

# Climate and Development Outlook

Stories of change from CDKN



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**Climate and Development Knowledge Network**  
Helping developing countries to design and deliver climate compatible development

## Welcome to the LEDS Special Edition

Happy New Year to CDKN's partners and friends across the world. CDKN looks forward to continuing its work with you to grasp the opportunities of low-carbon, climate-resilient and sustained human development – what we call 'climate compatible development.'

Our work ranges across climate mitigation, adaptation, economic growth and poverty reduction, embracing finance, disaster risk reduction and giving voice to the most climate-vulnerable in the global climate talks. In this edition of Outlook, we are focusing especially on Low Emissions Development Strategies (LEDS), which is the theme of several key meetings this year: the Delhi Sustainable Development Summit (see page 2), the LEDS Global Partnership meeting in February and the Green Growth Knowledge Platform's conference in April. We hope you will enjoy reading selected results of CDKN's programmes on low emissions development in these pages, and that you'll stay in touch on ways we can collaborate and exchange knowledge on this theme.

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- *Renewable energy pathway for Central America*
- *Green growth in Asia*
- *Sustainable tourism in iconic cities*

## Togo and Cameroon assess their sustainable energy potential

The governments of Togo and Cameroon have assessed how their energy sectors score on a range of climate, environment and social measures, with the support of HELIO International, CDKN and Institut de l'énergie et de l'environnement de la Francophonie (IEPF).

The assessments score the countries' energy policies on how well they're achieving ecocodevelopment objectives – a shorthand for 'sustainable and equitable development' – and what they could do better. The reports were published in late 2011 and promoted during 2012. The results highlight how energy could be harnessed more efficiently for development, and how some energy policy choices could reduce climate vulnerability and build climate resilience.

The assessments are not only influencing national conversations on how energy is used in Togo and Cameroon: they have also caught the attention of policy-makers in other West African countries, who are set to undertake similar assessments in 2013, with HELIO and CDKN support.

### ABOUT THE APPROACH

In Togo and Cameroon, the assessments were carried out by teams of four to six experts, including government, industry and civil society representatives. They collected data across 24 indicators of the TIPEE Framework, a methodology named for its French acronym.

The indicators range from greenhouse gas emissions from the energy sector to the climate vulnerability of power plants and transmission lines. The Framework assesses how energy systems are likely to respond to changes in usage during extreme climate and weather events. It also explores public consultation and accountability measures.

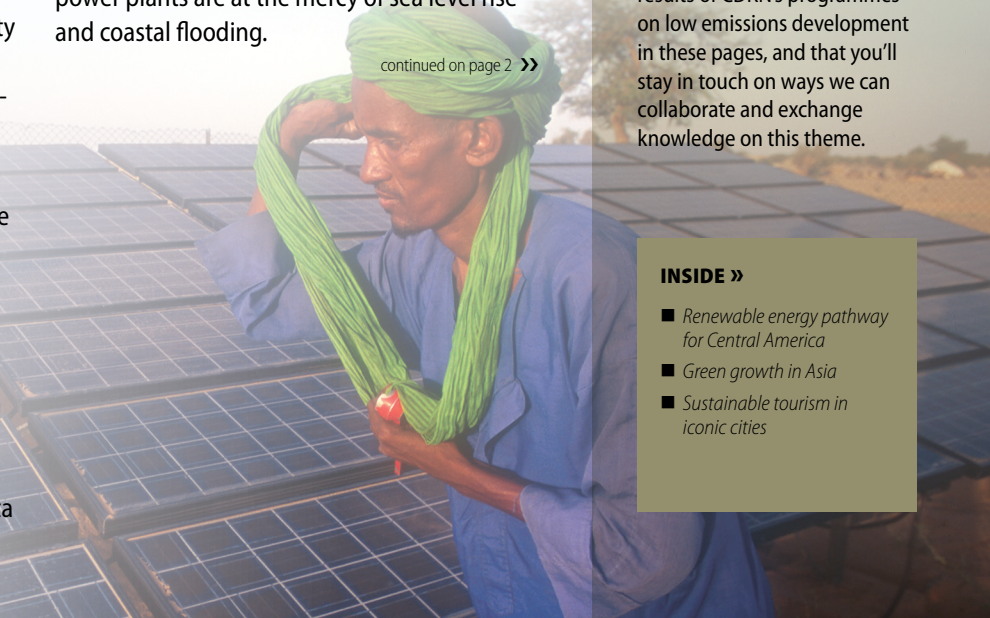
In some cases, it was hard to find adequate data. "We found it particularly hard to track data

on the energy consumption of each industry sector in these countries," said Laura Williamson, Project Director at HELIO International. "When the data just wasn't there, we agreed on proxy indicators, or even qualitative narratives that could tell the story," she said. "It isn't perfect, but it gives a good baseline. HELIO's philosophy is that it is better to be approximately right than precisely wrong!"

### INITIAL FINDINGS

The assessments found that both countries have a long way to go if their energy policies are to support ecocodevelopment. Overall, Togo and Cameroon suffer from poor energy infrastructure that prevents easy, affordable access to energy services. Per capita greenhouse gas emissions are paltry compared to rich nations, but inefficient energy use means householders and businesses aren't making the most of what they have already. Deforestation is rampant and widespread, which has depleted biomass resources. Cameroon is a net exporter of petroleum products but relies heavily on fossil fuel imports, which does not augur well for long-term economic stability. Meanwhile, power stations have not been built with climate resilience in mind: 60% of the countries' thermal power plants are at the mercy of sea level rise and coastal flooding.

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## Asia Low Emissions Partnership steps up

**ALI TAUQEER SHEIKH, DIRECTOR, CDKN ASIA**

There is no one-size-fits-all approach to tackling climate change. In Asia, all countries are uniquely vulnerable to the impacts of climate change, and have very different rates of greenhouse gas emissions and different opportunities for low carbon growth. However, we still have much to learn from each other.

This is the principle behind the Asia LEDS Partnership. The LEDS Global Partnership is made up of over 100 governments and organisations and more than 600 individual experts around the world; it has helped in the establishment of the regional partnership. The Asia LEDS Partnership brings together the largest economies in the region with the least developed, and governments sit together with expert organisations and donors. It is a rapidly expanding and active partnership seeking to advance climate-resilient, low emission development in Asia.

The group first met in Bangkok in September 2012 and set its mandate as knowledge exchange, capacity building and connecting governments with sources of expertise. CDKN has been supporting the regional partnerships since day one, and at the Delhi Sustainable Development Summit (DSDS) 2013 we are co-hosting a session on 2 February 2013 with the partnership titled 'Learning from Green Growth Initiatives in Asia.'

Like all LEDS partnership activities, it rejects the traditional conference format, and will be a highly interactive, open session to maximise the opportunities for governments and experts to connect and learn from each other.

We want the Asia LEDS Partnership to grow and reach a whole new audience. Get in touch if you think you have something to share, or learn. Together we can ensure that Asia shows the world best practice examples of integrating climate resilience, low emissions, sustained growth and poverty reduction.

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When it comes to governance, the assessments criticise both countries for needing to clean up their energy sectors from fraud and corruption. The reports say that public consultations should move beyond 'box-ticking' exercises and become meaningful, democratic processes.

### **BROADENING THE CONVERSATION**

Laura Williamson of HELIO has found it challenging to get governments to think about climate adaptation in the energy sector. When climate enters the conversation, it's normally about climate mitigation. "I've had some funny looks from mentioning energy and climate adaptation in the same sentence!" she said. It's important for policy-makers to understand the impacts of climate change on energy provision, Ms Williamson explained, "because if you have decreases in rainfall or changes in solar or wind intensity, you need to know what will happen to thermal generation, hydropower, photovoltaic and wind power."

"Moreover," she added, "it's not just about supply, it's about users – people don't just want energy, they want the services that come from energy like lighting, heating, cooking and economic production." As the climate changes, people's energy needs will change. For example, they may need more cooling in homes and businesses, or more water pumps for crop irrigation.

In Togo, there's every sign that the TIPEE assessment is influencing the national debate on energy policy. NGO representatives who were involved in the TIPEE process have drawn on the data and analysis to call for climate-smart investments as the government develops its energy policy; this process is ongoing.

When the new work programme begins in Benin and other West African countries this year, expert assessors from Togo will lend advice, contributing to South-South learning. Find out more on <http://www.helio-international.org/projects/TIPEE.cfm> and [www.cdkn.org](http://www.cdkn.org)

### **Promoting sustainable urban tourism**

A unique international collaboration among researchers and policy-makers in Southeast Asia is putting 'green' urban tourism on the agenda. A research team, led by the Asian Institute of Technology (AIT), is working with the municipal governments of Hue, Viet Nam and Chiang Mai, Thailand to prepare low carbon development strategies for the urban tourism sector, and create green jobs in the process. Both cities are tourist magnets thanks to their renowned cultural attractions, but suffer from growing environmental footprints, which could be tackled with careful planning.

The project has generated good results so far: Chiang Mai municipality completed a Bilan Carbon Analysis using tourism data for 2011. A similar carbon analysis is underway in Hue. Municipal officers, researchers, and other stakeholders worked together to identify options for greenhouse gas mitigation and green job creation – and they prioritised which ones to take forward.

Meanwhile, the cross-border nature of the project has opened horizons for the participants. The team has arranged exchange visits for officials to their partner city.



**"Introducing non-motorised transport will create green and decent jobs for local people."**

**TRINNAWAT SUWANPRIK,  
CHIANG MAI MUNICIPALITY**

### **Learning and leading on LEDS**

The LEDS Global Partnership will meet in February in Thailand to continue its lively exchange of best practices from Asia, Africa and Latin America and the Caribbean. Meanwhile, gatherings of the African and LAC groups are also scheduled for 2013. Please visit [www.cdkn.org](http://www.cdkn.org) for details or the LEDS GP wiki on <http://en.openei.org/wiki/LEDSGP>



## Renewable energy pathway for Central America

Central America has great potential to reduce its fossil fuel dependence and embrace sustainable energy systems, according to a forthcoming report co-sponsored by CDKN.

The Worldwatch Institute and INCAE Business School (Costa Rica) have assessed how the region's abundant natural resources could be harnessed to bring energy services to the poor and underpin economic growth. They've also considered how existing policy frameworks, socioeconomic conditions and public support could help sustainable energy to gain a surer foothold in the region.

Central America – which here includes Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama – has long exploited its freshwater resources for large hydropower projects. However, many of these projects have been dogged by social and cultural controversies, or have caused unintended environmental harm. Since the 1990s, the region has become increasingly reliant on fossil fuel imports for its transport and power needs. This project tries to shift the focus to renewable energy that is both socially and environmentally sustainable.

"In the electricity sector, over the past two decades, Central American countries have shifted from being almost exclusively hydropower-based to producing and consuming a large share of petroleum-based energy," Worldwatch and INCAE write in their preliminary findings. "Non-renewable power capacity is currently growing more rapidly than renewable energy. Thermal generation from petroleum-derived fuels, such as diesel, heavy fuel oil and coke, was almost non-existent in 1990 but now accounts for 37.9% of regional capacity."

Not only has spiralling fossil fuel use increased the region's output of greenhouse gases, but



these imports have "created a burden of oil dependency," said Adam Dolezal, the Project Manager at Worldwatch Institute.

The forthcoming report, to be published in full in March 2013, explores how government subsidies for fossil fuel use have diverted public funds from renewable energy investment. The Worldwatch-INCAE study uses the 'levelised cost of energy' (LCOE), a methodology to calculate the costs of energy plant across its useful life. By this measure, geothermal, wind, small hydro and waste-to-energy schemes compare favourably with fossil fuel-based alternatives – and have significant potential to create jobs and underpin broader socioeconomic development.

### THE ECONOMIC CASE FOR RENEWABLES

As Mr Dolezal of Worldwatch said, "7.7 million people across the Central American region have limited access to energy. The grid integration effort in the region has been going on for decades but there are areas where geographically and economically it doesn't make sense to put in transmission lines. We're highlighting efforts that have expanded electricity access through decentralised renewables – distributed solar, small-scale wind and small hydro projects. For example, Nicaragua has electrified thousands of homes with solar – it has made a huge impact and there is a lot of potential for more programmes of that type."

Other best practice stories include the use of solar thermal technology to heat the air in a fruit and vegetable drying plant in Guatemala; and a 31.5 megawatt biomass power plant in

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### Indian builders adopt low-carbon methods

Building a prosperous and green future for India will, literally, require a green construction sector. The sector contributes significantly to climate change, accounting for 22% of national greenhouse gas emissions. It employs 18 million people, contributes 8% to national GDP and grew at a rate of 156% between 2000 and 2007. With a national rural housing shortage of about 40 million, further growth is expected. Building new affordable low carbon and climate-resilient buildings is therefore a key strategy for many state governments in India.

A CDKN project managed by Development Alternatives (DA) is supporting the Governments of Himachal Pradesh, Madhya Pradesh and Orissa to ensure low carbon technologies become the norm rather than a one-off best case in the construction sector.

This project is succeeding on several fronts. First, it is piloting a skill-building programme for artisans and building professionals that covers both basic techniques and cutting edge technologies. The School of Planning and Architecture (SPA) in Bhopal, Madhya Pradesh was so impressed with the modules that they will be completely mainstreamed in the curriculum. Second, the project is not just limiting itself to the private sector but encouraging the state governments to identify how regulations can support the wide adoption of alternative technologies. DA and the respective state governments are facilitating cross-government workshops that identify how local by-laws and standards can be revised, and how the bureaucratic process for approving low-carbon construction projects can be streamlined.



### Update on 'Climate Change and Green Asia'

In January, the Asian Development Bank (ADB) and ADB Institute will launch their flagship study on Climate Change and Green Asia. Please look out for it on [www.adb.org](http://www.adb.org). The study puts forward a new paradigm for green growth in the region. Earlier, in 2012, CDKN supported a process for government representatives from around Asia to feed in to the study – and this ensured that their priorities were heard loud and clear. Now CDKN is in exploratory conversations with South and Southeast Asian governments on what type of capacity support is needed to achieve this vision.

**The Climate and Development Knowledge Network (CDKN)** aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level. CDKN is managed by an alliance of six organisations that brings together a wide range of expertise and experience.

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Belize, fuelled primarily by bagasse (fibrous crop residue from sugarcane).

The report also concludes that the Central American Electrical Integration System (SIEPAC) and its associated bodies could allow for new opportunities to tie renewables in to the grid. "The importance of further diversifying the energy mix cannot be overemphasised," argue the report's authors. "Renewable energy sources offer complementarities that need to be addressed in integrated regional and national energy planning."

At a recent project workshop, Sean Porter of energy company Globeleq said, "renewable energy has a unique opportunity in the region to come in and displace fuel oil and diesel-based plants with something cheaper. This is not Europe or the United States where renewables are competing with more economic fossil fuel-based alternatives. Here, renewable energy is an economic benefit. What we see is that every megawatt of renewable energy that comes onto the system is displacing a very dirty, very expensive megawatt."

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## STARTING THE POLICY CONVERSATION

The Worldwatch–INCAE study is rooted in an ongoing dialogue with energy sector decision-makers. The Energy and Environment Partnership with Central America, part of the regional political and economic integration system (Sistema de Integración Centroamericana) was involved in commissioning the study and all the relevant governments have been involved, to some degree, with reviewing and critiquing the initial findings. Worldwatch and INCAE have convened industry and government leaders and research experts to debate the opportunities and challenges for renewables development in Central America in two participatory workshops in Central America.

Once the full report is launched in March, a further round of outreach will take place. The project team plans to work with individual countries on detailed mapping of sustainable energy pathways.

## Dashboard

September – December 2012

- CDKN's Roster of Experts: experts from 140 countries worldwide
- Number of new contracts initiated this quarter: 54
- Unique visitors to the website (monthly average): 10,958
- Percentage of website visitors from developing countries: 45%
- Number of newsletter subscribers: 4912

*Please sign up to our monthly newsletter for CDKN news, opinion and opportunities, by visiting [www.cdkn.org/newsletter](http://www.cdkn.org/newsletter)*

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