural resources management index 59.5

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.0
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment 3.8

ACBF-related activities

Inputs related to capacity development 8.3

Outputs related to capacity development 2.3

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 179,239

Madagascar

ACI Composite Index

ACI Composite Index value 27.2

Level of Capacity Development ..... Low

Rank..... 31

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 30.6

Aid effectiveness related to capacity development activities 78.8

Gender equality mainstreaming and social inclusion 79.2

Development agencies 75

Assessment of needs 50

Agricultural transformation and food security 72.4

Natural resources management index 54.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.2
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 2.8

ACBF-related activities

Inputs related to capacity development 10.8

Outputs related to capacity development 3.7

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 154,590

Malawi

ACI Composite Index

ACI Composite Index value 32.4

Level of Capacity Development ..... Low

Rank 22

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 58.4

Aid effectiveness related to capacity development activities 86.3

Gender equality mainstreaming and social inclusion 79.2

Development agencies 100

Assessment of needs 50

Agricultural transformation and food security 63.6

Natural resources management index 53.7

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.3
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 8.5

Outputs related to capacity development 1.7

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 253,671

Mali

ACI Composite Index

ACI Composite Index value 44.7

Level of Capacity Development ..... Medium

Rank..... 10

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 58.2

Aid effectiveness related to capacity development activities 50

Gender equality mainstreaming and social inclusion 73.3

Development agencies 50

Assessment of needs 50

Agricultural transformation and food security 63.8

Natural resources management index 62.1

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.6
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA.

ACBF-related activities

Inputs related to capacity development 38.4

Outputs related to capacity development 32.1

No. of active ACBF-supported projects in 2011 4

Total cumulative grant disbursed in 2011 (US$) 1,315,173

Mauritania

ACI Composite Index

ACI Composite Index value 24.3

Level of Capacity Development ..... Low

Rank…… 35

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 50.3

Aid effectiveness related to capacity development activities 66.3

Gender equality mainstreaming and social inclusion 70.8

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 51.5

Natural resources management index 51

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.2
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.5

ACBF-related activities

Inputs related to capacity development 13.1

Outputs related to capacity development 2.5

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 510,255

Mauritius

ACI Composite Index

ACI Composite Index value 20.7

Level of Capacity Development ..... Low

Rank 38

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 77.5

Aid effectiveness related to capacity development activities 72.5

Gender equality mainstreaming and social inclusion 75.8

Development agencies 100

Assessment of needs 100

Agricultural transformation and food security 55.8

Natural resources management index 73.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Morocco

ACI Composite Index

ACI Composite Index value 43.9

Level of Capacity Development ..... Medium

Rank 12

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 73

Aid effectiveness related to capacity development activities 73.8

Gender equality mainstreaming and social inclusion 87.5

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 66.2

Natural resources management index 63.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 0.8

Outputs related to capacity development 1.7

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Mozambique

ACI Composite Index

ACI Composite Index value 28.9

Level of Capacity Development ..... Low

Rank 27

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 68.5

Aid effectiveness related to capacity development activities 72.5

Gender equality mainstreaming and social inclusion 91.7

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 51.8

Natural resources management index 35.9

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.7
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 18.7

Outputs related to capacity development 3.8

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 632,769

Namibia

ACI Composite Index

ACI Composite Index value 27.9

Level of Capacity Development ..... Low

Rank 28

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 63.6

Aid effectiveness related to capacity development activities 95

Gender equality mainstreaming and social inclusion 79.2

Development agencies 25

Assessment of needs 0

Agricultural transformation and food security 34.4

Natural resources management index 77.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 15

Outputs related to capacity development 3.9

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 405,019

Niger

ACI Composite Index

ACI Composite Index value 29

Level of Capacity Development ..... Low

Rank 26

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 68.1

Aid effectiveness related to capacity development activities 85

Gender equality mainstreaming and social inclusion 81.7

Development agencies 100

Assessment of needs 100

Agricultural transformation and food security 60

Natural resources management index 53.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.4
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 4.5

ACBF-related activities

Inputs related to capacity development 11.8

Outputs related to capacity development 3.9

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 405,060

Nigeria

ACI Composite Index

ACI Composite Index value 37.7

Level of Capacity Development ..... Low

Rank 17

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 58.2

Aid effectiveness related to capacity development activities 60

Gender equality mainstreaming and social inclusion 65.8

Development agencies 50

Assessment of needs 50

Agricultural transformation and food security 76.1

Natural resources management index 73.8

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.4
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 22.7

Outputs related to capacity development 17.7

No. of active ACBF-supported projects in 2011 3

Total cumulative grant disbursed in 2011 (US$) 578,430

Rwanda

ACI Composite Index

ACI Composite Index value 44.4

Level of Capacity Development ..... Medium

Rank 11

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 64.3

Aid effectiveness related to capacity development activities 76.3

Gender equality mainstreaming and social inclusion 86.7

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 56.2

Natural resources management index 83.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.8
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 33.2

Outputs related to capacity development 9.2

No. of active ACBF-supported projects in 2011 2

Total cumulative grant disbursed in 2011 (US$) 1,748,492

Sao Tome and Principe

ACI Composite Index

ACI Composite Index value.....17.9

Level of Capacity Development .....Very Low

Rank.....41

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development.....32.6

Aid effectiveness related to capacity development activities.....86.3

Gender equality mainstreaming and social inclusion.....68.3

Development agencies 50

Assessment of needs 0

Agricultural transformation and food security 32

Natural resources management index 68

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011).....3.1
- State of Fragility (World Bank Harmonized list FY13).....Non-Fragile
- Self-country assessment.....NA

ACBF-related activities

Inputs related to capacity development.....8.9

Outputs related to capacity development.....2.4

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 244,470

Senegal

ACI Composite Index

ACI Composite Index value 42.5

Level of Capacity Development ..... Medium

Rank 14

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 58.3

Aid effectiveness related to capacity development activities 63.8

Gender equality mainstreaming and social inclusion 70.8

Development agencies 100

Assessment of needs 0

Agricultural transformation and food security 61

Natural resources management index 35.5

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.8
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 4.0

ACBF-related activities

Inputs related to capacity development 44.8

Outputs related to capacity development 14.5

No. of active ACBF-supported projects in 2011 4

Total cumulative grant disbursed in 2011 (US$) 1,682,350

Sierra Leone

ACI Composite Index

ACI Composite Index value 27.2

Level of Capacity Development ..... Low

Rank 32

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 48.3

Aid effectiveness related to capacity development activities 67.5

Gender equality mainstreaming and social inclusion 78.3

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 66.5

Natural resources management index 55.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.3
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 8.3

Outputs related to capacity development 1.2

No. of active ACBF-supported projects in 2011 1

Total cumulative grant disbursed in 2011 (US$) 236,572

South Africa

ACI Composite Index

ACI Composite Index value 27.3

Level of Capacity Development ..... Low

Rank 30

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 32.4

Aid effectiveness related to capacity development activities 66.3

Gender equality mainstreaming and social inclusion 85

Development agencies 75

Assessment of needs 50

Agricultural transformation and food security 33.8

Natural resources management index ..... na

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 30.7

Outputs related to capacity development 3.5

No. of active ACBF-supported projects in 2011 3

Total cumulative grant disbursed in 2011 (US$) 1,453,860

Swaziland

ACI Composite Index

ACI Composite Index value 21.1

Level of Capacity Development ..... Low

Rank 37

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 43.4

Aid effectiveness related to capacity development activities 76.3

Gender equality mainstreaming and social inclusion 55

Development agencies 100

Assessment of needs 0

Agricultural transformation and food security 36.1

Natural resources management index 41.1

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development 0.8

Outputs related to capacity development 0

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 89,779

Tanzania

ACI Composite Index

ACI Composite Index value 36

Level of Capacity Development ..... Low

Rank 19

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 45.9

Aid effectiveness related to capacity development activities 77.5

Gender equality mainstreaming and social inclusion 79.2

Development agencies 50

Assessment of needs 0

Agricultural transformation and food security 58

Natural resources management index 61

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.7
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.1

ACBF-related activities

Inputs related to capacity development 27.2

Outputs related to capacity development 5

No. of active ACBF-supported projects in 2011 4

Total cumulative grant disbursed in 2011 (US$) 608,810

Togo

ACI Composite Index

ACI Composite Index value 18.9

Level of Capacity Development ..... Very Low

Rank 40

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 43.4

Aid effectiveness related to capacity development activities 77.5

Gender equality mainstreaming and social inclusion 85

Development agencies 75

Assessment of needs 0

Agricultural transformation and food security 61.5

Natural resources management index 46.4

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.0
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Tunisia

ACI Composite Index

ACI Composite Index value 26.5

Level of Capacity Development ..... Low

Rank 33

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 43.8

Aid effectiveness related to capacity development activities 70

Gender equality mainstreaming and social inclusion 69.2

Development agencies 75

Assessment of needs 100

Agricultural transformation and food security 70.5

Natural resources management index 42.6

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) ..... NA
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment ..... NA

ACBF-related activities

Inputs related to capacity development ..... na

Outputs related to capacity development ..... na

No. of active ACBF-supported projects in 2011 0

Total cumulative grant disbursed in 2011 (US$) 0

Uganda

ACI Composite Index

ACI Composite Index value 50.1

Level of Capacity Development ..... Medium

Rank 6

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 55.1

Aid effectiveness related to capacity development activities 62.5

Gender equality mainstreaming and social inclusion 80.8

Development agencies 25

Assessment of needs 50

Agricultural transformation and food security 63.7

Natural resources management index 55.9

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.8
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.9

ACBF-related activities

Inputs related to capacity development 35.9

Outputs related to capacity development 28.9

No. of active ACBF-supported projects in 2011 3

Total cumulative grant disbursed in 2011 (US$) 1,354,683

Zambia

ACI Composite Index

ACI Composite Index value 43.9

Level of Capacity Development ..... Medium

Rank 13

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 33.9

Aid effectiveness related to capacity development activities 61.3

Gender equality mainstreaming and social inclusion 84.2

Development agencies 25

Assessment of needs 100

Agricultural transformation and food security 63.2

Natural resources management index 51.5

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 3.5
- State of Fragility (World Bank Harmonized list FY13) ..... Non-Fragile
- Self-country assessment 3.8

ACBF-related activities

Inputs related to capacity development 46

Outputs related to capacity development 16.3

No. of active ACBF-supported projects in 2011 4

Total cumulative grant disbursed in 2011 (US$) 1,325,776

Zimbabwe

ACI Composite Index

ACI Composite Index value 50.3

Level of Capacity Development ..... Medium

Rank 5

Assessment of capacity development areas: Component Indexes values

Policy choices for capacity development 55.3

Aid effectiveness related to capacity development activities 45

Gender equality mainstreaming and social inclusion 82.5

Development agencies 50

Assessment of needs 100

Agricultural transformation and food security 61.6

Natural resources management index 62.2

Assessment of the quality of the country's policy and institutional framework

- IRAI Value (World Bank 2011) 2.2
- State of Fragility (World Bank Harmonized list FY13) ..... Fragile
- Self-country assessment 3.9

ACBF-related activities

Inputs related to capacity development 66.7

Outputs related to capacity development 27.4

No. of active ACBF-supported projects in 2011 5

Total cumulative grant disbursed in 2011 (US$) 2,842,775

Compendium of Statistics

Strategic policy choices for capacity development

No.	Country	Existence of a National Development Strategy	Number of NDS since 2000	Year of adoption of latest version	Integration of Capacity Development in National Development Strategy/National Development Plan (NDS)	Specific National Program for CD	Level of Government Commitment to MDGs	Number of MDGs achieved
1	ANGOLA	YES	1	2009	CD mainstreamed, clear objective	YES	Average	4
2	BENIN	YES	3	2011	CD mainstreamed, clear objective	NO	Average	0
3	BOTSWANA	YES	2	2009	CD mainstreamed, no clear object	YES	High	0
4	BURKINA FASO	YES	3	2010	CD mainstreamed, clear objective	YES	Average	1
5	BURUNDI	YES		2012	CD mainstreamed, clear objective	YES	High	0
6	CAMEROON	YES	2	2009	CD mainstreamed, clear objective	NO	High	1
7	CAPE VERDE	YES	2	2008	CD mainstreamed, clear objective	YES	High	4
8	CAR	YES	2	2011	CD mainstreamed, clear objective	YES	High	0
9	CHAD	YES	2	2008	CD mainstreamed, clear objective	YES	High	0
10	CONGO (DRC)	YES		2011	CD mainstreamed, clear objective	YES	High	0
11	CONGO, REP	YES	2	2012	CD mainstreamed, clear objective	NO	High	4
12	CÔTE D'IVOIRE	YES	1	2009	CD mainstreamed, clear objective	YES	High	0
13	DJIBOUTI	YES	3	2010	CD mainstreamed, clear objective	NO	High	2
14	ETHIOPIA	YES	3	2011	CD mainstreamed, no clear object	YES	High	0
15	GABON	YES	2	2011	CD mainstreamed, clear objective	YES	Average	2
16	GAMBIA (THE)	YES	3	2012	CD mainstreamed, clear objective	YES	High	1
17	GHANA	YES	3	2010	CD mainstreamed, clear objective	YES	High	0
18	GUINEA	YES	2	2011	CD mainstreamed, clear objective	YES	High	0
19	GUINEA-BISSAU	YES	2	2011	CD mainstreamed, clear objective	YES	High	0
20	KENYA	YES	2	2008	CD mainstreamed, clear objective	YES	High	2
21	LESOTHO	YES	2	2009	CD mainstreamed, clear objective	YES	High	0
22	LIBERIA	YES	7	2012	CD mainstreamed, clear objective	YES	High	0
23	MADAGASCAR	YES	2	2007	CD mainstreamed, no clear object	NO	High	2
24	MALAWI	YES	4	2012	CD mainstreamed, clear objective	YES	Average	4
25	MALI	YES	4	2011	CD mainstreamed, clear objective	NO	High	2
26	MAURITANIA	YES	3	2011	CD mainstreamed, clear objective	NO	Average	1
27	MAURITIUS	YES	5	2011	CD mainstreamed, clear objective	YES	High	3
28	MOROCCO	YES	3	2011	CD mainstreamed, no clear object	YES	Average	3
29	MOZAMBIQUE	YES	3	2010	CD mainstreamed, no clear object	YES	High	0
30	NAMIBIA	YES	3	2012	CD mainstreamed, clear objective	YES	High	5
31	NIGER	YES	3	2012	CD mainstreamed, clear objective	YES	High	0
32	NIGERIA	YES	4	2010	CD mainstreamed, clear objective	YES	High	0
33	RWANDA	YES	2	2007	CD mainstreamed, clear objective	YES	High	4
34	SAO TOME AND PRINCIPE	YES	2	2012	CD mainstreamed, clear objective	NO	High	3
35	SENEGAL	YES	3	2011	CD mainstreamed, no clear object	YES	High	0
36	SIERRA LEONE	YES	3	2008	CD not mainstreamed	YES	High	0
37	SOUTH AFRICA	YES	2		CD mainstreamed, no clear object	NO	Average	
38	SWAZILAND	YES	1	2007	CD mainstreamed, no clear object	YES	Low	2
39	TANZANIA	YES	3	2010	CD not mainstreamed	NO	High	1
40	TOGO	YES	4	2012	CD mainstreamed, clear objective	NO	Average	0
41	TUNISIA	YES	3	2010	CD mainstreamed, no clear object	NO	High	5
42	UGANDA	YES	2	2010	CD mainstreamed, no clear object	NO	Average	3
43	ZAMBIA	YES	4	2011	CD not mainstreamed	YES	High	0
44	ZIMBABWE	YES	6	2011	CD mainstreamed, clear objective	NO	Average	2

( ) Data not available
NDS = National Development Strategy/National Development Plan
CD = Capacity Development
MDGs = Millennium Development Goals

Policy environment/Efficiency of instrument

No.	Country	Level of legitimacy of the National Development Strategy	Levels of incentives for compliance provided by the National Development Strategy	Level of flexibility of the National Development Strategy
1	ANGOLA	Average	Average	Average
2	BENIN	High	High	High
3	BOTSWANA	High	High	High
4	BURKINA FASO	High	High	High
5	BURUNDI	High	High	High
6	CAMEROON	High	High	High
7	CAPE VERDE	Average	Average	
8	CAR	High	Average	Average
9	CHAD	High	High	High
10	CONGO (DRC)	Average	High	High
11	CONGO, REP	High	High	Average
12	CÔTE D'IVOIRE	High	High	Average
13	DJIBOUTI	Average	Average	High
14	ETHIOPIA	Average	Average	Low
15	GABON	Average	Average	Average
16	GAMBIA (THE)	High	High	High
17	GHANA	High	High	High
18	GUINEA	High	Average	High
19	GUINEA-BISSAU	High	Low	Average
20	KENYA	High	High	High
21	LESOTHO	High	High	Average
22	LIBERIA	High	High	High
23	MADAGASCAR	Low	Low	Low
24	MALAWI	Average	Average	Average
25	MALI	High	High	High
26	MAURITANIA	High	High	Average
27	MAURITIUS	High	High	High
28	MOROCCO	Average	Average	Average
29	MOZAMBIQUE	High	Average	High
30	NAMIBIA	High	High	Average
31	NIGER	High	High	High
32	NIGERIA	Average	Average	High
33	RWANDA	High	High	High
34	SAO TOME AND PRINCIPE	Average	Average	Average
35	SENEGAL	Average	Average	Average
36	SIERRA LEONE	Average	Average	High
37	SOUTH AFRICA	Average	Average	Average
38	SWAZILAND	High	High	Average
39	TANZANIA	Average	Average	Average
40	TOGO	High	High	High
41	TUNISIA	Average	Average	Average
42	UGANDA	High	High	Average
43	ZAMBIA	Average	Average	Average
44	ZIMBABWE	High	Average	Average

Dialogue mechanisms for capacity development

No.	Country	Effective dialog mechanism (and other links as appropriate) among domestic institutions (civil society, private sector) engaged in CD	Level of effectiveness	Effective dialogue mechanism established by Government with development partners relating specifically to CD	Level of effectiveness
1	ANGOLA	Informal dialog	Average	CD discussed within broader dial	Average
2	BENIN	No institutionalized mechanism		No institutionalized mechanism	
3	BOTSWANA	Institutionalized dialog	Very High	Institutionalized dialog	High
4	BURKINA FASO	Institutionalized dialog	High	Institutionalized dialog	High
5	BURUNDI	Institutionalized dialog	Average	Institutionalized dialog	Average
6	CAMEROON	Informal dialog	Average	No institutionalized mechanism	High
7	CAPE VERDE	Institutionalized dialog	High	CD discussed within broader dial	Average
8	CAR	Institutionalized dialog	High	CD discussed within broader dial	High
9	CHAD	Institutionalized dialog	High	Institutionalized dialog	High
10	CONGO (DRC)	Institutionalized dialog	High	Institutionalized dialog	High
11	CONGO, REP	Informal dialog	Very Low	Institutionalized dialog	Average
12	CÔTE D'IVOIRE	Institutionalized dialog	Average	No institutionalized mechanism	
13	DJIBOUTI	Institutionalized dialog	Average	Institutionalized dialog	Average
14	ETHIOPIA	Informal dialog	Low	CD discussed within broader dial	Average
15	GABON	Institutionalized dialog	Average	CD discussed within broader dial	Low
16	GAMBIA (THE)	Institutionalized dialog	Average	CD discussed within broader dial	High
17	GHANA	Institutionalized dialog	High	CD discussed within broader dial	Average
18	GUINEA	Institutionalized dialog	High	Institutionalized dialog	High
19	GUINEA-BISSAU	Institutionalized dialog	Average	No institutionalized mechanism	Average
20	KENYA	Institutionalized dialog	Average	Institutionalized dialog	Average
21	LESOTHO	Institutionalized dialog	Average	Institutionalized dialog	High
22	LIBERIA	Institutionalized dialog	High	Institutionalized dialog	High
23	MADAGASCAR	No institutionalized mechanism		No institutionalized mechanism	
24	MALAWI	Institutionalized dialog	High	Institutionalized dialog	Average
25	MALI	Institutionalized dialog	Very High	CD discussed within broader dial	Very Low
26	MAURITANIA	No institutionalized mechanism		No institutionalized mechanism	
27	MAURITIUS	Institutionalized dialog	Very High	Institutionalized dialog	Very High
28	MOROCCO	Institutionalized dialog	Average	Institutionalized dialog	Average
29	MOZAMBIQUE	Institutionalized dialog	Very High	CD discussed within broader dial	High
30	NAMIBIA	Institutionalized dialog	Average	Institutionalized dialog	High
31	NIGER	Informal dialog	Average	CD discussed within broader dial	Average
32	NIGERIA	Informal dialog	Average	Institutionalized dialog	Average
33	RWANDA	Institutionalized dialog	High	CD discussed within broader dial	High
34	SAO TOME AND PRINCIPE	No institutionalized mechanism		No institutionalized mechanism	Low
35	SENEGAL	Institutionalized dialog	Average	Institutionalized dialog	Average
36	SIERRA LEONE	Informal dialog	Very High	No institutionalized mechanism	High
37	SOUTH AFRICA	Institutionalized dialog	Average		High
38	SWAZILAND	No institutionalized mechanism		Institutionalized dialog	Average
39	TANZANIA	Institutionalized dialog	Very High	CD discussed within broader dial	High
40	TOGO	No institutionalized mechanism		No institutionalized mechanism	
41	TUNISIA	Institutionalized dialog	High	CD discussed within broader dial	Average
42	UGANDA	Informal dialog	Average	CD discussed within broader dial	Average
43	ZAMBIA	No institutionalized mechanism		CD discussed within broader dial	Low
44	ZIMBABWE	Institutionalized dialog	Low	Institutionalized dialog	High

( ) Data not available

Dialogue mechanisms for capacity development (Cont'd)

No.	Country	During 2009 calendar year, how frequently did the Head of State, the Head of government and/or other high officials speak publicly and favorably about capacity development efforts?	Level of civil society participation in priority setting related to capacity development agenda	Level of transparency of information to civil society about the capacity development agenda
1	ANGOLA			
2	BENIN	3	3	3
3	BOTSWANA	3	3	3
4	BURKINA FASO	3	2	2
5	BURUNDI	3	2	3
6	CAMEROON	3	2	3
7	CAPE VERDE	3	2	2
8	CAR	3	2	2
9	CHAD	3	3	2
10	CONGO (DRC)	2	1	2
11	CONGO, REP	3	5	1
12	CÔTE D'IVOIRE	3	3	3
13	DJIBOUTI	2	3	2
14	ETHIOPIA	3	1	2
15	GABON	3	2	2
16	GAMBIA (THE)	3	2	2
17	GHANA	3	3	3
18	GUINEA	3	2	2
19	GUINEA-BISSAU	2	2	1
20	KENYA	3	3	2
21	LESOTHO	2	2	2
22	LIBERIA	3	3	3
23	MADAGASCAR	3	2	6
24	MALAWI	3	3	2
25	MALI	3	2	2
26	MAURITANIA	2	1	2
27	MAURITIUS	3	3	3
28	MOROCCO	2	2	2
29	MOZAMBIQUE	4	3	3
30	NAMIBIA	3	2	3
31	NIGER	4	2	2
32	NIGERIA	3	2	2
33	RWANDA	3	2	2
34	SAO TOME AND PRINCIPE	3	1	2
35	SENEGAL	3	2	2
36	SIERRA LEONE	3	1	2
37	SOUTH AFRICA			
38	SWAZILAND	2	1	1
39	TANZANIA	2	2	2
40	TOGO	2	1	1
41	TUNISIA	2	2	2
42	UGANDA	3	3	2
43	ZAMBIA	3	2	2
44	ZIMBABWE	3	1	3

( ) Data not available

5 Compendium of Statistics

Strategic policy choices for improving the statistical system

No.	Country	Existence of a National Strategy for the Development of Statistics (NSDS)	Year of adoption of NSDS	NSDS is fully operational	Statistics taught at any of the higher training institutions	National Statistics Office operate an in-service training center	Ratification of the African Charter on Statistics (adopted on February 3, 2009)
1	ANGOLA	YES	2011	YES	YES	YES	YES
2	BENIN	YES	2008	YES	YES	YES	YES
3	BOTSWANA	NO			YES	YES	YES
4	BURKINA FASO	YES	2003	YES	NO	YES	YES
5	BURUNDI	YES	2011	YES	NO	NO	YES
6	CAMEROON	YES	2009	YES	YES	NO	YES
7	CAPE VERDE	YES	2006	YES	YES	NO	YES
8	CAR	NO		NO	YES	NO	NO
9	CHAD	YES	2011	YES	NO	NO	NO
10	CONGO (DRC)	YES	2012	NO	YES	YES	NO
11	CONGO, REP	NO			YES	NO	YES
12	CÔTE D'IVOIRE	NO			YES	NO	NO
13	DJIBOUTI	YES	2010	YES	YES	YES	NO
14	ETHIOPIA	YES	2009	YES	YES	NO	NO
15	GABON	YES	2010	NO	YES	NO	NO
16	GAMBIA (THE)	YES	2007	YES	NO	NO	NO
17	GHANA	YES	2008	YES	YES	NO	NO
18	GUINEA	YES	2008	YES	YES	NO	NO
19	GUINEA-BISSAU	NO			YES	NO	NO
20	KENYA	YES	2011	YES	YES	NO	YES
21	LESOTHO	YES	2011	YES	YES	NO	NO
22	LIBERIA	YES	2008	YES	NO	YES	YES
23	MADAGASCAR	YES	2008	NO	YES	YES	NO
24	MALAWI	YES	2008	YES	YES	YES	NO
25	MALI	YES	2006	YES	NO	NO	YES
26	MAURITANIA	YES	2011	YES	YES	YES	YES
27	MAURITIUS	YES	2007	YES	YES	YES	YES
28	MOROCCO	YES	2004	YES	YES	YES	YES
29	MOZAMBIQUE	YES	2008	YES	YES	YES	YES
30	NAMIBIA	YES	2012	YES	YES	NO	NO
31	NIGER	YES	2008	YES	YES	YES	YES
32	NIGERIA	YES	2010	YES	YES	YES	NO
33	RWANDA	YES	2010	YES	YES	NO	NO
34	SAO TOME AND PRINCIPE	YES	2009	NO	NO	NO	NO
35	SENEGAL	YES	2007	YES	YES	YES	YES
36	SIERRA LEONE	YES	2008	YES	YES	NO	NO
37	SOUTH AFRICA	NO			YES	YES	NO
38	SWAZILAND	NO			YES	YES	NO
39	TANZANIA	YES	2010	NO	YES	NO	NO
40	TOGO	YES	2008	YES	YES	NO	NO
41	TUNISIA	NO			YES	NO	YES
42	UGANDA	YES	2006	YES	YES	NO	YES
43	ZAMBIA	NO			YES	NO	NO
44	ZIMBABWE	YES	2011	YES	YES	YES	NO

( ) Data not available
NA - Not applicable

Financial commitment for capacity development

No.	Country	Proportion of Government budget allocated to CD (%)	Official Development Assistance as % of government budget
1	ANGOLA		
2	BENIN	5.68	16.67
3	BOTSWANA	0.00	0.00
4	BURKINA FASO	2.43	2.19
5	BURUNDI	0.07	46.04
6	CAMEROON	0.70	25.72
7	CAPE VERDE		
8	CAR	1.62	3.58
9	CHAD	20.44	2.18
10	CONGO (DRC)	0.05	2.31
11	CONGO, REP	63.21	56.72
12	CÔTE D'IVOIRE	0.02	0.00
13	DJIBOUTI	0.00	0.00
14	ETHIOPIA	0.00	0.00
15	GABON	11.59	0.21
16	GAMBIA (THE)	4.34	0.76
17	GHANA	3.18	0.00
18	GUINEA	1.98	4.59
19	GUINEA-BISSAU	0.40	0.05
20	KENYA	0.55	0.19
21	LESOTHO	36.98	0.01
22	LIBERIA	0.49	97.86
23	MADAGASCAR	0.08	4.67
24	MALAWI	0.18	0.00
25	MALI	3.18	0.38
26	MAURITANIA	1.85	0.47
27	MAURITIUS	0.00	0.00
28	MOROCCO	111.11	55.55
29	MOZAMBIQUE	0.00	0.00
30	NAMIBIA	0.01	0.06
31	NIGER	4.45	2.47
32	NIGERIA	0.19	0.00
33	RWANDA	0.36	0.00
34	SAO TOME AND PRINCIPE	0.80	0.27
35	SENEGAL	0.00	0.00
36	SIERRA LEONE	0.28	1.97
37	SOUTH AFRICA		
38	SWAZILAND	19.83	0.00
39	TANZANIA	34.55	23.55
40	TOGO	0.00	0.00
41	TUNISIA	4.50	7.51
42	UGANDA	0.36	0.00
43	ZAMBIA	0.00	0.00
44	ZIMBABWE	7.11	0.00

( ) Data not available

7 Compendium of Statistics

Aid effectiveness related to capacity development activities

No.	Country	Endorsement of the Paris Declaration on Aid Effectiveness	Existence of an aid coordination policy	Existence of an aid coordination mechanism	Technical cooperation disbursed to the country through coordinated programs in support of CD in 2011 Million US$	Assessment of coordination of support to capacity in the country Scale 1 = Very weak to 6 = Very strong	No. of parallel project implementation units for CD development partners made use of in 2011
1	ANGOLA	YES	YES	YES		3	
2	BENIN	YES	YES	YES	76.3	5	66
3	BOTSWANA	YES	YES	YES	3	4	2
4	BURKINA FASO	YES	YES	YES	50.6	3	47
5	BURUNDI	YES	YES	YES	13.1	3	38
6	CAMEROON	YES	YES	YES	55.1	2	174
7	CAPE VERDE	YES	YES	NO		4	
8	CAR	YES	YES	YES	2.4	3	11
9	CHAD	YES	NO	NO	26.3	5	5
10	CONGO (DRC)	YES	NO	NO	114.4	3	104
11	CONGO, REP	YES	YES	NO	0	1	0
12	CÔTE D'IVOIRE	YES	NO	NO		2	
13	DJIBOUTI	YES	YES	YES	72.3	3	9
14	ETHIOPIA	YES	YES	YES		3	0
15	GABON	YES	NO	YES	8.9	3	1
16	GAMBIA (THE)	YES	YES	YES	1	5	16
17	GHANA	YES	YES	YES	214.6	5	3
18	GUINEA	YES	NO	YES	17.8	3	45
19	GUINEA-BISSAU	YES	YES	NO		2	4
20	KENYA	YES	NO	NO		2	21
21	LESOTHO	YES	NO	YES	57	5	12
22	LIBERIA	YES	YES	YES	3	4	11
23	MADAGASCAR	YES	YES	YES		5	7
24	MALAWI	YES	YES	YES		3	26
25	MALI	YES	NO	YES			
26	MAURITANIA	YES	YES	YES		5	
27	MAURITIUS	YES	YES	YES		5	5
28	MOROCCO	YES	YES	YES	1308.9	3	7
29	MOZAMBIQUE	YES	YES	YES	85.5	5	23
30	NAMIBIA	YES	YES	YES		4	2
31	NIGER	YES	YES	YES	34	5	53
32	NIGERIA	YES	YES	YES		5	
33	RWANDA	YES	YES	YES	599	4	34
34	SAO TOME AND PRINCIPE	YES	YES	YES	8	3	0
35	SENEGAL	YES	YES	YES		4	
36	SIERRA LEONE	YES	YES	YES	11.3	3	0
37	SOUTH AFRICA	YES	YES	YES		5	
38	SWAZILAND	YES	YES	YES	2.3	4	0
39	TANZANIA	YES	YES	YES	432.7	2	17
40	TOGO	YES	YES	YES	10.9	2	9
41	TUNISIA	YES	YES	NO		4	
42	UGANDA	YES	YES	YES		1	
43	ZAMBIA	YES	YES	YES		3	
44	ZIMBABWE	NO	YES	YES	10	4	2

( ) Data not available

Aid effectiveness related to capacity development activities (Cont'd)

No.	Country	Trend of the number of parallel units the development partners are making use of in CD since 2011	Proportion of ODA for CD scheduled in 2010 and disbursed within 2011 (%)	Percent of bilateral aid for capacity that was untied in calendar year 2011 (%)	Trend of proportion of bilateral aid for CD, with respect to 2010
1	ANGOLA	Remained stable			Increased
2	BENIN	Remained stable	55	97	Increased
3	BOTSWANA	Decreased			
4	BURKINA FASO	Decreased	5.2	98	Decreased
5	BURUNDI	Decreased	121	92	Increased
6	CAMEROON	Decreased		10	Remained stable
7	CAPE VERDE	Decreased	55		Decreased
8	CAR	Decreased	74.5		Remained stable
9	CHAD	Decreased	95	0	Decreased
10	CONGO (DRC)	Decreased	34	34	Remained stable
11	CONGO, REP	Decreased			Decreased
12	CÔTE D'IVOIRE	Increased			Remained stable
13	DJIBOUTI	Remained stable	47	15	Decreased
14	ETHIOPIA	Remained stable			Increased
15	GABON	Increased	78.9	100	Decreased
16	GAMBIA (THE)	Remained stable	80	96	Increased
17	GHANA	Remained stable		92	Remained stable
18	GUINEA	Increased	40.5	52	Remained stable
19	GUINEA-BISSAU	Decreased			Decreased
20	KENYA	Increased	58	78	Increased
21	LESOTHO	Increased	116	96	Increased
22	LIBERIA	Increased	80	89	Increased
23	MADAGASCAR	Remained stable			Increased
24	MALAWI	Decreased	79	88	Remained stable
25	MALI				
26	MAURITANIA	Remained stable	84.9	55	Remained stable
27	MAURITIUS	Increased		50	Increased
28	MOROCCO	Remained stable	30	28	Remained stable
29	MOZAMBIQUE	Increased	19	30	Increased
30	NAMIBIA	Decreased	80	50	Decreased
31	NIGER	Remained stable	55	84	Remained stable
32	NIGERIA	Increased			
33	RWANDA	Increased	76	78	Remained stable
34	SAO TOME AND PRINCIPE	Decreased	80	80	Decreased
35	SENEGAL	Increased			
36	SIERRA LEONE	Remained stable	75.9	100	Increased
37	SOUTH AFRICA				
38	SWAZILAND	Decreased			Remained stable
39	TANZANIA	Decreased	97		
40	TOGO	Decreased			Remained stable
41	TUNISIA	Remained stable	100		Remained stable
42	UGANDA	Increased	70		Remained stable
43	ZAMBIA				
44	ZIMBABWE	Increased	5	0	Remained stable

( ) Data not available

Aid effectiveness related to capacity development activities (Cont'd)

No.	Country	% of joint donors' missions conducted to the field 2011	% of joint donors' analytic works undertaken in calendar year 2011	Existence of transparent and monitorable performance assessment frameworks to assess progress against the national development strategy and sector program	Mutual assessment of progress in implementing agreed commitments between the government and the community of donors conducted
1	ANGOLA			M&E tools, but not adequate	YES
2	BENIN	55.56	45.45	Adequate M&E underway	YES
3	BOTSWANA	75	100	M&E tools, but not adequate	NO
4	BURKINA FASO	17.62	48.18	M&E tools, but not adequate	YES
5	BURUNDI	43.75	50	M&E tools, but not adequate	NO
6	CAMEROON	15		Adequate M&E underway	YES
7	CAPE VERDE	21.14	49.23	Adequate M&E underway	NO
8	CAR	100		M&E tools, but not adequate	YES
9	CHAD	10	33.33	M&E tools, but not adequate	YES
10	CONGO (DRC)	43.88	31.58	No M&E mechanism in place	NO
11	CONGO, REP			M&E tools, but not adequate	YES
12	CÔTE D'IVOIRE			M&E tools, but not adequate	YES
13	DJIBOUTI	100	100	M&E tools, but not adequate	YES
14	ETHIOPIA	100	100	M&E tools, but not adequate	YES
15	GABON			M&E tools, but not adequate	YES
16	GAMBIA (THE)	100	100	M&E tools, but not adequate	YES
17	GHANA	15.16	41.86	M&E tools, but not adequate	YES
18	GUINEA	43.75	27.27	No M&E mechanism in place	NO
19	GUINEA-BISSAU			M&E tools, but not adequate	NO
20	KENYA			M&E tools, but not adequate	NO
21	LESOTHO	11.76	53.85	M&E tools, but not adequate	NO
22	LIBERIA	41.74	57.14	No M&E mechanism in place	NO
23	MADAGASCAR			Adequate M&E underway	YES
24	MALAWI	100	100	Adequate M&E underway	YES
25	MALI			Adequate M&E underway	YES
26	MAURITANIA	68.33	60	M&E tools, but not adequate	NO
27	MAURITIUS	100	100	Adequate M&E underway	YES
28	MOROCCO	50	75	M&E tools, but not adequate	YES
29	MOZAMBIQUE	19.71	55.81	Adequate M&E underway	YES
30	NAMIBIA			Adequate M&E underway	YES
31	NIGER	63.89	34.21	Adequate M&E underway	YES
32	NIGERIA			Adequate M&E underway	NO
33	RWANDA	25.71	41.18	Adequate M&E underway	YES
34	SAO TOME AND PRINCIPE	100		M&E tools, but not adequate	YES
35	SENEGAL			M&E tools, but not adequate	YES
36	SIERRA LEONE			M&E tools, but not adequate	YES
37	SOUTH AFRICA			M&E tools, but not adequate	YES
38	SWAZILAND			No M&E mechanism in place	YES
39	TANZANIA	40.63	63.49	Adequate M&E underway	YES
40	TOGO			M&E tools, but not adequate	YES
41	TUNISIA			Adequate M&E underway	YES
42	UGANDA			M&E tools, but not adequate	YES
43	ZAMBIA			M&E tools, but not adequate	YES
44	ZIMBABWE	100	100	M&E tools, but not adequate	NO

( ) Data not available

Gender equality mainstreaming

No.	Country	Ratification of CEDAW	Year of ratification	Report to the Committee	Institutional mechanisms to implement the CEDAW
1	ANGOLA	CEDAW ratified without reservations		Reporting is up to date	Focal point at appropriate level
2	BENIN	CEDAW ratified without reservations	1992	Reporting is up to date	Focal point at appropriate level
3	BOTSWANA	CEDAW ratified without reservations	1996	Reporting is up to date	Focal person without special man
4	BURKINA FASO	CEDAW ratified without reservations	1984	Reporting is up to date	Focal point at appropriate level
5	BURUNDI	CEDAW ratified without reservations	1991	Reporting is up to date	Focal point at appropriate level
6	CAMEROON	CEDAW ratified without reservations	1994	Reporting is up to date	Focal point at appropriate level
7	CAPE VERDE	CEDAW ratified without reservations	1979	Reporting is up to date	Focal point at appropriate level
8	CAR	CEDAW ratified without reservations	1991	Some reporting done	Focal point at appropriate level
9	CHAD	CEDAW ratified without reservations	1995	Reporting is up to date	Focal person without special man
10	CONGO (DRC)	CEDAW ratified without reservations	1986	Reporting is up to date	Focal point at appropriate level
11	CONGO, REP	CEDAW ratified without reservations	1982	Some reporting done	Focal point at appropriate level
12	CÔTE D'IVOIRE	CEDAW ratified without reservations	1995	Reporting is up to date	Focal point at appropriate level
13	DJIBOUTI	CEDAW ratified without reservations	1998	Some reporting done	Focal point at appropriate level
14	ETHIOPIA	CEDAW ratified without reservations	1981	Reporting is up to date	Focal point at appropriate level
15	GABON	CEDAW ratified without reservations	1983	Some reporting done	Focal point at appropriate level
16	GAMBIA (THE)	CEDAW ratified without reservations	1992	Reporting is up to date	Focal person without special man
17	GHANA	CEDAW ratified without reservations	1986	Reporting is up to date	Focal point at appropriate level
18	GUINEA	CEDAW ratified without reservations	1982	Some reporting done	Focal point at appropriate level
19	GUINEA-BISSAU	CEDAW ratified without reservations	2008	Reporting is up to date	Focal point at appropriate level
20	KENYA	CEDAW ratified with reservations	1984	Reporting is up to date	Focal point at appropriate level
21	LESOTHO	CEDAW ratified with reservations	1995	Reporting is up to date	Focal person without special man
22	LIBERIA	CEDAW ratified without reservations	2009	Reporting is up to date	Focal person without special man
23	MADAGASCAR	CEDAW ratified without reservations	1998	Reporting is up to date	Focal point at appropriate level
24	MALAWI	CEDAW ratified without reservations	2000	Reporting is up to date	Focal point at appropriate level
25	MALI	CEDAW ratified without reservations	1985	Reporting is up to date	Focal point at appropriate level
26	MAURITANIA	CEDAW ratified with reservations	2000	Reporting is up to date	Focal point at appropriate level
27	MAURITIUS	CEDAW ratified without reservations	1984	Reporting is up to date	Focal point at appropriate level
28	MOROCCO	CEDAW ratified with reservations	1993	Some reporting done	Focal point at appropriate level
29	MOZAMBIQUE	CEDAW ratified without reservations	1993	Reporting is up to date	Focal point at appropriate level
30	NAMIBIA	CEDAW not ratified	1992	Reporting is up to date	Focal point at appropriate level
31	NIGER	CEDAW ratified with reservations	1999	Some reporting done	Focal point at appropriate level
32	NIGERIA	CEDAW ratified without reservations	1985	Reporting is up to date	Focal point at appropriate level
33	RWANDA	CEDAW ratified with reservations	1981	Reporting is up to date	Focal person without special man
34	SAO TOME AND PRINCIPE	CEDAW ratified without reservations	2003	No reporting	Focal point at appropriate level
35	SENEGAL	CEDAW ratified without reservations	1985	Some reporting done	Focal person without special man
36	SIERRA LEONE	CEDAW ratified without reservations	1988	Reporting is up to date	Focal point at appropriate level
37	SOUTH AFRICA	CEDAW ratified without reservations	1996	Reporting is up to date	Focal point at appropriate level
38	SWAZILAND	CEDAW ratified without reservations	2004	Some reporting done	Focal person without special man
39	TANZANIA	CEDAW ratified without reservations	1986	Reporting is up to date	Focal point at appropriate level
40	TOGO	CEDAW ratified without reservations	1983	Some reporting done	Focal point at appropriate level
41	TUNISIA	CEDAW ratified without reservations	1985	Reporting is up to date	Focal person without special man
42	UGANDA	CEDAW ratified without reservations	1985	Reporting is up to date	Focal point at appropriate level
43	ZAMBIA	CEDAW ratified without reservations	1985	Reporting is up to date	Focal point at appropriate level
44	ZIMBABWE	CEDAW ratified with reservations	1991	Reporting is up to date	Focal point at appropriate level

( ) Data not available

Gender equality mainstreaming (Cont'd)

No.	Country	Ratification of the Optional Protocol	Embodiment of the principle of equality of men and women in national constitution or other appropriate legislation	Consistency of family laws with the principles of equality between the sexes as under provision of Article 16 of the CEDAW	The country has put in place (enacted) a gender policy
1	ANGOLA	YES	Law approved by Parliament	Law approved by Parliament	YES
2	BENIN	YES	Law approved by Parliament	Law approved by Parliament	YES
3	BOTSWANA	YES	Law approved by Parliament	No law or legal measure	YES
4	BURKINA FASO	YES	Law approved by Parliament	Law approved by Parliament	YES
5	BURUNDI	NO	Law approved by Parliament	Law approved by Parliament	YES
6	CAMEROON	YES	Law approved by Parliament	Draft law in place	NO
7	CAPE VERDE	YES	Law approved by Parliament	Law approved by Parliament	YES
8	CAR	NO	Law approved by Parliament	Draft law in place	YES
9	CHAD	NO	Law approved by Parliament	Draft law in place	NO
10	CONGO, REP	YES	Law approved by Parliament	Law approved by Parliament	YES
11	CONGO (DRC)	NO	Law approved by Parliament	Draft law in place	YES
12	CÔTE D'IVOIRE	YES	Draft law in place	Draft law in place	YES
13	DJIBOUTI	YES	Law approved by Parliament	Law approved by Parliament	YES
14	ETHIOPIA	NO	Law approved by Parliament	Law approved by Parliament	YES
15	GABON	YES	Law approved by Parliament	Law approved by Parliament	YES
16	GAMBIA (THE)	NO	Law approved by Parliament	Law approved by Parliament	YES
17	GHANA	YES	Law approved by Parliament	Law approved by Parliament	YES
18	GUINEA	NO	Law approved by Parliament	Draft law in place	YES
19	GUINEA-BISSAU	YES	No law or legal measure	Law approved by Parliament	NO
20	KENYA	NO	Law approved by Parliament	Law approved by Parliament	YES
21	LESOTHO	YES	Draft law in place	Law approved by Parliament	YES
22	LIBERIA	YES	No law or legal measure	Law approved by Parliament	YES
23	MADAGASCAR	NO	Law approved by Parliament	Law approved by Parliament	YES
24	MALAWI	NO	Law approved by Parliament	Draft law in place	YES
25	MALI	YES	Law approved by Parliament	Law approved by Parliament	YES
26	MAURITANIA	NO	Law approved by Parliament	Law approved by Parliament	YES
27	MAURITIUS	YES	Law approved by Parliament	Law approved by Parliament	YES
28	MOROCCO	YES	Law approved by Parliament	Draft law in place	YES
29	MOZAMBIQUE	YES	Law approved by Parliament	Law approved by Parliament	YES
30	NAMIBIA	YES	Law approved by Parliament	Law approved by Parliament	YES
31	NIGER	YES	Law approved by Parliament	Draft law in place	YES
32	NIGERIA	YES	No law or legal measure	Draft law in place	YES
33	RWANDA	YES	Law approved by Parliament	Law approved by Parliament	YES
34	SAO TOME AND PRINCIPE	NO	Law approved by Parliament	Law approved by Parliament	YES
35	SENEGAL	YES	Law approved by Parliament	Law approved by Parliament	YES
36	SIERRA LEONE	NO	Law approved by Parliament	Law approved by Parliament	YES
37	SOUTH AFRICA	YES	Law approved by Parliament		YES
38	SWAZILAND	NO	Law approved by Parliament	Draft law in place	YES
39	TANZANIA	YES	Law approved by Parliament	No law or legal measure	YES
40	TOGO	NO	Law approved by Parliament	Law approved by Parliament	YES
41	TUNISIA	NO	Draft law in place	Draft law in place	YES
42	UGANDA	YES	Law approved by Parliament	Draft law in place	YES
43	ZAMBIA	NO	Law approved by Parliament	Draft law in place	YES
44	ZIMBABWE	NO	Draft law in place	Draft law in place	YES

( ) Data not available

Gender equality mainstreaming (Cont'd)

No.	Country	Gender equality policy is integrated in the country's Poverty Reduction Strategy	Government allocated financial resources to gender related activities	Mainstreaming gender in statistics
1	ANGOLA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
2	BENIN	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
3	BOTSWANA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
4	BURKINA FASO	Clear objectives and targets set	Unclear kind of budget allocated	Clear guide
5	BURUNDI	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
6	CAMEROON	Clear objectives and targets set	Sufficient budget allocated	No clear guide
7	CAPE VERDE	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	Clear guide
8	CAR	Clear objectives and targets set	Sufficient budget allocated	No clear guide
9	CHAD	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
10	CONGO (DRC)	Clear objectives and targets set	Unclear kind of budget allocated	Clear guide
11	CONGO, REP	Clear objectives and targets set	Sufficient budget allocated	No clear guide
12	CÔTE D'IVOIRE	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
13	DJIBOUTI	Clear objectives and targets set	Unclear kind of budget allocated	Clear guide
14	ETHIOPIA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
15	GABON	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
16	GAMBIA (THE)	Clear objectives and targets set	Sufficient budget allocated	Clear guide
17	GHANA	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
18	GUINEA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
19	GUINEA-BISSAU	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
20	KENYA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	Clear guide
21	LESOTHO	Gender mainstreamed, no clear objectives and targets	Sufficient budget allocated	Clear guide
22	LIBERIA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
23	MADAGASCAR	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
24	MALAWI	Clear objectives and targets set	Sufficient budget allocated	No clear guide
25	MALI	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
26	MAURITANIA	Clear objectives and targets set	Sufficient budget allocated	No clear guide
27	MAURITIUS	Gender mainstreamed, no clear objectives and targets	Sufficient budget allocated	No clear guide
28	MOROCCO	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	Clear guide
29	MOZAMBIQUE	Clear objectives and targets set	Sufficient budget allocated	Clear guide
30	NAMIBIA	Gender mainstreamed, no clear objectives and targets	Sufficient budget allocated	No clear guide
31	NIGER	Clear objectives and targets set	Unclear kind of budget allocated	Clear guide
32	NIGERIA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
33	RWANDA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
34	SAO TOME AND PRINCIPE	Clear objectives and targets set	Sufficient budget allocated	No clear guide
35	SENEGAL	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
36	SIERRA LEONE	Clear objectives and targets set	Sufficient budget allocated	Clear guide
37	SOUTH AFRICA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	
38	SWAZILAND	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
39	TANZANIA	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
40	TOGO	Clear objectives and targets set	Unclear kind of budget allocated	No clear guide
41	TUNISIA	Gender mainstreamed, no clear objectives and targets	Unclear kind of budget allocated	No clear guide
42	UGANDA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
43	ZAMBIA	Clear objectives and targets set	Sufficient budget allocated	Clear guide
44	ZIMBABWE	Clear objectives and targets set	Sufficient budget allocated	No clear guide

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Social Inclusion

No.	Country	Provisions in the country's Constitution allowing the President / Head of State to appoint some representatives to Parliament in addition to the elected representatives	Instances where some nationals in the country require special permission / qualification to enjoy certain privileges	Social services accessible to nationals in the country on equal terms	Equal employment opportunities for all nationals	Policy or law that provides equal opportunity for all	Policy or law that protects the vulnerable in the society
1	ANGOLA	NO	YES	YES		YES	YES
2	BENIN	NO	NO	YES	YES	YES	YES
3	BOTSWANA	YES	YES	YES	YES	YES	YES
4	BURKINA FASO	NO	NO	YES	YES	YES	YES
5	BURUNDI	NO	YES	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES	YES	YES
7	CAPE VERDE	NO	YES	YES	NO	YES	YES
8	CAR	NO	NO	YES	YES	YES	YES
9	CHAD	NO	NO	YES	YES	YES	YES
10	CONGO (DRC)	YES	NO	NO	NO	YES	YES
11	CONGO, REP	NO	NO	YES	YES	YES	YES
12	CÔTE D'IVOIRE	NO	YES	YES	NO	YES	YES
13	DJIBOUTI	YES	YES	YES	YES	YES	YES
14	ETHIOPIA	NO	NO	YES	YES	YES	YES
15	GABON	NO	NO	YES	YES	YES	YES
16	GAMBIA (THE)	YES	NO	YES	YES	YES	YES
17	GHANA	NO	NO	YES	YES	YES	YES
18	GUINEA	NO	NO	YES	YES	YES	YES
19	GUINEA-BISSAU	YES	YES	YES	YES	YES	YES
20	KENYA	NO	NO	YES	YES	YES	YES
21	LESOTHO	YES	NO	YES	YES	YES	YES
22	LIBERIA	NO	NO	NO	YES	YES	NO
23	MADAGASCAR	YES	NO	YES	YES	YES	YES
24	MALAWI	YES	NO	YES	YES	YES	YES
25	MALI	NO	NO	YES	YES	YES	YES
26	MAURITANIA	NO	NO	YES	YES	YES	YES
27	MAURITIUS	NO	NO	YES	YES	YES	YES
28	MOROCCO	YES	YES	YES	YES	YES	YES
29	MOZAMBIQUE	NO	YES	YES	YES	YES	YES
30	NAMIBIA	YES	NO	YES	YES	YES	YES
31	NIGER	NO	YES	YES	YES	YES	YES
32	NIGERIA	NO	NO	YES	YES	YES	YES
33	RWANDA	YES	NO	YES	YES	YES	YES
34	SAO TOME AND PRINCIPE	NO	NO	YES	YES	YES	YES
35	SENEGAL	NO	NO	YES	YES	YES	YES
36	SIERRA LEONE	NO	YES	NO	YES	YES	YES
37	SOUTH AFRICA	YES	YES	YES	YES	YES	YES
38	SWAZILAND	YES	NO	NO	NO	YES	YES
39	TANZANIA	YES	NO	YES	YES	YES	YES
40	TOGO	YES	YES	YES	YES	YES	YES
41	TUNISIA	NO	YES	YES	YES	YES	YES
42	UGANDA	NO	NO	YES	YES	YES	YES
43	ZAMBIA	YES	NO	YES	YES	YES	YES
44	ZIMBABWE	YES	YES	YES	YES	YES	YES

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Compendium of Statistics

Partnering for capacity development

No.	Country	Establishment of a National Assistance Coordinating Unit for CD by the Government	Main partners from multi-lateral cooperation have developed a country assistance strategy/program relating to the country
1	ANGOLA	Clear Unit established	All
2	BENIN	Clear Unit established	Not all
3	BOTSWANA	Coordination, not formal	Not all
4	BURKINA FASO	Clear Unit established	Not all
5	BURUNDI	Coordination, not formal	All
6	CAMEROON	Coordination, not formal	All
7	CAPE VERDE	Coordination, not formal	Not all
8	CAR	Clear Unit established	All
9	CHAD	Clear Unit established	All
10	CONGO (DRC)	Clear Unit established	Not all
11	CONGO, REP	No institutional Unit	None
12	CÔTE D'IVOIRE	Coordination, not formal	Not all
13	DJIBOUTI	Clear Unit established	Not all
14	ETHIOPIA	Clear Unit established	Not all
15	GABON	Clear Unit established	All
16	GAMBIA (THE)	Clear Unit established	Not all
17	GHANA	Clear Unit established	All
18	GUINEA	Clear Unit established	Not all
19	GUINEA-BISSAU	Clear Unit established	Not all
20	KENYA	Coordination, not formal	Not all
21	LESOTHO	Clear Unit established	All
22	LIBERIA	Clear Unit established	All
23	MADAGASCAR	Clear Unit established	Not all
24	MALAWI	Clear Unit established	All
25	MALI	Coordination, not formal	Not all
26	MAURITANIA	Coordination, not formal	Not all
27	MAURITIUS	Clear Unit established	All
28	MOROCCO	Coordination, not formal	Not all
29	MOZAMBIQUE	Coordination, not formal	Not all
30	NAMIBIA	Coordination, not formal	
31	NIGER	Clear Unit established	All
32	NIGERIA	Coordination, not formal	Not all
33	RWANDA	Coordination, not formal	All
34	SAO TOME AND PRINCIPE	No institutional Unit	All
35	SENEGAL	Clear Unit established	All
36	SIERRA LEONE	Clear Unit established	Not all
37	SOUTH AFRICA	Coordination, not formal	All
38	SWAZILAND	Clear Unit established	All
39	TANZANIA	Coordination, not formal	Not all
40	TOGO	Clear Unit established	Not all
41	TUNISIA	Coordination, not formal	All
42	UGANDA	No institutional Unit	Not all
43	ZAMBIA	No institutional Unit	Not all
44	ZIMBABWE	Coordination, not formal	Not all

( ) Data not available

15 Compendium of Statistics

Development partners areas of intervention in capacity development (Year 2011)

No.	Country	Economic Management			Structural Policies		
		Macroeconomic Management	Fiscal Policy	Debt Policy	Trade	Financial Sector	Business Regulatory Environment
1	ANGOLA	NO	NO	NO	NO	NO	NO
2	BENIN	YES	YES	YES	YES	NO	YES
3	BOTSWANA	YES	YES	YES	NO	NO	NO
4	BURKINA FASO	YES	YES	YES	NO	YES	YES
5	BURUNDI	YES	YES	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES	YES	YES
7	CAPE VERDE	YES	YES	YES	YES	YES	YES
8	CAR	YES	YES	YES	YES	YES	YES
9	CHAD	YES	YES	NO	YES	YES	YES
10	CONGO (DRC)	YES	YES	YES	NO	YES	NO
11	CONGO, REP	YES	NO	NO	YES	YES	NO
12	CÔTE D'IVOIRE	YES	YES	YES	YES	YES	YES
13	DJIBOUTI	NO	YES	NO	YES	YES	YES
14	ETHIOPIA	YES	YES	YES	YES	YES	YES
15	GABON	YES	YES	YES	YES	YES	YES
16	GAMBIA (THE)	YES	YES	YES	YES	YES	YES
17	GHANA	YES	YES	NO	YES	YES	NO
18	GUINEA	YES	YES	YES	YES	YES	YES
19	GUINEA-BISSAU	YES	YES	YES	YES	NO	YES
20	KENYA	YES	YES	YES	NO	YES	YES
21	LESOTHO	YES	YES	NO	YES	YES	YES
22	LIBERIA	YES	YES	YES	YES	YES	YES
23	MADAGASCAR	YES	NO	NO	YES	YES	NO
24	MALAWI	YES	YES	YES	YES	NO	NO
25	MALI	YES	YES	YES	YES	YES	YES
26	MAURITANIA	YES	YES	NO	NO	NO	YES
27	MAURITIUS	YES	NO	YES	NO	YES	NO
28	MOROCCO	YES	NO	YES	NO	YES	NO
29	MOZAMBIQUE	YES	YES	NO	NO	YES	YES
30	NAMIBIA	YES	YES	NO	NO	NO	NO
31	NIGER	YES	YES	YES	YES	YES	YES
32	NIGERIA	YES	NO	NO	NO	NO	NO
33	RWANDA	YES	YES	YES	YES	YES	YES
34	SAO TOME AND PRINCIPE	YES	YES	YES	NO	YES	YES
35	SENEGAL	YES	YES	NO	NO	NO	NO
36	SIERRA LEONE	YES	YES	NO	NO	YES	NO
37	SOUTH AFRICA	NO	NO	NO	NO	NO	NO
38	SWAZILAND	YES	YES	NO	YES	NO	NO
39	TANZANIA	YES	NO	NO	NO	NO	NO
40	TOGO	YES	YES	YES	YES	NO	YES
41	TUNISIA	YES	YES	YES	YES	YES	YES
42	UGANDA	YES	YES	YES	YES	NO	NO
43	ZAMBIA	NO	NO	NO	NO	YES	NO
44	ZIMBABWE	YES	YES	YES	YES	YES	NO

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Development partners areas of intervention in capacity development (Year 2011)

No.	Country	Policies for Social Inclusion/Equity				
		Gender Equality	Equity of Public Resource Use	Building Human Resources	Social Protection and Labor	Policies and Institutions for Environmental Sustainability
1	ANGOLA	YES	NO	NO	NO	NO
2	BENIN	YES	NO	YES	YES	NO
3	BOTSWANA	YES	NO	YES	NO	NO
4	BURKINA FASO	YES	NO	YES	YES	YES
5	BURUNDI	YES	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES	YES
7	CAPE VERDE	YES	NO	YES	YES	YES
8	CAR	YES	NO	YES	YES	YES
9	CHAD	YES	NO	YES	NO	YES
10	CONGO (DRC)	NO	NO	NO	NO	YES
11	CONGO, REP	YES	NO	YES	YES	NO
12	CÔTE D'IVOIRE	YES	NO	YES	NO	YES
13	DJIBOUTI	NO	YES	YES	YES	NO
14	ETHIOPIA	YES	YES	YES	YES	YES
15	GABON	YES	NO	YES	NO	YES
16	GAMBIA (THE)	YES	YES	YES	YES	YES
17	GHANA	NO	NO	YES	NO	YES
18	GUINEA	YES	NO	YES	YES	YES
19	GUINEA-BISSAU	YES	NO	YES	NO	YES
20	KENYA	YES	YES	YES	YES	YES
21	LESOTHO	YES	NO	YES	YES	YES
22	LIBERIA	YES	NO	YES	YES	NO
23	MADAGASCAR	NO	YES	NO	YES	YES
24	MALAWI	YES	NO	YES	YES	NO
25	MALI	YES	YES	YES	YES	YES
26	MAURITANIA	NO	YES	YES	NO	YES
27	MAURITIUS	NO	YES	NO	NO	NO
28	MOROCCO	NO	YES	YES	NO	NO
29	MOZAMBIQUE	YES	NO	YES	YES	YES
30	NAMIBIA	YES	YES	YES	YES	NO
31	NIGER	YES	YES	YES	NO	YES
32	NIGERIA	YES	NO	NO	NO	NO
33	RWANDA	YES	YES	YES	YES	YES
34	SAO TOME AND PRINCIPE	NO	YES	YES	YES	YES
35	SENEGAL	NO	NO	NO	NO	YES
36	SIERRA LEONE	YES	NO	YES	NO	NO
37	SOUTH AFRICA	NO	NO	YES	YES	NO
38	SWAZILAND	NO	NO	NO	NO	NO
39	TANZANIA	NO	NO	NO	NO	NO
40	TOGO	YES	YES	YES	YES	YES
41	TUNISIA	YES	NO	YES	YES	YES
42	UGANDA	NO	NO	NO	YES	YES
43	ZAMBIA	NO	NO	NO	NO	NO
44	ZIMBABWE	YES	NO	YES	YES	YES

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Development partners areas of intervention in capacity development (Year 2011)

No.	Country	Public Sector Management and Institutions					Agriculture
		Property Rights and Rule-based Governance	Quality of Budgetary and Financial Management	Efficiency of Revenue Mobilization	Quality of Public Administration	Transparency, Accountability, and Corruption in the Public Sector	
1	ANGOLA	NO	NO	NO	NO	NO	NO
2	BENIN	YES	NO	YES	NO	YES	YES
3	BOTSWANA	NO	NO	NO	NO	NO	YES
4	BURKINA FASO	NO	YES	YES	NO	YES	YES
5	BURUNDI	YES	YES	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES	YES	YES
7	CAPE VERDE	YES	YES	YES	YES	YES	YES
8	CAR	YES	YES	YES	YES	YES	YES
9	CHAD	NO	YES	YES	NO	YES	YES
10	CONGO (DRC)	YES	NO	NO	YES	NO	YES
11	CONGO, REP	NO	NO	YES	NO	NO	NO
12	CÔTE D'IVOIRE	NO	YES	YES	YES	YES	YES
13	DJIBOUTI	YES	YES	NO	YES	YES	NO
14	ETHIOPIA	YES	YES	YES	YES	YES	YES
15	GABON	YES	YES	YES	YES	YES	YES
16	GAMBIA (THE)	YES	YES	YES	YES	YES	YES
17	GHANA	NO	YES	NO	NO	NO	NO
18	GUINEA	YES	YES	YES	YES	YES	YES
19	GUINEA-BISSAU	NO	NO	YES	YES	YES	YES
20	KENYA	YES	YES	YES	YES	YES	NO
21	LESOTHO	YES	YES	YES	YES	YES	YES
22	LIBERIA	NO	YES	YES	YES	YES	YES
23	MADAGASCAR	NO	YES	NO	YES	NO	YES
24	MALAWI	YES	YES	YES	YES	YES	YES
25	MALI	YES	YES	YES	YES	YES	YES
26	MAURITANIA	NO	NO	NO	NO	NO	NO
27	MAURITIUS	NO	YES	YES	NO	NO	NO
28	MOROCCO	NO	YES	YES	NO	YES	YES
29	MOZAMBIQUE	NO	YES	YES	YES	YES	YES
30	NAMIBIA	NO	NO	YES	YES	NO	NO
31	NIGER	YES	YES	YES	YES	YES	YES
32	NIGERIA	NO	NO	NO	NO	NO	YES
33	RWANDA	YES	YES	YES	YES	YES	NO
34	SAO TOME AND PRINCIPE	YES	YES	YES	YES	YES	YES
35	SENEGAL	NO	NO	NO	NO	YES	YES
36	SIERRA LEONE	YES	YES	YES	YES	YES	YES
37	SOUTH AFRICA	NO	NO	NO	NO	NO	NO
38	SWAZILAND	NO	NO	NO	YES	NO	NO
39	TANZANIA	NO	NO	NO	NO	NO	NO
40	TOGO	YES	YES	YES	YES	YES	YES
41	TUNISIA	YES	YES	YES	YES	YES	YES
42	UGANDA	NO	YES	NO	YES	YES	YES
43	ZAMBIA	NO	YES	YES	NO	NO	NO
44	ZIMBABWE	YES	YES	YES	NO	NO	NO

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Compendium of Statistics

Capacity profiling and assessments of needs

No.	Country	Capacity profile conducted in the country since 2007	Date last capacity profile conducted	Who commissioned the capacity profiling	Capacity needs assessment conducted in the country since 2007	Who commissioned the capacity needs assessment
1	ANGOLA	YES	2010	Government Body	NO	
2	BENIN	YES	2011	Government Body	YES	Government Body
3	BOTSWANA	YES	2011	Government Body	YES	Government Body
4	BURKINA FASO	YES	2008	Government Body	YES	Government Body
5	BURUNDI	YES	2007	Government Body	YES	Government Body
6	CAMEROON	YES	2008	Government Body	YES	Government Body
7	CAPE VERDE	YES	2010	Government Body	YES	Government Body
8	CAR	YES	2008	Government Body	YES	Development partner
9	CHAD	NO			NO	
10	CONGO (DRC)	YES	2009	Government Body	YES	Government Body
11	CONGO, REP	NO			YES	Development partner
12	CÔTE D'IVOIRE	NO			YES	Gvnt & Dev. Partner
13	DJIBOUTI	YES	2007	Government Body	YES	
14	ETHIOPIA	Don't know			YES	Gvnt & Dev. Partner
15	GABON	Don't know			YES	Development partner
16	GAMBIA (THE)	YES	2009	Government Body	YES	Government Body
17	GHANA	YES	2011	Development partner	YES	Development partner
18	GUINEA	YES	2010	Development partner	YES	Government Body
19	GUINEA-BISSAU	YES	2007	Government Body	YES	Gvnt & Dev. Partner
20	KENYA	YES	2011	Government Body	NO	
21	LESOTHO	NO			YES	Gvnt & Dev. Partner
22	LIBERIA	YES	2008	Gvnt & Dev. Partner	YES	Gvnt & Dev. Partner
23	MADAGASCAR	NO			YES	Government Body
24	MALAWI	NO			YES	Government Body
25	MALI	NO			YES	Development partner
26	MAURITANIA	YES	2011	Government Body	YES	Government Body
27	MAURITIUS	YES	2010	Government Body	YES	Government Body
28	MOROCCO	YES	2009	Development partner	YES	Development partner
29	MOZAMBIQUE	YES	2007	Development partner	YES	Development partner
30	NAMIBIA	NO			NO	
31	NIGER	YES	2010	Government Body	YES	Government Body
32	NIGERIA	NO			YES	Gvnt & Dev. Partner
33	RWANDA	YES	2009	Government Body	YES	Government Body
34	SAO TOME AND PRINCIPE	NO			NO	
35	SENEGAL	Don't know			Don't know	
36	SIERRA LEONE	YES	2012	Government Body	YES	Government Body
37	SOUTH AFRICA			Government Body	YES	Government Body
38	SWAZILAND	NO			NO	
39	TANZANIA	NO			NO	
40	TOGO	NO			NO	
41	TUNISIA	YES	2010	Gvnt & Dev. Partner	YES	Gvnt & Dev. Partner
42	UGANDA	NO			YES	Development partner
43	ZAMBIA	YES	2009	Government Body	YES	Government Body
44	ZIMBABWE	YES	2011	Gvnt & Dev. Partner	YES	Gvnt & Dev. Partner

( ) Data not available

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Compendium of Statistics

Areas where needs assessments were conducted

No.	Country	Economic Management			Structural Policies		
		Macroeconomic Management	Fiscal Policy	Debt Policy	Trade	Financial Sector	Business Regulatory Environment
1	ANGOLA						
2	BENIN	YES	YES	YES	YES	YES	YES
3	BOTSWANA	NO	NO	NO	NO	NO	YES
4	BURKINA FASO	NO	YES	YES	NO	YES	YES
5	BURUNDI	YES	YES	YES	NO	YES	YES
6	CAMEROON	NO	YES	YES	NO	YES	NO
7	CAPE VERDE						
8	CAR	YES	YES	YES	YES	YES	YES
9	CHAD						
10	CONGO (DRC)	YES	YES	YES	NO	NO	YES
11	CONGO, REP	YES	YES	YES	YES	YES	YES
12	CÔTE D'IVOIRE	YES	YES	YES	NO	YES	YES
13	DJIBOUTI	NO	YES	NO	NO	YES	NO
14	ETHIOPIA	NO	YES	NO	NO	NO	NO
15	GABON	NO	NO	NO	NO	NO	NO
16	GAMBIA (THE)	YES	YES	YES	YES	YES	NO
17	GHANA	YES	NO	NO	NO	YES	YES
18	GUINEA	YES	YES	YES	NO	NO	YES
19	GUINEA-BISSAU	YES	YES	YES	YES	YES	YES
20	KENYA	NO	NO	NO	NO	NO	NO
21	LESOTHO	NO	NO	NO	NO	NO	YES
22	LIBERIA	NO	YES	NO	NO	YES	YES
23	MADAGASCAR	NO	NO	NO	NO	NO	NO
24	MALAWI	YES	YES	YES	YES	YES	NO
25	MALI	YES	YES	YES	YES	YES	YES
26	MAURITANIA	YES	NO	NO	NO	NO	NO
27	MAURITIUS	NO	NO	NO	YES	YES	NO
28	MOROCCO	YES	YES	YES	NO	YES	NO
29	MOZAMBIQUE	NO	NO	NO	NO	NO	NO
30	NAMIBIA						
31	NIGER	NO	YES	NO	NO	NO	NO
32	NIGERIA	NO	NO	NO	NO	NO	NO
33	RWANDA	YES	YES	YES	YES	NO	NO
34	SAO TOME AND PRINCIPE						
35	SENEGAL						
36	SIERRA LEONE	YES	YES	YES	YES	YES	YES
37	SOUTH AFRICA	NO	NO	NO	NO	NO	NO
38	SWAZILAND						
39	TANZANIA						
40	TOGO						
41	TUNISIA	NO	NO	YES	NO	NO	NO
42	UGANDA	YES	NO	NO	NO	NO	NO
43	ZAMBIA	YES	YES	NO	YES	NO	NO
44	ZIMBABWE	YES	YES	YES	YES	YES	NO

( ) Data not available

Areas where needs assessments were conducted (Cont'd)

No.	Country	Policies for Social Inclusion/Equity				
		Gender Equality	Equity of Public Resource Use	Building Human Resources	Social Protection and Labor	Policies and Institutions for Environmental Sustainability
1	ANGOLA					
2	BENIN	YES	YES	YES	YES	YES
3	BOTSWANA	YES	NO	YES	NO	YES
4	BURKINA FASO	YES	YES	YES	YES	YES
5	BURUNDI	NO	NO	YES	NO	NO
6	CAMEROON	NO	NO	YES	NO	NO
7	CAPE VERDE					
8	CAR	YES	NO	YES	YES	YES
9	CHAD					
10	CONGO (DRC)	NO	NO	YES	NO	NO
11	CONGO, REP	YES	YES	YES	YES	YES
12	CÔTE D'IVOIRE	NO	YES	YES	NO	NO
13	DJIBOUTI	NO	YES	YES	YES	NO
14	ETHIOPIA	NO	NO	YES	NO	NO
15	GABON	NO	NO	YES	NO	NO
16	GAMBIA (THE)	YES	NO	YES	YES	YES
17	GHANA	YES	YES	YES	NO	YES
18	GUINEA	YES	NO	YES	NO	YES
19	GUINEA-BISSAU	YES	NO	YES	YES	YES
20	KENYA	NO	NO	NO	NO	NO
21	LESOTHO	NO	NO	NO	NO	NO
22	LIBERIA	YES	YES	YES	YES	YES
23	MADAGASCAR	NO	NO	NO	NO	NO
24	MALAWI	YES	NO	NO	YES	NO
25	MALI	YES	YES	YES	YES	YES
26	MAURITANIA	NO	NO	YES	NO	NO
27	MAURITIUS	NO	NO	YES	YES	NO
28	MOROCCO	YES	NO	YES	NO	NO
29	MOZAMBIQUE	NO	NO	YES	NO	NO
30	NAMIBIA					
31	NIGER	NO	NO	YES	NO	NO
32	NIGERIA	YES	NO	NO	NO	NO
33	RWANDA	YES	YES	YES	YES	YES
34	SAO TOME AND PRINCIPE					
35	SENEGAL					
36	SIERRA LEONE	YES	YES	YES	NO	NO
37	SOUTH AFRICA	NO	NO	YES	YES	NO
38	SWAZILAND					
39	TANZANIA					
40	TOGO					
41	TUNISIA	NO	NO	NO	NO	YES
42	UGANDA	NO	YES	YES	NO	NO
43	ZAMBIA	NO	NO	YES	NO	NO
44	ZIMBABWE	YES	NO	YES	YES	YES

( ) Data not available

Areas where needs assessments were conducted (Cont'd)

No.	Country	Public Sector Management and Institutions					Agriculture
		Property Rights and Rule-based Governance	Quality of Budgetary and Financial Management	Efficiency of Revenue Mobilization	Quality of Public Administration	Transparency, Accountability, and Corruption in the Public Sector	
1	ANGOLA						
2	BENIN	YES	YES	YES	YES	YES	YES
3	BOTSWANA	NO	NO	YES	NO	YES	NO
4	BURKINA FASO	NO	YES	YES	YES	NO	YES
5	BURUNDI	NO	YES	NO	YES	NO	NO
6	CAMEROON	NO	YES	YES	YES	YES	NO
7	CAPE VERDE						
8	CAR	YES	YES	YES	YES	YES	YES
9	CHAD						
10	CONGO (DRC)	NO	YES	YES	YES	NO	NO
11	CONGO, REP	YES	YES	YES	YES	YES	NO
12	CÔTE D'IVOIRE	YES	YES	YES	YES	YES	NO
13	DJIBOUTI	YES	NO	YES	YES	YES	NO
14	ETHIOPIA	NO	NO	YES	NO	NO	YES
15	GABON	NO	NO	NO	YES	NO	NO
16	GAMBIA (THE)	NO	YES	YES	YES	YES	YES
17	GHANA	NO	YES	NO	YES	YES	YES
18	GUINEA	NO	YES	NO	YES	YES	YES
19	GUINEA-BISSAU	NO	YES	YES	YES	NO	NO
20	KENYA	NO	NO	NO	NO	NO	NO
21	LESOTHO	YES	NO	NO	YES	NO	YES
22	LIBERIA	NO	YES	YES	YES	YES	YES
23	MADAGASCAR	NO	YES	NO	YES	NO	NO
24	MALAWI	NO	NO	YES	YES	NO	YES
25	MALI	YES	YES	YES	YES	YES	YES
26	MAURITANIA	NO	NO	NO	NO	NO	YES
27	MAURITIUS	NO	NO	NO	NO	NO	YES
28	MOROCCO	NO	NO	NO	YES	NO	YES
29	MOZAMBIQUE	NO	YES	NO	YES	YES	NO
30	NAMIBIA						
31	NIGER	NO	YES	NO	NO	YES	YES
32	NIGERIA	NO	YES	NO	YES	NO	NO
33	RWANDA	NO	NO	NO	YES	NO	YES
34	SAO TOME AND PRINCIPE						
35	SENEGAL						
36	SIERRA LEONE	NO	NO	NO	YES	YES	YES
37	SOUTH AFRICA	NO	NO	NO	NO	NO	NO
38	SWAZILAND						
39	TANZANIA						
40	TOGO						
41	TUNISIA	NO	YES	YES	NO	NO	NO
42	UGANDA	NO	YES	NO	YES	YES	NO
43	ZAMBIA	NO	YES	NO	YES	YES	YES
44	ZIMBABWE	NO	YES	YES	NO	NO	NO

( ) Data not available

INPUTS: ACBF-supported projects/programs population in 2011

No.	Country	Number of active ACBF-supported projects/programs in 2011	Total grant disbursed by ACBF to the country in 2011 (US$)	Total number of staff	Proportion female (%)	Total number of professional staff	Proportion female (%)
1	ANGOLA	0	0	0	0	0	0
2	BENIN	2	679903	21	6	13	3
3	BOTSWANA	1	683769	3	0	3	0
4	BURKINA FASO	5	3539870	39	12	21	4
5	BURUNDI	2	842758	26	4	14	3
6	CAMEROON	3	1595782	25	9	10	4
7	CAPE VERDE	1	236914	8	3	6	2
8	CAR	2	498747	9	2	3	0
9	CHAD	0	0	0	NA	NA	NA
10	CONGO (DRC)	2	799037	38	13	12	9
11	CONGO, REP	2	403177	15	5	7	2
12	CÔTE D'IVOIRE	2	827512	20	7	13	2
13	DJIBOUTI	0	76291	0	NA	NA	NA
14	ETHIOPIA	3	1119447	124	48	59	15
15	GABON	4	931423	32	12	9	4
16	GAMBIA (THE)	1	125450	9	4	6	2
17	GHANA	6	2332375	44	15	32	13
18	GUINEA	0	0	0	NA	NA	NA
19	GUINEA-BISSAU	0	0	0	NA	NA	NA
20	KENYA	7	1623684	88	38	72	30
21	LESOTHO	1	181452	10	4	10	4
22	LIBERIA	1	179239	7	1	3	0
23	MADAGASCAR	1	154590	17	7	10	5
24	MALAWI	1	253671	5	2	4	1
25	MALI	4	1315173	26	9	13	2
26	MAURITANIA	1	510255	13	8	7	1
27	MAURITIUS	0	0	0	NA	NA	NA
28	MOROCCO	0	0	3	0	2	0
29	MOZAMBIQUE	2	632769	12	5	7	4
30	NAMIBIA	2	405019	6	1	6	1
31	NIGER	1	405060	12	3	6	1
32	NIGERIA	3	578430	11	2	11	2
33	RWANDA	2	1748492	27	9	20	7
34	SAO TOME AND PRINCIPE	1	244470	7	2	4	0
35	SENEGAL	4	1682350	37	12	17	4
36	SIERRA LEONE	1	236572	5	2	1	0
37	SOUTH AFRICA	3	1453860	10	6	8	5
38	SWAZILAND	0	89779	0	NA	NA	NA
39	TANZANIA	4	608810	9	2	6	1
40	TOGO	0	0	0	NA	NA	NA
41	TUNISIA	0	0	0	NA	NA	NA
42	UGANDA	3	1354683	33	13	30	13
43	ZAMBIA	4	1325776	54	30	32	20
44	ZIMBABWE	5	2842775	60	23	40	11

(NA) Not applicable

INPUTS: ACBF-supported projects/programs population in 2011 (continued)

No.	Country	Qualification of ACBF-supported projects/programs professional staff					
		Number of PhD or equivalent	Proportion female %	Number of Master's Degree or equivalent	Proportion female %	Number of 1st Degree of equivalent	Proportion female %
1	ANGOLA	0	0	0	0	0	0
2	BENIN	4	0	8	37.5	1	100
3	BOTSWANA	0	0	0	NA	0	NA
4	BURKINA FASO	9	11.1	11	9.09	7	85.7
5	BURUNDI	4	0.0	4	0	7	57.1
6	CAMEROON	3	66.7	5	20	3	33.3
7	CAPE VERDE	5	40.0	0	NA	3	66.7
8	CAR	1	0.0	0	NA	2	0
9	CHAD	0	NA	0	NA	0	NA
10	CONGO (DRC)	1	0.0	12	83.3	0	NA
11	CONGO, REP	1	0.0	2	0	2	50
12	CÔTE D'IVOIRE	2	0.0	1	0	3	100
13	DJIBOUTI	0	NA	0	NA	0	NA
14	ETHIOPIA	9	0.0	35	22.9	13	46.2
15	GABON	2	0.0	3	100	4	25
16	GAMBIA (THE)	0	NA	1	0	3	33.3
17	GHANA	10	10.0	17	58.8	6	50
18	GUINEA	0	NA	0	NA	0	NA
19	GUINEA-BISSAU	0	NA	0	NA	0	NA
20	KENYA	28	17.9	53	37.7	14	57.1
21	LESOTHO	0	NA	2	50	6	16.7
22	LIBERIA	0	NA	3	0	2	50
23	MADAGASCAR	1	100.0	8	37.5	1	100
24	MALAWI	1	0.0	3	33.3	0	NA
25	MALI	1	0.0	8	12.5	4	25
26	MAURITANIA	3	0.0	0	NA	1	100
27	MAURITIUS	0	NA	0	NA	0	NA
28	MOROCCO	2	0.0	4	0	0	NA
29	MOZAMBIQUE	1	0.0	5	60	3	66.7
30	NAMIBIA	0	NA	4	25	5	20
31	NIGER	2	0.0	4	25	0	NA
32	NIGERIA	5	0.0	6	33.3	0	NA
33	RWANDA	0	NA	13	38.5	9	22.2
34	SAO TOME AND PRINCIPE	0	NA	1	0	3	0
35	SENEGAL	2	0.0	13	23.1	3	66.7
36	SIERRA LEONE	0	NA	1	0	2	50
37	SOUTH AFRICA	6	50.0	7	42.9	0	NA
38	SWAZILAND	0	NA	0	NA	0	NA
39	TANZANIA	0	NA	4	25	4	25
40	TOGO	0	NA	0	NA	0	NA
41	TUNISIA	0	NA	0	NA	0	NA
42	UGANDA	14	35.7	10	40	6	66.7
43	ZAMBIA	3	33.3	9	55.6	19	63.2
44	ZIMBABWE	4	25.0	31	25.8	25	32

(NA) Not applicable

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Compendium of Statistics

OUTPUTS DELIVERED BY ACBF-SUPPORTED PROJECTS/PROGRAMS IN 2011: Leadership

No.	Country	Number of institutions strengthened	Number of technical assistance to government agencies	Number of leaders trained
1	ANGOLA	0	0	0
2	BENIN	41	3	118
3	BOTSWANA	0	4	0
4	BURKINA FASO	32	0	634
5	BURUNDI	12	9	113
6	CAMEROON	43	0	0
7	CAPE VERDE	5	5	0
8	CAR	7	6	0
9	CHAD	0	0	0
10	CONGO (DRC)	26	0	34
11	CONGO, REP	14	5	200
12	CÔTE D'IVOIRE	39	2	15
13	DJIBOUTI	0	0	0
14	ETHIOPIA	25	6	0
15	GABON	9	0	0
16	GAMBIA (THE)	75	10	10
17	GHANA	20	3	56
18	GUINEA	0	0	0
19	GUINEA-BISSAU	0	0	0
20	KENYA	150	29	1448
21	LESOTHO	40	7	30
22	LIBERIA	3	4	7
23	MADAGASCAR	5	0	0
24	MALAWI	0	0	0
25	MALI	68	48	236
26	MAURITANIA	0	0	0
27	MAURITIUS	0	0	0
28	MOROCCO	0	0	0
29	MOZAMBIQUE	5	4	100
30	NAMIBIA	1	4	93
31	NIGER	10	6	77
32	NIGERIA	7	0	0
33	RWANDA	7	5	4
34	SAO TOME AND PRINCIPE	0	0	0
35	SENEGAL	21	21	10
36	SIERRA LEONE	2	0	0
37	SOUTH AFRICA	10	8	40
38	SWAZILAND	0	0	0
39	TANZANIA	1	0	0
40	TOGO	0	0	0
41	TUNISIA	0	0	0
42	UGANDA	16	5	85
43	ZAMBIA	115	4	145
44	ZIMBABWE	14	19	103

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OUTPUTS DELIVERED BY ACBF-SUPPORTED PROJECTS/PROGRAMS IN 2011: Knowledge and learning

No.	Country	Number of policy studies, research			Number of publications disseminated
		Completed	Commissioned by Government	Commissioned by others	
1	ANGOLA	0	0	0	0
2	BENIN		32	3	30
3	BOTSWANA	11	3	8	9
4	BURKINA FASO	9	9	0	9
5	BURUNDI	24	5	6	1
6	CAMEROON	5	5	0	0
7	CAPE VERDE	5	5	0	3
8	CAR	0	0	0	0
9	CHAD	0	0	0	0
10	CONGO (DRC)	0	0	0	0
11	CONGO, REP	1	1	0	2
12	CÔTE D'IVOIRE	13	4	9	3
13	DJIBOUTI	0	0	0	0
14	ETHIOPIA	26	1	20	2332
15	GABON	0	0	0	1
16	GAMBIA (THE)	0	0	0	3
17	GHANA	17	1	3	12
18	GUINEA	0	0	0	0
19	GUINEA-BISSAU	0	0	0	0
20	KENYA	85	34	50	85
21	LESOTHO	3	1	3	1
22	LIBERIA	0	1	1	1
23	MADAGASCAR	3	0	0	0
24	MALAWI	8	0	0	6
25	MALI	18	15	3	4
26	MAURITANIA	11	3	8	3
27	MAURITIUS	0	0	0	0
28	MOROCCO	0	0	0	0
29	MOZAMBIQUE	0	0	0	2
30	NAMIBIA	1	1	1	11
31	NIGER	10	7	3	4
32	NIGERIA	28	0	0	10
33	RWANDA	4	1	3	2
34	SAO TOME AND PRINCIPE	4	18	32	0
35	SENEGAL	14	12	2	20
36	SIERRA LEONE	1	0	0	0
37	SOUTH AFRICA	1	0	0	0
38	SWAZILAND	0	0	0	0
39	TANZANIA	7	0	7	5
40	TOGO	0	0	0	0
41	TUNISIA	0	0	0	0
42	UGANDA	40	17	23	27
43	ZAMBIA	13	4	2	20
44	ZIMBABWE	22	7	2	20

OUTPUTS DELIVERED BY ACBF-SUPPORTED PROJECTS/PROGRAMS IN 2011: Short term training program

No.	Country	No. of short courses organized	No. of workshops organized/seminars	No. of beneficiaries of short courses	% of female beneficiaries of short courses	No. of beneficiaries of workshops and seminars	% of female beneficiaries of workshops and seminars
1	ANGOLA	0	0	0	0	0	0
2	BENIN	14	14	691	26.5	636	13.2
3	BOTSWANA	2	1	66	39.4	46	41.3
4	BURKINA FASO	50	24	1763	6.01	1168	27.8
5	BURUNDI	3	4	105	30.5	51	21.6
6	CAMEROON	18	27	148	29.1	295	15.9
7	CAPE VERDE	0	6	0	NA	100	0
8	CAR	0	6	0	NA	631	24.6
9	CHAD	0	0	0	NA	0	NA
10	CONGO (DRC)	0	0	0	NA	0	NA
11	CONGO, REP	10	25	500	60	953	36.9
12	CÔTE D'IVOIRE	2	3	15	26.7	101	9.9
13	DJIBOUTI	0	0	0	NA	0	NA
14	ETHIOPIA	18	42	539	16.1	1891	16.8
15	GABON	2	0	32	9.38	0	NA
16	GAMBIA (THE)	5	10	5	60	500	40
17	GHANA	0	21	772	28.1	476	34.7
18	GUINEA	0	0	0	NA	0	NA
19	GUINEA-BISSAU	0	0	0	NA	0	NA
20	KENYA	53	82	1241	27.6	949	27.3
21	LESOTHO	0	15	0	NA	300	63.3
22	LIBERIA	1	1	7	28.6	12	25
23	MADAGASCAR	4	7	26	38.5	177	36.2
24	MALAWI	0	3	0	NA	150	30
25	MALI	36	31	673	69.1	773	86.9
26	MAURITANIA	4	2	0	NA	120	20
27	MAURITIUS	0	0	0	NA	0	NA
28	MOROCCO	5	3	20	45	120	29.2
29	MOZAMBIQUE	0	3	1	100	100	20
30	NAMIBIA	0	0	165	43	165	43
31	NIGER	1	1	42	4.76	35	0
32	NIGERIA	34	24	121	1.65	536	16.4
33	RWANDA	5	12	13	53.8	137	48.2
34	SAO TOME AND PRINCIPE	0	9	0	NA	302	0
35	SENEGAL	6	22	9	0	459	3.49
36	SIERRA LEONE	0	4	0	NA	160	25
37	SOUTH AFRICA	1	1	0	NA	230	32.6
38	SWAZILAND	0	0	0	NA	0	NA
39	TANZANIA	4	8	135	32.6	256	34.4
40	TOGO	0	0	0	NA	0	NA
41	TUNISIA	0	0	0	NA	0	NA
42	UGANDA	22	16	1262	36.5	2944	5.98
43	ZAMBIA	1	17	110	44.5	595	56.6
44	ZIMBABWE	12	43	220	44.1	1202	33.8

(NA) Not applicable

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OUTPUTS DELIVERED BY ACBF-SUPPORTED PROJECTS/PROGRAMS IN 2011: Beneficiaries of tertiary training

No.	Country	No. of PhD or equiv.	% of female	No. of Master's Degree or equiv	% of female	No. of Certificates or equiv.	% of female
1	ANGOLA	0	0	0	0	0	0
2	BENIN	2	50	150	33.3	0	NA
3	BOTSWANA	3	100	2	100	0	NA
4	BURKINA FASO	4	0	134	20.9	0	NA
5	BURUNDI	4	25	1	100	0	NA
6	CAMEROON	0	NA	51	23.5	44	27.3
7	CAPE VERDE	0	NA	0	NA	0	NA
8	CAR	0	NA	0	NA	0	NA
9	CHAD	0	NA	0	NA	0	NA
10	CONGO (DRC)	0	NA	34	14.7	0	NA
11	CONGO, REP	0	NA	0	NA	100	50
12	CÔTE D'IVOIRE	0	NA	31	19.4	0	NA
13	DJIBOUTI	0	NA	0	NA	0	NA
14	ETHIOPIA	4	0	2	0	0	NA
15	GABON	0	NA	0	NA	0	NA
16	GAMBIA (THE)	0	NA	0	NA	5	60
17	GHANA	0	NA	12	41.7	22	18.2
18	GUINEA	0	NA	0	NA	0	NA
19	GUINEA-BISSAU	0	NA	0	NA	0	NA
20	KENYA	40	35	73	27.4	11	100
21	LESOTHO	0	NA	0	NA	0	NA
22	LIBERIA	0	NA	0	NA	0	NA
23	MADAGASCAR	0	NA	0	NA	0	NA
24	MALAWI	0	NA	0	NA	0	NA
25	MALI	0	NA	0	NA	0	NA
26	MAURITANIA	0	NA	0	NA	0	NA
27	MAURITIUS	0	NA	0	NA	0	NA
28	MOROCCO	0	NA	0	NA	0	NA
29	MOZAMBIQUE	0	NA	24	54.2	0	NA
30	NAMIBIA	0	NA	0	NA	0	NA
31	NIGER	0	NA	0	NA	0	NA
32	NIGERIA	22	0	23	4.35	13	7.69
33	RWANDA	2	0	13	38.5	56	55.4
34	SAO TOME AND PRINCIPE	0	NA	0	NA	0	NA
35	SENEGAL	0	NA	37	13.5	0	NA
36	SIERRA LEONE	0	NA	0	NA	0	NA
37	SOUTH AFRICA	0	NA	0	NA	0	NA
38	SWAZILAND	0	NA	0	NA	0	NA
39	TANZANIA	0	NA	7	42.9	11	72.7
40	TOGO	0	NA	0	NA	0	NA
41	TUNISIA	0	NA	0	NA	0	NA
42	UGANDA	1	100	5	0	9	11.1
43	ZAMBIA	0	NA	25	40	4	50
44	ZIMBABWE	6	50	39	46.2	5	40

OUTPUTS DELIVERED BY ACBF-SUPPORTED PROJECTS/PROGRAMS IN 2011: Introducing or adapting curricula

No.	Country	No. of curricula adapted	No. of new curricula introduced
1	ANGOLA	0	0
2	BENIN	0	0
3	BOTSWANA	0	0
4	BURKINA FASO	0	0
5	BURUNDI	0	0
6	CAMEROON	1	8
7	CAPE VERDE	0	0
8	CAR	0	0
9	CHAD	0	0
10	CONGO (DRC)	0	0
11	CONGO, REP	0	0
12	CÔTE D'IVOIRE	2	0
13	DJIBOUTI	0	0
14	ETHIOPIA	0	0
15	GABON	2	0
16	GAMBIA (THE)	0	0
17	GHANA	0	19
18	GUINEA	0	0
19	GUINEA-BISSAU	0	0
20	KENYA	1	7
21	LESOTHO	0	0
22	LIBERIA	1	1
23	MADAGASCAR	2	0
24	MALAWI	0	0
25	MALI	0	0
26	MAURITANIA	0	0
27	MAURITIUS	0	0
28	MOROCCO	0	0
29	MOZAMBIQUE	0	0
30	NAMIBIA	1	1
31	NIGER	0	0
32	NIGERIA	0	0
33	RWANDA	0	1
34	SAO TOME AND PRINCIPE	0	0
35	SENEGAL	0	1
36	SIERRA LEONE	0	0
37	SOUTH AFRICA	0	0
38	SWAZILAND	0	0
39	TANZANIA	0	0
40	TOGO	0	0
41	TUNISIA	0	0
42	UGANDA	0	0
43	ZAMBIA	0	0
44	ZIMBABWE	8	3

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Agricultural strategy formulation and implementation

No.	Country	Existence of strategy in use for the agricultural sector	CD integrated in that Strategy	Level of integration
1	ANGOLA	YES	CD mainstreamed, clear objectives	National/Federal
2	BENIN	YES	CD mainstreamed, no clear objectives	National/Federal
3	BOTSWANA	YES	CD mainstreamed, no clear objectives	National/Federal
4	BURKINA FASO	YES	CD mainstreamed, no clear objectives	National & Regional
5	BURUNDI	YES	CD mainstreamed, clear objectives	National & Regional
6	CAMEROON	YES	CD mainstreamed, no clear objectives	Region/Province/State
7	CAPE VERDE	YES		National/Federal
8	CAR	YES	CD mainstreamed, clear objectives	National/Federal
9	CHAD	YES	CD mainstreamed, clear objectives	National & Regional
10	CONGO (DRC)	YES	CD mainstreamed, clear objectives	National/Federal
11	CONGO, REP	YES	CD mainstreamed, clear objectives	National/Federal
12	CÔTE D'IVOIRE	YES	CD mainstreamed, clear objectives	National/Federal
13	DJIBOUTI	YES	CD mainstreamed, clear objectives	National, Regional & Local
14	ETHIOPIA	YES	CD mainstreamed, no clear objectives	National/Federal
15	GABON	YES	CD mainstreamed, clear objectives	National & Regional
16	GAMBIA (THE)	YES	CD mainstreamed, clear objectives	Region/Province/State
17	GHANA	YES	CD mainstreamed, clear objectives	National/Federal
18	GUINEA	YES	CD mainstreamed, clear objectives	National/Federal
19	GUINEA-BISSAU	YES	CD mainstreamed, clear objectives	National & Regional
20	KENYA	YES	CD mainstreamed, no clear objectives	National, Regional & Local
21	LESOTHO	YES	CD mainstreamed, clear objectives	National & Local
22	LIBERIA	YES	CD mainstreamed, no clear objectives	National/Federal
23	MADAGASCAR	YES	CD mainstreamed, clear objectives	National, Regional & Local
24	MALAWI	YES	CD mainstreamed, clear objectives	National/Federal
25	MALI	YES	CD mainstreamed, no clear objectives	National, Regional & Local
26	MAURITANIA	YES	CD mainstreamed, clear objectives	National/Federal
27	MAURITIUS	YES	CD not mainstreamed	National, Regional & Local
28	MOROCCO	YES	CD mainstreamed, clear objectives	National, Regional & Local
29	MOZAMBIQUE	YES	CD mainstreamed, clear objectives	National/Federal
30	NAMIBIA	YES	CD not mainstreamed	National/Federal
31	NIGER	YES	CD mainstreamed, clear objectives	National, Regional & Local
32	NIGERIA	YES	CD mainstreamed, clear objectives	National/Federal
33	RWANDA	YES	CD mainstreamed, clear objectives	National, Regional & Local
34	SAO TOME AND PRINCIPE	YES	CD mainstreamed, clear objectives	National/Federal
35	SENEGAL	YES	CD mainstreamed, clear objectives	National/Federal
36	SIERRA LEONE	YES	CD mainstreamed, clear objectives	National, Regional & Local
37	SOUTH AFRICA	YES	CD mainstreamed, no clear objectives	
38	SWAZILAND	NO		
39	TANZANIA	YES	CD mainstreamed, no clear objectives	National, Regional & Local
40	TOGO	YES	CD mainstreamed, clear objectives	National, Regional & Local
41	TUNISIA	YES	CD mainstreamed, clear objectives	National/Federal
42	UGANDA	YES	CD mainstreamed, clear objectives	National/Federal
43	ZAMBIA	YES	CD mainstreamed, no clear objectives	National & Regional
44	ZIMBABWE	YES	CD mainstreamed, clear objectives	Local

( ) Data not available

Agricultural strategy formulation and implementation (Cont'd)

No.	Country	Country has completed the CAADP Investment Plan	Country performance in the CAADP four pillars				Completion of CAADP donors roundtable
			Pillar 1	Pillar 2	Pillar 3	Pillar 4	
1	ANGOLA	YES	High	High	Very High	High	YES
2	BENIN	YES	Average	Average	High	Average	YES
3	BOTSWANA	NO					NO
4	BURKINA FASO	YES	High	High	Very High	Average	YES
5	BURUNDI	YES	Average	Average	Low	Low	YES
6	CAMEROON	YES	Average	Low	High	Average	YES
7	CAPE VERDE	YES	Average	Average	High	High	NO
8	CAR	NO	High	Low	Low	Very Low	
9	CHAD	YES	High	Average	High	Low	NO
10	CONGO (DRC)	NO	Very Low	Very Low	Very Low	Low	NO
11	CONGO, REP	YES	Average	Average	High	Average	NO
12	CÔTE D'IVOIRE	NO					NO
13	DJIBOUTI	YES	Average	Average	Average	Average	YES
14	ETHIOPIA	YES	High	Low	Average	Low	YES
15	GABON	YES	Low	Low	Low	Low	NO
16	GAMBIA (THE)	YES	Very High	Very High	Very High	Very High	YES
17	GHANA	YES	Very High	Very High	Very High	Very High	YES
18	GUINEA	YES	High	Average	High	Average	NO
19	GUINEA-BISSAU	YES	Average	Average	High	Average	YES
20	KENYA	YES	Average	High	High	High	YES
21	LESOTHO	YES	Low	Average	Very Low	Average	NO
22	LIBERIA	YES	Average	High	Average	Average	YES
23	MADAGASCAR	YES	Average	Average	Average	Average	NO
24	MALAWI	YES	Average	Average	High	Average	YES
25	MALI	YES	High	Average	High	High	YES
26	MAURITANIA	YES	Very High	Very High	Very High	High	YES
27	MAURITIUS	NO	Very High	Very High	Very High	Very High	NO
28	MOROCCO	YES	Average	Average	Average	Average	YES
29	MOZAMBIQUE	NO	Average	Average	Low	Average	YES
30	NAMIBIA	NO	Average	Average	High	Average	NO
31	NIGER	YES	Average	Average	High	Average	YES
32	NIGERIA	YES	Average	Average	Low	Low	YES
33	RWANDA	YES	High	Average	High	Average	YES
34	SAO TOME AND PRINCIPE	NO					NO
35	SENEGAL	YES	Average	Average	High	Average	YES
36	SIERRA LEONE	YES	High	High	Very High	Average	YES
37	SOUTH AFRICA	NO					NO
38	SWAZILAND	NO	Low	Average	Average	Low	NO
39	TANZANIA	YES	Average	Average	Low	Average	YES
40	TOGO	YES	Average	Average	Average	Low	YES
41	TUNISIA	NO	Average	Average	High	High	NO
42	UGANDA	YES	Average	Average	High	Very High	YES
43	ZAMBIA	NO	Average	Average	Average	Average	YES
44	ZIMBABWE	NO	Average	Average	Average	Average	NO

( ) Data not available

31
Compendium of Statistics

Assessment of the level of the implementation of the Strategy for agriculture

No.	Country	In agricultural productivity	In training	In R&D	In rural infrastructure & marketing	In water management	In land management	Level of organization for implementation of CAADP	Overall quality of current agricultural Strategy
1	ANGOLA								
2	BENIN	Medium	Low	Low	Medium	Low	Low	Medium	Medium
3	BOTSWANA	High	High	High	High	High	Very High	Very Low	Medium
4	BURKINA FASO	High	Medium	Medium	High	High	Very High	High	Medium
5	BURUNDI	High	Low	Low	Low	Very Low	Very Low	Medium	Low
6	CAMEROON	Medium	Medium	Medium	Low	Low	Medium	Low	Low
7	CAPE VERDE	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low
8	CAR	Medium	Medium	Low	Low	Medium	Medium	High	Medium
9	CHAD	Medium	Medium	Medium	High	Medium	Low	Medium	Medium
10	CONGO (DRC)	High	Medium	High	Medium	Medium	Medium	Very High	High
11	CONGO, REP	Low	Medium	Low	Low	Low	Medium	Low	Low
12	CÔTE D'IVOIRE	Low	Low	Low	Low	Low	Low	Low	Low
13	DJIBOUTI	Low	Low	Low	Medium	Medium	Low	Medium	Low
14	ETHIOPIA	High	High	Medium	High	Medium	Medium	Medium	Medium
15	GABON	Medium	Medium	Low	Low	Low	Low	Low	Medium
16	GAMBIA (THE)	Very High	Very High	Very High	High	High	Very High	Very High	Very High
17	GHANA	High	High	High	Very High	High	High	High	Medium
18	GUINEA	High	Very High	Medium	Medium	Medium	Low	High	Medium
19	GUINEA-BISSAU	Low	Low	Low	Low	Low	Low	Low	Low
20	KENYA	High	High	High	High	Medium	Medium	High	Medium
21	LESOTHO	Very High	Very High	Very High	Very High	Very High	Low	...	Very High
22	LIBERIA	Medium	Low	Low	Medium	Low	Low	High	Medium
23	MADAGASCAR	Very High	High	High	Very High	Very High	High	High	Very Low
24	MALAWI	Very High	High	Medium	Medium	Medium	High	High	High
25	MALI	Medium	Medium	Low	Medium	Medium	Low	Low	Low
26	MAURITANIA	High	Medium	Medium	Medium	Low	Low	Medium	Low
27	MAURITIUS	High	Medium	High	Medium	Low	Medium	Medium	Low
28	MOROCCO	Very High	Medium	Medium	Medium	Very High	High	High	Medium
29	MOZAMBIQUE	Low	Medium	Low	Low	Low	Medium	Very Low	Low
30	NAMIBIA	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low
31	NIGER	Low	High	Low	Medium	Medium	Medium	High	Medium
32	NIGERIA	High	Medium	High	Medium	Medium	Low	High	High
33	RWANDA	Very High	High	Very High	High	High	High	Medium	High
34	S.TOME & PRINCIPE	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low
35	SENEGAL	Low	Low	Low	Low	Low	Low	Low	Low
36	SIERRA LEONE	High	High	High	Very High	Medium	Medium	Very High	High
37	SOUTH AFRICA								
38	SWAZILAND	Medium	Medium	Low	Low	Medium	Low	Low	Low
39	TANZANIA	Low	Low	Low	Very Low	Low	Low	Low	Low
40	TOGO	High	Medium	Low	Low	Low	Medium	Medium	Medium
41	TUNISIA	Medium	High	Medium	Medium	Medium	Medium	Very Low	Low
42	UGANDA	Low	Low	Low	Low	Low	Low	Medium	Low
43	ZAMBIA	Medium	High	High	High	Medium	Medium	High	Medium
44	ZIMBABWE	Medium	Medium	Medium	Low	Medium	Medium	Medium	Low

( ) Data not available

32
Compendium of Statistics

Agriculture and job creation

No.	Country	Incentives for youth jobs creation	Domain concerned
1	ANGOLA	YES	Marketing
2	BENIN	YES	Pdo, Transformation & Marketing
3	BOTSWANA	YES	Production
4	BURKINA FASO	YES	Pdo, Transformation & Marketing
5	BURUNDI	YES	Production
6	CAMEROON	YES	Pdo, Transformation & Marketing
7	CAPE VERDE		
8	CAR	YES	Production & Transformation
9	CHAD	YES	Production
10	CONGO (DRC)	NO	
11	CONGO, REP	YES	Production & Marketing
12	CÔTE D'IVOIRE	YES	Production
13	DJIBOUTI	YES	Pdo, Transformation & Marketing
14	ETHIOPIA	YES	Production & Transformation
15	GABON	YES	Production & Marketing
16	GAMBIA (THE)	YES	Pdo, Transformation & Marketing
17	GHANA	YES	Production
18	GUINEA	NO	
19	GUINEA-BISSAU	YES	Production & Transformation
20	KENYA	YES	Pdo, Transformation & Marketing
21	LESOTHO	YES	Production & Marketing
22	LIBERIA	YES	Pdo, Transformation & Marketing
23	MADAGASCAR	YES	Pdo, Transformation & Marketing
24	MALAWI	YES	Pdo, Transformation & Marketing
25	MALI	YES	Pdo, Transformation & Marketing
26	MAURITANIA	YES	Production & Marketing
27	MAURITIUS	YES	Pdo, Transformation & Marketing
28	MOROCCO	YES	Pdo, Transformation & Marketing
29	MOZAMBIQUE	YES	Pdo, Transformation & Marketing
30	NAMIBIA	NO	
31	NIGER	YES	Pdo, Transformation & Marketing
32	NIGERIA	YES	Pdo, Transformation & Marketing
33	RWANDA	YES	Production & Transformation
34	SAO TOME AND PRINCIPE	NO	
35	SENEGAL	YES	Pdo, Transformation & Marketing
36	SIERRA LEONE	YES	Pdo, Transformation & Marketing
37	SOUTH AFRICA		
38	SWAZILAND	NO	
39	TANZANIA	YES	Production
40	TOGO	YES	Production & Marketing
41	TUNISIA	YES	Pdo, Transformation & Marketing
42	UGANDA	YES	Pdo, Transformation & Marketing
43	ZAMBIA	YES	Production & Marketing
44	ZIMBABWE	YES	Production

( ) Data not available

33
Compendium of Statistics

Training, Research and Development / Innovations in agriculture

No.	Country	No. of tertiary academic institutions delivering training in agriculture	No. of tertiary academic institutions delivering training in agricultural economics	No. of professional institutions delivering training in agriculture	Level of involvement of NGOs in agricultural sector	Existence of institution/research center dedicated to agriculture	Notable innovations in agric. Over the last five years
1	ANGOLA				Average	YES	YES
2	BENIN	6	6	4	High	YES	YES
3	BOTSWANA	1	1	4	High	YES	YES
4	BURKINA FASO	2	3	1	High	YES	YES
5	BURUNDI	3	2	9	High	YES	YES
6	CAMEROON	2	1	35	Average	YES	YES
7	CAPE VERDE				Average	YES	
8	CAR	1	1	1	High	YES	NO
9	CHAD	5	2	2	High	YES	YES
10	CONGO (DRC)	4	4	2	High	YES	YES
11	CONGO, REP	1	1	2	High	YES	YES
12	CÔTE D'IVOIRE	2	3	6	Average	YES	YES
13	DJIBOUTI	0	1	1	Average	YES	YES
14	ETHIOPIA	17	13	25	Average	YES	YES
15	GABON	1	1	2	Low	YES	YES
16	GAMBIA (THE)	1	1	4	High	YES	YES
17	GHANA	7	5	14	High	YES	YES
18	GUINEA	2	1	3	Average	YES	NO
19	GUINEA-BISSAU	0	0	0	Average	YES	NO
20	KENYA	10	4		High	YES	YES
21	LESOTHO	2	2	2	High	YES	YES
22	LIBERIA	4	0	4	High	YES	YES
23	MADAGASCAR	4	2	51	Very High	YES	YES
24	MALAWI	3	1	2	High	YES	YES
25	MALI	2	2	9	High	YES	YES
26	MAURITANIA	1	1	2	Average	YES	YES
27	MAURITIUS	1	1	6	Average	YES	YES
28	MOROCCO	3	2	11	High	YES	YES
29	MOZAMBIQUE	5	1	10	Average	YES	YES
30	NAMIBIA	2	1	3	Low	YES	YES
31	NIGER	6	1	1	Average	YES	YES
32	NIGERIA	97	40	36	Low		YES
33	RWANDA	3	1	1	Average	YES	YES
34	SAO TOME AND PRINCIPE	2	0	1	Average	YES	YES
35	SENEGAL	2	1	2	High	YES	YES
36	SIERRA LEONE	2	3	1	High	YES	YES
37	SOUTH AFRICA	9	5		Average	YES	YES
38	SWAZILAND	1	1	1	High	YES	NO
39	TANZANIA	16		1	High	YES	YES
40	TOGO	1	2	4	High	YES	YES
41	TUNISIA	11	8	39	High	YES	YES
42	UGANDA	5	5	5	High	YES	YES
43	ZAMBIA	13	2	2	Very High	YES	YES
44	ZIMBABWE	10	10	8	High	YES	YES

( ) Data not available

34
Compendium of Statistics

Role of private sector in the value chain

No.	Country	Intervention of the private sector in the value chain			
		Production and marketing of agricultural inputs	Production of agricultural commodities for local consumption	Production of agricultural commodities for export	Production and processing of agricultural commodities for local consumption
1	ANGOLA	YES	NO	YES	YES
2	BENIN	YES	YES	YES	YES
3	BOTSWANA	YES	YES	YES	YES
4	BURKINA FASO	YES	YES	YES	YES
5	BURUNDI	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES
7	CAPE VERDE	YES	YES	NO	YES
8	CAR	NO	YES	NO	YES
9	CHAD	NO	YES	YES	YES
10	CONGO (DRC)	YES	YES	NO	YES
11	CONGO, REP	YES	YES	YES	YES
12	CÔTE D'IVOIRE	YES	YES	YES	YES
13	DJIBOUTI	NO	YES	YES	YES
14	ETHIOPIA	YES	YES	YES	YES
15	GABON	YES	YES	YES	YES
16	GAMBIA (THE)	YES	YES	YES	YES
17	GHANA	YES	YES	YES	YES
18	GUINEA	YES	YES	YES	YES
19	GUINEA-BISSAU	NO	YES	YES	YES
20	KENYA	YES	YES	YES	YES
21	LESOTHO	YES	YES	YES	YES
22	LIBERIA	YES	YES	YES	YES
23	MADAGASCAR	YES	YES	YES	YES
24	MALAWI	YES	YES	YES	YES
25	MALI	YES	YES	YES	YES
26	MAURITANIA	NO	YES	NO	YES
27	MAURITIUS	YES	YES	YES	YES
28	MOROCCO	YES	YES	YES	NO
29	MOZAMBIQUE	YES	NO	YES	NO
30	NAMIBIA	YES	YES	YES	YES
31	NIGER	YES	YES	YES	YES
32	NIGERIA	YES	YES	YES	YES
33	RWANDA	NO	YES	YES	YES
34	SAO TOME AND PRINCIPE	YES	YES	YES	YES
35	SENEGAL	YES	YES	YES	YES
36	SIERRA LEONE	YES	YES	YES	YES
37	SOUTH AFRICA	NO	NO	NO	YES
38	SWAZILAND	YES	NO	YES	YES
39	TANZANIA	YES	YES	YES	YES
40	TOGO	YES	YES	YES	YES
41	TUNISIA	YES	YES	YES	YES
42	UGANDA	YES	YES	YES	YES
43	ZAMBIA	YES	YES	YES	YES
44	ZIMBABWE	YES	YES	YES	YES

35 Compendium of Statistics

Role of private sector in the value chain (Cont'd)

No.	Country	Intervention of the private sector in the value chain				
		Production and processing of agricultural commodities for export	Processing of agricultural products intended for local consumption	Processing of agricultural commodities for export	Marketing of agricultural commodities intended for local consumption	Marketing of agricultural commodities intended for export
1	ANGOLA	YES	NO	NO	YES	YES
2	BENIN	YES	YES	YES	YES	YES
3	BOTSWANA	YES	YES	YES	YES	YES
4	BURKINA FASO	YES	YES	YES	YES	YES
5	BURUNDI	YES	YES	YES	YES	YES
6	CAMEROON	YES	YES	YES	YES	YES
7	CAPE VERDE	NO	YES	NO	YES	NO
8	CAR	NO	YES	NO	YES	NO
9	CHAD	YES	YES	NO	YES	YES
10	CONGO (DRC)	NO	YES	NO	YES	NO
11	CONGO, REP	NO	YES	NO	YES	NO
12	CÔTE D'IVOIRE	YES	YES	YES	YES	YES
13	DJIBOUTI	NO	NO	NO	YES	NO
14	ETHIOPIA	YES	YES	NO	NO	YES
15	GABON	YES	YES	YES	NO	YES
16	GAMBIA (THE)	YES	YES	YES	YES	YES
17	GHANA	YES	YES	YES	YES	YES
18	GUINEA	NO	YES	NO	YES	NO
19	GUINEA-BISSAU	YES	YES	YES	YES	YES
20	KENYA	YES	YES	YES	YES	YES
21	LESOTHO	NO	YES	NO	YES	YES
22	LIBERIA	YES	YES	NO	YES	YES
23	MADAGASCAR	YES	YES	YES	YES	YES
24	MALAWI	YES	YES	YES	YES	YES
25	MALI	YES	YES	YES	YES	YES
26	MAURITANIA	NO	YES	NO	YES	NO
27	MAURITIUS	YES	YES	YES	YES	YES
28	MOROCCO	YES	NO	YES	YES	YES
29	MOZAMBIQUE	YES	NO	YES	NO	YES
30	NAMIBIA	YES	YES	YES	YES	YES
31	NIGER	YES	YES	YES	YES	YES
32	NIGERIA	YES	YES	YES	YES	YES
33	RWANDA	YES	NO	NO	YES	YES
34	SAO TOME AND PRINCIPE	YES	NO	NO	NO	NO
35	SENEGAL	YES	YES	YES	YES	YES
36	SIERRA LEONE	YES	YES	YES	YES	YES
37	SOUTH AFRICA	YES	YES	YES	NO	NO
38	SWAZILAND	YES	NO	YES	NO	NO
39	TANZANIA	YES	YES	YES	YES	YES
40	TOGO	YES	YES	YES	YES	YES
41	TUNISIA	YES	YES	YES	YES	YES
42	UGANDA	YES	YES	YES	YES	YES
43	ZAMBIA	YES	YES	YES	YES	YES
44	ZIMBABWE	YES	YES	YES	YES	YES

Role of private sector in the value chain (Cont'd)

No.	Country	State involvement in purchase and distribution of inputs	State involvement in procurement and distribution of major agricultural commodities	Level of processing of key agricultural products		Existence of a financial institution dedicated to agriculture	Level of access to market by small farmers
				Major staple agricultural commodity	Major livestock commodity		
1	ANGOLA	YES		Very High	High	YES	High
2	BENIN	YES	YES	High	Low	NO	Medium
3	BOTSWANA	YES	YES	Medium	Medium	YES	Medium
4	BURKINA FASO	YES	YES	Low	Low	NO	Medium
5	BURUNDI	YES	NO	Low	Low	YES	Medium
6	CAMEROON	YES	YES	Low	Very Low	NO	High
7	CAPE VERDE			Very Low	Very Low	YES	Low
8	CAR	NO	NO	Low	Low	NO	Low
9	CHAD	YES	YES	Low	Low	YES	Low
10	CONGO (DRC)	NO	NO	Very Low	Low	NO	Medium
11	CONGO, REP	YES	NO	Medium	Very Low	YES	High
12	CÔTE D'IVOIRE	YES	YES	Low	Very Low	NO	Medium
13	DJIBOUTI	YES	YES	Low	Low	YES	Medium
14	ETHIOPIA	YES	YES	Very Low	Low	YES	Low
15	GABON	NO	NO	Low	Low	NO	Low
16	GAMBIA (THE)	YES	YES	Medium	Medium	YES	Low
17	GHANA	YES	YES	High	High	YES	Low
18	GUINEA	NO	NO	Medium	Low	YES	Low
19	GUINEA-BISSAU	NO	NO	Low	Low	NO	Medium
20	KENYA	YES	YES	Medium	Medium	YES	Medium
21	LESOTHO	YES	YES	High	Low	NO	Low
22	LIBERIA	NO	NO	High	Medium	YES	Medium
23	MADAGASCAR	YES	YES	Low	Very Low	YES	Low
24	MALAWI	YES	YES	Low	Medium	NO	Low
25	MALI	NO	NO	High	Low	YES	High
26	MAURITANIA	YES	YES	Medium	Medium	YES	Low
27	MAURITIUS	NO	YES	Very Low	Very Low	YES	Very High
28	MOROCCO	YES	YES	Medium	Medium	YES	Medium
29	MOZAMBIQUE	YES	NO	Medium	Medium	YES	Low
30	NAMIBIA	YES	YES	High	Medium	YES	Medium
31	NIGER	YES	YES	Very Low	Very Low	YES	Low
32	NIGERIA	YES	NO	Medium	Low	YES	Low
33	RWANDA	NO	YES	Low	High	YES	Medium
34	SAO TOME AND PRINCIPE	YES	NO	Very Low	Very Low	NO	Medium
35	SENEGAL	YES	NO	High	High	YES	Medium
36	SIERRA LEONE	YES	YES	Low	Very Low	YES	Medium
37	SOUTH AFRICA	YES		Medium	Medium	YES	
38	SWAZILAND	YES	YES	Very High	Very High	NO	Medium
39	TANZANIA	NO	NO	Medium	Very Low	YES	Medium
40	TOGO	YES	YES	Low	Low	NO	Low
41	TUNISIA	YES	YES	High	High	YES	Medium
42	UGANDA	YES	YES	Very Low	Very Low	YES	Medium
43	ZAMBIA	YES	YES	Medium	Medium	NO	Medium
44	ZIMBABWE	YES	YES	High	High	YES	Medium

37
Compendium of Statistics

Food security

No.	Country	Country received food aid over the last 5 years	Existence of a food security & Early warning system	Operated by	The country has put in place a security policy	The country has put in place a security program
1	ANGOLA	YES	YES	Other	YES	YES
2	BENIN	YES	YES	Government	YES	YES
3	BOTSWANA	NO	YES	Government	YES	YES
4	BURKINA FASO	YES	YES	Government & Development partner	YES	YES
5	BURUNDI	YES	YES	Government & Development partner	YES	YES
6	CAMEROON	YES	YES	Government & Development partner	YES	YES
7	CAPE VERDE	YES	YES	Government	YES	YES
8	CAR	YES	YES	Government & Development partner	YES	YES
9	CHAD	YES	YES	Government	YES	YES
10	CONGO (DRC)	YES	YES	Government & Development partner	YES	YES
11	CONGO, REP	YES	YES	Government	YES	YES
12	CÔTE D'IVOIRE	YES	YES	Government	YES	YES
13	DJIBOUTI		YES	Government & Development partner	YES	YES
14	ETHIOPIA	YES	YES	Government	YES	YES
15	GABON	NO	NO		YES	YES
16	GAMBIA (THE)	YES	YES	Government	YES	YES
17	GHANA	YES	YES	Government & Development partner	YES	YES
18	GUINEA	NO	YES	Government	YES	YES
19	GUINEA-BISSAU	YES	NO		NO	YES
20	KENYA	YES	YES	Government	YES	YES
21	LESOTHO	YES	YES	Government	YES	YES
22	LIBERIA	YES	YES	Government & Development partner	YES	YES
23	MADAGASCAR	YES	YES	Government & Development partner	YES	YES
24	MALAWI	NO	YES	Government & Development partner	YES	YES
25	MALI	YES	YES	Government	NO	YES
26	MAURITANIA	YES	YES	Government	YES	YES
27	MAURITIUS		NO		YES	YES
28	MOROCCO	YES	YES	Government	YES	YES
29	MOZAMBIQUE	YES	YES	Government	NO	NO
30	NAMIBIA	YES	YES	Government	YES	YES
31	NIGER	YES	YES	Government	YES	YES
32	NIGERIA	NO	YES	Government & Development partner	YES	YES
33	RWANDA	NO	YES	Government	NO	YES
34	SAO TOME AND PRINCIPE	YES	YES	Government	YES	YES
35	SENEGAL	YES	YES	Government	YES	YES
36	SIERRA LEONE	YES	YES	Government	YES	YES
37	SOUTH AFRICA	NO	YES	Government	YES	YES
38	SWAZILAND	YES	YES	Government	YES	YES
39	TANZANIA	YES	YES	Government	NO	YES
40	TOGO	NO	YES	Government	NO	YES
41	TUNISIA	NO	YES	Government	YES	YES
42	UGANDA	YES	YES	Government & Development partner	YES	YES
43	ZAMBIA	NO	YES	Government	YES	YES
44	ZIMBABWE	YES	YES	Development partner	YES	YES

( ) Data not available

38
Compendium of Statistics

Information system: Agricultural statistics

No.	Country	Agricultural census conducted	Agricultural survey conducted during the last 5 years	Frequency of agricultural surveys	Rating of the current agricultural statistics
1	ANGOLA	YES	YES	3-5 Years	Low
2	BENIN	NO	YES	1-2 Years	Medium
3	BOTSWANA	YES	YES	1-2 Years	Medium
4	BURKINA FASO	YES	YES	3-5 Years	High
5	BURUNDI	NO	YES	3-5 Years	Low
6	CAMEROON	YES	YES	1-2 Years	High
7	CAPE VERDE	YES	NO	6 Years & above	Very Low
8	CAR	YES	YES	1-2 Years	High
9	CHAD	YES	YES	1-2 Years	High
10	CONGO (DRC)	YES	YES	3-5 Years	Very High
11	CONGO, REP	YES	NO		High
12	CÔTE D'IVOIRE	YES	NO	6 Years & above	Very Low
13	DJIBOUTI	YES	NO	6 Years & above	High
14	ETHIOPIA	YES	YES	1-2 Years	Very High
15	GABON	NO	NO	6 Years & above	Very High
16	GAMBIA (THE)	YES	YES	1-2 Years	Low
17	GHANA	YES	YES	1-2 Years	Medium
18	GUINEA	YES	YES	3-5 Years	High
19	GUINEA-BISSAU	YES	YES	1-2 Years	High
20	KENYA	NO	YES	6 Years & above	High
21	LESOTHO	YES	YES	1-2 Years	High
22	LIBERIA	YES	YES	1-2 Years	Medium
23	MADAGASCAR	YES	YES	3-5 Years	High
24	MALAWI	YES	YES	6 Years & above	High
25	MALI	YES	YES	1-2 Years	Low
26	MAURITANIA	YES	NO		Medium
27	MAURITIUS	NO	YES	3-5 Years	Medium
28	MOROCCO	YES	YES	1-2 Years	Medium
29	MOZAMBIQUE	YES	YES	1-2 Years	Medium
30	NAMIBIA	YES	NO		Very Low
31	NIGER	YES	YES	1-2 Years	Low
32	NIGERIA	YES	YES	1-2 Years	High
33	RWANDA	NO	YES	1-2 Years	Medium
34	SAO TOME AND PRINCIPE	YES	NO	6 Years & above	Very High
35	SENEGAL	YES	YES	1-2 Years	Low
36	SIERRA LEONE	YES	YES	3-5 Years	Medium
37	SOUTH AFRICA	YES	YES	1-2 Years	Very Low
38	SWAZILAND	YES	YES	1-2 Years	Very Low
39	TANZANIA	YES	YES	3-5 Years	Low
40	TOGO	YES	YES	1-2 Years	High
41	TUNISIA	YES	YES	1-2 Years	Medium
42	UGANDA	YES	YES	3-5 Years	Medium
43	ZAMBIA	YES	YES	1-2 Years	Medium
44	ZIMBABWE	YES	YES	1-2 Years	Low

( ) Data not available

39
Compendium of Statistics

Information system: Market information

No.	Country	Existence of an agricultural market information system	Coverage		
			National	Local	Regional
1	ANGOLA				
2	BENIN	YES	YES	YES	YES
3	BOTSWANA	YES	YES	YES	YES
4	BURKINA FASO	.	YES	YES	YES
5	BURUNDI	YES	YES	NO	YES
6	CAMEROON	YES	YES	YES	YES
7	CAPE VERDE	YES	YES	YES	YES
8	CAR	NO			
9	CHAD	YES	YES	YES	NO
10	CONGO (DRC)	YES	YES	YES	YES
11	CONGO, REP	YES	YES	NO	NO
12	CÔTE D'IVOIRE	YES	YES	YES	YES
13	DJIBOUTI	YES	YES	YES	NO
14	ETHIOPIA	YES	YES	NO	YES
15	GABON	YES	NO	YES	YES
16	GAMBIA (THE)	YES	YES	YES	YES
17	GHANA	YES	YES	NO	NO
18	GUINEA	YES	YES	YES	YES
19	GUINEA-BISSAU	YES	YES	NO	YES
20	KENYA	YES	YES	YES	NO
21	LESOTHO	YES	YES	YES	YES
22	LIBERIA	YES	YES	YES	NO
23	MADAGASCAR	YES	YES	YES	YES
24	MALAWI	YES	YES	YES	YES
25	MALI	YES	YES	YES	YES
26	MAURITANIA	YES	YES	YES	YES
27	MAURITIUS	YES	YES	YES	YES
28	MOROCCO	YES	YES	YES	YES
29	MOZAMBIQUE	YES	YES	YES	YES
30	NAMIBIA	NO			
31	NIGER	YES	YES	YES	YES
32	NIGERIA	YES	YES	YES	YES
33	RWANDA	YES	YES	YES	NO
34	SAO TOME AND PRINCIPE	NO			
35	SENEGAL	YES	YES	NO	NO
36	SIERRA LEONE	YES	YES	YES	YES
37	SOUTH AFRICA	YES			
38	SWAZILAND	YES	YES	YES	YES
39	TANZANIA	YES	YES	NO	NO
40	TOGO	YES	YES	NO	YES
41	TUNISIA	YES	YES	NO	YES
42	UGANDA	YES	YES	NO	NO
43	ZAMBIA	YES	YES	YES	YES
44	ZIMBABWE	YES	YES		

( ) Data not available

POLICY ENVIRONMENT

No.	Country	Country's current natural resources status	The country has developed a strategy for the mining sector	The country has developed a Local Environment Plan	In line with AMV, Govt. has created domestic & regional policy environment for mining	Level of transparency of transactions in mining sector
1	BENIN	Mineral producer only	Not at all	YES	No action so far	Not transparent
2	BOTSWANA	Hydrocarbon & Mineral	YES	YES	No action so far	Very transparent
3	BURKINA FASO	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
4	BURUNDI	Mineral producer only	Not at all	YES	Creation underway	Fairly transparent
5	CAMEROON	Hydrocarbon & Mineral	Not at all	YES	Creation underway	Fairly transparent
6	CAPE VERDE	None	Not applicable	YES	No action so far	NA
7	CAR	Mineral producer only	Not at all	YES	Creation underway	Fairly transparent
8	CHAD	Hydrocarbon producer only	YES	YES	No action so far	Fairly transparent
9	CONGO (DRC)	Hydrocarbon & Mineral	Not at all	YES	Creation underway	Not transparent
10	CONGO, REP	Hydrocarbon producer only	Part of NDS	YES	No action so far	Fairly transparent
11	CÔTE D'IVOIRE	Hydrocarbon & Mineral	Part of NDS	YES	na	Fairly transparent
12	DJIBOUTI	Prospective	Part of NDS	YES	na	Fairly transparent
13	ETHIOPIA	Prospective	Part of NDS	YES	Creation underway	Fairly transparent
14	GABON	Hydrocarbon & Mineral	Part of NDS	YES	Creation underway	Fairly transparent
15	GAMBIA (THE)	Prospective	Part of NDS	YES	Creation underway	Very transparent
16	GHANA	Hydrocarbon & Mineral	Part of NDS	YES	Creation underway	Fairly transparent
17	GUINEA	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
18	GUINEA-BISSAU	None	Part of NDS	NO	Creation underway	Fairly transparent
19	KENYA	Mineral producer only	Not at all	YES	Creation underway	Fairly transparent
20	LESOTHO	Mineral producer only	Not at all	YES	No action so far	Fairly transparent
21	LIBERIA	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
22	MADAGASCAR	Mineral producer only	Not at all	YES	Creation underway	Fairly transparent
23	MALAWI	Mineral producer only	YES	YES	Creation underway	Fairly transparent
24	MALI	Mineral producer only	YES	YES	Creation underway	Fairly transparent
25	MAURITANIA	Hydrocarbon & Mineral	Not at all	YES	Creation underway	Fairly transparent
26	MAURITIUS	None	Not applicable	YES	Not applicable	NA
27	MOROCCO	Mineral producer only	Not at all	YES	Creation underway	Fairly transparent
28	MOZAMBIQUE	Hydrocarbon & Mineral	YES	NO	No action so far	Not transparent
29	NAMIBIA	Mineral producer only	Part of NDS	YES	Creation underway	Very transparent
30	NIGER	Hydrocarbon & Mineral	Part of NDS	YES	Creation underway	Fairly transparent
31	NIGERIA	Hydrocarbon & Mineral	Part of NDS	YES	Creation underway	Very transparent
32	RWANDA	Mineral producer only	YES	YES	Creation underway	Very transparent
33	SAO TOME AND PRINCIPE	Prospective	YES	YES	No action so far	Very transparent
34	SENEGAL	Hydrocarbon & Mineral	Not at all	YES	No action so far	Fairly transparent
35	SIERRA LEONE	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
36	SWAZILAND	Hydrocarbon & Mineral	Part of NDS	YES	na	Fairly transparent
37	TANZANIA	Hydrocarbon & Mineral	YES	YES	No action so far	Fairly transparent
38	TOGO	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
39	TUNISIA	Hydrocarbon & Mineral	Part of NDS	YES	No action so far	Not transparent
40	UGANDA	Mineral producer only	Part of NDS	YES	Creation underway	Fairly transparent
41	ZAMBIA	Hydrocarbon & Mineral	Part of NDS	YES	Creation underway	Fairly transparent
42	ZIMBABWE	Mineral producer only	YES	YES	Creation underway	Fairly transparent

NA: Not applicable; na: Data not available AMV: Africa Mining Vision

POLICY ENVIRONMENT (CONT'D)

No.	Country	Extent to which the environment is enabling for transparency	National consensus for equitable, accountable and sustainable mgnt of NR	Level of participation of CSOs in extractive industries mngt	Level of participation of media in extractive industries mngt	The Constitution provides for CSO involvement in economic policy-making for NRM
1	BENIN	Poor	YES	Poor	Fair	YES
2	BOTSWANA	Very Good	YES	Very Good	Very Good	YES
3	BURKINA FASO	Fair	YES	Poor	Fair	NO
4	BURUNDI	Good	YES	Good	Very Good	NO
5	CAMEROON	Good	YES	na	Good	YES
6	CAPE VERDE	Very Good	YES	Good	Fair	YES
7	CAR	Good	YES	Fair	Fair	YES
8	CHAD	Good	YES	Very Good	Very Good	YES
9	CONGO (DRC)	Poor	NO	Poor	Poor	NO
10	CONGO, REP	Fair	YES	Very Good	Good	YES
11	CÔTE D'IVOIRE	Fair	NO	Fair	Fair	NO
12	DJIBOUTI	Fair	YES	Good	NA	YES
13	ETHIOPIA	Fair	YES	Poor	na	YES
14	GABON	Fair	YES	Fair	Fair	NO
15	GAMBIA (THE)	Good	YES	NA	Good	YES
16	GHANA	Good	YES	Very Good	Very Good	YES
17	GUINEA	Good	YES	Good	Fair	YES
18	GUINEA-BISSAU	Fair	NO	Good	Fair	YES
19	KENYA	Fair	YES	Fair	Fair	NO
20	LESOTHO	Poor	YES	Poor	Fair	NO
21	LIBERIA	Good	NO	Poor	Fair	YES
22	MADAGASCAR	Good	NO	Fair	Good	YES
23	MALAWI	Fair	YES	Good	Good	YES
24	MALI	Fair	YES	Good	Fair	YES
25	MAURITANIA	Fair	NO	Fair	Fair	NO
26	MAURITIUS	Very Good	YES	NA	NA	YES
27	MOROCCO	Fair	YES	Fair	Fair	YES
28	MOZAMBIQUE	Good	YES	Poor	Poor	NO
29	NAMIBIA	Very Good	YES	Fair	Very Good	YES
30	NIGER	Very Good	YES	Very Good	Fair	YES
31	NIGERIA	Fair	YES	Good	Good	YES
32	RWANDA	Very Good	YES	Very Good	Very Good	YES
33	SAO TOME AND PRINCIPE	Very Good	YES	Good	Very Good	NO
34	SENEGAL	Fair	YES	Poor	Fair	YES
35	SIERRA LEONE	Good	YES	Good	Very Good	NO
36	SWAZILAND	Good	YES	Good	Good	YES
37	TANZANIA	Fair	YES	Fair	Fair	YES
38	TOGO	Fair	YES	Fair	Good	YES
39	TUNISIA	Fair	YES	Poor	Poor	NO
40	UGANDA	Good	YES	Poor	Poor	YES
41	ZAMBIA	Fair	YES	Fair	Good	YES
42	ZIMBABWE	Fair	YES	Fair	Poor	NO

NA: Not applicable; na: Data not available

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PROCESSES FOR IMPLEMENTATION

Transparency processes and arrangements

No.	Country	The country has joined EITI	The country has not joined EITI and is working towards EITI candidacy	Existence of CSO network to give citizens ability to influence decisions on NR e.g. TAI (Access Initiative)	A multi-stakeholder national dialog platform is established	Local development councils are set up
1	BENIN	NO	YES	YES	NO	YES
2	BOTSWANA	NO	YES	YES	YES	YES
3	BURKINA FASO	YES		YES	YES	YES
4	BURUNDI	NO	YES	NO	NO	NO
5	CAMEROON	YES		YES	NO	NO
6	CAPE VERDE	NA	NO	YES	YES	NO
7	CAR	YES		YES	YES	NO
8	CHAD	YES		YES	YES	YES
9	CONGO (DRC)	YES		YES	YES	YES
10	CONGO, REP	YES		YES	YES	NO
11	CÔTE D'IVOIRE	YES		YES	NO	YES
12	DJIBOUTI	NA	YES	NO	NO	NO
13	ETHIOPIA	NO	YES	NO	YES	YES
14	GABON	YES		YES	NO	NO
15	GAMBIA (THE)	NA	NO	YES	YES	YES
16	GHANA	YES		YES	YES	YES
17	GUINEA	YES		NO	YES	YES
18	GUINEA-BISSAU	NA		NO	YES	NO
19	KENYA	NO	YES	NO	NO	NO
20	LESOTHO	NO	NO	YES	NO	YES
21	LIBERIA	YES		NO	NO	YES
22	MADAGASCAR	YES		NO	NO	YES
23	MALAWI	NO	YES	YES	YES	NO
24	MALI	YES		YES	YES	YES
25	MAURITANIA	YES		NO	YES	NO
26	MAURITIUS	NA		NO	na	na
27	MOROCCO	NO	YES	YES	YES	na
28	MOZAMBIQUE	YES		YES	NO	NO
29	NAMIBIA	NO	NO	YES	YES	YES
30	NIGER	YES		YES	YES	YES
31	NIGERIA	YES		YES	YES	YES
32	RWANDA	NO	YES	YES	YES	YES
33	SAO TOME AND PRINCIPE	NO	YES	YES	NO	NO
34	SENEGAL	NO	YES	YES	NO	NO
35	SIERRA LEONE	YES		YES	YES	YES
36	SWAZILAND	NO	YES	YES	YES	YES
37	TANZANIA	YES		YES	YES	YES
38	TOGO	YES		YES	YES	NO
39	TUNISIA	NO	YES	YES	NO	YES
40	UGANDA	NO	YES	YES	NO	NO
41	ZAMBIA	YES		NO	YES	YES
42	ZIMBABWE	NO	NO	YES	YES	YES

NA: Not applicable; na: Data not available

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Compendium of Statistics

Global environmental governance

No.	Country	The country has signed up to CASM	The country has signed up to REDD	The country has signed up to Ottawa Process	Knowledge of the quantity & quality of proven & probable NR	Knowledge of where NRs are located	Comprehensive computerized records of resources, in form of maps
1	BENIN	YES	YES	NO	NO	NO	YES
2	BOTSWANA	NO	YES	YES	YES	YES	YES
3	BURKINA FASO	NO	YES	YES	NO	NO	NO
4	BURUNDI	YES	YES	na	NO	YES	YES
5	CAMEROON	YES	YES	YES	NO	NO	NO
6	CAPE VERDE	NO	na	NO	NO	NO	NO
7	CAR	YES	YES	NO	NO	YES	YES
8	CHAD	YES	YES	YES	YES	YES	YES
9	CONGO (DRC)	NO	YES	NO	NO	YES	NO
10	CONGO, REP	NO	YES	YES	YES	YES	YES
11	CÔTE D'IVOIRE	NO	na	na	YES	YES	NO
12	DJIBOUTI	NO	YES	YES	YES	YES	YES
13	ETHIOPIA	NO	NO	YES	NO	NO	NO
14	GABON	YES	YES	YES	YES	YES	YES
15	GAMBIA (THE)	NA	YES	YES	NO	YES	YES
16	GHANA	YES	YES	YES	YES	YES	YES
17	GUINEA	NO	YES	YES	YES	YES	YES
18	GUINEA-BISSAU	YES	YES	YES	YES	YES	NO
19	KENYA	NA	YES	YES	YES	NO	NO
20	LESOTHO	NO	YES	YES	YES	YES	YES
21	LIBERIA	YES	YES	YES	YES	YES	YES
22	MADAGASCAR	YES	YES	YES	NO	YES	YES
23	MALAWI	NO	YES	NO	YES	YES	NO
24	MALI	YES	YES	YES	NO	YES	NO
25	MAURITANIA	YES	NO	YES	YES	YES	YES
26	MAURITIUS	NA	NO	NO	YES	YES	YES
27	MOROCCO	YES	YES	YES	YES	YES	YES
28	MOZAMBIQUE	YES	NO	YES	NO	YES	YES
29	NAMIBIA	NO	YES	YES	YES	YES	YES
30	NIGER	YES	YES	YES	YES	NO	NO
31	NIGERIA	YES	NO	NO	YES	YES	YES
32	RWANDA	YES	YES	YES	YES	YES	YES
33	SAO TOME AND PRINCIPE	NO	YES	YES	YES	YES	YES
34	SENEGAL	NO	YES	YES	YES	YES	YES
35	SIERRA LEONE	YES	YES	NO	NO	YES	YES
36	SWAZILAND	NO	YES	YES	NO	YES	NO
37	TANZANIA	na	YES	na	YES	YES	YES
38	TOGO	NO	YES	NO	YES	YES	YES
39	TUNISIA	NO	NO	NO	NO	NO	YES
40	UGANDA	YES	YES	YES	NO	YES	YES
41	ZAMBIA	YES	YES	YES	YES	YES	YES
42	ZIMBABWE	YES	YES	NO	YES	YES	YES

na: Data not available CASM: Communities, Artisanal and Small-scale Mining Initiative REDD: Reducing Emissions from Deforestation and Forest Degradation

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Global environmental governance (Cont'd)

No.	Country	National consensus on the management of natural resources	Cross-sectorial forum mechanism for decisions on natural resources	Alternative asset-holding to ensure continuous generation of stream of income when NR run dry
1	BENIN	YES	YES	YES
2	BOTSWANA	NO	YES	YES
3	BURKINA FASO	YES	YES	NO
4	BURUNDI	NO	NO	NO
5	CAMEROON	NO	NO	NO
6	CAPE VERDE	YES	YES	NO
7	CAR	YES	YES	YES
8	CHAD	YES	NO	NO
9	CONGO (DRC)	Na	na	NO
10	CONGO, REP	YES	YES	NO
11	CÔTE D'IVOIRE	NO	NO	NO
12	DJIBOUTI	NO	NO	NO
13	ETHIOPIA	YES	NO	NO
14	GABON	NO	NO	YES
15	GAMBIA (THE)	NO	YES	YES
16	GHANA	YES	YES	NO
17	GUINEA	YES	YES	YES
18	GUINEA-BISSAU	NO	YES	NO
19	KENYA	NO	NO	NO
20	LESOTHO	NO	NO	NO
21	LIBERIA	NO	NO	YES
22	MADAGASCAR	NO	YES	NO
23	MALAWI	NO	NO	na
24	MALI	NO	YES	NO
25	MAURITANIA	NO	NO	YES
26	MAURITIUS	YES	YES	YES
27	MOROCCO	NO	NO	YES
28	MOZAMBIQUE	YES	NO	NO
29	NAMIBIA	YES	YES	na
30	NIGER	YES	YES	NO
31	NIGERIA	YES	YES	YES
32	RWANDA	YES	YES	YES
33	SAO TOME AND PRINCIPE	YES	NO	YES
34	SENEGAL	YES	YES	YES
35	SIERRA LEONE	NO	NO	NO
36	SWAZILAND	NO	YES	YES
37	TANZANIA	NO	YES	na
38	TOGO	NO	YES	NO
39	TUNISIA	NO	NO	NO
40	UGANDA	NO	NO	NO
41	ZAMBIA	NO	na	NO
42	ZIMBABWE	YES	YES	NO

na: Data not available

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Global environmental governance (Cont'd)

No.	Country	How much space multilateral & bilateral institutions allow for governments and their citizens to dialogue on NRM	CSO have space/freedom to execute their mandate	The legislature has the mechanism to execute its mandate in environmental governance
1	BENIN	Moderate space	YES	YES
2	BOTSWANA	Enough space	YES	YES
3	BURKINA FASO	Enough space	YES	YES
4	BURUNDI	No space	YES	YES
5	CAMEROON	Moderate space	YES	YES
6	CAPE VERDE	Moderate space	YES	YES
7	CAR	Moderate space	YES	YES
8	CHAD	Enough space	YES	NO
9	CONGO (DRC)	Enough space	YES	YES
10	CONGO, REP	Moderate space	YES	YES
11	CÔTE D'IVOIRE	na	YES	na
12	DJIBOUTI	No space	YES	YES
13	ETHIOPIA	Moderate space	NO	YES
14	GABON	Moderate space	YES	YES
15	GAMBIA (THE)	No space	YES	YES
16	GHANA	Enough space	YES	YES
17	GUINEA	Moderate space	YES	YES
18	GUINEA-BISSAU	Moderate space	YES	YES
19	KENYA	Moderate space	YES	YES
20	LESOTHO	na	YES	YES
21	LIBERIA	Enough space	YES	YES
22	MADAGASCAR	No space	YES	YES
23	MALAWI	Enough space	YES	YES
24	MALI	Moderate space	YES	YES
25	MAURITANIA	Moderate space	YES	YES
26	MAURITIUS	Enough space	YES	YES
27	MOROCCO	Moderate space	YES	YES
28	MOZAMBIQUE	Enough space	YES	YES
29	NAMIBIA	Enough space	YES	YES
30	NIGER	Moderate space	YES	YES
31	NIGERIA	Moderate space	YES	YES
32	RWANDA	Enough space	YES	YES
33	SAO TOME AND PRINCIPE	Enough space	YES	YES
34	SENEGAL	Enough space	YES	YES
35	SIERRA LEONE	Enough space	YES	YES
36	SWAZILAND	Moderate space	YES	YES
37	TANZANIA	Moderate space	YES	YES
38	TOGO	Moderate space	YES	YES
39	TUNISIA	na	NO	NO
40	UGANDA	No space	YES	YES
41	ZAMBIA	Moderate space	YES	YES
42	ZIMBABWE	Enough space	YES	YES

na: Data not available

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Compendium of Statistics

Government commitment to environmental sustainability

No.	Country	Extent to which environmental policies foster the protection and sustainable use of NR	The government funds educational and training institutions, R&D organizations & public sector institutions that regulate the mineral sector	Extent to which the government provide infrastructure support for mining investment & infrastructure financing
1	BENIN	Fair	Not enough	Very Low
2	BOTSWANA	Good	More than enough	High
3	BURKINA FASO	Fair	Not enough	Medium
4	BURUNDI	Fair	Not enough	Low
5	CAMEROON	Fair	Enough	Very High
6	CAPE VERDE	Good	Enough	Medium
7	CAR	Good	Not enough	Low
8	CHAD	Good	Not enough	Low
9	CONGO (DRC)	Poor	Not enough	Low
10	CONGO, REP	Good	Enough	Medium
11	CÔTE D'IVOIRE	Fair	Not enough	Medium
12	DJIBOUTI	Good	Not enough	Medium
13	ETHIOPIA	Good	Not enough	Low
14	GABON	Good	Not enough	Medium
15	GAMBIA (THE)	Good	Not enough	Low
16	GHANA	Good	Enough	High
17	GUINEA	Good	Not enough	High
18	GUINEA-BISSAU	Good	NA	NA
19	KENYA	Good	Enough	Medium
20	LESOTHO	Fair	Not enough	Very Low
21	LIBERIA	Fair	Not enough	Low
22	MADAGASCAR	Good	Not enough	Low
23	MALAWI	Good	Enough	Medium
24	MALI	Good	Not enough	Medium
25	MAURITANIA	Good	Enough	Medium
26	MAURITIUS	Very Good	NA	NA
27	MOROCCO	Good	Enough	Medium
28	MOZAMBIQUE	Good	More than enough	High
29	NAMIBIA	Very Good	More than enough	High
30	NIGER	Very Good	Not enough	Medium
31	NIGERIA	Good	Not enough	Medium
32	RWANDA	Very Good	Enough	Low
33	SAO TOME AND PRINCIPE	Good	NA	NA
34	SENEGAL	Good	Not enough	Very Low
35	SIERRA LEONE	Good	Enough	Very Low
36	SWAZILAND	Good	Enough	Medium
37	TANZANIA	Good	Enough	Low
38	TOGO	Fair	Not enough	Medium
39	TUNISIA	Fair	Enough	High
40	UGANDA	Good	Not enough	Low
41	ZAMBIA	Good	Not enough	Medium
42	ZIMBABWE	Fair	Not enough	Medium

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Early and comprehensive dispute management

No.	Country	The country has experienced a conflict related to NRM	The government has set up effective dispute resolution mechanism in partnership with stakeholders
1	BENIN	NO	YES, not in partnership
2	BOTSWANA	NO	YES, in partnership
3	BURKINA FASO	YES	YES, in partnership
4	BURUNDI	YES	YES, in partnership
5	CAMEROON	YES	YES, in partnership
6	CAPE VERDE	YES	YES, in partnership
7	CAR	YES	YES, in partnership
8	CHAD	NO	YES, in partnership
9	CONGO (DRC)	YES	YES, in partnership
10	CONGO, REP	YES	YES, in partnership
11	CÔTE D'IVOIRE	YES	YES, in partnership
12	DJIBOUTI	NO	YES, in partnership
13	ETHIOPIA	YES	YES, in partnership
14	GABON	YES	YES, not in partnership
15	GAMBIA (THE)	NO	YES, in partnership
16	GHANA	YES	YES, in partnership
17	GUINEA	YES	YES, in partnership
18	GUINEA-BISSAU	NO	NO
19	KENYA	YES	YES, in partnership
20	LESOTHO	YES	NO
21	LIBERIA	YES	YES, in partnership
22	MADAGASCAR	NO	NO
23	MALAWI	NO	NO
24	MALI	NO	YES, in partnership
25	MAURITANIA	YES	NO
26	MAURITIUS	YES	YES, in partnership
27	MOROCCO	YES	YES, not in partnership
28	MOZAMBIQUE	NO	YES, in partnership
29	NAMIBIA	NO	YES, not in partnership
30	NIGER	NO	YES, in partnership
31	NIGERIA	YES	YES, in partnership
32	RWANDA	YES	YES, in partnership
33	SAO TOME AND PRINCIPE	NO	NO
34	SENEGAL	YES	YES, in partnership
35	SIERRA LEONE	YES	YES, in partnership
36	SWAZILAND	NO	YES, in partnership
37	TANZANIA	NO	NO
38	TOGO	NO	YES, not in partnership
39	TUNISIA	NO	NO
40	UGANDA	YES	YES, in partnership
41	ZAMBIA	YES	YES, not in partnership
42	ZIMBABWE	NO	YES, in partnership

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Thorough compliance, monitoring and enforcement of commitments

No.	Country	The country has developed a commonly agreed compliance monitoring and enforcement mechanisms with stakeholders	The country is a member of the Kimberley Process
1	BENIN	NO	NA
2	BOTSWANA	YES	YES
3	BURKINA FASO	NO	YES
4	BURUNDI	NO	NA
5	CAMEROON	YES	YES
6	CAPE VERDE	YES	NA
7	CAR	YES	YES
8	CHAD	YES	NA
9	CONGO (DRC)	YES	YES
10	CONGO, REP	YES	YES
11	CÔTE D'IVOIRE		YES
12	DJIBOUTI	YES	NA
13	ETHIOPIA	YES	NA
14	GABON	NO	NO
15	GAMBIA (THE)	YES	NA
16	GHANA	YES	YES
17	GUINEA	YES	YES
18	GUINEA-BISSAU	NO	NA
19	KENYA	YES	NA
20	LESOTHO	YES	YES
21	LIBERIA	YES	YES
22	MADAGASCAR	YES	NA
23	MALAWI	NO	NA
24	MALI	YES	YES
25	MAURITANIA	NO	NA
26	MAURITIUS	YES	NA
27	MOROCCO	YES	NA
28	MOZAMBIQUE	NO	NA
29	NAMIBIA	YES	YES
30	NIGER	YES	NA
31	NIGERIA	YES	NA
32	RWANDA	YES	NA
33	SAO TOME AND PRINCIPE	NO	NA
34	SENEGAL	NO	NA
35	SIERRA LEONE	YES	YES
36	SWAZILAND	YES	YES
37	TANZANIA	YES	YES
38	TOGO	NO	YES
39	TUNISIA	NO	NA
40	UGANDA	YES	NA
41	ZAMBIA	NO	NA
42	ZIMBABWE	YES	YES

NA: Not applicable ( ) Information not available

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Statistics for managing natural resources

No.	Country	The country has joined the JODI	During 2010-11, a public official has participated in training workshops on JODI	Existence of a statistical legislation to facilitate specific data on NR	National Accounts produce disaggregated data on NR by main type of resources	Data on NR are published in any other means
1	BENIN	NO	NO	YES	YES	NO
2	BOTSWANA	NO	NO	YES	YES	YES
3	BURKINA FASO	NO	NO	NO	YES	YES
4	BURUNDI	NO	NO	NO	NO	NO
5	CAMEROON	NO	NO	NO	YES	YES
6	CAPE VERDE	NO	NO	NO	NO	NO
7	CAR	NO	NO	NO	YES	YES
8	CHAD	NO	NO	NO	YES	YES
9	CONGO (DRC)	NO	NO	NO	NO	NO
10	CONGO, REP	NO	NO	NO	NO	YES
11	CÔTE D'IVOIRE					YES
12	DJIBOUTI	NO	NO	NO	YES	
13	ETHIOPIA	NO	NO	YES	NO	YES
14	GABON	NO	NO	NO	YES	YES
15	GAMBIA (THE)	NO	NO	NO	NO	NO
16	GHANA	NO	YES	YES	YES	YES
17	GUINEA	NO	NO	NO	NO	YES
18	GUINEA-BISSAU	NO	NO	NO	YES	NO
19	KENYA	NO	NO	NO	YES	YES
20	LESOTHO	NO	NO	YES	NO	YES
21	LIBERIA	YES	YES	YES	YES	NO
22	MADAGASCAR	NO	NO	YES	YES	NO
23	MALAWI	NO	YES	YES	YES	YES
24	MALI	NO	NO	NO	YES	YES
25	MAURITANIA	YES	YES	NO	YES	YES
26	MAURITIUS	NO	NO	YES	YES	NO
27	MOROCCO	YES	YES	YES	YES	YES
28	MOZAMBIQUE	NO	NO	NO	NO	YES
29	NAMIBIA	NO		YES	YES	YES
30	NIGER	NO	NO	NO	NO	YES
31	NIGERIA	YES		NO	YES	YES
32	RWANDA	YES	YES	YES	YES	YES
33	SAO TOME AND PRINCIPE	NO	NO	NO	NO	NO
34	SENEGAL	NO	NO	NO	YES	YES
35	SIERRA LEONE	NO	NO	YES	YES	YES
36	SWAZILAND	NO	NO	NO	NO	
37	TANZANIA	NO	NO	YES	YES	YES
38	TOGO	NO	NO	NO	NO	NO
39	TUNISIA	YES	YES	NO	YES	YES
40	UGANDA	NO	NO	NO	YES	YES
41	ZAMBIA	NO	NO	YES	YES	YES
42	ZIMBABWE	NO	NO	NO	NO	YES

( ) Information not available JODI: Joint Organisations Data Initiative

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Compendium of Statistics

Statistics for managing natural resources (Cont'd)

No.	Country	Within the bodies listed below, there is a Unit dedicated to the collection of data on environment			
		National Statistical Office	Ministry of Environment	Ministry of Forest	Ministry of mining
1	BENIN	NO	YES	YES	NO
2	BOTSWANA	YES	YES	YES	YES
3	BURKINA FASO	NO	NO	NO	NO
4	BURUNDI	YES	YES	NO	YES
5	CAMEROON	YES	YES	NO	NO
6	CAPE VERDE	NO	YES	YES	NO
7	CAR	NO	YES	YES	YES
8	CHAD	YES	YES	YES	YES
9	CONGO (DRC)	YES	YES	YES	YES
10	CONGO, REP	YES	YES	NO	NO
11	CÔTE D'IVOIRE				NO
12	DJIBOUTI	YES	YES	YES	YES
13	ETHIOPIA	YES	NO	NO	YES
14	GABON	NO	YES	YES	YES
15	GAMBIA (THE)	YES	YES	YES	YES
16	GHANA	YES	YES	YES	YES
17	GUINEA	NO	YES	YES	NO
18	GUINEA-BISSAU	YES	YES	NO	NO
19	KENYA	YES	YES	YES	YES
20	LESOTHO	YES	YES	YES	NO
21	LIBERIA	NO	NO	NO	YES
22	MADAGASCAR	YES	YES	YES	YES
23	MALAWI	YES	YES	YES	YES
24	MALI	YES	YES	YES	YES
25	MAURITANIA	NO	YES	YES	YES
26	MAURITIUS	YES	YES	YES	NO
27	MOROCCO	YES	YES	NO	YES
28	MOZAMBIQUE	NO	YES	YES	YES
29	NAMIBIA	NO	NO	NO	YES
30	NIGER	NO	YES	YES	NO
31	NIGERIA	YES	YES	NO	YES
32	RWANDA	YES	YES	NO	YES
33	SAO TOME AND PRINCIPE	YES	YES	YES	YES
34	SENEGAL	NO	YES	YES	NO
35	SIERRA LEONE	YES	NO	NO	NO
36	SWAZILAND	YES	NO	NO	YES
37	TANZANIA	YES	YES	NO	YES
38	TOGO	NO	YES	YES	NO
39	TUNISIA	YES	YES	YES	NO
40	UGANDA	NO	YES	YES	NO
41	ZAMBIA	YES	YES	YES	YES
42	ZIMBABWE	YES	YES	YES	YES

( ) Information not available

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Compendium of Statistics

Ensure environmental sustainability

No.	Country	Proportion of land covered by forest	Ratio of area protected to maintain biological diversity to surface area	Proportion of population with sustainable access to an improved water source, urban and rural	Hydropower and renewable energy production as a percentage of total energy consumption
1	BENIN	21.3	19		1
2	BOTSWANA	20	40	96	
3	BURKINA FASO	16	8	72	15.66
4	BURUNDI				
5	CAMEROON	45	8.1	62.6	64.1
6	CAPE VERDE				25
7	CAR	36.3	17.7	67	
8	CHAD	9.2		29.58	0
9	CONGO (DRC)	47	11	27.2	5
10	CONGO, REP	65	11	41.2	
11	CÔTE D'IVOIRE	25			
12	DJIBOUTI	5	6.5	52	4.8
13	ETHIOPIA	6.6	18.4	68	92
14	GABON	82	11	80	50
15	GAMBIA (THE)	26.6	5	70	1
16	GHANA	22.7	20	80	54.39
17	GUINEA	9.4	7	73.8	5
18	GUINEA-BISSAU	50	15	66	
19	KENYA	2	12.7		52.1
20	LESOTHO	1.4	1	72.8	
21	LIBERIA	65	30	60	0
22	MADAGASCAR	16	2.9	44.9	36.1
23	MALAWI	34	0.16	93	1.08
24	MALI	26.1	7.9	72.4	
25	MAURITANIA	0.11	0.6	62	24
26	MAURITIUS	18.2	18.2	100	16.2
27	MOROCCO	12	2		10.47
28	MOZAMBIQUE	50.2		47	95.9
29	NAMIBIA	3	17	98	25.08
30	NIGER	5.1	6.6	50.1	
31	NIGERIA	10.8	6.1	58	8.13
32	RWANDA	23.4	10.13	74.5	
33	SAO TOME AND PRINCIPE	90	40		10.3
34	SENEGAL	44	23.46	72	10.56
35	SIERRA LEONE	5	6.1	35	85
36	SWAZILAND	49	3.7		50
37	TANZANIA	37.7	26.9		
38	TOGO	10	7	57.3	
39	TUNISIA	13.04	2.5	98.1	0.16
40	UGANDA	18	13	73.8	48.8
41	ZAMBIA	66.5	41	60	
42	ZIMBABWE	42	30	80	53

( ) Information not available

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Compendium of Statistics

Governance of natural resources

No.	Country	Existence of a national institution with the mandate to, and oversight for, identifying, inventorying and holding NRM GIS information	Extent to which national institutions are active in the management of the extraction and sale of NR	Assessment of management of the macroeconomic challenges of NR revenues	The country ensures social stability by expenditure-smoothing in case of NR prices fluctuation
1	BENIN	YES	Fairly active	Satisfactorily	YES
2	BOTSWANA	YES	Very active	Very Good	YES
3	BURKINA FASO	YES	Fairly active	Good	NO
4	BURUNDI	YES	Fairly active	Poorly	NO
5	CAMEROON	YES	Fairly active	Satisfactorily	YES
6	CAPE VERDE	YES	Fairly active	Poorly	NO
7	CAR	YES	Very active	Poorly	YES
8	CHAD	NO	Fairly active	Poorly	YES
9	CONGO (DRC)	YES	Fairly active	Satisfactorily	NO
10	CONGO, REP	YES	Fairly active	Satisfactorily	YES
11	CÔTE D'IVOIRE		Not at all	Satisfactorily	
12	DJIBOUTI	YES	Fairly active	Satisfactorily	YES
13	ETHIOPIA	YES	Fairly active	Satisfactorily	NO
14	GABON	YES	Fairly active	Satisfactorily	NO
15	GAMBIA (THE)	YES	Very active	Very Good	YES
16	GHANA	YES	Very active	Good	YES
17	GUINEA	NO	Not at all	Poorly	NO
18	GUINEA-BISSAU	YES	Not at all	Poorly	NO
19	KENYA	YES	Fairly active	Satisfactorily	NO
20	LESOTHO	YES	Fairly active	Poorly	NO
21	LIBERIA	YES	Fairly active	Poorly	NO
22	MADAGASCAR	YES	Very active	Poorly	YES
23	MALAWI	YES	Very active	Poorly	YES
24	MALI	YES	Very active	Satisfactorily	YES
25	MAURITANIA	YES	Fairly active	Satisfactorily	YES
26	MAURITIUS	NO	Not at all	Very Good	YES
27	MOROCCO	YES	Fairly active	Satisfactorily	YES
28	MOZAMBIQUE	YES	Fairly active	Satisfactorily	NO
29	NAMIBIA	YES	Fairly active	Very Good	YES
30	NIGER	YES	Very active	Poorly	NO
31	NIGERIA	YES	Fairly active	Good	YES
32	RWANDA	YES	Very active	Very Good	YES
33	SAO TOME AND PRINCIPE	YES	Fairly active	Good	YES
34	SENEGAL	YES	Very active		NO
35	SIERRA LEONE	YES	Fairly active	Satisfactorily	YES
36	SWAZILAND	NO	Fairly active	Poorly	NO
37	TANZANIA	YES	Fairly active	Good	YES
38	TOGO	NO		Poorly	NO
39	TUNISIA	YES	Very active	Satisfactorily	YES
40	UGANDA	YES	Fairly active	Satisfactorily	YES
41	ZAMBIA	NO	Very active	Good	YES
42	ZIMBABWE	YES	Fairly active	Good	NO

( ) Information not available

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Compendium of Statistics

Governance of natural resources (Cont'd)

No.	Country	Attitude of govt. towards the equitable distribution of revenues & saving for the future	External players operating in the country have information disclosure policies	How do external players fare on human rights, CSR and environmental standards	The country has a mechanism to facilitate transparent and legal trade in NR
1	BENIN	Favorable	YES	Poor	Fair
2	BOTSWANA	Very favorable	YES	Very Good	Poor
3	BURKINA FASO	Favorable	YES	Good	Poor
4	BURUNDI	Not favorable	NO	Fair	Poor
5	CAMEROON	Favorable	YES	Fair	Poor
6	CAPE VERDE	Favorable	YES	Fair	Poor
7	CAR	Not favorable	YES	Fair	Poor
8	CHAD	Not favorable	YES	Fair	Poor
9	CONGO (DRC)	Not favorable	YES	Fair	Poor
10	CONGO, REP	Favorable	YES	Fair	Poor
11	CÔTE D'IVOIRE		NO	Poor	Fair
12	DJIBOUTI	Favorable	YES	Good	Poor
13	ETHIOPIA	Favorable	NO	Fair	Poor
14	GABON	Favorable	YES	Fair	Fair
15	GAMBIA (THE)	Favorable	YES	Good	Poor
16	GHANA	Favorable	YES	Good	Poor
17	GUINEA	Favorable	YES	Good	Poor
18	GUINEA-BISSAU	Favorable	YES		Poor
19	KENYA	Not favorable	NO	Fair	Fair
20	LESOTHO	Not favorable		Fair	Poor
21	LIBERIA	Not favorable	YES	Fair	Poor
22	MADAGASCAR	Favorable	YES	Fair	Poor
23	MALAWI	Favorable	YES	Good	Fair
24	MALI	Very favorable	YES	Good	Poor
25	MAURITANIA	Favorable	YES	Fair	Poor
26	MAURITIUS	Very favorable	YES	Very Good	Very Good
27	MOROCCO	Not favorable	YES	Fair	Poor
28	MOZAMBIQUE	Not favorable	NO	Poor	Fair
29	NAMIBIA	Very favorable	YES	Good	Poor
30	NIGER	Favorable	YES	Good	Poor
31	NIGERIA	Favorable	NO	Good	Poor
32	RWANDA	Very favorable	YES	Very Good	Poor
33	SAO TOME AND PRINCIPE	Very favorable	YES	Good	Poor
34	SENEGAL	Favorable	YES		Poor
35	SIERRA LEONE	Favorable	YES	Fair	Poor
36	SWAZILAND	Not favorable	NO	Poor	Fair
37	TANZANIA	Favorable	YES	Fair	Fair
38	TOGO	Favorable	YES	Fair	Poor
39	TUNISIA	Favorable	YES	Poor	Fair
40	UGANDA	Favorable	YES	Good	Poor
41	ZAMBIA	Favorable	YES	Fair	
42	ZIMBABWE	Not favorable	YES		Poor

( ) Information not available. CSR: Corporate social responsibility

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Compendium of Statistics

Necessary infrastructure to exploit natural resources

No.	Country	The country has the necessary infrastructure to exploit its NR				
		Roads	Rail	Sea ports	Air ports	Refinery
1	BENIN	NO	NO	YES	YES	NO
2	BOTSWANA	YES	NO	NA	YES	NO
3	BURKINA FASO	YES	NO	NO	YES	NO
4	BURUNDI	YES	NO	YES	YES	NO
5	CAMEROON	NO	YES	NO	YES	YES
6	CAPE VERDE	YES	NO	YES	YES	NO
7	CAR	NO	NO	YES	YES	NO
8	CHAD	YES	NO	NO	YES	YES
9	CONGO (DRC)	YES	YES	YES	YES	NO
10	CONGO, REP	YES	YES	YES	YES	YES
11	CÔTE D'IVOIRE	YES	YES	YES	YES	YES
12	DJIBOUTI	YES	YES	YES	YES	NO
13	ETHIOPIA	YES	NO	NO	YES	NO
14	GABON	YES	YES	YES	YES	YES
15	GAMBIA (THE)	YES	NO	YES	YES	NO
16	GHANA	YES	YES	YES	YES	YES
17	GUINEA	NO	NO	YES	YES	NO
18	GUINEA-BISSAU	NO	NO	NO	NO	NO
19	KENYA	NO	NO	YES	NO	YES
20	LESOTHO	NO	NO	NA	NA	NA
21	LIBERIA	NO	YES	YES	YES	YES
22	MADAGASCAR	NO	NO	YES	YES	NO
23	MALAWI	NO	NO	NO	NO	NA
24	MALI	NA	YES	YES	NO	YES
25	MAURITANIA	YES	YES	YES	YES	NO
26	MAURITIUS	YES	NA	YES	YES	YES
27	MOROCCO	YES	YES	YES	YES	YES
28	MOZAMBIQUE	NO	NO	NO	NO	NO
29	NAMIBIA	YES	YES	YES	YES	NO
30	NIGER	YES	NO	NO	YES	YES
31	NIGERIA	YES	YES	YES	YES	YES
32	RWANDA	YES	NA	NA	YES	NO
33	SAO TOME AND PRINCIPE	YES	NA	YES	YES	NA
34	SENEGAL	YES	YES	YES	YES	YES
35	SIERRA LEONE	NO	YES	NO	YES	NO
36	SWAZILAND	YES	YES	NO	NO	NO
37	TANZANIA					
38	TOGO	YES	YES	YES	YES	NO
39	TUNISIA	YES	YES	YES	YES	YES
40	UGANDA	NO	YES	NO	NA	YES
41	ZAMBIA	YES	YES	NA	YES	YES
42	ZIMBABWE	YES	YES	NA	YES	NO

( ) Information not available

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Compendium of Statistics

CAPACITY DEVELOPMENT OUTCOMES

Progressive capacity building and knowledge sharing among stakeholders in natural resources

No.	Country	Existence of a rolling program of advisory groups, workshops and stakeholder consultation	Existence of tailored training & development programs	Degree of alignment of education & training towards AMV	Trend of the number of students graduating in mineral related qualifications for the last 5 years
1	BENIN	NO	YES	Poor	NA
2	BOTSWANA	YES	YES	Fair	Increased
3	BURKINA FASO	YES	YES	Fair	Increased
4	BURUNDI	YES	YES	Fair	Increased
5	CAMEROON	YES	NO	Poor	Stable
6	CAPE VERDE	YES	YES	NA	NA
7	CAR	YES	YES	Fair	Increased
8	CHAD	YES	NO	Poor	Increased
9	CONGO (DRC)		NO	Good	Stable
10	CONGO, REP	YES	NO	Poor	Increased
11	CÔTE D'IVOIRE		NO	Fair	Increased
12	DJIBOUTI	NO	NO	NA	NA
13	ETHIOPIA	YES	YES	Good	Increased
14	GABON	NO	YES	Good	Increased
15	GAMBIA (THE)	YES	YES	NA	NA
16	GHANA	YES	YES	Good	Increased
17	GUINEA	YES	NO	Fair	Increased
18	GUINEA-BISSAU	YES	YES	NA	NA
19	KENYA	NO	YES	Fair	Increased
20	LESOTHO	NO	NO	Poor	Increased
21	LIBERIA	YES	YES	Fair	Increased
22	MADAGASCAR	NO	NO	Poor	Increased
23	MALAWI	YES	YES	Poor	NA
24	MALI	NO	NO	Good	Increased
25	MAURITANIA	YES	YES	Fair	Increased
26	MAURITIUS	YES	YES	NA	NA
27	MOROCCO	YES	YES	Fair	Stable
28	MOZAMBIQUE	YES	YES	Good	Increased
29	NAMIBIA	YES	YES	NA	Increased
30	NIGER	YES	NO	Good	Increased
31	NIGERIA	YES	YES	Fair	Increased
32	RWANDA	YES	YES	Good	Increased
33	SAO TOME AND PRINCIPE	YES	YES	Good	Increased
34	SENEGAL	NO	NO	Poor	Increased
35	SIERRA LEONE	YES	YES	Fair	NA
36	SWAZILAND	YES	YES	Poor	NA
37	TANZANIA	YES	YES	Good	Stable
38	TOGO	YES	YES	Poor	Stable
39	TUNISIA	NO	NO	Good	Increased
40	UGANDA	YES	YES	fair	Increased
41	ZAMBIA	YES	NO	fair	Decreased
42	ZIMBABWE	YES	YES	Good	Increased

( ) Information not available

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Compendium of Statistics

Shared understanding of the Costs and Benefits, Risks and Responsibilities Related to Mineral Development

No.	Country	The ICMM's Mining partnerships for Development Toolkit is being implemented in the country	If not, a company has conducted a rigorous and collaborative socio-economic study to share understanding of the costs and benefits, risks and responsibilities related to mineral development	Assessment of the media's capacity to fulfill their mission in the oversight of NR	Contribution of the NR sector to total employment (%)	The country has capacity to manage a resource boom including the sterilization of inflows
1	BENIN	NO	NO	Fair	6	YES
2	BOTSWANA	YES	NA	Good	8	YES
3	BURKINA FASO	YES		Weak	5	YES
4	BURUNDI	NO	NO	Good		YES
5	CAMEROON	NA	NA	Fair		NO
6	CAPE VERDE	NO	NA	Fair		YES
7	CAR	YES		Weak	10	NO
8	CHAD	NO	NO	Weak		NO
9	CONGO (DRC)	NO	NO	Fair	10	NO
10	CONGO, REP	NO	NO	Weak		YES
11	CÔTE D'IVOIRE	NO	NO	Fair		NO
12	DJIBOUTI	NA	NA	Weak	1.5	YES
13	ETHIOPIA	NO	YES	Weak	0.3	NO
14	GABON	NO	NO	Weak	7	YES
15	GAMBIA (THE)	NO	YES	Good	0.7	NO
16	GHANA	YES	NA	Fair	20	YES
17	GUINEA	NO	NO	Good	58	NO
18	GUINEA-BISSAU	NA	NA	Weak		NO
19	KENYA	NO	NO	Fair	1.5	YES
20	LESOTHO	NO	NO	Weak	2.6	NO
21	LIBERIA	NO	YES	Good	30	YES
22	MADAGASCAR	YES	YES	Good	2	YES
23	MALAWI	NO	YES	Good	1.4	NO
24	MALI	NA	YES	Weak	0.1	YES
25	MAURITANIA	NO	NO	Fair	57.6	YES
26	MAURITIUS	NA	NA	Very Good	3	YES
27	MOROCCO	NA	NA	Weak	15	YES
28	MOZAMBIQUE	NO	NO	Good	70	YES
29	NAMIBIA	YES	YES	Fair		YES
30	NIGER	NA	NO	Fair		NO
31	NIGERIA	YES	YES	Good	0.1	YES
32	RWANDA	YES		Good	8	YES
33	SAO TOME AND PRINCIPE	NA	NA	Fair		YES
34	SENEGAL	NO	NO	Fair	4	
35	SIERRA LEONE	NO	YES	Fair	14	NO
36	SWAZILAND	NO	YES	Good		
37	TANZANIA			Fair	4	YES
38	TOGO	NA	NO	Fair		NO
39	TUNISIA	NA	YES	Weak	10.2	YES
40	UGANDA	NO	NO	Weak		YES
41	ZAMBIA	NO	NO	Fair	2	YES
42	ZIMBABWE	NO	NA	Fair	9	YES

( ) Information not available ICMM: International Council on Mining and Metals

Appendix 1: Natural Resources in Africa

No.	Country	Natural Resources
1.	Algeria	Petroleum, Natural Gas, Iron Ore, Phosphates, Uranium, Lead, Zinc
2.	Angola	Petroleum, Diamonds, Iron Ore, Phosphates, Copper, Feldspar, Bauxite, Uranium, God
3.	Benin	Small offshore Oil deposits, Limestone, Marble, Timber
4.	Botswana	Diamonds, Copper, Nickel, Salt, Soda Ash, Potash, Coal, Iron Ore, Silver
5.	Burkina Faso	Manganese, Limestone, Marble, Small deposits of Gold, Phosphate, Pumice, Salt
6.	Burundi	Niobium, Tantalum, Gold, Tin, Tungsten, Kaolin, Limestone
7.	Cameroun	Petroleum, Bauxite, Iron Ore, Timber, Hydropower
8.	Cape Verde	Salt, Basalt Rock, Limestone, Kaolin, Fish, Clay, Gypsum
9.	Central African Republic	Diamonds, Uranium, Timber, Gold, Oil, Hydropower
10.	Chad	Petroleum, Uranium, Natron, Kaolin, Fish, Gold, Limestone, Sand and Gravel, Salt
11.	Comoros	Limestone, Copper, Lead, Zinc, Water
12.	Congo, Democratic Republic	Cobalt, Copper, Niobium, Tantalum, Petroleum, Industrial and Gem Diamonds, Gold, Silver, Zinc, Manganese, Tin, Uranium, Hydropower, Timber, Arable Land, Water
13.	Congo, Republic of	Petroleum, Timber, Potash, Lead, Zinc, Uranium, Copper, Phosphates, Gold, Manganese, Natural Gas
14.	Côte d'Ivoire	Petroleum, Natural Gas, Diamonds, Manganese, Iron Ore, Cobalt, Bauxite, Copper, Gold, Nickel, Tantalum, Silica Sand, Clay, Cocoa, Beans, Coffee, Palm Oil, Hydropower
15.	Djibouti	Geothermal, Gold, Clay, Granite, Limestone, Marble, Salt, Gypsum, Talc, Asbestos, Lead, Zinc
16.	Egypt	Petroleum, Natural Gas, Iron Ore, Phosphates, Manganese, Limestone, Gypsum, Talc, Asbestos, Lead, Zinc
17.	Equatorial Guinea	Petroleum, Natural Gas, Timber, Gold, Bauxite, Diamonds, Tantalum, Sand and Gravel, Clay
18.	Eritrea	Potash, Gold, Zinc, Copper, Salt, Fish
19.	Ethiopia	Small reserves of Gold, Platinum, Copper, Potash, Natural Gas, Hydropower
20.	Gabon	Petroleum, Natural Gas, Diamonds, Niobium, Manganese, Uranium, Gold, Timber, Iron Ore, Hydropower
21.	Gambia, The	Fish, Titanium, Tin, Zireon, Silva Sand, Clay, Petroleum
22.	Ghana	Gold, Diamonds, Manganese, Bauxite, Petroleum, Aluminum, Cocoa, Timber, Coffee, Rubber, Hydropower, Salt, Fish, Limestone, Petroleum
23.	Guinea	Bauxite, Iron Ore, Diamonds, Gold, Uranium, Hydropower, Fish, Salt
24.	Guinea-Bissau	Fish, Timber, Phosphates, Bauxite, Clay, Granite, Limestone, Petroleum
25.	Kenya	Limestone, Soda Ash, Salt, Gemstones, Fluorspar, Zinc, Diatomite, Gypsum, Wildlife, Hydropower
26.	Lesotho	Water. Agricultural and Grazing Land, Diamonds, Sand, Clay, Building Stone
27.	Liberia	Iron Ore, Timber, Diamonds, Gold, Hydropower
28.	Libya	Petroleum, Natural Gas, Gypsum
29.	Madagascar	Graphite, Chromite, Coal, Bauxite, Salt, Quartz, Tar Sands, Semiprecious Stones, Mica, Fish, Hydropower
30.	Malawi	Limestone, Arable Land, Hydropower, Uranium, Coal, Bauxite
31.	Mali	Gold, Phosphates, Kaolin, Salt, Limestone, Uranium, Gypsum, Granite, Hydropower, Bauxite, Iron ore
32.	Mauritania	Iron Ore, Gypsum, Copper, Phosphate, Diamonds, Gold, Petroleum, Fish
33.	Mauritius	Arable Land, Fish
34.	Morocco	Phosphates, Iron Ore, Manganese, Lead, Zinc, Fish, Salt
35.	Mozambique	Coal, Titanium, Natural Gas, Hydropower, Tantalum, Graphite
36.	Namibia	Diamonds, Copper, Uranium, Gold, Silver, Lead, Tin, Cadmium, Tungsten, Zinc, Salt, Hydropower, Fish, Coal, Petroleum, Iron Ore
37.	Niger	Petroleum, Tin, Coal, Limestone, Zinc, Lead
38.	Nigeria	Petroleum, Natural Gas, Tin, Iron Ore, Coal, Niobium, Lead, Zinc, Arable Land
39.	Reunion	Tin Ore, Tungsten Ore (Wolframite), Methane, Arable Land
40.	Rwanda	Gold, Tin Ore (Cassiterite), Tungsten Ore (Wolframite), Methane, Hydropower, Arable Land

Appendix 1: Natural Resources in Africa

No.	Country	Natural Resources
41.	Sao Tome and Principe	Fish, Hydropower
42.	Senegal	Fish, Phosphates, Iron Ore
43.	Seychelles	Fish, Copra, Cinnamon Trees
44.	Sierra Leone	Diamonds, Titanium Ore, Bauxite, Iron Ore, Gold, Chromite
45.	Somalia	Uranium, Iron Ore, Tin, Gypsum, Bauxite, Copper, Salt, Natural Gas, Petroleum
46.	South Africa	Gold, Chromium, Antimony, Coal, Iron Ore, Manganese, Nickel, Phosphates, Tin, Uranium, Gem Diamonds, Platinum, Copper, Vanadium Salt, Natural Gas
47.	Sudan	Petroleum, Iron Ore, Copper, Chromium Ore, Tungsten, Mica, Silver, Gold, Hydropower
48.	South Sudan	Petroleum, Iron Ore, Copper, Chromium Ore, Tungsten, Mica, Silver, Gold
49.	Swaziland	Asbestos, Coal, Clay, Cassiterite, Hydropower, Forests, Gold, Diamonds, Quarry Stone, Talc
50.	Tanzania	Tanzanite, Gemstones, Hydropower, Tin, Phosphates, Iron Ore, Coal, Diamonds, Gold, Natural Gas, Nickel
51.	Togo	Phosphates, Limestone, Marble, Arable Land
52.	Tunisia	Petroleum, Phosphates, Iron Ore, Lead, Zinc, Salt
53.	Uganda	Copper, Petroleum, Cobalt, Hydropower, Limestone, Salt, Arable Land, Gold
54.	Zambia	Copper, Cobalt, Zinc, Lead, Coal, Emeralds, Gold, Silver, Uranium, Hydropower
55.	Zimbabwe	Diamond, Coal, Chromium Ore, Asbestos, Gold, Nickel, Copper, Iron Ore, Vanadium, Lithium, Tin, Platinum

Source: Compiled by the author from Natural Resources of AfricaIAfribiz.info.
Available at http://www.afribiz.info/content/natural-resources-of-africa (Accessed on September 16, 2012)

Appendix2: Commodity Dependence in Africa (2004- 2009)

Country Name	Agricultural raw materials exports (% of merchandise exports)		Food exports (% of merchandise exports)		Fuel exports (% of merchandise exports)		Manufactured exports (% of merchandise exports)		Primary commodities exports (% of merchandise exports)		Three main exports, with their share in total exports	
	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Products	No of products accounting for more than 75 per cent of exports
Africa	2.8	2.1	11.4	11.2	41.4	45.9	32.3	29.6	57.5	0	Petroleum, crude (51.6%) [19.0%]; natural gas (4.2%) [24.2%] petroleum, other than crude bituminous (3.9%) [3.3%];	25
Algeria	0	0	0.2	0.3	97.7	97.7	1.5	1.6	98.2	0	Petroleum, crude (61.6%); petroleum, other than crude (10.0%); natural gas (9.5%)	3
Angola	NA	NA	NA	NA	NA	NA	NA	NA	96.0	84.5	Petroleum, crude (97.0%)	1
Benin	60.3	NA	28.3	NA	0.1	NA	10.7	NA	0	0	Cotton (25.7%); petroleum, other than crude (23.9%); cashew nuts (12.6%)	5
Botswana	0.2	0.2	3.1	5.1	0.2	0.3	79.7	78	85.68	70.3	Diamond (38.2%); nickel mattes (31.3%); diamond (6.6%)	3
Burkina Faso	70.6	60.5	20.6	26.8	0	0	8.4	12.1	75.8	69.3	Cotton (54.4%); gold (15.3%), sesames seeds (8.1%)	3
Burundi	4.8	4.8	75.1	67.5	1.5	1.9	13.8	20.6		0	Coffee (45.7 %); gold (18.1%), tea (7.7%)	4
Cameroon	13.8		16		52.6	NA	3.2	NA	60.4	0	Petroleum, crude (53.8%); wood (8.1%); bananas (7.7%)	4
Cape Verde	0	0	46	72.6	0	NA	53.7	26.7	NA	0	Fish (36.6%); skipjack (15.9%); upper and parts (6.8%)	7
Central African Republic	42.9	NA	1.3	NA	0.3	NA	26.3	NA	93.8	0	Wood (28.3%); tropical hardwood (17.2%); diamonds (15.1%)	5
Chad	NA	NA	NA	NA	NA	NA	NA	NA	0	0	Tropical hardwood (94.0)	1
Comoros	0	NA	70.8	NA	NA	NA	8.9	NA	88.7	86.92	Essential oils (26.0%); cloves (19.6%), vessels (17.7%)	5
Congo, Dem. Rep.	NA	NA	NA	NA	NA	NA	NA	NA	0	0	Petroleum oil (25.5%); copper ores (16.3%); copper unrefined (15.2%)	1
Congo, Rep.	NA	NA	NA	NA	NA	NA	NA	NA	99.4	106.6	Cobalt ores and concentrates (85.6%)	5
Côte d'Ivoire	8.1	5.7	41.2	48.2	30.6	30	15.8	15.1	41.3	48.40	Cocoa (28.6%); petroleum, crude (15.4%); petroleum oil and obtained (8.1%)	9
Djibouti	0	0	0.4	0.4	6.5	6.5	90.7	90.7	0	0	Petroleum, non-crude (21.1%), sheep (12.7%); animals, live (11.1%)	11
Egypt, Arab Rep. of	2.8	NA	8.7	NA	49.5	NA	26.2	NA	70.29578	63.3	Natural gas (20.4%); petroleum, crude (12.5%); petroleum, other than crude (10.8%)	51
Equatorial Guinea	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	Petroleum, crude (76.5%)	1
Eritrea	NA	NA	NA	NA	NA	NA	NA	NA	0	0	Diesel powered trucks (22.6%); seeds (7.8.%); cotton(7.1%)	15
Ethiopia	15.2	11.9	74.3	77.5	0	0	7.5	8.7	83.9	83.30	Coffee (32.9%); sesame seeds (13.3%); fresh flowers (8.2%)	10
Gabon	8	NA	1.1	NA	81.9	NA	4.8	NA	NA	0	Petroleum, crude (65.8%); manganese ores and concentrates, (17.7%);	2
Gambia, The	3.5	1	68.3	53	0.2	0	24.2	39.1	NA	0	Cashew nuts (48.5%); iron or steel (6.7%); titanium ores and concentrates (4.7%);	8
Ghana	7.5	NA	59.7	NA	1.9	NA	25.8	NA	68.4	61.19	Cocoa (42.8%); manganese ores and concentrates (15.3%); petroleum, other than crude (4.3%)	9
Guinea	2.8	NA	6.2	NA	0.6	NA	15	NA	8.2	0	Aluminum ores and concentrates (50.2%); aluminum oxide (13.1%); petroleum oil (11.4%)	4
Guinea-Bissau	0.2		98.7	NA	0.8	NA	0.1	NA	79.4	73.43	Cashew nuts (92.9%)	1
Kenya	12.8	13.2	44	44	6.2	4.2	33.9	36.6	0	0	Black tea (12.3%); cut flowers and flower buds, fresh (10.3%); aircraft propeller (7.7%)	29
Lesotho	0.7	NA	4.7	NA	0	NA	94.5	NA	30.0	44.7	Jerseys, pullovers, cotton knitted, (40.8%); men's/boys' cotton trousers and shorts, (14.5%), diamonds (12.4%)	5
Liberia	NA	NA	NA	NA	NA	NA	NA	NA	0	0	Petroleum oil and oil obtained (23.2%); vessels for the transport of goods and/or persons (22.9%); natural rubber latex (12.8%)	5

Appendix2: Commodity Dependence in Africa (2004- 2009)

Country Name	Agricultural raw materials exports (% of merchandise exports)		Food exports (% of merchandise exports)		Fuel exports (% of merchandise exports)		Manufactured exports (% of merchandise exports)		Primary commodities exports (% of merchandise exports)		Three main exports, with their share in total exports	
	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Average of 2004-2009	2009	Products	No of products accounting for more than 75 per cent of exports
Libya	NA	NA	NA	NA	NA	NA	NA	NA	0.34	0.31	Petroleum, crude (88.4%)	1
Madagascar	4.3	5.2	30.9	28.8	4	4.9	52.6	57.2	0	0	Shrimps and prawns (10.3%); vanilla; (9.9%), Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted, of wool or fine animal hair (7.5%);	30
Malawi	4.1	3.8	83.1	86.6	0.1	0.1	12.3	8.5	53.2	48.34	Tobacco (50.4%); raw sugar (10.7%); black tea (6.2%)	5
Mali	61	NA	20.9	NA	2.5	NA	13.3	NA	NA	0	Cotton (66.5 %); seeds (6.1%) guavas, mangos and mangosteen (4.0%)	3
Mauritania	0	NA	20.8	NA	23.7	NA	0	NA	80.7	0	Iron ores and concentrates (45.2%); petroleum, other than crude (17.6%); copper ores (13.1%)	3
Mauritius	0.5	0.9	28.3	32.4	0.1	0	62.2	64.6	28.7	31.08	T-shirts, singles and other vests, knitted or crocheted, of cotton (15.0%); raw sugar (14.2%); prepared or preserved fish (11.8%)	29
Morocco	1.5	1.6	19.7	22.1	2.1	2	66.5	65.4	43.9	42.7	Phosphoric acid and phosphoric acids (11.2%); electronic integrated circuits and micro assemblies; other monolithic integrated circuits (6.9%); natural calcium phosphates, ungrounded (3.6%)	64
Mozambique	3.7	3.1	15.7	23.3	14.3	17.5	6.7	11.7	96.1	84.7	Aluminum, not alloyed (36.6%); petroleum other than crude (8.5%); electrical energy (6.3%)	4
Namibia	0.6	NA	26.5	NA	0.5	NA	46.9	NA	67.6	62.8	Natural uranium and its compounds (18.5%), uranium (22.6.%); fish (11.2%)	10
Niger	3.4	NA	24.5	NA	1.8	NA	10.3	NA	0	0	Spacecraft satellite (27.8%); natural uranium (22.6%); petroleum oil (20.9%)	4
Nigeria	0.8	1.1	1.9	4.5	93.5	90.4	3.2	3.6	NA	0	Petroleum, crude (85.2%)	1
Rwanda	3.2	1.7	54.2	42.3	0	0.1	6.3	19.4	NA	0	Coffee (30.4%); niobium tantalum (26.1%); tin ores and concentrates (21.6%);	3
São Tomé and Príncipe	0.6	0.7	93.9	92.4	0	0	4.8	3	44.0	0	Cocoa (61.1%); raw sugar (4.3%); article iron or steel (2.3%)	6
Senegal	2.6	1.1	32.5	29.5	19.7	24	40.5	41.3	32.3	39.9	Petroleum, other than crude (29.7%); phosphoric acid and phosphoric acids (10.7%); Portland cement (6.3%)	19
Seychelles	0	NA	87.9	NA	0	NA	4.2	NA	3.4	3.8	Tunas, skipjack and bonito (54.7%); tunas, frozen (8.8%); yellow fin tunas (8.6%)	4
Sierra Leone	NA	NA	NA	NA	NA	NA	NA	NA	126.2	145.0	Diamonds (25.1%) petroleum oils and oil obtained (12.7%); aluminum ores and concentrates (11.7%)	9
Somalia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Goats (16.1%); waste and scrap of gold (15.9%); live bovine animals (9.5%)	9
South Africa	1.9	1.9	8.1	10.2	10	11.1	53.1	47.5	36.1	36.1	Platinum, unwrought (9.0%); diamonds (5.3%); gold, unwrought (4.6%)	83
Sudan	2.9	1.4	6.2	5.6	89.7	92.1	0.2	0.4	101.5	0	Petroleum, crude (91.6%)	1
Swaziland	8	NA	19.7	NA	0.9	NA	64	NA	51.6	0	Raw sugar (15.3%); mixtures of odoriferous substances (10.7%); food preparations not elsewhere specified or included (9.4%)	31
Tanzania	11.7	9.8	47.8	35.5	0.9	1	21.3	24.6	77.0	69.9	Tobacco (6.5%); fish fillets and other fish meat, fresh or chilled (6.2%); cotton (5.9%)	37
Togo	11.3	NA	20.4	NA	0.5	NA	55.9	NA	30.9	0	Cotton (41.5%); cocoa (14.5%); natural calcium phosphates (6.9%)	7
Tunisia	0.6	0.5	10.2	9.2	13.8	13.6	73.8	75.4	0	0	Petroleum, crude (12.3%); men's/boys' trousers and shorts, of cotton, not knitted (5.3%); ammonium phosphate (5.0%)	71
Uganda	10.7	NA	66.2	NA	2.4		18.7		24.2	21.8	Coffee, (32.5%); fish fillets and other fish meat, fresh or chilled (9.5%); tobacco (6.9%)	17
Zambia	3.6	1.4	9.2	7.5	0.9	0.9	7.8	8.4	NA	0	Refined copper (56.4. %); copper ores and concentrates (8.2%); cobalt mattes and other intermediate products of cobalt (6.0%)	4
Zimbabwe	15.6	23.1	21.7	19.3	7.3	0.9	35.9	34.3	50.7	45.5	Ferro –chromium carbon (13.4%); tobacco, (12.3%); nickel matters (11.0%)	14

Source: Last two columns are from the African Economic Outlook 2010. Rest are computed from the World Bank, ADI (2011) database

Appendix 3: Natural Resource Value Chain and Capacity Development Implications

Links / Capacity Dimensions	Contract Awarding and Licensing	Regulation and Monitoring of Operations	Taxes and Royalties Collection	Revenue Management and Allocation	Implementation of Sustainable Development Policies and Projects
Capacity Gaps	1. Limited state control over natural resource sector 2. Weak technical capacity and market knowledge in assessing geological potential and risks of areas for which contracts or licenses are awarded 3. Absence of policies and regulation on exploration and management of NR resources 4. Weak capacity in complex contracts negotiation	1. Inadequate regulatory and enforcement framework 2. Scarcemonitoring capacity in natural resource management 3. Weak capacity of CSOsfor advocacy in the oil industry	1. Inadequate tax collection systems or arrangements 2. Poor information system on oil data 3. Inadequate macroeconomic framework 4. Lack of audit and control over oil revenue collection	1. Weak budget implementation 2. Lack of transparency and accountability in the oil resources management chain 3. Weakparliamentary oversight of government action in the natural resource sector 4. Absence of links between planning and budgeting systems	1. Weak public financial management and procurement systems 2. Absence of conducive environment to fight against corruption and mismanagement of public resources 3. Lack of policies and regulation for mitigating environmental hazards 4. Poor leadership capacity on extractive resources allocation 5. Weak projects implementation capacity
Capacity Solutions	1. Governments to develop adequate policies and regulatory frameworks (exploration,development, production, rightsconcessions, lease, licenses or contracts, environmental impact assessments) 2. Promote citizen participation and inclusive consultation on policy options, laws and regulation for each license and contract award 3. Promote regulatory framework requiring companies to make public all relevant information to revenue transparency 4. Training on contracts negotiation skills 5. Develop legal expertise in negotiating complex contracts 6. Incorporate local content elements in contracts with oil companies 7. Strengthen capacity for procurement to ensure competitive and transparent bidding process 8. Promote training and research activities leading to transfer of technology to local companies 9. Reform licensing and bidding process toward promoting openness, competitiveness, transparency, and local participation	1. Build capacity of key actors to draft and pass laws needed to enhanceNR governance 2. Build capacity for development of local content throughout the value chain 3. Specify the mission statement, roles and responsibilities of key government entities involved in the regulation and monitoring of operations. 4. Enhance coordination capacity of the regulatory bodies 5. Empower regulatory agencies to effectively fulfill their mandate 6. Adopt and adhere to EITIand other such initiatives 7. Promote inclusion and stakeholder participation 8. Build capacity of government (regulation, monitoring, and oversight)agencies 9. Develop appropriate education and training programs 10. Develop robust systems for M&E 11. Enhance research and bridge research and policy onthe sector 12. Raise public awareness and advocacy on NR governance 13. Build local communities capacity to actively engage the NR sector . Promote women's participation in the advocacy campaign 15. Enhance reward and HR policies for stateemployees in NR sector	1. Strengthen capacity of institutions involved in the revenue and expenditure chains 2. Strengthen human capacity to ensure coordinated and effective revenue collection 3. Engage necessary tax reforms to ensuring efficient and appropriate national fiscal regime 4. Strengthen national capacity for accounting and reporting 5. Enhance capacity for oil sector accounting 6. Build ability of civil society to understand the information on revenue flows 7. Create space for CSOsto express views and opinions on oil revenue collections 8. Establish sound information systems for data collection, analysis, and regular public reporting 9. Develop a sound macroeconomic policy framework 10. Develop clear communication strategy for the NR sector 11. Build audit capacity of relevant government agencies	1. Increase capacity for better budget implementation 2. Strengthen mechanisms for better and information dissemination by government, MNCsand key stakeholders 3. Establish endowment or wealth funds 4. Strengthen operational links between laws, strategies, plans and budgets 5. Build capacity to develop and implement multi-year budgets 6. Promote annual budget allocation using MTEF aligned to the country development strategy 7. Empower parliament and CSOs to effectively oversee government's macroeconomic policy decisions 8. Establish and implement a sound fiscal decentralization policy	1. Build capacity to enable CSOsto effectively engage dialogue with the government in order to ensure transparency and accountability 2. Build capacity for environmental monitoring or management 3. Strengthen capacity for a sound project management, including planning and budgeting, execution, accounting, reporting, and M&E 4. Promote use of natural resources in socio-economic infrastructure development programs 5. Empower civil society and media on promoting access to information 6. Strengthen capacity of the auditor general to carry outits mandate on audit and control of oil resources management 7. Strengthen local government capacity in demanding accountability and transparency 8. Develop tripartite partnership between public, private, and CSOsin designing, implementing, and monitoring programs 9. Develop sound procurement practices to enhance competition and transparency 10. Promote strong political leadership for appropriate investment choices and program design and monitoring 11. Strengthen project implementation capacity of the government entities

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