Agricultural Policy Priorities for Improving Rural Livelihoods in Southern Africa

Regional Synthesis Paper



Food Agriculture Natural Resources Policy Analysis Network P.O. Box CY 2765

Causeway

Harare

Zimbabwe



The International Institute of Tropical Agriculture (IITA) PMB 5320

Ibadan,

Nigeria

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This synthesis paper is based on the following country papers

Malawi FANRPAN Node, Centre for Agricultural Research and Development (CARD):

Assessment and prioritisation of constraints to Agricultural Trade and Rural Economy Diversification.

Mozambique FANRPAN Node, Eduardo Mondlane University, Agricultural Economics

Department: Assessment and prioritisation of constraints to Agricultural Trade and Rural Economy Diversification.

Tanzania FANRPAN Node, Economic Social Research Foundation (ESRF):

Assessment and prioritisation of constraints to Agricultural Trade and Rural Economy Diversification.

Zambia FANRPAN Node, University of Zambia, Agricultural Economics Department:

Assessment and prioritisation of constraints to Agricultural Trade and Rural Economy Diversification.

These papers were presented at National Workshops in the respective countries in June-July 2004 and at a Regional Stakeholder Workshop in August 2004

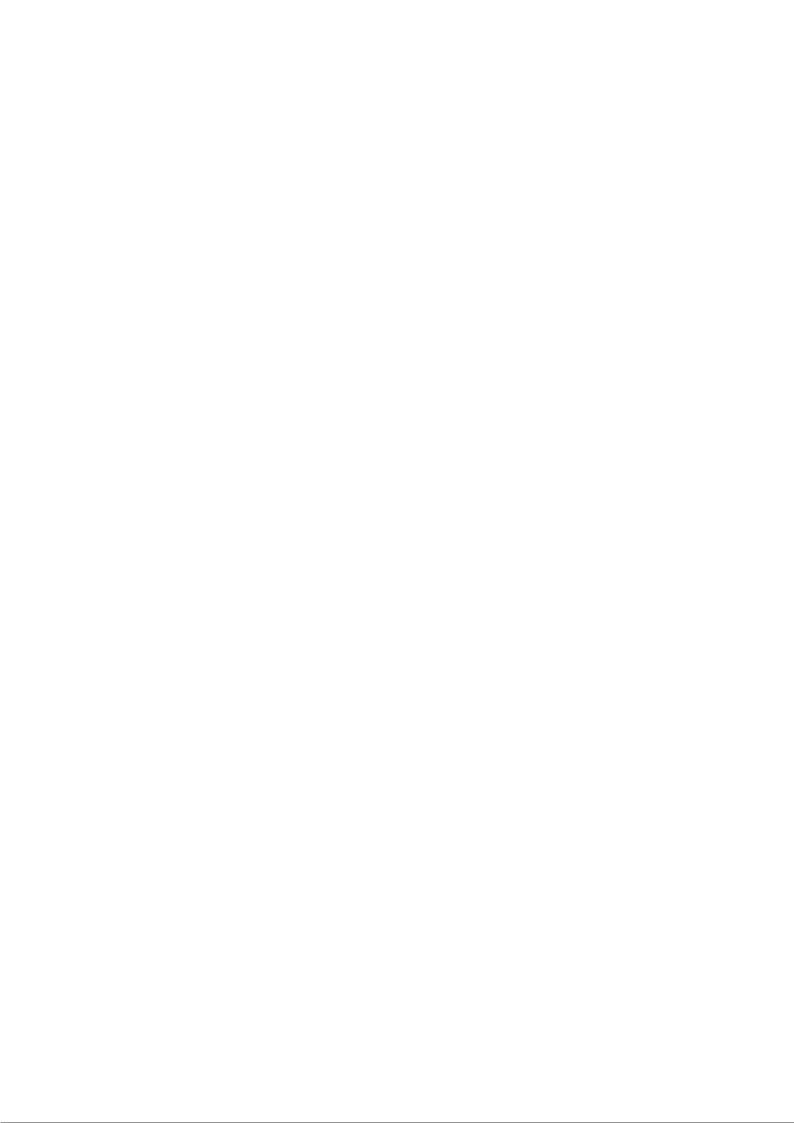
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SADC Region Countries under study

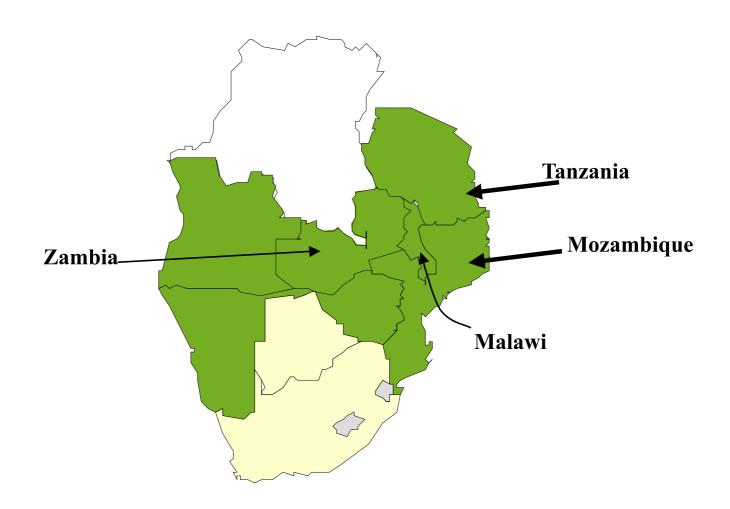


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Regional Synthesis Paper Based on studies undertaken by FANRPAN Policy Nodes:

- * Malawi FANRPAN Node, Centre for Agricultural Research and Development (CARD):
- * Mozambique FANRPAN Node, Eduardo Mondlane University, Agricultural Economics Department
- * Tanzania FANRPAN Node, Economic Social Research Foundation (ESRF)
- * Zambia FANRPAN Node, University of Zambia, Agricultural Economics Department:

This paper is a synthesis of four country studies conducted during the transition phase of the USAID/RCSA Rural Livelihoods Study under its policy module. FANRPAN and IITA would like to thank the study teams for their work in collecting the data and writing up reports as well as conducting national workshops and all the stakeholders who made this work possible. The Geo-spatial Laboratory of IITA provided the input for the GIS analyses. This work was undertaken by IITA and FANRPAN with funding from USAID.

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Based on Studies on the Assessment and Prioritisation of Agricultural Policy Constraints to Domestic, Regional Trade and Rural Economy Diversification in Malawi, Mozambique, Tanzania and Zambia by FANRPAN Policy Nodes

SYNTHESIS PAPER

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List of abbreviations

COMESA Common Market for Eastern and Southern Africa

FANRPAN Food, Agriculture and Natural Resources Policy Analysis Network for Southern Africa

IEHA Initiative for Ending Hunger in Africa

IITA International Institute of Tropical Agriculture

SADC Southern African Development Community

USAID/RCSA United States Agency for International Development/Regional Centre for Southern

Africa

ABSTRACT

This paper synthesizes the findings from the policy module of the USAID/RCSA Improving Rural Livelihoods Project. This policy module was implemented by IITA and FANRPAN in four pilot SADC countries namely, Malawi, Mozambique, Tanzania and Zambia. The major objective was to provide critical policy analysis and dialogue leading to harmonization of selected policies within SADC countries. The studies are expected to provide the analytical basis for the design of agricultural policy strategies that contribute to unlocking constraints to commercialization and investment in the agricultural sector for a sustained economic growth; enhanced food security; increased competitiveness of products in the domestic, regional, and international markets; sustainable environmental management; and poverty alleviation.

The data collection and analysis was guided by a framework that was designed to capture the influential factors in both quantitative and qualitative parameters. The analysis of data combined several techniques such as descriptive statistics, multivariate models, and domestic resource cost ratio analysis (DRC). Spatial analyses were applied to define development and crop domains.

Five development domains were defined. The spatial coverage of these domains indicates that limited pockets of southern Africa have very high potentials for agriculture under rainfed conditions. The results from the country studies show that agriculture remains the predominant source of livelihood and the engine for growth. The major problems constraining the performance of agriculture were highlighted as follows: poor access to inputs, poor communication, land degradation, over-dependence on rain-fed agriculture, underdeveloped marketing system, high prevalence of HIV/AIDS and weak legislation and lack of enforcement of laws/acts among others. Though attractive to domestic private investment, the agricultural enterprises in all countries were generally found to be less attractive to foreign private investment. High taxes and tariffs, poor infrastructure, bureaucracies, lack of policy incentives and adverse business environment were identified as inhibiting the performance of agribusiness enterprises. The major constraints to trade identified in the study relate to trade development, facilitation and promotion and the poor coordination among institutions. Three areas were identified for policy intervention as follows: diversification of agricultural commodities, trade in domestic markets and trade at the SADC level. The priority staple commodities that were identified in-order of priority when all four countries taken together are maize, cassava and rice. Cotton was recommended as the major industrial priority commodity common to all countries. Under rainfed conditions, few pockets of Southern Africa were found with high potentials for some of the main priority commodities. Five cross cutting components were identified to promote the diversification of SADC agricultural commodities and trade, namely research and technology transfer, human resources and institutional capacity building, market and export development, improvements in delivery systems, market information and communications as well as the coordination and harmonisation of policies to reduce bureaucratic delays.

Promotion of targeted policy dialogues with stakeholders in research and policy agendas, and active involvement of farmers and the agribusiness sector were recommended as ideal advocacy strategies alongside with policy briefs and personal follow-ups by well-placed advocates, It is expected that the resulting strategies and priority areas for intervention will catalyze support for the flow of investment into the agricultural sector by Governments, private sector and other donors thereby paving the way for a sustainable agriculture and diversified economic growth.

This synthesis paper and other outputs produced by the IITA/FANRPAN collaborative studies are intended to initiate dialogue amongst policy makers and major stakeholders in agricultural policy formulation within the study countries and in the SADC region as a whole.

1. INTRODUCTION

Agriculture has long been recognized as a source of livelihood for the African poor rural households as well as the engine for economic growth. The ability of households to exchange/move surpluses from regions of comparative advantage to regions with less potential within a country or across national borders is an important ingredient towards the growth of agriculture and improvement of rural livelihoods. Moving agricultural products and services among countries requires conducive policies that stimulate and facilitate trade. The objective of harmonizing policies in the SADC region is important and is not at all new in the regional. There has been several studies conducted and efforts made towards this objective. The current study is yet another contribution to addressing this important issue. Whilst the study has concentrated on only four of the SADC countries, the findings can be of relevance to the whole SADC grouping. The underpinning assumption is that trade is beneficial and contributes to rural livelihoods improvement as households are able to produce more and dispose surpluses, earn more income and diversify into production of high added value. Improving rural livelihoods can be achieved by accelerating the shift towards a more commercially oriented small-scale agricultural sector, producing goods for identified markets as this has a multiplier effect into other non-farm sectors, which further contribute towards stimulating economic growth. Significant evidence on the benefits of intra-regional and inter-regional trade has already been put forward by several scholars¹. The scope and requirements therefore, for improving rural livelihoods in Southern Africa has both domestic and intra-regional aspects that need to be addressed.

This paper sets out the research methodology followed in the policy module of the USAID/RCSA Rural Livelihoods Project on the assessment and prioritization of agricultural policy constraints, the data and facts in (section 2) and discusses the policy priorities of regional relevance (section 3).

1.1 Background

The International Institute of Tropical Agriculture (IITA) in consortium with public and private sector partners is implementing a project on "Improving rural livelihoods in Southern Africa" through a grant received from USAID/RCSA. The overall project aim is to accelerate the shift from subsistence towards a more commercially oriented small-scale agricultural sector, through an integrated and holistic approach that is science-based and that links farmers and processors to growth, value-added markets.

The above aim could be achieved through a rapid delivery of three intermediate results namely: a) policy frameworks strengthened and business development services in place; b) crop diversification / enhanced productivity programs in place with target communities and c) increased utilization of biotechnology tools and products have been formulated to address the major opportunities, constraints and needs. The above intermediate results are expected to address the chronic issues of food insecurity, poverty, and risk associated with environmental and health hazards. They also contribute directly to the realization of the USAID/RCSA Strategic Plan 2004-2010, in particular its Strategic Objective 15 (SO 15) on 'Rural Livelihoods Diversified in Southern Africa' and SO 14 dealing with 'A More Competitive Southern African Economy'. These strategic objectives are in line with the US Presidential Initiative to End Hunger in Africa (IEHA) which contribute to one of the Millenium Development Goals of cutting hunger in Africa in half by the year 2015.

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Article 2 of the SADC "Protocol on Trade" among others commits to further liberalization of intra-regional trade the establishment of free trade in the SADC region. Theoretically the aim of the "Protocol on Trade" is to increase trade without any impediment (FANRPAN, 2003).

This synthesis report is based on the joint assignment undertaken by FANRPAN and its policy nodes in collaboration with IITA to deliver the policy module of the USAID/RCSA "Improving Rural Livelihoods Project".

1.2 The Food Insecurity Crises and Experiences in Southern Africa

The SADC region comprises both small and large countries with a huge domestic market for agricultural products but high poverty and disparity in incomes. The HIV and AIDS pandemic has increasingly posed problems in the agricultural sector largely affecting rural livelihoods.

In the last two decades Southern Africa has experienced food crises. Food deficit was particularly severe during the period of climatic disasters due to drought or flooding and in some cases both. Several studies have shown that countries largely hit by the crises were those depending largely on cereal production. For example the cereal production figures for Malawi and Mozambique present a marked decrease in the 1990s after the 1992 drought (Table 1).

Table 1: Cereal Production (MT) for Malawi & Mozambique, 1989-1992

Cereals Produc	ction		
	Av 1989-91 (MT)	1992 (MT)	Change in %
Malawi	1560321	688786	-56
Mozambique	629216	242074	

Source: FAO Website (2003)

The deep roots of the crises as recognized and acknowledged by several scholars, are in the inadequate development strategies which in turn should be informed by policy. New policies are therefore a key component towards the diversification of rural economies to improve livelihoods. SADC countries have learnt from the bad experiences in inadequacy of national food reserves especially due to the crises that manifested in the 2002/03 season. During the 2002/03 season there was tremendous controversy in the SADC region surrounding the entry of genetically modified (GM) maize as part of the food aid following the 2001/02 drought and ensuing food emergency, a situation that also arose as a result of inadequacies in policies dealing with GMOs in the affected Southern African nations².

Countries such as Mozambique, Malawi and Zambia have suffered from a series of natural disasters, which have also been compounded by poor short-term policy decision-making in the past decades. Often policies are country specific while the effects of climate, pests or trade span across borders. In periods of severe crisis, such as the most recent droughts, country specific trade policies appear to be inappropriate to address issues of a regional dimension. It is therefore important to better understand both country level agricultural policies and regional policies and their contribution to the mitigation of food crisis/shortages in the SADC region.

² Benefits of Regional Trade in SADC - see DPRU (2000), DPRU (2001), Chauvin and Gaulier (2002), FANRPAN (2003).

1.3 Overview of the FANRPAN/IITA Policy Module of the USAID/RCSA Livelihoods Project

The policy module was designed in response to the recognized need to address policy constraints to regional trade and subsequent diversification of rural commodities towards the improvement of rural livelihoods in Southern Africa as per the three sub-sub intermediate results and activities (of the overall USAID/RCSA livelihoods Project) described in Box 1 below. The specific study objectives were to:

- 1. Review the socio-economic and development priorities and challenges in the country's agriculture.
- 2. Analyse the performance of the agricultural sector and make a review of the agricultural policies.
- 3. Identify priority agricultural commodities with comparative advantage in the domestic, regional, and/or international markets.
- 4. Identify the nature and manifestation of the specified priority factors that constraint effective commercialization (domestic, regional, and international trade) of key priority agricultural commodities and investment.
- 5. Recommend feasible strategies to accelerate regional trade, commercialization and investment in the country's agriculture.

1.3.1 The Study Process

The country studies were conducted by resident experts drawn together by the FANRPAN nodes in each of the participating countries. At the inaugural meeting of the project, stakeholders decided to limit the implementation of the policy module to four pilot countries during the transition phase of the Project. A regional methodology workshop was organized as the initial technical activity to the implementation of the policy module. The focus of the country studies was first to make an assessment of policy issues at the country level that may promote rural livelihoods, diversification and commercialization of rural households. Issues needing attention at the regional level as perceived by each country were also identified and ideally formed the basis of discussion for the regional stakeholder dialogue. The study relied on secondary data (both numeric and geo-referenced data) already available in literature and primary data was collected where necessary to achieve intermediate results. For primary data, a total of 373 qualitative questionnaires for the four countries were administered to investment centers, agribusinesses and policy makers. The data was also collected as a process to put in place baseline data to allow for assessments of changes in the future.

Analyses of both secondary and primary data were undertaken using tools such as descriptive statistics, multivariate models, and domestic resource cost ratio analysis (DRC). Spatial analysis was conducted to map out development domains for the targeting of investments in agriculture. The definition of development domains was based on the combination of five criteria: access to markets, rural population density, topography, rainfall, and the presence of protected areas.

The results from these studies were first discussed at the country level through a dialogue between the study teams and key stakeholders in their respective countries, in the presence of IITA and FANRPAN partners. The study teams received valuable contributions important in the production of the final country reports. Then a synthesis from country reports was developed and discussed during a regional stakeholders' workshop that brought together key representatives from each country, IITA, and the FANRPAN membership. This workshop was also attended by representatives from other SADC countries that did not take part in the pilot phase of this project.

1.3.2 Analytical Framework

The analytical framework as presented in Figure 1 was designed to guide the study process by capturing the influential factors in both quantitative and qualitative parameters.

Figure 1: Analytical Framework

BASELINE 2002 CONTEXT Quantitative indicators to Socio-economic and highlight the macro trends development priorities and challenges to country's agriculture Performance of agricultural sector **QUALITATIVE SURVEYS** Identify of policies constraining expansion of agricultural Qualitative indicators to monitor the commodities and their trade in perceptions in the macro trends domestic and regional markets Effects of the policy constraints **Key Informant Interviews Analysis of Stakeholder Perceptions COMPARATIVE ADVANTAGE** Identification of priority commodities **ANALYSIS** NATIONAL STAKEHOLDER DIALOGUE Communicate outcomes and receive feedback across the national stakeholder base **Policy Options Formulation at National Level** REGIONAL STAKEHOLDER DIALOGUE **Action Planning**

Box 1: USAID/RCSA Rural Livelihoods Project: Policy Module Objective

IR 1.1.1 Policy constraints evaluation and prioritization

The purpose of this IR is to identify and prioritize policy constraints for more effective domestic and regional trade and increased diversification of the rural economy in the region.

Activities

- Definition of SADC's development domains to address the issue of wide diversity of conditions (infrastructure, industry, commodities, humans, economic, land, water, soil, climate, etc.) and map out pre-defined economic entities with similar opportunities and comparative advantage among countries within the sub-region.
- Determination of market opportunities and selection of commodities with a regional comparative advantage in each development domain.
- Identification and prioritization of key constraints to productivity and commercial potential of major commodities.

IR 1.1.2 Effective policy dialogue initiated and strengthened in and across the target countries.

The purpose of this IR is to create a favorable environment for the implementation of policy options and strategies at the country and regional level.

Activities

- Formulation of policy options or "policy technologies" and strategies to: increase the smallholders' share of markets; facilitate market integration among SADC countries of southern Africa, and; promote agriculture investment in the region for the identified key commodities.
- Communication to selected governments on policy recommendations important for increasing commercialization and investment in trading at the domestic level.
- Organization of a stakeholders' regional conference where specific issues of regional interest will be addressed, leading to the adoption of an action plan to reduce barriers to regional trade and greater harmonization of country policies.

IR 1.1.3 Mechanism established for monitoring and evaluation of policy technologies.

The purpose of this IR is to recommend a flexible mechanism to assist countries along with SADC on the implementation of policy options, and measuring their effects on the overall economy of the sub-region.

Activities

- Development of indicators to monitor progress and to assess the impact of policy technologies on the movement of priority commodities across the region.
- Design of a light institutional mechanism within SADC to undertake follow-up on decisions taken at the stakeholders' regional conference for feedback and improvement.
- Measurement of effects of new policies on regional trade of key commodities of the SADC region.

2. STUDY FINDINGS

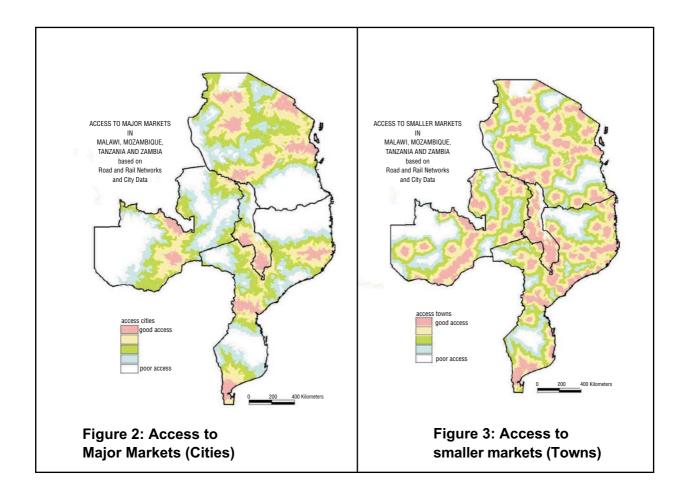
2.1 Defining the Development Domains

The development domains represent geo-referenced regions that offer similar opportunities for investments and development in agriculture. The concept of development domains is being applied in Nigeria to guide some of the donors in their investments into agriculture (Manyong et al. 2004). Development domains are defined by overlaying maps of single features, which represent criteria hypothesized to drive the productivity and competitiveness of the agricultural sector. For Southern Africa, five criteria were chosen to form the basis for the definition of development domains: access to markets, topography, rural population density, presence of protected areas, and rainfall.

Access to markets creates potentials for agricultural intensification, value-adding, and diversification of rural economy. The single map on access to markets was constructed from the combination of data on road networks and urban centers of large and medium size. Urban centers of different size may exert different influences on their surroundings. For this project, two size ranges of markets were considered. Cities, the largest markets in the area, are defined for the purposes of this study as having populations in excess of 200,000 people. Towns, the smaller but still important markets, are defined as having populations between 20,000 and 200,000 people. Road networks in the four study countries were classified into four classes of ease and speed of travel, and combined with the two sets of maps of urban centers to produce travel-time surfaces. Smaller village markets are undoubtedly locally important, and may serve as intermediate points in the flow of produce from farmer to the larger markets, but the locations of all these small markets are unknown, and their importance in livelihoods enhancement would probably not be great in the absence of accessible large markets. Therefore, only three parameters were analysed using cost-distance analysis to define zones of equal ease of market access around each market. Two maps were produced indicating relative ease of access to the two types of urban markets, each divided into five classes from good access to very poor access (Figures 2 and 3).

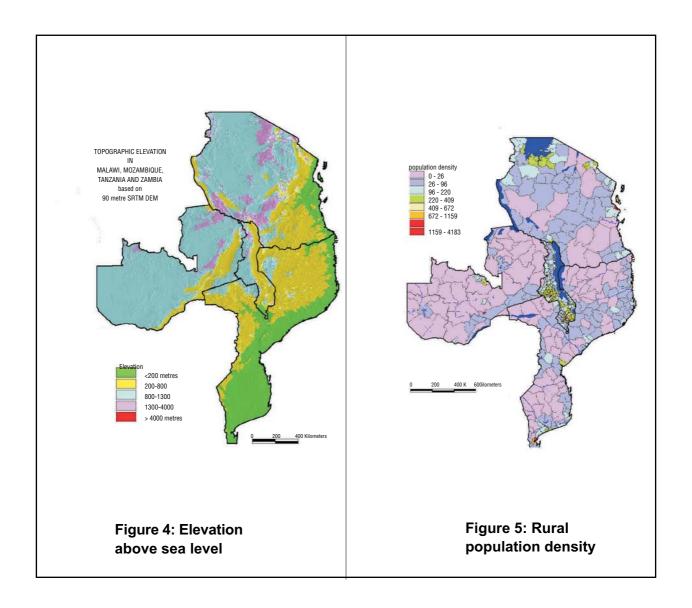
Topography is important to agriculture in two main ways. Elevation above sea level is the main determinant of temperature for locations with similar latitudes. Temperature affects the physiology of a plant species. Most economic crops have elevation zones within which they are most productive, and so elevation is used as a variable in defining crop suitability. The topographic element used in the definition of development domains is the slope and roughness of the terrain. Most rain-fed crops in Africa are grown most economically on relatively flat land. Soils are generally deeper in flat areas, access to and cultivation of fields is simpler and cheaper, and soil erosion is less of a risk. The new 90-metre resolution Digital Elevation Model (DEM) of Africa produced from data collected during the Shuttle Radar Topography Mission (SRTM) allows semi-detailed analysis of slopes and surface roughness. A map of the area has been produced with five classes of surface roughness, from completely flat to very steep and dissected (Figure 4).

Rural population density is a driver for agricultural development as the first level of primary demand of commodities and as the main source of labour, in particular for small-scale farmers. Public infrastructures such as roads, water supply, electricity, schools, and health centers are more efficiently used in areas with high population density. However, very high rural population densities can result on fragmentation of land holdings to the level that can inhibit adoption of new technologies, while at very low densities insufficient labour may be a serious limiting factor to development. There is probably an optimum range of population densities providing adequate labour and an important local market for produce, although there is no clear definition of the cut-off points. Very high population densities are probably not a problem in most of the area studied, so for the purposes of defining development domains it has been assumed that population densities less than 10 persons per square kilometer would not be a significant driver to agricultural development (Figure 5).

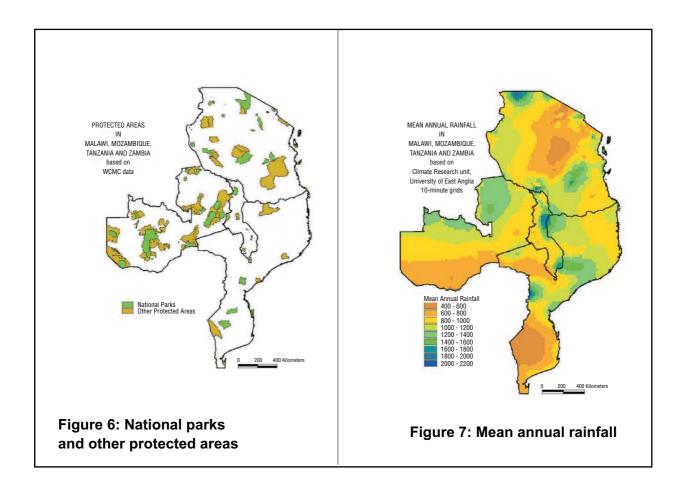


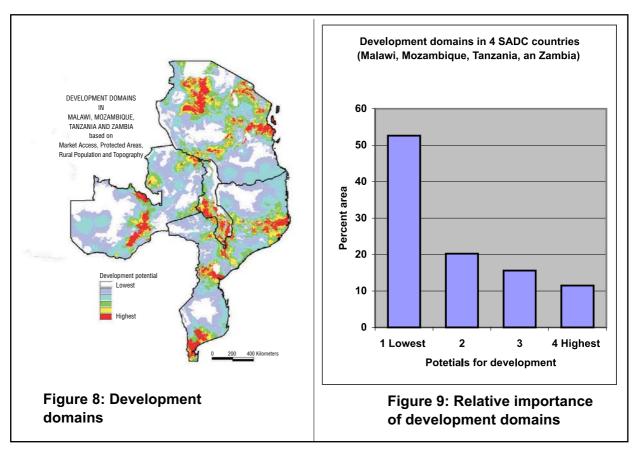
Protected areas impose other constraints of land unavailability for the purpose of agriculture. The different countries in Southern Africa have their own approaches to classification of protected areas, but it appears that National Parks are totally protected in all, while subordinate levels of protection are provided to Game Management Areas, Forest Reserves, Nature Reserves, and so on (Figure 6). For the purposes of this study, National Parks and areas covered by water are never to be used for agriculture, while agricultural development in other protected areas is seriously constrained. These limitations were reflected in the definition of development domains.

Rainfall determines the potentials for biomass production and is the primary factor in determining the carrying capacity of regions for agricultural production. Agriculture in Southern Africa is primarily rainfed; therefore rainfall plays a critical role in the productivity of land. A map of mean annual rainfall is shown in Figure 7 for the four pilot countries. For the definition of development domains, three classes of rainfall were however considered on the assumption that potentials for biomass production increase from arid to very humid areas as follows: <750 mm, 750-2000 mm, and > 2000 mm.



Overlaying single maps from above parameters with various categories resulted in the potential number of classes as high as 1500 (5*5*5*4*3), but not all possible classes were found in reality, and the combined map had 441 classes representing different combinations of the five mapped factors. This was then reclassified to a development potential ranging from 0 to 9, with combinations of ease of access to both classes of market, flat topography and no constraints scoring the highest, and areas far from both classes of market, on steep topography and with population constraints, rating zero. All national parks and water bodies were set to zero. This results in the development domains map shown in Figure 8. The relative geographic importance for each development domain is shown in Figure 9. Under the rain-fed conditions, areas of low development potentials for agriculture occupy the largest part of the study countries. Increased production would require more investments in these areas compared to those areas with highest potentials.





2.2 Revisiting the Role of the Agricultural Sector and Existing Support Policies

Agriculture is predominant in the economies of the four countries under study, contributing to economic activity and employment. The agriculture sector in Malawi contributes between 30-39% of GDP, 90% of export earnings and employs 85% of the labour force. In Tanzania, the agriculture sector contributes 48% of GDP and employs more than 70% of the labour force. For Zambia, the contribution of the agricultural sector to total GDP was 22% in 2002 and contributing average 54% of export earnings between 1987 and 2003 (Country Study Reports, 2004). Most of the agriculture is rain-fed with limited irrigation. The analyses on the performance of the agricultural sectors in the study countries is evidently characterized by fluctuations as reported in the country studies. The share of agriculture to GDP shows a general decline for Tanzania and Zambia with the exception of Malawi in which the share of agriculture to GDP has been increasing. In Malawi, the share of agriculture in aggregate GDP has been increasing over time. The share increased from about 25% for 1994 to about 38% for 2002 and 2003 respectively. The share of agriculture in GDP has declined from 48.9% in 1999 to 47.5% in 2002 in Tanzania. Zambia has also seen a decline from 23.8% in 1992 to 22% in 2002. Given the significant percentage contributions of the agricultural sector to the economies of the study countries, the issue of agricultural policy decisions and policy formulation becomes of paramount importance in tackling the development challenges.

A review of the objectives of agricultural policies for the four countries reveals that the major aim of the policies is mainly to ensure national and household food security. The country studies have also revealed that the agricultural sectors in those countries have been characterized by a series of agricultural policy reforms. For Malawi the initiatives are reported to have had limited impact on agricultural growth and development due to, among other things, lack of prioritisation of policies, strategies, programs and activities and also due to lack of and/or limited intra and inter-sectoral linkages and coordination. A critical constraint for guided implementation of the various policies formulated in Tanzania has been the lack of comprehensive strategic action plans taking on board the variations in policies. The Zambian experience has indicated a lack of clarity in the agricultural policy priorities.

Table 2: A Selection of Agricultural Policy Reforms in Malawi, Tanzania and Zambia

Policy Reform Period	Malawi	Tanzania	Zambia
1990-1999	 o Special Crops Act amended allowing smallholder to grow burley tobacco for the first time (1990) o Liberalisation of production and marketing of cotton, fertilizer, maize seed, tobacco (1991) o Agricultural Marketing Regulation Act introduced banning private exports of groundnuts, beans and pulses (1994) o Fertiliser subsidies removed (1994) o Drought Inputs Program distributing free seed and fertilizer to drought affected households (1996) o Fertiliser, Farm Seed and Seed Remedies Act amended. (1996) 	o Agricultural and Livestock Policy (1997) o Agricultural sector market liberalization (from 1993)	o Economic structural adjustment program initiated 1991 o NAMBOARD act abolished in 1990 and liberalization of marketing and pricing of crops and inputs began o Food Reserve Agency established in 1995 to manage national food reserve, takes over fertilizer distribution on credit to smallholders o Pan territorial pricing reintroduced for govt fertilizer and maize purchases o Export and import of crops controlled through permits but export restrictions placed on maize only

Policy Reform Period	Malawi	Tanzania	Zambia
2000 to current	o New extension policy formulated focusing on strengthening farmer organizations as avenues for extension messages o National Irrigation and Policy Development Strategy o Livestock Development Strategic Plan o Land Policy o Cooperative Development Policy	o The Agricultural Sector Development Strategy (ASDS) (2001) o The Cooperative Development Policy (2002) recognizes the important role of cooperatives in agricultural marketing. o Draft National Food Security Policy (2004).	o 2000 to date government subsidies smallholder fertilizer and hybrid seed at 50% under Fertilizer Support Program o Government in 2003 extends the responsibility of FRA to purchase not just for strategic food reserves but for domestic and export market o Agricultural Commercialization Program (ACP) started as part of Poverty Reduction Strategy to support diversification towards industrial crops

Source: Country Reports, 2004

Whilst the evidence of policy reform efforts is indicated for the countries under study the agricultural sector still faces performance problems. The performance of the agricultural sector was discussed in the context of stakeholder perceptions on food security, poverty status of farmers, agricultural exports, employment in agriculture, profitability of agricultural enterprises and economic climate for agricultural investment. The problems constraining the performance of agriculture have been widely discussed in literature and the major highlights as discussed in the Malawi study and common to all countries are as outlined in Box 2.

Box 2: Constraints to the Performance of the Agricultural Sector

- * Poor Access to inputs
- * Low development, poor communication and low adoption rates of technologies
- * Land degradation
- * Over-dependence on rainfed agriculture
- Low livestock numbers and productivity
- * High pre- and post harvest losses
- * Inadequate diversification of food and cash crops
- * Inadequate human resource capacity
- Weak intra and inter-sectoral linkages
- * Weak legislation and lack of enforcement of laws/acts
- * Poor work ethics
- * Underdeveloped marketing system
- * High prevalence of HIV/AIDS

Source: Malawi Country Study, 2004

2.3 Identification of Priority Commodities

The identification of priority commodities with a comparative advantage is the path to agricultural diversification and competitiveness and trade among SADC countries. Countries such as Malawi, Mozambique and Tanzania set out to compile the priority commodities on the basis of existing or updated comparative advantage studies (DRC analysis); Zambia mainly relied on a qualitative assessment by national stakeholders. For the major agricultural policy/constraints issues identified and listed in Table 4 all countries are affected for the identified priority commodities at the regional level. However the constraints do not feature for cashew in Malawi as this commodity is not currently being promoted. In addition Malawi has no capacity constraints in agro-processing for rice. Access to irrigation was not a problem for maize, cassava, tobacco and cotton (priority commodities in Zambia) but this problem features for rice production.

Malawi is still heavily dependent on maize as a food security crop and tobacco as a major source of earnings though trends towards the diversification into root and tuber crops are already perceived from macro-level data. The study identified commodities in which stakeholders in the three regions (Southern, Central and Northern) of Malawi perceived them to have a comparative advantage in the domestic, regional and world market. The identified commodities are grouped into five categories, namely staple crops (maize, rice, cassava, pulses, sorghum, sweet potatoes, and Irish potatoes), industrial crops (tea, coffee, paprika, tobacco, sugar, cotton, sovabeans, macadamia nuts, cashew nuts, sunflower, sisal, citrus fruits, sugar and guar beans, high value spices and sesame) livestock (cattle for both beef and dairy, goats, poultry, piggery and guinea fowls), fishery (ornamental fish, tilapia (chambo) and cat fish (Mlamba) and forestry in timber. The Policy Analysis Matrix was applied to determine the comparative advantage of the perceived priority commodities by stakeholders in Malawi. Most of the priority commodities (which included cassava, pigeon peas, beans, paprika, cotton, paprika, rice, groundnuts, hybrid maize and soya beans) were found to have a comparative advantage. The following downstream activities that are attractive to foreign investment for both inputs and outputs were identified in Malawi: starch manufacturing, fruit juice extraction, cigarette making, oil extraction, sugarcane, tea, groundnuts, coffee, wheat, potato and soya processing, cotton ginning and leather tanning.

The comparative advantage study of 2000 was used as the basis for conclusion for the Tanzania study. Tanzania has comparative advantage in the production of maize, wheat, and rice (staple crops), cotton, tea and cashew nuts (industrial crops), dairy and beef cattle (livestock), production of fish fillet, and floriculture production. Low cost of domestic factors of production (i.e. land & labor), favorable climatic conditions, and resource endowment largely account for the comparative advantage. On secondary (downstream) agricultural enterprises, Tanzania has comparative advantage in a variety of products/activities including processing of cashew, cooking oil, cotton yarn spinning, fish processing, textile mills, fruits and milk processing, exporting cashew nuts, tobacco, fishery products, hides and skin and production of improved seeds, and inorganic fertilizers.

The Zambian study considered the perceptions of the stakeholders regarding the priority commodities. Tobacco, cotton lint, groundnuts, maize, soyabeans were perceived to be the major unprocessed commodities with comparative advantage for Zambia. In terms of processed products maize was perceived to have the greatest comparative advantage for export to the Zambian neighbours.

The Mozambique study listed major crops as follows: maize, cassava, groundnuts, millet, cowpeas, rice, cotton, sweet potatoes, potatoes, banana, cashew nuts, and fruit trees. Results from the DRC analysis showed that the northern region has a comparative advantage in the production of maize, cassava, sorghum, beans, and cotton. The central region was best suited to maize, sorghum, cowpeas, cotton, cassava, and sorghum. The South region would specialize in the production of sorghum, beans, and cowpea.

The summary of priority crop commodities are listed in Table 3 below for the four countries.

Table 3: Identified Priority Crop Commodities

Priority Commodities

* Staple: maize, rice, cassava, sweet potato, irish potato, pigeon peas

* Industrial: paprika, tobacco, sugar, cotton, groundnuts, soyabeans

Mozambique

* Staple: maize, cassava, sweet potato

* Industrial: cotton, cashewnut

Tanzania * Staple: maize, wheat, rice

* Industrial: cotton, tea, cashewnut, coffee

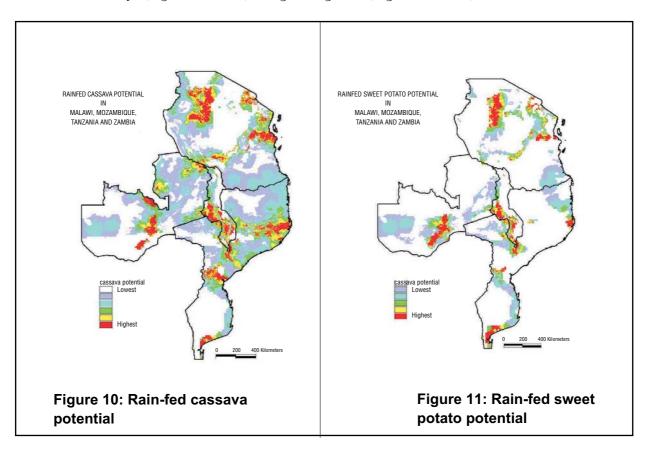
Zambia * Staple: maize, cassava, millet

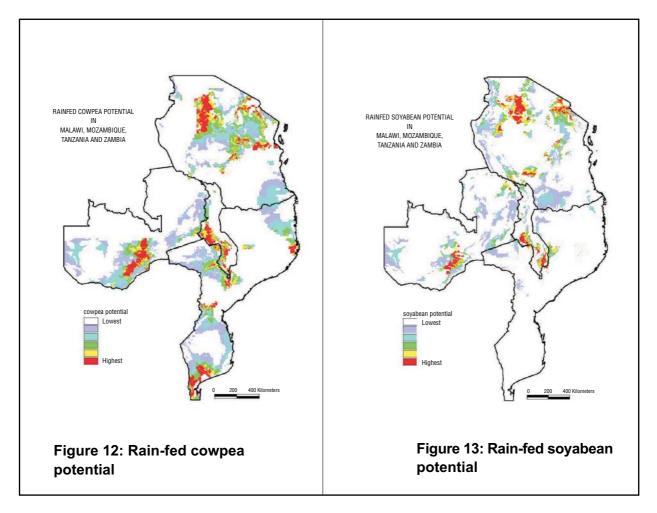
* Industrial: tobacco, cotton, sunflower, soyabean

Source: Country Studies, 2004

2.3.1 Definition of Crop Domains

Combining the biophysical requirements for a priority crop and the socio-economic drivers for agricultural intensification and diversification results in the definition of "Crop Domains". They represent gradients in the potentials for the production of a commodity. Examples are shown for two types of commodities: root and tuber crops (Figures 10 & 11) and grain legumes (Figures 12 & 13)





Results on the above examples indicate that under rain-fed agriculture, only a few pockets of southern Africa have very high potentials for the development of crops, including the identified priority commodities under this study.

2.4 Assessment and Prioritization of Agricultural Policy Constraints

This assessment was carried out on the basis of the knowledge that the agricultural sector operates in a macro-environment in which the changes occurring affect the orientation of agricultural development strategies. A set of common constraints affecting the expansion and diversification of agricultural commodities, trade in domestic and SADC markets identified are set out in Table 4. Despite the existence of the SADC trade protocol and COMESA arrangement; considerable constraints to regional trade still remain. The major factors constraining trade can be grouped into three broad categories namely; trade development, trade facilitation and trade promotion factors. A large percentage of agribusiness representatives interviewed, identified trade policies relating to tariff and non-tariff barriers as an important constraint. For example, high tariffs, together with non-tariff barriers such as long and cumbersome documentation procedures, instability of the foreign exchange rate, and harassment of traders by agents of police are some of the factors constraining cross-border trade. Cross-border trade and investments based on joint ventures have been riddled with unharmonised and uncoordinated policies, bureaucratic hurdles and unsupportive legal and regulatory frameworks. Tariff and non-tariff barriers to cross-border investment and trade have been identified as a major constraint in trade at the SADC level. The effects of these constraints have manifested in low investment levels, low productivity and profit levels, decreased employment, unfavourable trade terms and reduced trade.

The general inference from the findings in both Malawi and Tanzania indicated that agricultural enterprises are less attractive to foreign private investors and fairly attractive to domestic private investors. The reasons given for the lack of attractiveness of agricultural enterprises to foreign private investment among others are: poor physical infrastructure, adverse macroeconomic conditions, poor telecommunications and inefficient utilities. Zambia has recorded growth in foreign private investment in agriculture over the last two years due to spillover effects from crises in neighbouring Zimbabwe, institutions and policy incentives put in place to attract foreign investment in the agricultural sector.

The review of literature and survey responses in the study countries led to the identification of factors that constrain trade and investment in agriculture for a diversified rural economy. The terminology and typology varied between countries. Tanzania identified key groups of key constraints as follows: policy related constraints, political constraints, infrastructure constraints, access to key farm resources and access to support services. Malawi listed major constraints to trade such as those related to trade development, facilitation and promotion and the poor coordination among institutions. Constraints to diversification that were identified include the lack of policy framework and strategy for implementation. In Zambia, factors identified as inhibiting performance of agribusiness enterprises include high taxes and tariffs, poor infrastructure, limited security, bureaucracies, lack of policy incentives and adverse climatic conditions and unfair competition. The lack of cooperation between customs administrations, inefficiency of commercial banks and insurance companies, complicated transaction procedures and rigid Government rules and high internal transport costs were cited as hindering trade by the Mozambique study.

Government policy has far reaching effects on business operations of the private sector as reported in all the studies. Among the policies, the most frequently cited problems by agri-businesses were customs procedures, monetary and instability in exchange rates, and the tax regime. In some cases the inconsistency of agricultural policy has led to delayed investments. The overall taxation regime for businesses is seen as not attractive enough to compensate for the relatively high risk of investing in agriculture specifically as identified in Malawi.

2.5 Formulation of Policy Options

The suggested policy options are intended to promote the investment into agricultural commodities with promising demand opportunity and competitiveness in the export markets. Following the assessment and prioritization of policy constraints, three areas have mainly been identified for policy intervention in this study namely, diversification of agricultural commodities, trade in domestic markets and trade at the SADC level. The policy intervention areas as common to at least two countries and discussed during the regional dialogue are outlined in Table 4. It is appreciated that the different policies to permanently address food security and improve rural livelihoods in Southern Africa will differ from country to country because the triggers in policy failures are different from one country to another. However, the constraints affecting trade are of a regional nature and may need regional solutions.

Table 4: Identified Priority Constraints and Effects of Constraints to the Expansion and Diversification of Agricultural Commodities, Trade in Domestic and SADC Markets

Agricultural Policy Issues		Effects of Constraints
Expansion & Diversification of Commodities	Capacity constraints in agro-processing	Low investment levels, reduced employment, low productivity and profits levels.
on & Diversifi Commodities	Insufficient focus on integrated crop livestock	
on & Com	Dependence on rain-fed agriculture	
Expansi	Lack of awareness on production and consumption diversification	
Markets	Marketing Infrastructure constraints	Low investment discouraging domestic production, employment losses and reduced incomes
nestic	Unorganised Marketing	
Trade in Domestic Markets	Inadequate support services and market information	
	Lack of regulatory and policing mechanisms in seed supply systems	
	Lack of access to irrigation and land	
	Limited market information	Unfavourable trade terms and reduced cross border trade
Trade in SADC Markets	Lack of harmonization of grades & standards & phytosanitary measures	
	Complicated procedures to access provisions	
	Tariff and Non-Tariff Barriers	
	Inefficient Payment Systems	
	Security problems regarding transactions and physical movement of goods	

3. CONCLUSIONS: POLICY PRIORITIES FOR IMPROVING RURAL LIVELIHOODS IN SOUTHERN AFRICA

The overall goal of these studies was to come up with recommendations that would assist in designing agricultural policy strategies that contribute to unlocking constraints to rural economy diversification in the agricultural sectors of the study countries.

The results show that there is a huge heterogeneity in the potentials for development of the study countries. The differences and similarities identified through the development domains represent an entry point to guide investments for a diversified rural economy and trade among SADC countries. The GIS analysis would assist the targeting of identified priority commodities. In general the GIS results supported the identified constraints such as large pockets of low rainfall implying that careful targeting of commodities has to be done. The GIS results also confirmed poor socio-economic conditions across study countries evidenced in

- poor market conditions (infrastructure and institutions) hindering development potentials of countries, thus the need for investment in market infrastructure and market information;
- limited demand from thin domestic markets, thus the need for increased regional trade and market integration and design of policies that facilitate flow of products and services across countries.

The study countries face a myriad of policy related constraints to domestic trade, regional trade and rural economy diversification. The constraints identified are complex and multi-sectoral in nature. Many of the constraints to trade in SADC markets lie outside the direct influence of national stakeholders concerned with trade and therefore addressing the underlying constraints at the regional level is key to ensuring sustained livelihoods improvements. Whilst there are shared regional constraints, each country faces its own unique problems, the solutions to which are determined by various factors including resources and commitment of National Governments. It is clear that political commitment at all levels is a pre-requisite to success. This means that a combination of national and SADC level strategies are needed, which must be harmonized in order to realize the gains from intra-regional and inter-regional trade.

Priority food security crops for the SADC region were selected to be maize, cassava and rice. Cotton, tobbaco and cashew were identified as priority industrial/export crops.

3.1 Recommended Policy Strategies

There are several noteworthy strategies/options that could improve/enhance the livelihoods. The results from the four studies undertaken already provide some useful pointers for agribusiness persons, policy makers, researchers, and development investors or donors to promote rural economy diversification, trade in domestic and SADC markets. According to suggestions from stakeholders key policy options/ strategies to address the limitations to the expansion and diversification of priority agricultural commodities are as follows:

- promote research and technology transfer
- extend market and export development
- allow free flow of commodities within and across national borders within agreed frameworks To address the constraints/limitations to trade in domestic markets there is need to:
 - provide proper physical and soft marketing infrastructure
 - advocate for farmer groups/organizations/associations
 - enact regulations that address inefficiencies in the market
 - promote irrigation development and irrigation infrastructure building

At the SADC level, to address the identified constraints to trade there is need to:

- coordinate market information services on a regional wide basis
- harmonise standards and grades and phytosanitary measures
- rationalize tariff and non-tariff barriers
- establish regional commodity exchange and payment systems;
- reduce bureaucracy and administrative procedures for the import and export of commodities at country borders

Additional policies below may be required to ensure the successful implementation of the above strategies:

- eliminate barriers to domestic, intra-regional and inter-regional trade and
- promote good governance
- improve the macro-economy environment

The findings and policy options suggested are intended to stimulate dialogue/debate among key stakeholders regarding the issue of improving rural livelihoods in Southern Africa. The Government's role should be focused on servicing areas not currently looked after by the private sector. This role should entail regulation and facilitation for greater access to a diversified range of commodities.

The advocacy strategies suggested to ensure successful policy making and implementation among others include:

- involvement of high level officials in research and policy agendas to generate early strong buy-in
- policy briefs distribution and personal follow-up by well placed advocates
- dissemination of information to educate and empower farmers, buyers, processors, transporters and other stakeholders
- utilization of media, training and extension activities
- targeted policy dialogues with stakeholders;
- frequent feedback processes between researchers and policy makers

In many cases it was identified that it is not the issue of absence of policies but how policies are coordinated. What happens in practice is different from what is stated in policy documents. It is therefore important that for policies to be implementable they have to be congruent with environments. Collaboration within SADC is of paramount importance in order to deal with common problems in order to address them more holistically. The region could share technical expertise and resources to address/solve problems of individual countries. There is also a realization that relying on the principles of comparative advantage alone to direct production in the region must be complemented by a greater integration within SADC country members.

Since agricultural policies can be implemented effectively only at a country level, a strong national commitment is required from all the stakeholders for both nationally and regionally designed policies to lead to significant changes in the livelihoods of rural households of Southern Africa.

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