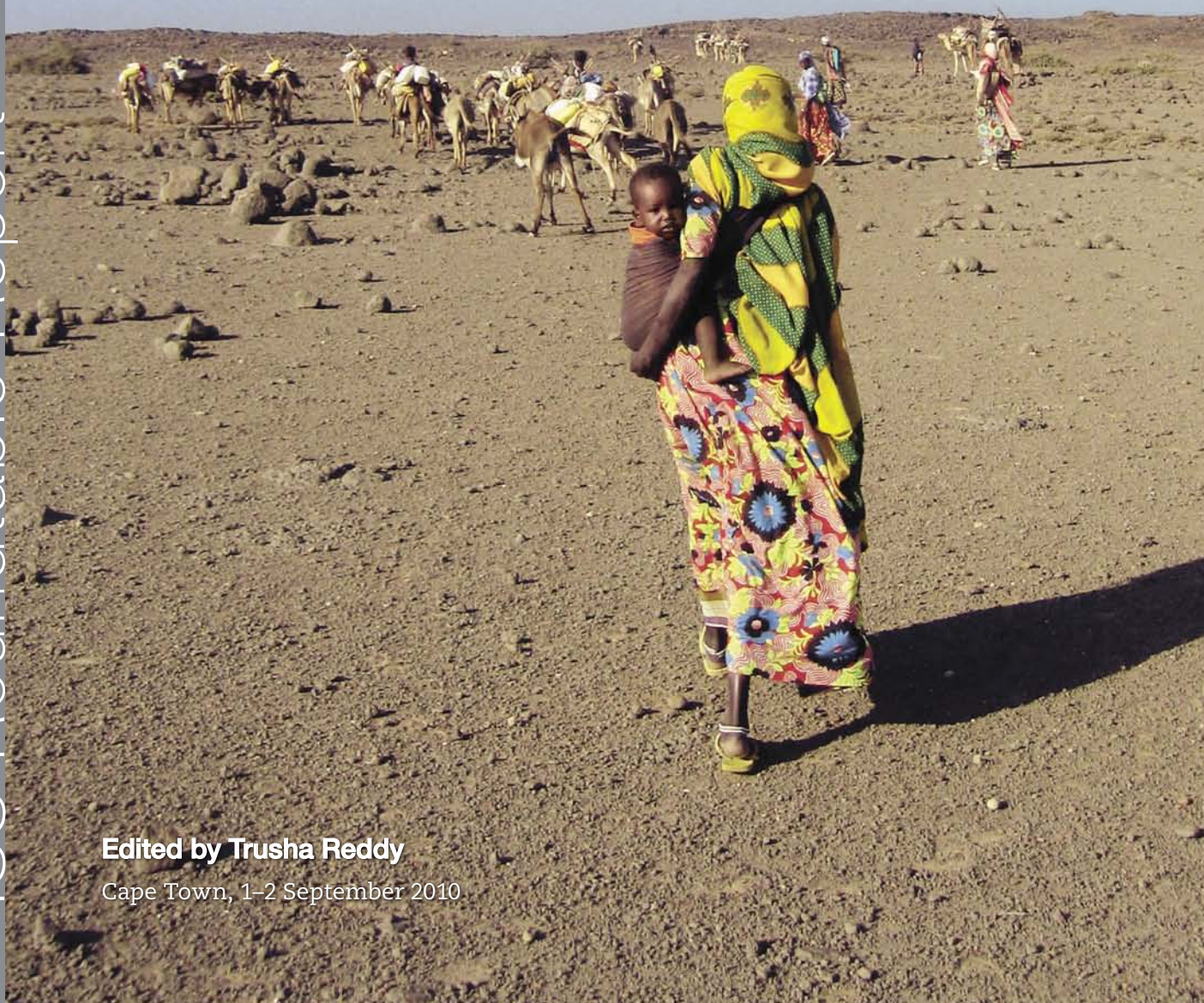
Governing climate finance

Critical perspectives from Africa, Asia and Latin America



Edited by Trusha Reddy

Cape Town, 1–2 September 2010

ISS Roundtable Report

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ISBN 978-1-920422-64-6

First published by the Institute for Security Studies,
P O Box 1787, Brooklyn Square 0075
Pretoria, South Africa

www.issafrica.org

Cover photograph Local tribes band together and search nomadically for water after being displaced due to severe droughts in Ethiopia. Most of their livestock died from dehydration and/or malnutrition, so they must pool their resources in order to salvage the little they have left. © 2006 Kamren Charpentier, Courtesy of Photoshare

Cover design COMPRESS.dsl +27 21 886 9387

Content design, layout Marketing Support Services +27 12 346-2168

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Acronyms and abbreviations

ACCC	Adaptation to Climate and Coastal Change (in West Africa)
ACCI	ASEAN Climate Change Initiative
ADB	Asian Development Bank
ADF	African Development Fund
AEP	American Electric Power
AF	Adaptation Fund
AFD	French Development Agency
AfDB	African Development Bank
AGF	UN High Level Advisory Group on Climate Change Financing
AIDER	Association for Research and Integral Development (Peru)
AIDESEP	National Organisation of the Amazon Indigenous People of Peru
AMCEN	African Ministerial Conference on the Environment
ASEAN	Association of Southeast Asian Nations
AU	African Union
AUC	African Union Commission
BNDES	National Bank of Economic and Social Development (Brazil)
CAADP	Comprehensive Africa Agricultural Development Programme
CAIT	Climate Analysis Indicators Tool
CARPE	Central Africa Regional Program for the Environment
CBFF	Congo Basin Forest Fund
CBFP	Congo Basin Forest Partnership
CCBA	Climate, Community and Biodiversity Alliance
CCX	Chicago Climate Exchange
CDM	Clean Development Mechanism
CED	Centre for Environment and Development (NGO Cameroon)
CEIF	Clean Energy Investment Fund
CELCO	Celulosa Arauco y Constitución
CER	Certified Emission Reduction
CFL	Compact Fluorescent Lightbulbs
CFU	Carbon Finance Unit (World Bank)
CIF	Climate Investment Fund
CNP	Project Steering Committee (of COMNAC)
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COMIFAC	Commission for Central Africa Forests
COMNAC	National Committee on Climate Change
CONAMA	Comisión Nacional del Medio Ambiente
COP	Conference of the Parties
COTCO	Cameroon Oil Transportation Company
CSE	Ecological Monitoring Centre (Senegal)
CSO	Civil Society Organisation
CST	Scientific and Technical Committee
CTF	Clean Technology Fund
DEAT	Department of Environment & Tourism (South Africa)
DEEC	Directorate for the Environment and Classified Zones (Senegal)
DENR	Department of Environment and Natural Resources (Philippines)
DG	Director-General
DNA	Designated National Authority
DNA-CDM	Designated National Authority for CDM

DoE	Department of Energy (South Africa)
DOE	Designated Operational Entity
DWE	Department of Water and Environmental Affairs (South Africa)
EB	Executive Board
ECLAC	Economic Commission for Latin America and the Caribbean
EEPSEA	Economy and Environment Program for Southeast Asia
EIA	Environmental Impact Assessment
EU	European Union
EU ETS	European Union Emissions Trading Scheme/ System
FAO	United Nations Food and Agriculture Organisation
FAS	Amazonas Sustainable Foundation
FCPF	Forest Carbon Partnership Facility (World Bank)
FENAMAD	Native Federation of the Madre do Dios River and Tributaries
FIP	Forest Investment Programme
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFC	Global Forest Coalition
GHG	Greenhouse Gas
GTZ	German Technical Cooperation
GW	Gigawatts
IACC	Interagency Committee on Climate Change
ICSC	Institute for Climate and Sustainable Cities
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IIED	International Institute for Environment and Development
IIRSA	Initiative for the Integration of the Regional Infrastructure of South America
IMF	International Monetary Fund
INRENA	National Institute of Natural Resources (Peru)
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
LoA	Letter of Approval
LULUCF	Land Use, Land Use Change and Forestry
M&E	Monitoring and Evaluation
MDB	Multilateral Development Bank
MDG	Millennium Development Goal
MFI	Multilateral Finance Institution
MIE	Multilateral Implementing Entity
MINAM	Ministry of Environment (Peru)
Mtoe	million tonnes of oil equivalent
MW	Megawatts
NAPA	National Adaptation Plan/Programme of Action
NAPE	National Action Plan for the Environment (Senegal)
NEEDS	National Environmental, Economic and Development Study
NEMA	National Environmental Management Act (South Africa)
NEPAD	New Partnership for Africa's Development
NFSCC	National Framework Strategy on Climate Change (Philippines)
NGO	Non-governmental Organisation
NIE	National Implementing Entity
SSN	South-South North (project implementer)
ODA	Official Development Assistance
PCCC	Philippine Climate Change Commission
PDD	Project Design Document
PIN	Project Idea Note
PMCJ	Philippine Movement for Climate Justice
PODES	Strategic Plan for Economic Development

PTFCC	Presidential Task Force on Climate Change (Philippines)
REECS	Resources, Environment and Economics Centre for Studies
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD R-PP	REDD Preparation Proposal
SGP	Small Grants Programme
SiO_2	Silica
SO	Specific Objective
SOCSOM	Sequestration of Carbon in Soil Organic Matter
TCJ	Thai Working Group for Climate Justice
TGO	Thailand Greenhouse Gas Management Organization (Public Organization)
TIC	Tanzania Investment Corporation
TNC	The Nature Conservancy (NGO)
UEMOA	West African Economic and Monetary Union
UNCDB	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	UNDP, FAO and UNEP
USAID	United States Agency for International Development
VCS	Voluntary Carbon Standard
VER	Voluntary Emission Reduction
WRI	World Resources Institute
WRM	World Rainforest Movement
WWF	World Wide Fund for Nature

About this report

Climate finance is a key element of a global agreement to address the impacts of climate change. Billions of dollars will flow to developing countries and it is essential that this money goes to meeting the needs of those most vulnerable to these devastating impacts and is not lost to corruption and poor governance. It is also important to recognise that the amounts of funding, the number of institutions involved and coherence in the global architecture will be meaningless without democratic governance of the funds at the local level. The hopes of vulnerable people in developing countries around the world are thus dependent on funding that is justly and effectively mobilised, managed and disbursed in national and sub-national contexts.

On the basis of these understandings, the Institute for Security Studies' Corruption & Governance Programme embarked on a pilot project to monitor the governance of climate finance at the local level in 2010, with project activity support from the Hanns Seidel Foundation. One of the main activities of the ISS project was a two-day roundtable on climate finance from 1 to 2 September 2010. Civil society experts from Africa, Asia and Latin America participated and presented papers describing national and sub-national experiences with climate funds in their regions. This report is a compilation of their papers, which were finalised after the discussions at that meeting. It presents an approach that is grounded in the realities and experiences of funding arrangements across developing countries in the three regions studied. The conclusion reflects on some of the common findings of those studies.

The regions highlighted are most likely to receive a large share of climate finance and stand to face devastating climate change impacts. The report examines how three funds, the Adaptation Fund, Clean Development Mechanism (CDM) and the Reduced Emissions from Deforestation and Forest Degradation (REDD), their pilot programmes and general forest governance work in practice and what their intended or unintended effects are on recipient countries and local beneficiaries. The report also considers to what extent universal democratic principles of accountability, transparency, public participation, inclusiveness and social justice are taken into account when funds are applied in these contexts. Peculiar trends, like new and different types of corruption concerns, are also raised by the study. Finally, the common experiences are translated into a normative approach detailing general priorities and principles for funding. Much of the information is anecdotal, or context specific, but common themes do emerge which are instructive for future policy making on climate finance governance. Further studies are encouraged for providing more depth and a range of views. A comparative review is also needed to match up our grounded development of priorities and principles with those that develop them using other environmental and ethical frameworks and legal conventions.

The Institute acknowledges with thanks the funding assistance of the Hanns Seidel Foundation and that of the governments of Norway, Sweden, Denmark and the Netherlands. Thanks are given to all the dedicated contributors to the report, whose backgrounds are detailed in the 'About the Contributors' section of this report. We also thank all those who assisted with the production of this report.

We hope that the findings of the study will further your understanding of the developing climate finance governance regime and the debates it introduces encourage the just and effective consolidation of the regime.

Chapter 1

Governing climate finance

The 100 billion dollar question

Webster Whande

Billions in both short- and long-term finance have been pledged to support climate action in the developing world. For the period 2010 to 2012, US$30 billion was promised as fast-start finance, with a balanced allocation between adaptation and mitigation.[1] A further commitment to long-term finance is pegged at US$100 billion. While the long-term finance pledge does not meet various estimates of financial need,[2] it has provided targets for developed countries to reach and some indication of what funds can be expected by developing countries. These pledges and some of the principles underscoring them such as 'scaled up, new and additional, predictable and adequate funding'[3] and 'improved access'[4] are therefore seen as essential to building confidence and trust among developed and developing countries. Many developed countries also promised to provide finance in accordance with the relevant provisions of the United Nations Framework Convention on Climate Change (UNFCCC), with investments provided through international institutions. To this end, countries have since agreed to establish, and are in the final stages of developing, the architecture for the Green Climate Fund, which is to manage a significant portion of those funds.

The establishment and functioning of institutions are important vehicles for the channelling of global sources of funds to those most in need. More to the point, climate finance, far from being just about the provision of funds for adaptation and mitigation action, also relates to issues of governance. The funds create an opportunity to support low-carbon development through the transfer of technologies that leapfrog fossil fuel-based ones that have contributed to dangerously high levels of global warming. The funds can also support vulnerable communities, the majority of which are located within regions now recognised as having contributed the least to the problem of climate change yet standing to suffer the most from its impacts, and help them adapt to the impacts of climate change. Perhaps most significantly, climate finance can be a way to redistribute wealth in the world, addressing past inequalities that have led to underdevelopment and poverty in the developing world. The funds present vulnerable communities with an opportunity to adapt to climate change. They are, however, also susceptible to possible diversion by corrupt elites in the North and South if the integrity of the institutions charged with their management is compromised. There is also a great risk that funds will not be effectively and justly utilised if accountable and transparent governance arrangements are not put in place at the local and global levels. This points to the need for a climate finance governance architecture that is able to manage the immense scale of funds, with just and effective democratic governance being a key component of successful financing of climate action.

Democratic governance can play an important role at the local level, where the most severe human and environmental impacts are most severely felt. With this in mind, the studies that make up this report focus on critical experiences of different funds at national and sub-national levels in the three regions of Africa, Asia and Latin America. The studies present an approach that is grounded in the realities of regional and local contexts; in other words, they examine how these funds actually work in practice and what their resultant intended or unintended effects are on recipient countries and community beneficiaries. The studies view the developing country experiences from a democratic governance perspective and ask to what extent universal principles

of accountability, transparency, public participation, inclusiveness and social justice are taken into account and applied when funds are applied in these contexts. Some of the common experiences are translated into general priorities and principles for funding that should be considered in determining governance arrangements for existing, new and reformed funds.

The report seeks to contribute to the debates on climate finance from an African and Global South/developing country perspective. A key challenge for African-based organisations and actors such as the African Union and African Group of Negotiators is to contribute evidence-based research to support negotiating positions. This research seeks to address this challenge. Civil society experts were identified to share their experiences of ongoing climate funds in their respective countries, taking cognisance of the view that the best 'advice' comes from generating evidence-based knowledge from the ground up. Both adaptation and mitigation experiences have been included in this report. While adaptation funding does not receive much attention globally, the case chosen for this report (described in Chapter 3) provides critical lessons for a way forward. It was particularly important as the Adaptation Fund became operational in 2009 and Senegal was one of the first recipients of adaptation funds. Other case studies included in the report are focused on mitigation because most of the current funding is directed at such projects. It is difficult methodologically to generalise from anecdotal evidence, also considering that this bias towards mitigation case studies can potentially result in inaccurate generalisations in relation to climate finance dynamics at national and sub-national levels. However, our rough sampling method involved taking into consideration the current balance of funding. It also involved considering the authors' own recommendations of case studies that they were familiar with and could readily analyse. A longer-term and more detailed study could resolve these tensions and provide for a more accurate distribution of case studies. The cases, such as the Reducing Emissions from Deforestation and Forest Degradation (REDD) projects, have largely been approached from a rights-based governance perspective and with little or no reflection on the scientific dynamics of forestry. The issues raised, as a result, point to social safeguards critical for effective implementation of climate finance as compared to the environmental safeguards for sustainable forest conservation. REDD is also still being piloted and current projects either still fall under the Clean Development Mechanism (CDM) or under specific REDD pilot projects. This issue is reflected on in the Tanzanian chapter (Chapter 4).

The report is divided into five parts. The first part constitutes this brief introductory chapter. The second part focuses on Africa and consists of a regional overview of climate finance and four country case studies. These include the CDM case study in South Africa, the forest cases in Cameroon and Tanzania, and the Adaptation Fund case in Senegal. The third part of the report covers issues of climate finance in Asia, with a regional overview and two national case studies, including the CDM as applied in Thailand and Philippines. A regional overview of Latin America and three country case studies are to be found in the fourth part of the report. Experiences are drawn from the CDM case study in Chile, and REDD case studies in Peru and Brazil. The fifth and final part of the report summarises the main issues and outlines a set of priorities and principles for just and effective governance of climate finance.

NOTES

1 The text in the Copenhagen "Accord" states the following: 'The collective commitment by developed countries is to provide new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010–2012 with balanced allocation between adaptation and mitigation. Funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, small island developing States and Africa. In the context of meaningful mitigation actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries.' United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December: Addendum Part Two: action taken by the Conference of the Parties at its fifteenth session 2009*, Copenhagen Accord, 2009, 7, http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf#page=4 (accessed 20 January 2011).

2 Different estimates include the following: the UNFCCC indicates that by 2030 poor countries will need US$28 to US$59 billion a year to adapt. The World Bank says that US$70 to US$100 billion per year (at 2005 prices) is needed between now and 2050. The European Union Commission puts this figure at between US$10 and US$24 billion a year by 2020. The African Group of Climate Change Negotiators estimates a need for US$67 billion a year by 2020, in A Caravani, N Bird and L Schalatek, *Brief 3: climate finance fundamentals-adaptation finance,* Heinrich Böll Stiftung: North America and Overseas Development Institute, 2010.

3 Ibid.

4 Project Catalyst, *Making fast start finance work,* Briefing Paper, 7 June 2010 Version. Brussels: Climate Works Foundation, 2010.

Chapter 2

Climate change challenges in Africa

Funding approaches relevant to the continent

Webster Whande

OVERVIEW OF THE CHALLENGES POSED BY CLIMATE CHANGE AND THE SOURCES OF FINANCE

Africa is in a precarious position with regard to climate change, which presents it with some of its greatest challenges. Some countries are projected to lose as much as 50 per cent of their crop yields by 2020 and suffer as much as a 90 per cent drop in crop yields by 2100.[1] In addition to impacts on agriculture, which contribute an estimated 21 per cent on average of the GDP in Africa, factors such as ecosystem degradation and health deterioration contribute to the vulnerabilities on the continent. The 330 million Africans who live in extreme poverty are most vulnerable to these changes.[2]

Africa has contributed the least to the global problem of climate change, yet it is likely to suffer the most. The delays in reaching a global agreement on tackling climate change may mean that increased and more severe floods and droughts worsen the plight of vulnerable Africans. There needs to be policy clarity and political commitment to address the problem of climate change. Moreover, finances that are adequate, accessible and predictable also need to be made available for Africa to cope with, and adapt to, the devastating impacts of climate change.

There are different estimates of the actual costs of climate change for Africa. The Africa Partnership Forum quotes the World Bank's adaptation costs for Africa as being in the region of $10 billion to $40 billion[3] per year by 2020, whereas the United Nations Development Programme (UNDP) estimates $86 billion per year by 2015.[4] However, the funds needed for adaptation to climate change are difficult to separate from official development assistance (ODA).[5] For climate mitigation, costs are higher, with estimates of $100–$200 billion per year.

From experiences with carbon markets and public sources of finance, it is apparent that Africa has received little of the expected flows of finance. The low approval of national implementing entities (NIEs) for the Adaptation Fund (AF) indicates a continuation of this trend on the continent. Funds pledged under multilateral and bilateral funding arrangements have not been fulfilled, meaning even fewer financial resources than were pledged for climate change are available. The carbon markets, in particular the Clean Development Mechanism (CDM), which relies on the sale of emission credits, have delivered only about 2,6 per cent of the global transactions to Africa.

Africa's ability to deal with and adapt to the effects of climate change, as well as to contribute to lowering emissions, depends on climate finance. In the absence of adequate funds for adaptation and mitigation, the impacts of climate change are likely to have devastating consequences. This chapter discusses the context of climate change in Africa and the funding approaches relevant to the continent.

Based on the discussion, it is concluded that adaptation and mitigation challenges on the continent are too immense to be addressed with the current levels of public and private funds. Furthermore, the uncertainties surrounding national and sub-national institutions compound the problems on the continent. It is therefore imperative to improve the governance systems not only for climate finance but also for programme implementation.

REGIONAL CONTEXT

Africa is one of the regions most vulnerable to climate change. This is because it is highly dependent on rain-fed agriculture and its inhabitants have low adaptive

capacity to deal with the effects of climate change.[6] Floods, drought, spread of diseases such as malaria, and potential conflicts over scarce land and natural resources are all climate-related factors that will affect African communities. With one-third of the population living in drought-prone areas, rising temperatures are likely to exacerbate the situation, and thus affect food security and GDP.[7] In 2010, the African Group of Negotiators on Climate Change prioritised adaptation, while not ignoring mitigation, as the most urgent action area to deal with the impacts of climate change.[8] The Negotiators, echoing their respective country positions, called for development partners to help Africa cope with the effects of climate change.

SOURCES OF GREENHOUSE GAS EMISSIONS IN AFRICA

The two largest sources of greenhouse gas (GHG) on the African continent are commercial energy sources and traditional fuels such as wood. Globally, energy contributes approximately 60 per cent of the GHG emissions.[9] In Africa, however, 90 per cent of the population of 800 million have no access to electricity and other conventional sources of energy.[10] As a result, the continent is least responsible for global GHG emissions, contributing about 3,8 per cent of total global emissions.

Most countries on the continent contribute to GHG emissions through land use changes and forest degradation. Global estimates are that land use changes and forest degradation are second to conventional commercial energy as a source of GHGs, contributing an estimated 20 per cent of global emissions.[11] This is significant for the African continent, where 650 million hectares – approximately 22 per cent – of the continent are covered in forests and woodlands.[12] Forests and woodlands are critical carbon sinks that contribute to the mitigation of GHG emissions. At the same time, 46 per cent of the forested and wooded area is vulnerable to deforestation.[13]

The potential of forests as carbon sinks has led to more policy and political interest to include forests under the Reducing Emissions from Deforestation and Forest Degradation (REDD) programme in the revised Kyoto Protocol, which will start in 2012 if global negotiations for a climate change pact are concluded. Not only do land use changes and forest degradation contribute to GHG emissions, but they also affect local livelihoods and availability of water resources, and contribute to the fragmentation of ecosystems. By focusing on the abundant forest and woodland resources on the continent, climate action can address both mitigation and adaptation challenges. In particular, properly designed forest conservation will sustain carbon sinks while also protecting the land and resource rights of indigenous and local communities dependent on forest resources.

CLIMATE CHANGE IMPACTS AND THE IMPERATIVE FOR AN ADAPTATION FOCUS

The outcome of adaptation strategies on the African continent is closely linked to global efforts to reduce the level of GHG emissions. Even without increased climate change, much of the African continent is already vulnerable to multiple stressors such as water scarcity, climate-related diseases, drought cycles and ecosystem degradation.

In the absence of a global climate change agreement that spells out clear targets for reducing GHG emissions, changes in climate will manifest in lower precipitation and high temperatures, leading to more droughts in parts of southern Africa, while Mozambique in the same sub-region will experience floods.[14] Such flooding and drought are likely to exacerbate the problem of food security by affecting food production, environmental degradation and water scarcity.[15]

Climate change, as a result, will impact on efforts to eradicate poverty, particularly the Millennium Development Goals.[16]

The impact of climate change on agriculture and natural resources means rural dwellers will suffer the most. Approximately 60 per cent of Africans still live in rural areas. This rural population is expected to grow in the next 20 to 30 years.[17]

Global mitigation activities can play a central role in minimising some of these effects. However, even then, some of these challenges will continue, as, according to the Africa Partnership Forum, 'even if global carbon emissions were reduced tomorrow, Africa would still be faced with the … challenge of adapting to climate change'.[18] It is clear, therefore, that global efforts to reduce GHG emissions should be matched with support for adaptation by African communities.

Agriculture and natural resources, such as forests, fisheries, water and wildlife, should be at the centre of efforts to deal with the impacts of climate change and fostering adaptation in Africa. The African Union (AU) recently called for increased efforts to provide finance for critical sectors, in particular agriculture.[19] At the same time, climate proofing the continent's agricultural development programme, the Comprehensive Africa Agricultural Development Programme (CAADP), is imperative.

As well as climate-proofing agricultural development, countries can use natural resources such as forests to leverage other sources of funds that support

local adaptation measures, while contributing to mitigation by maintaining forestry carbon sinks.

A number of adaptation initiatives in Africa are either ongoing or being planned.[20] The African Ministerial Conference on the Environment (AMCEN) lists three areas of work for adaptation initiatives in Africa: disaster reduction and risk management, sectoral planning and implementation, and building economic and social resilience.[21] Programmes in these areas are further divided into those initiated at a global level but eligible for implementation in Africa and those from the African continent, particularly the AU, regional economic communities, NGOs and donors.

Under the United Nations Framework Convention on Climate Change (UNFCCC), however, national adaptation programmes of action are particularly relevant for least developed countries (LDCs) and premised on identifying and developing measures to reduce vulnerability to climate change.

SOURCES OF CLIMATE FINANCE

A number of approaches can be discerned for the implementation of climate finance. The following pages discuss some of the relevant approaches and provide an evaluation of their uptake on the continent.

Clean Technology Fund

Approximately $625 million is expected to be channelled into African countries for the Clean Technology Fund (CTF).[22] An assessment of the allocation of these funds, however, indicates that they are not earmarked for wider distribution on the continent (Table 1). The distribution of initiatives to receive finance both within and between regions is becoming a major issue, as seen not only in relation to the CTF but others, such as the CDM. CTF-funded projects are mostly renewable energy initiatives.

Table 1 Allocation of CTFs in Africa

Country	Total CTF allocated amount (million $)	Amount allocated to the ADB (million $)
Egypt – November 2008	300	50
Morocco – October 2009	150	50
South Africa – October 2009	500	175
Egypt, Morocco, Tunisia, Algeria, Jordan – January 2010	750	250
Nigeria – pending	200 (to be approved)	100
Total (million $)	**1 900**	**625**

Reducing Emissions from Deforestation and Forest Degradation

The distribution of REDD projects seems to mirror the experiences of CDM initiatives, with analysts noting that 'the small number of REDD demonstration projects in Africa suggests a repeat of the inequitable distribution of projects already seen under the Clean Development Mechanism'.[23] The observed lagging behind of Africa is attributed to a number of factors, including perceptions of weak governance. The variation in forest cover on the continent also means that the distribution of REDD initiatives is uneven, with the highest expected to be in the world's second largest tropical forest of the Congo Basin.

Bilateral and multilateral funding arrangements dominate the REDD initiatives. For the Congo Basin Forest, a multi-donor trust fund has been established, while other countries such as Tanzania and Mozambique rely on bilateral funding. Mozambique will benefit from the Amazon Rainforest multi-donor trust fund as well as from bilateral funding.[24]

Concerns have been raised, however, that the implementation of REDD initiatives might not necessarily address the rights of indigenous peoples and forest-dependent communities. In particular, the rights-based approach to conservation notes the strong focus on policy influence and concludes 'the sphere of the project control is limited and the ultimate impacts, including with respect to rights, will be heavily informed by broader governance and economic circumstances internationally, nationally and locally'.[25] The subsequent REDD+ captures some of these concerns, emphasising the maintenance of forest ecosystems as a basis for increasing climate resilience but also contributing to pro-poor development and respect for the rights of indigenous peoples and local communities.[26] It is imperative, as a result, that rights and equitable governance approaches be instituted as safeguards for the effective implementation of REDD initiatives.

Clean Development Mechanism

The distribution of CDM projects, established under the Kyoto Protocol to allow Annex I parties to comply with emission reduction targets, has so far been skewed. Table 2 shows the percentage regional distribution of registered CDM projects, with the majority going to Asia and the Pacific. There are far fewer in Latin America and Africa has thus far received only 2,6 per cent of the projects. Even within Africa, the distribution of the projects is highly skewed, with the majority of the projects being located in South Africa. A similar pattern is observed in Asia, where China and India dominate

Table 2 CDM projects distribution according to regions[27]

Total in the CDM pipeline	Number of small scale		Number of full scale		Number of all projects		For all projects			Population	2012 CER per capita
							CERs	2012 CERs			
Latin America	431	**13,0%**	663	**15,2%**	1 094	**14,2%**	114 898	373 727	**13,8%**	449	0,83
Asia and Pacific	2 743	**82,6%**	3 469	**79,3%**	6 212	**80,8%**	826 166	2 151 146	**79,3%**	3 418	0,63
Europe and Central Asia	29	**0,9%**	55	**1,3%**	84	**1,1%**	21 096	41 394	**1,5%**	149	0,28
Africa	85	**2,6%**	132	**3,0%**	217	**2,8%**	60 243	106 928	**3,9%**	891	0,12
Middle East	32	**1,0%**	53	**1,2%**	85	**1,1%**	14 946	39 539	**1,5%**	186	0,21
Less developed world	**3 320**	**100%**	**4 372**	**100%**	**7 692**	**100%**	**1 037 349**	**2 712 734**	**100%**	**5 093**	**0,53**

Source : UNEP Risoe – http://cdmpipeline.org/cdm-projects-region.htm

the number of CDM projects in the region. However, the regional domination dynamics are not proportional as China and India together make up a far greater percentage of Asia than South Africa does of Africa. The skewed distribution of CDM initiatives means Africa has largely lagged behind in potentially benefiting from an estimated $60 billion carbon market.

Responses to the failure of CDM on the African continent have been two-pronged. First, a large number of civil society actors have questioned the premise upon which CDM is conceptualised, noting that the market mechanism is the main problem.[28] Second, other actors have emphasised that the systems to govern CDM initiatives must be improved, noting the need to build capacity in developing CDM projects and the promotion of investment opportunities for CDM.[29]

A recent proposal is that CDM in Africa can succeed if approached from a programmatic perspective where different projects are implemented under a single umbrella programme to reduce transaction costs. However, it remains to be seen if a funding mechanism that posted minimal benefits when it consisted of a number of projects can perform any better as a combined programme. In many ways, a programme promises to be more complex than single projects and might involve more actors and interests.

Adaptation Fund

The Adaptation Fund (AF) started operating in 2010, about eight to nine years after the decision to set it up at the Conference of the Parties (COP) to the UNFCCC in 2001. Senegal became one of the first countries in the world to have access to the AF.[30] While offering direct access to funds, the AF, as discussed by Aissa Toure Sarr in Chapter 3, also presents some challenges – in particular with regard to issues of transparency and aligning activities with National Adaptation Programmes of Action in the case of Senegal. Furthermore, while the AF provides a vehicle for direct access to funds, the process of applying for NIE status appears to be a key challenge for developing countries and LDCs. In the absence of NIE status, adaptation strategies and programmes are likely to be developed by multilateral implementing entities (MIEs) which include UN agencies and multilateral development banks. For direct access to have any meaningful practical implications, the granting of NIE status is essential.[31]

Fast-start finance

One of the outcomes of COP 15, held in Copenhagen in 2009, was a non-binding commitment by developed countries to provide $30 billion in the period 2010–2012. Fast-start climate finance is not channelled through a specific institution, relying on existing institutions where developing countries can access funds through bilateral agencies or multilateral channels. However, developing country parties are required to submit reports (by May 2011, 2012 and 2013) on the resources made available to fulfil commitments to the Copenhagen Accord. Developed countries submitted reports to the UNFCCC in June 2011 outlining the funds committed and used to support developing country projects. The reports by the 11 donor countries[32] indicate that while some funds have been committed and have started flowing, the pledges made in Copenhagen might not be met by 2012. The amounts thus far committed for fast-start financing are too low to reach the $30 billion by the end of 2012, unless there is a massive injection of money in 2011/12.

As well as unmet pledges, there remains no clear distinction between commitments to government budgets made before 2010 and the new pledges and commitments to fulfil the accord requirements. This raises the question of how any funds committed to climate change will be verified as meeting the criteria and amounts pledged in the accord. The World Resources Institute notes that, for instance, 'a substantial part of the EU fast-start funds will be implemented through existing initiatives … and ODA will continue to play a role in support for mitigation and especially adaptation'.[33]

The pledged amounts are not clearly delineated according to regions. It is therefore difficult to say conclusively how much of the pledged and committed funds are earmarked for Africa. During COP 15, the Chair of the African Group of Negotiators requested that Africa be allocated about 40 per cent of the pledged climate finance funds.

In light of the lack of progress in the flow of fast-start finances, the African Group of Negotiators has called for greater transparency in these finances.[34]

GOVERNING CLIMATE FINANCE – REGIONAL AND SUB-REGIONAL ACTORS

Governance issues are central to debates on climate finance, from the local level – where funds are meant to have the most profound effect – to the global, where funds are sourced.

In terms of policy development, the interaction between global, regional and sub-regional interests is shaping policy and programmes. In June 2010 AMCEN discussed a draft comprehensive framework on climate change programmes on the continent, raising the point that these should necessarily be a mix of adaptation and mitigation.[35]

As well as AMCEN, the African Union Commission (AUC), the United Nations Economic Commission for Africa (UNECA) and the African Development Bank (AfDB) have been driving Africa's preparedness to implement projects and programmes on climate change.

As shown in the box below, the AfDB has been at the centre of efforts to establish a continent-wide fund to channel climate finance.

Box 1: The African Development Bank and climate finance for Africa

The AfDB's Compliance and Quality Manager, Dr Antony Nyong, once told a story about why Africans do not go hunting with cats but instead choose dogs. The reason, he said, is because cats can climb trees and might well climb a tree with all the meat. But, according to him, the African Development Bank (AfDB) would not behave like a cat. Any funds – whether through the UNFCCC process or other channels – are for the continent and that is where they will go. This is part of the AfDB's argument that funds earmarked for the continent must be administered in Africa. It remains to be proven that if funds were administered through the AfDB they would be more accessible and have more transparent and equitable distribution than they have now, located elsewhere.

The AfDB was formed in 1964. Its headquarters are in Abidjan, Côte D'Ivoire but it is temporarily located in Tunis. Its mission is to 'contribute to the sustainable economic development and social progress of its regional members, individually and jointly'. The 53 African countries constitute its regional members, and in addition about 24 external members hold shares in the AfDB.

The AfDB has in recent years participated in the creation of climate funds and institutions to deal with challenges of climate change on the continent. In 2008, the AfDB Board approved the Clean Energy Investment Fund Framework (CEIF) to focus on clean energy development and access in Africa. This is financed mostly through non-concessional resources. The bank also hosts the 2008 Congo Basin Forest Fund (CBFF).

The AfDB hosts and participates in a number of other climate funds. Together with other multilateral finance institutions (MFIs) – the Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank and the World Bank – the AfDB hosts the Climate Investment Funds, whose two components include the Clean Technology Fund and the Strategic Climate Fund. These financing instruments are designed to fund low-carbon and climate-resilient pilot initiatives, channelled through multilateral development banks. Other climate financing tools include the Africa Carbon Support Project, Clim-Dev Africa and Sustainable Energy Fund for Africa.

In September 2010 the AfDB convened a continental workshop in Tunis partly to begin stakeholder consultations on the setting up of the Africa Green Fund and partly to get African perspectives on the work of the UN High Level Advisory Group on Climate Change Financing (AGF).[36] Although the Africa Green Fund can be seen as proactive, its timing is questionable. First, it comes at a time when the UN Green Climate Fund has not been established and its modalities are still under discussion. Second, the fund is being established outside the UNFCCC process, despite African leaders having committed themselves to the official negotiation process. This raises the question of under what arrangement is the Africa Green Fund being established, and how will it relate to the official UNFCCC negotiation process. From these activities, it is clear the bank is positioning itself for managing future flows of climate finance.

There appears to be some political support for the AfDB to act as the lead climate finance institution in Africa. Ethiopian Prime Minister Meles Zenawi suggested that fast-start funds from the Copenhagen Accord be channelled through the AfDB. While the AU conference after Copenhagen retained Prime Minister Zenawi as the chair of the African Group, it is not clear if this is support for what was articulated in Copenhagen. Despite Zenawi's support of the AfDB's bid to take over aspects of channelling finance in Africa, this view is contrary to what many civil society actors on the continent desire.

There have been heated debates on the role of MFIs in governing the expected huge flows of funds for climate action. Major areas of concern for civil society and developing countries are whether MFIs administer funds as loans or grants; whether they will offer channels for direct access to funds for the continued financing of unsustainable economic activities such as coal-fired power stations; and whether they will be accountable. In its history, the AfDB has predominantly given out loans compared to very low percentages of grants. The majority of funds allocated thus far, for climate and other purposes, indicate the preference of the bank to issue loans. This is a major problem for civil society actors, who see the provision of loans as a form of debt-creation for the LDCs.

At the same time, MFIs have long-term experience in handling funds for various purposes and appear to be favoured by many donors and developed countries. Their preference as vehicles for various forms of funds and lately for climate finance has led many in civil society to view this partly as positioning by MFIs, but also as preferential treatment by donors against the wishes of developing countries.

Apart from acting as a channel for climate funds, the AfDB appears to be increasingly involved in climate change policy and institution-building work.

The bank is also co-hosting more programmes with the African Union Commission and the United Nations Economic Commission for Africa.[37]

While at the continental level there appear to be institutional synergies on policy development, at national and sub-national levels problems persist. There are often multiple institutions whose lack of co-ordination compounds climate change issues. Additionally, a key aspect of governance of climate finance on the African continent is the strength – or lack thereof – of the sub-national, national and other institutions responsible for managing financial resources. As discussed in the Senegal case study below, accessing adaptation funds is dependent on the strength of institutions applying for NIE status.[38] Thus far Senegal is the only African country that has managed to get NIE status; other countries might have to rely on multilateral and intergovernmental institutions with MIE status such as the United Nations Environment Programme (UNEP), UNDP and the World Bank.

Finance in Africa appears to be affected by the long-standing problem of 'silos': it is not being distributed evenly among the various sectors, which are not integrated, despite the synergies among them. More emphasis needs to be placed on governance at cross-sectoral levels if climate change is to be fully incorporated in programmes of work on the continent.

Critical areas of the African economy, such as agriculture, have until recently received little attention in relation to climate change. Africa's agricultural development programme, the CAADP, only recently started discussing climate proofing in relation to other sectors. At the African Conference on Agriculture, Food Security and Climate Change, delegates called for more explicit links between agriculture, on the one hand, and CDM and REDD, on the other, and for an investigation into how existing funds can contribute to cross-sectoral linkages.[39]

CONCLUSION

Given the enormity of the predicted problems, it appears the current efforts to deal with climate change on the continent are inadequate. First, the institutional synergies emerging at a continental level are not replicated at national and sub-national levels. Second, the existing climate finance mechanisms and instruments have not served Africa very well.

A number of issues have to be considered if climate finance is to make an impact on the African continent. Experience with the CDM shows there is no 'one size fits all' when it comes to conceptualising market-based financing initiatives. Future market-based mechanisms in Africa have to be assessed on their viability, but, more importantly, in terms of how they contribute not only to tradable emissions but to national climate change adaptation and mitigation targets.

The key climate-change action area in Africa is adaptation: pledged and committed funds must be delivered so that the most vulnerable people can cope with the effects of climate change. This should be reflected in the flow and commitment of funds for climate action.

NOTES

1 M Boko, I Niang, A Nyong et al, Chapter 9: Africa, in M L Parry, O F Canziani, J P Palutikof et al (eds), *Climate change 2007: impacts, adaptation and vulnerability*, contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge: Cambridge University Press, 2007, 433–467.

2 M E Hellmuth, A Moorhead, M C Thomson et al, *Climate risk management in Africa: learning from practice*, New York: Columbia University, International Research Institute for Climate and Society (IRI), 2007.

3 Dollar amounts in this chapter are in US dollars.

4 UNECA/Africa Partnership Forum, *Financing climate change adaptation and mitigation in Africa: key issues and options for policy-makers and negotiators*, Policy Brief Prepared for: The Third Financing for Development Conference on Climate Change, Kigali, Rwanda, 21–22 May 2009.

5 Africa Progress Panel, *Finance for climate-resilient development in Africa. An agenda for action following the Copenhagen conference,* Policy Brief June 2010, Geneva: Africa Progress Panel.

6 Africa Partnership Forum, Climate change and Africa, 8th Meeting of the Africa Partnership Forum, Berlin, 22–23 May 2007.

7 Boko et al, Africa.

8 African Ministerial Conference on the Environment, 2009, Report of the second meeting of the African high-level expert panel on climate change, Addis Ababa, 21–23 October 2009.

9 WWF.

10 NEPAD, Background paper on Africa and climate change, prepared for the 10th Meeting of the Africa Partnership Forum (APF), Tokyo, Japan 7–8 April 2008.

11 http://africaclimate.org/about/redd/ (accessed 14 October 2010).

12 Food and Agriculture Organisation, *Forest resources assessment 2000*, Rome: FAO, 2001.

13 UNEP, *Global environmental outlook* (Geo-3), Nairobi: UNEP, 2002.

14 R A G Davis and S J E Midgley, *Risk and vulnerability mapping in Southern Africa*, Information for Adaptation Series, Cape Town: OneWorld Sustainable Investments, 2010.

15 Africare Speech, The challenge of environmentally sustainable development in Africa, Princeton colloquium on public and international affairs 'The grand challenges: energy, development, global health', Princeton, New Jersey, April 2008.

16 R A Chapman, S J E Midgley, S Chesterman et al, *Climate change and the millennium development goals, case studies for Southern Africa: a synthesis report*, Information for Adaptation Series, Cape Town: OneWorld Sustainable Investments, 2010.

17 United Nations, 2009 revision of world urbanization prospects, 2010, http://esa.un.org/unpd/wup/Documents/

WUP2009_Press-Release_Final_Rev1.pdf (accessed 12 October 2010).

18 Africa Partnership Forum, *Climate change and Africa*, 2007.

19 Agriculture, Food Security and Climate Change Conference, Addis Ababa, 6–8 September 2010.

20 The Africa Adaptation Programme implemented by the UNDP and funded by the Japanese is one case (http://www.undp-adaptation.org/africaprogramme/), while other donors such as the UK's Department for International Development are funding other programmes (Southern Africa Regional Climate Change Programme – http://www.rccp.org.za/).

21 AMCEN Secretariat, Comprehensive Framework of African Climate Change programmes, 2010.

22 African Development Bank website, http://www.afdb.org/en/topics-sectors/initiatives-partnerships/clean-technology-fund/ (accessed 2 August 2011).

23 G Cerbon, P A Minang, B Swallow et al, *Global survey of REDD projects: what implications for global climate objectives?* ASB Policy Brief No. 12, ASB Partnership for the Tropical Forest Margins, Kenya: Nairobi, 2009.

24 I Nhantumbo, Climate finance in Mozambique: architecture and governance, unpublished manuscript, 2010.

25 RBA to Conservation, REDD and rights in Tanzania: a REDD pilot project analysis from the lens of rights-based approaches, https://community.iucn.org/rba11/Pages/Projects/aspx.

26 See for instance, http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx (accessed 30 June 2011).

27 UNEP Risoe, http://cdmpipeline.org/cdm-projects-region.htm#6 (accessed 18 October 2010).

28 See for instance, B Karumbidza and W Menne in Chapter 4 of this report.

29 Nairobi Framework. See http://cdm.unfccc.int/Nairobi_Framework/index.html (accessed 20 October 2010).

30 See detailed case study, Toure Sarr, Chapter 3.

31 W Whande, Visioning climate finance institutions, Presentation made to the SADC Multistakeholder Water Dialogue, Manzini, Swaziland, 27–28 June 2011.

32 See http://unfccc.int/cooperation_support/financial_mechanism/fast_start_finance/items/5646.php for reports (accessed 7 July 2011).

33 A Ballesteros, K Stasio, C Polycarp et al, *Summary of developed country fast-start climate finance pledges*, World Resources Institute, 2010, http://www.wri.org (accessed 19 October 2010).

34 Tosi Mpanu-Mpanu, Presentation at the African Development Bank Round Table on African perspectives on the issues before the UN High Level Advisory Group on Climate Financing, Tunis, 21–22 September 2010.

35 AMCEN Secretariat, Comprehensive Framework of African Climate Change programmes, 2010.

36 African Development Bank, Tunis Round Table: a consultation on African perspectives on the issues before the UN High Level Advisory Group on Climate Financing (AGF), 2010.

37 Text predominantly obtained from the African Development Bank website, http://www.afdb.org (accessed 19 October 2010).

38 See Toure Sarr in Chapter 3 of this report.

39 The conference was convened by the African Union Commission and held on 6–8 September 2010 in Addis Ababa, Ethiopia.

Chapter 3

Adaptation funding in Senegal

Aissa Toure Sarr

INTRODUCTION

As a least developed country (LDC), Senegal will be greatly affected by climate change. A number of interventions and actions to combat climate change, including a proposal to the Adaptation Fund (AF) of the United Nations Framework Convention on Climate Change (UNFCCC) to tackle coastal erosion, have been proposed. This chapter investigates the national governance structures and mechanisms that support this funding and argues that fragmentation of institutions may result in a weak, unaccountable governance structure for adaptation funding. Multiple, inconsistent and unconsolidated national government strategies may further dilute the benefit of financing. The chapter also considers the value of direct financing as it cuts costs and may provide rapid relief to victims of climate change. We suggest some well-designed and implemented governance reform measures to gain full benefit from adaptation funding.

Background: country context

Geography and climate

Senegal has an area of 196 722 km^2 and a 700 km coastline. The dry season lasts from November to mid-June and the rainy season is from mid-June to October.[1] Erratic weather patterns affect key development sectors – agriculture, fisheries, tourism – and thus the ability to maintain sustained economic growth. Because rains are important, especially for agriculture, these erratic weather patterns amplify sources of vulnerability for most of the population.

The unstable climate has led to recurrent droughts, with the most devastating one occurring between 1968 and 1972.[2] It was during that period of great drought that the term 'desertification' was coined to explain the desolation and 'dramatic consequences on the ecological equilibrium and all human activities'.[3]

Senegal's population, estimated at 12,5 million, is heavily dependent on imported food because the agricultural sector has declined under the influence of the International Monetary Fund (IMF), which imposed the reprioritisation of the sector. This has led to a more arid ecology.[4]

In addition to the fragile agricultural sector, Senegal's forests are under threat from the rural population's energy needs, leading to an annual loss of 80 000 ha. In addition, more than 400 000 ha of arable land have been destroyed by bushfires.

Since independence in 1960, the country has experienced remarkable political stability, strengthened by successive peaceful presidential transitions. This tradition of stability is viewed as the result of a relatively free and diverse media, an active civil society, and the country's ability to preserve the historical social equilibrium between modern institutions and religious communities. Nevertheless, 15 years of continuous positive growth in the economy have been insufficient to eradicate poverty: 54 per cent of the population live below the poverty line.[5] The economy is not diversified; it is heavily dependent on public spending, and it generates relatively weak export growth and limited net job creation in the formal private sector.[6] The informal sector employs 70 per cent of the urban labour force.

Still, Senegal is at an unusually challenging juncture as it marks 50 years of independence. The country still enjoys a stable political climate and macro-economy, and it is making progress on key infrastructure. However, successive external and internal shocks since 2006, including

the 2009 global crisis, have damaged Senegal's fairly open economy. This has slowed growth to a near halt and reversed some of the gains in poverty reduction of the first half of the decade.

Current adaptation and mitigation projects in Senegal

Senegal has benefited from a number of targeted resources for climate change from bilateral donors – the US Agency for International Development (USAID), German Technical Cooperation (GTZ), the French Development Agency (AFD) etc. – multilateral donors – the UN Development Programme (UNDP), Global Environment Facility (GEF), GEF Small Grants Programme (SGP), International Fund for Agricultural Development (IFAD), Food and Agriculture Organisation (FAO), etc.[7] and international non-governmental organisations (NGOs). With the intention of mobilising key stakeholders, including the private sector, the Ministry of the Environment set up a National Committee on Climate Change (COMNAC) to advise on policies, strategies, projects and positions to be taken during climate change negotiations. In this regard, all projects submitted to the UNFCCC finance mechanisms need prior validation from COMNAC. This is meant to guarantee that projects are co-ordinated and complementary. Unfortunately, the Directorate for the Environment and Classified Zones (DEEC) of the Ministry of Environment, which supports the COMNAC secretariat, does not have the staff and technical capacity to perform this function.

A plethora of fragmented bilateral climate finance interventions add to the challenge of capturing and co-ordinating climate change interventions. The main adaptation interventions are related to disaster risk reduction, sectoral programming, early warning systems, capacity building, and community-based adaptations such as InfoClim.[8] There are also adaptation actions at research and policy levels, for example in the mainstreaming of climate risk impacts in planning processes and strategic planning funded by the UN Environment Programme's Risoe Centre on Energy, Climate and Sustainable Development and the Danish government. Most of the bilateral projects are grant-based and donor-driven, and many do not match the needs of recipients, such as the central government, a community-based organisation, a local authority or a village.

Most mitigation, or low carbon pathway, actions are energy related. These target energy supply, clean energy and energy efficiency programmes.

The government of Senegal has registered pledges worth over $22 million[9] from the European Union, World Bank, West African Economic and Monetary Union (UEMOA), African Development Bank (AfDB), UNDP/Japan, AF and the GEF Trust Fund to be injected into diverse adaptation actions (infrastructure, research, studies, capacity building, etc.).

At the same time, the GEF has recently approved projects on energy efficiency, watershed management and technology transfer worth $8 220 000 out of a total budget of $23 443 000. The challenge now is to secure co-financing of $15 223 000.

Like other LDCs, Senegal did not receive much from the Clean Development Mechanism (CDM): out of a dozen CDM projects, Senegal was able to secure funding for only one project.[10]

Climate change actions in Senegal

General environmental governance in Senegal

Senegal's environmental policy aims to reconcile conservation of the environment and exploitation of natural resources for sustainable development needs. Thus Senegal developed a National Action Plan for the Environment (NAPE) in 1995 as part of the initiatives resulting from the recommendations of the Rio Summit. NAPEs are strategic frameworks for countries to identify their environmental priorities and to define the basis of effective planning and management of natural resources and the environment.

In the specific case of Senegal, it was a means of reassessing the paradigms that had so far underpinned the political management of natural resources and the environment to define new strategic perspectives. These perspectives were defined in the context of sustainability, as it became clear that the previous strategies had failed to halt the process of environmental destruction.[11] The NAPE is the overall framework of environmental interventions and it is structured in regional environmental plans of action.

The 1996 decentralisation reforms have established the local authority as the central political demarcation/entity for economic and social development programmes and plans. In this regard, the decentralisation law enforced the transfer of competencies for natural resources planning and management,[12] through Decree No. 96-1133 of 27 December 1996, to 'regions'.[13]

Senegal is a signatory to 12 international conventions, including the Rio conventions,[14] and it signed and ratified the UNFCCC in May 1992 and June 1994 and the Kyoto Protocol in 2005. The first formal attempt to enact these agreements was via the development of the 'initial national implementing strategy of the UNFCCC' in 1999, which analysed the country's greenhouse gas (GHG) emissions inventories[15] and the conclusions of a series of vulnerability assessments.[16]

The national communication[17] drafted in 2000 built on this process by expanding sectoral vulnerability assessments to prioritise GHG emissions mitigation actions and adaptation options. At that time, these exercises created impetus to mobilise resources, energy and national political leadership in the hope that climate change peril, for which LDCs have little responsibility, would mobilise the international community to provide finance, capacity building, technology transfer and development aid.

The National Adaptation Plan of Action

Adaptation is Africa's overarching priority. This was reiterated during the Bonn II negotiation round (2-6 August 2010) where Senegal was at the forefront of this position.

With the support of the UNDP,[18] Senegal developed a programmatic National Adaptation Plan of Action (NAPA) in 2006 with a focus on agriculture, water and coastal erosion based on four programmes:

- Agroforestry
- Rational use of water
- Coastal protection
- Information, education and communication

The NAPA gives the details of the country's priority adaptation responses, which include: reforestation, the restoration of the mangrove swamp, the biological stabilisation of sand dunes, physical protection against beach erosion and saline intrusion, the restoration of soil fertility, and water conservation methods.

The NAPA was anchored to the 10th Strategic Plan for Economic Development (PODES), which itself was in line with the New Partnership for Africa's Development (NEPAD), Agenda 21, and the country's action and investment plans for the UN Millennium Development Goals (MDGs). Curiously, the NAPA makes no reference to the NAPE or to the decentralised law and action plan. This created discrepancies between priorities defined at regional levels and those of the NAPA. The first moves by the international community to assist LDCs tackle the threat of climate change were frustratingly slow. This disappointing lack of action explains partially why Senegal's NAPA was vague: updated information on characteristics of climate change and vulnerability was not available. This made the proposed programmes in the NAPA too loose and unspecified. The NAPA was supposed to be a quick-fix solution to the most urgent adaptation needs, albeit with little consideration for governance issues.

For each programme, the NAPA identified adaptation categories. For coastal erosion the following ones were singled out:

- Technology options
- Integrated sustainable natural resources management
- Legal and institutional instruments, such as the redefinition of public maritime domain, and the application and enforcement of existing regulations, such as the implementation of management plans of coastal cities

Most environmental problems faced by the 700 km coastline – the major ones being floods, soil and water salinisation, mangrove degradation and changes in fishery stocks[19] – are related to climate change. These problems lead to the destruction of infrastructure.[20] The annual erosion rate of the shoreline averages between one and two metres for sandy beaches. However, it is worth noting that the problems of coastal erosion would be greatly reduced if human activities were restricted. Indeed, the law on public maritime domain that bans permanent structures, the beach sand extraction regulation and the environmental impact studies are totally ignored.

Like many LDCs, Senegal did not get funding to implement its adaptation priorities within the framework of its NAPA. After the processes were finalised, LDCs were asked by Annex 1 countries to mainstream the NAPAs into their development plans but they refused to do so. One of the African positions in international climate negotiations is to systematically reject any attempt to lump together official development assistance (ODA) and additional funding needed for adapting to climate change.

At the same time, the government receives sporadic and patchy funds from the same sources to implement the UN's Convention on Biodiversity (UNCDB) and Convention to Combat Desertification (UNCCD). For the latter there is an outdated national action plan developed in 2000, which lost momentum because the convention has never been high in Senegal's priorities and the fight against desertification is poorly funded by donors.

It is currently difficult to trace the funding for desertification. The Medium Term Investment Framework (2008–2012) of the Ministry of Environment has earmarked $100 million for 17 programmes to combat deforestation and land degradation, without any reference to the NAPA.

There is a complete lack of co-ordination between climate change and desertification interventions, policies, strategies and actions. Potential funders ignore the mechanisms available to them to assist in identifying an LDC's priorities. This leads to inconsistent domestic environmental policies.

CASE STUDY INTRODUCTION

Project design

Senegal is currently the only African country that designates a National Implementing Entity (NIE) to the AF. In early 2010, the government submitted the Adaptation to Coastal Erosion in Vulnerable Areas project to the AF Board. The overall objective of this two-year project for $8 816 000 is to contribute to the NAPA in protecting the coastal areas of three cities from erosion, through:

- Constructing coastal protection facilities and anti-salt dykes[21]
- Initiating actions against poverty in coastal areas, notably through assistance to the most vulnerable people[22]
- Improving the existing regulatory framework and awareness and education of the population living in target coastal areas

Box 1 Specific objectives (SOs)

SO1: Implement measures to protect the coastal areas of Rufisque, Saly and Joal against erosion, which is threatening houses and economic infrastructures[23]

SO2: Implement measures to fight the salinisation of agricultural lands used to grow rice in Joal, by constructing anti-salt dykes

SO3: Assist local communities of the coastal area of Joal, especially women, in managing solid waste and fish processing areas of the districts located along the littoral

SO4: Communicate with local communities – make them aware of climate change adaptation techniques in coastal areas and train people how to use them

SO5: Develop and implement the appropriate regulations for the management of coastal areas

The expected results

Result 1: Populations, houses, economic and cultural infrastructures in the coastal areas of Rufisque, Saly and Joal are protected against erosion

Result 2: The lands of the rice-growing areas in Joal are protected against salinisation and agricultural activities are restored

Result 3: The population in the coastal area of Joal, through the town council, has set up a rational and effective waste management system and the fish processing areas are renovated, with an emphasis on involving women

Result 4: The people are aware of the climatic risks; they need to be informed about techniques to adapt to climate change in coastal areas

Result 5: The appropriate regulations are developed, adapted, and implemented for rational management of coastal areas

Source: Project proposal

Box 2 Intended interventions

Action 1 (Rufisque): Update the detailed technical feasibility studies for the design of coastal protection facilities in Rufisque. The target areas are host houses, economic infrastructures (fish processing areas, fishing docks, cement factories) and cultural infrastructures (cemeteries, for example)

Action 2 (Saly): Start building protection facilities in vulnerable areas, for the hotels, people and poor villages, and the fishing docks

Action 3 (Joal): Design and build anti-salt dykes in the rice-growing areas of Joal. Protect and lay out beaches and fish processing areas. Restore beaches' cleanliness by recycling and increasing the value of all waste, with adequate respect for the due procedures

Action 4 (regulations): Design, fine tune and strengthen the regulations on the management of the littoral – Environmental Code, the law on the littoral, and other codes and regulations – with a strong communication component

Action 5 (information, communication): Design and implement an awareness and training programme for local people on adapting to climate change in coastal areas and develop the necessary tools

Source: Project proposal

At first glance, the project seems consistent with the NAPA and could contribute to its implementation. However, it is difficult to demonstrate this, because the NAPA's monitoring and evaluation system is almost non-existent. For example, in the NAPA, actions identified for the region covering the project site (Niayes region) are: (i) carry out studies to determine the priority areas where infrastructure to protect cliffs is needed, and (ii) fight against beach sand extraction. It is risky to reconcile these two streams of actions to prove how the project is contributing to the NAPA without a vigorous monitoring and evaluation system.

Implementing institutions

The project was designed by the DEEC,[24] which then consulted with stakeholders, especially with the mayors of the three cities, to get consensus. Further discussions were held with Green Senegal, a local NGO, and the youth and women's group as potential implementing entities, and the private sector for the infrastructure needed.

Although the consultations about the project design were extensive,[25] the depth and the content of the consultations varied from one target to the other. Via community-based organisations (CBOs) and civil society organisations (CSOs), local people were asked to share their problems but they were not asked for their perspectives on solutions. This is a common shortfall; there is always a gap between the knowledge and its applicability at community level, because there is a missing link between researchers and local communities that provide knowledge, and between recipients and policy makers.[26]

There is an initial budget breakdown for each category of actions in the project proposal but these are rough figures which might change when funds are released. Currently the DEEC is redistributing activities among the identified implementation entities. Discussions with the director of Green Senegal indicated that there is a lack of clarity on what is expected from the NGO. This is not yet worrying, given that a full proposal with well-defined roles and responsibilities and a budget will be submitted to the Adaptation Board for approval. However, it reveals that the DEEC dominates the process, giving little space to the other implementing entities to influence the project design and orientation.

The DEEC is the biggest unit in the Ministry of Environment and has a number of responsibilities, including climate change. It has a greater responsibility than the GEF and major donors for climate change projects emerging from the Ministry of Environment and from other ministries. Co-ordination is essential, but the DEEC faces chronic human resources deficits that affect its co-ordinating role. The core team members working on climate change are also UNFCCC negotiators – a demanding job that focuses on climate change negotiation.

The NIE is the Ecological Monitoring Centre (CSE), an autonomous directorate under the auspices of the Ministry of Environment.[27] It is a centre of excellence that specialises in geomatics and remote sensing technologies for environmental and natural resources sustainable management. The CSE has a good track record of environmental monitoring and undertakes major climate change projects such as InfoClim and Sequestration of Carbon in Soil Organic Matter (SOCSOM).[28] The position of the CSE within the ministry gives it flexibility in terms of strategic orientation, financial autonomy (from consultancies), and systems and procedures that are specific to the institution. There is unanimity that, in the current institutional architecture of environmental and climate change interventions in Senegal, the CSE is best placed to meet the AF's high standard of financial management for an NIE of 'sound financial management, including the use of international fiduciary standards' (Decision 5/CMP.2).

The CSE is not involved in operational aspects of the current project design. It can, however, provide technical backup in the implementation if need be. If needed, the CSE, with its 40 highly qualified experts, engineers and technicians, can support the core project team that will be hosted on its premises.

In 1994, COMNAC was established and it was formalised by a ministerial decree in 2002. The committee, which brings together all stakeholders involved in climate change, has an advisory role on national climate change guidelines, policies and projects. COMNAC, which has 38 members, is currently led by the private sector but the DEEC provides its secretariat. COMNAC is more of an informal group than a fully fledged institution with mandate, mission, programme and budget.

Green Senegal is a national NGO whose mission is to contribute to food security through the promotion of sustainable agricultural practices and the protection and promotion of the environment. The organisation has worked with numerous CBOs and CSOs. It has a multidisciplinary team with extensive experience in environmental management.[29] The high profile of Green Senegal's partners[30] and its portfolio of climate change projects suggest that the NGO is in a position to accomplish projects it is assigned.

Because of time constraints it was not possible to meet members of the youth and women's association, which is the third executive entity. Moreover, interactions with other institutions, including the DEEC, did not reveal much about their capacity and the rationale behind their involvement in the process.

Background to the Adaptation Fund

The AF was established at the seventh session of the Conference of the Parties to the UNFCCC held in Marrakech, Morocco in 2001 (COP 7), but the fund became operational only in 2009. The fund is to be financed by project activities, funds received from other sources and by a share of proceeds from the CDM – a mechanism which allows developed countries to invest in emission-reducing projects in developing countries to offset their own emissions at a cheaper cost than implementing them within their borders.

The overall goal of all adaptation projects and programmes funded by the AF will be to support concrete adaptation activities that reduce the adverse effects of climate change facing communities, sectors and countries.

On 16 June 2010, the AF Board approved the first four project proposals to receive funding in Senegal, the Solomon Islands, Nicaragua and Pakistan.

Senegal gained a seat on the board of the AF. This made the country 'understand very quickly the opportunity of the direct access to AF grants'.[31] The director of the DEEC is also the lead negotiator for Senegal and GEF focal point, and represents Senegal on the board of the AF. Because the DEEC is the designated national authority (or lead national institution) of the CDM, its director is also the main contact for the CDM in Senegal. Without questioning competencies, the issue of so many high-level responsibilities being given to one person raises an issue of effectiveness. It also highlights a potential conflict of interest where roles and responsibilities intersect.

After Copenhagen, under the Ministry of Environment's leadership, COMNAC proposed that the CSE be registered as an NIE. In January 2010, Senegal made its request to the AF Board. The accreditation process took four months and in June 2010 the project was approved with minimal transaction costs, according to Assize Toure, the Director of the CSE. Both the CSE and DEEC directors believe that the AF is more appropriate to LDCs than other finance mechanisms such as the CDM, and as stated in the project document, 'Adaptation Fund brings hope, due to its accessibility and equity'. With this in mind, and to maintain the same flexibility, it was agreed that the CSE/NIE would sign a direct contract with each implementing institution, rendering them fully accountable for funds they receive. The direct access to the AF is welcomed by the institutions involved in the project because it cuts down transaction costs.

GOVERNANCE AND ACCOUNTABILITY OF THE FUNDS

Institutions

The same climate change actors are involved in general development issues at central and decentralised levels; these include municipalities, NGOs, ministries, technical departments (agriculture, fishery, water and forestry, etc.), the IMF, bilateral donors and research centres. Climate change interventions tend to blur the institutional architecture in terms of duplication of skills and unclear roles and responsibilities. At the Ministry of Environment there are five technical directions, including DEEC, and 12 divisions or units with supposedly different mandates and missions, but in reality there is a great deal of confusion in their interventions. The lack of communication and information on and awareness of respective roles and responsibilities of different actors partly explains the lack of co-operation in the interventions for the management of environmental issues in particular. There is no mechanism for managing the transversality of the environment and natural resources.

The ministry's other institutional constraints include: (i) inadequate human resources, (ii) poor recognition of the environment and natural resources in other sectors, (iii) low private sector involvement and (iv) lack of synergy of the focal points of international conventions (UNFCCC, UNCCD, UNCBD) on the environment in the planning and implementation of environmental policy, especially climate change, desertification and biodiversity.

Institutional setup

The DEEC, Green Senegal and the youth and women association are the three institutions in charge of the project implementation. Other actors, such as the university, the beneficiaries or construction firms will be sub-contracted for specific activities.

The decision-making, orientation, and follow-up bodies are: (i) COMNAC – the Project Steering Committee (CNP) is led by the Environment Ministry – and (ii) the Scientific and Technical Committee (CST), chaired on an ad hoc basis by the representative of the most competent entity, based on the theme on the agenda.

The Coordination Unit of the project (UCP) will be in charge of the secretariat of these bodies and will be led by a national coordinator, assisted by an administrative and financial officer (RAF), a secretary, a duty officer and experts, under the responsibility of the CSE.

The project has a steering committee led by COMNAC, which is responsible for defining the project's political and strategic orientations. The CSE/NIE will work with a selected CST comprising the different executing entities[32] to ensure among other tasks the project's co-ordination in the field of planning.

Because the project has not started yet, it is too early to judge the proposed institutional arrangement. However, as much as the role assigned to the steering committee is a standard one, giving this responsibility to COMNAC is questionable. COMNAC does not have the capacity to perform this duty and it is beyond its mandate. In addition, it is unclear whether the current presidency of COMNAC grasps all the issues at stake, or understands the uniqueness of this project. The CSE, which is accountable to the AF Board, ought rather to lead the steering committee.

FUND MOBILISATION AND DISBURSEMENT

Early in 2011, the CSE received the first grant from the AF Board for the implementation of the Adaptation to Coastal Erosion in Vulnerable Areas project. The CSE has also signed an individual contract with each executive entity, which details expectations, roles, deliverables and budgets. Each executive has a separate bank account for the funds and will report to the steering committee of the project and to the CSE. The current project design is reassuring in that it avoids or minimises mismanagement of funds, but as the project has not started it is too early to confirm this. However, for that to happen, there is a need to balance roles and responsibilities to give more responsibilities to the CSE, to reflect its responsibility to the AF Board.

Appendix 2, which gives an overview of major coastal protection interventions in Senegal, lists similar projects.

Most of these projects are in the same geographical zone as the Adaptation to Coastal Erosion in Vulnerable Areas project, but further investigations are needed to assess if there are overlaps. Given the leading role of the DEEC in co-ordinating projects funded by the UNFCCC, finance mechanisms and major multilateral climate change projects, there should not be overlaps. However, an anonymous source from the DEEC said that, 'there are always means to duplicate some interventions' to give leeway to use funds outside project frameworks. To many stakeholders, given the magnitude of climate change challenges in Senegal, there is space for various interventions from a range of actors. However, this seems not to be the priority currently. The growing number of poorly co-ordinated interventions and projects from donors leads to duplication of efforts. Despite the Paris Declaration, climate change interventions have exacerbated competition among partners, placing an extra burden on recipient institutions through new conditions.

CONCLUSION

The Senegalese authorities have welcomed the AF's direct access system. To make finance mechanisms effective, the Ministry of Environment needs to be reformed. There is also a need for a more inclusive approach to managing climate change among key stakeholders, including the ministries of agriculture, finance and tourism.

NOTES

1 Moussa Diop, *Energy systems: vulnerability – adaptation – resilience*, Paris: Helio International, 2009, http://www.helio-international.org/VARSenegal.En.pdf (accessed 1 August 2011).

2 Yacine Diagne Gueye, *A case study on gender, human security and climate change in Senegal*, WEDO, 2008, http://www.wedo.org/wp-content/uploads/senegal-case-study.pdf (accessed 1 August 2011).

3 Sagna and Roux, 2000, cited in Gueye, *A case study on gender, human seucrity and climate change in Senegal*.

4 USAID, Senegal Country Profile, 2009, http://senegal.usaid.gov/ (accessed 1 August 2011).

5 Central Intelligence Agency, The world fact book, https://www.cia.gov/library/publications/the-world-factbook/geos/sg.html (accessed 1 August 2011).

6 World Bank, Senegal Country Profile, 2010, http://www.worldbank.org (accessed 1 August 2011).

7 Adaptation Fund, http://www.climatefundsupdate.org/ (accessed 1 August 2011).

8 InfoClim is a community-based adaptation platform that aims to help vulnerable communities adapt to climate change. It is implemented by the CSE under the International Development Research Center Climate Change Adaptation in Africa project.

9 Dollar amounts in this chapter are in US dollars.

10 It is a contract of 266 000 carbon credits over seven years between the Compagnie Sucrière Sénégalaise (CSS), the leading sugar producer of West Africa and largest private employer of Senegal, and a leading European publicly listed carbon fund.

11 Ministry of Environment, Permanent Secretariat of the High Council on Natural Resource Management and Environment, *National Environment Plan of Action,* 1995.

12 Since 2002, Senegal has been divided into 11 regions, 34 districts, 104 sub-districts, 67 municipalities, 43 district communes and 320 rural communities.

13 Ministry of Interior of Senegal, *2003–2005 decentralization plan of actions*, 2001.

14 Ministry of Environment, Directorate of Environment and Classified Zones (DEEC), http://www.environnement.gouv.sn/article.php3?id_article=84 (accessed 1 August 2011).

15 The GHG inventory was compiled in 1994, with 1991 as reference year.

16 Ministry of Environment and Nature Protection, *Initial implementing strategy of the UNFCCC in Senegal*, 1999.

17 Ministry of Protection of Nature, Directorate of Environment, *National communication to UNFCCC*, 2000.

18 $195 000 was allocated to the process.

19 Isabelle Niang-Diop, *Érosion côtière sur la petite côte du Sénégal à partir de l'exemple de Rufisque. Passé. Présent. Futur,* Université d'Angers, 1995, 2 vol., 475 (Thèse).

20 Ministry of Environment, Direction de l'environnement et des établissements classés (DEEC), *National Adaptation Plan of Action,* 2006.

21 Rufisque, Saly and Joal.

22 By providing more employment.

23 This includes fish processing areas, fishing docks, tourism or cultural infrastructure, and the restoration of lost or threatened activities.

24 Direction de l'environnement et des établissements classés, http://www.denv.gouv.sn (accessed 1 August 2011).

25 NGOs, a women's group, a youth group, different representative bodies, MPs, senators, members of the Social and Economic Council, researchers and universities.

26 Interview with Cheick M'bow.

27 The full name of the Ministry is the Ministry of Environment, Nature Conservation, Retention Basins and Artificial Lakes.

28 The project proposes to create an information hub to help integrate scientific information, local adaptation strategies and policies to reduce vulnerability to climate change.

29 These are related to the defence and restoration of water and soils, livestock integration, protection of environment, restoration of biodiversity, communication and training.

30 The International Union for Conservation of Nature, USAID, Embassy of Belgium, Ministry of Environment of Senegal and others.

31 Cheick Sylla, Director of the DEEC.

32 DEEC, NGOs, associations, private companies and communication firms.

APPENDIX 1:
List of contacts made during the study (through telephone and face-to-face interviews)

1 **N'diaye Cheick Sylla**
Director of Environment and Classified Zones (DEEC)
Ministry of Environment
Designated National Authority of Senegal
UNFCCC Focal Point
Member of AF Board

2 **Dr Assize Toure**
Director of Centre de Suivi Ecologique (CSE)

3 **Ms Wore Gana Seck**
Executive Secretariat of Green Senegal

4 **Daniel Andre Sakho**
Focal Point of UNCCD

5 **Dr Cheick Penda M'bow**
Researcher at the University of Dakar
Institute of Environmental Studies (ISE) Laboratory of Geomatics (LERG)

6 **Ibrahima Fall, Jr**
Communication Director at the Ministry of Environment

APPENDIX 2:
Current climate change projects in Senegal

Actions funding	Selected sites	Amount (CFA franc)	Duration
Studies and building of coastal protection facilities	Thiawlene and Diokoul Thiawlene and Diokoul (Rufisque)	European Union 1 180 720 000 UNDP/Japan 249 523 000 BCI 250 000 000 Funds to be raised 1 559 757 000	7 months in 2010
Studies and construction of protection facilities	Saly Saly (Mbour)	UNDP/Japan 195 704 000 Funds requested from UEMOA and AfDB 5 000 000 000	To start in 2010
Reforestation of cordons of dunes and mangroves through the Subregional Adaptation Project to Adaptation to Climate and Coastal Change in West Africa (ACCC)	Palmarin	GEF 228 537 000	Ongoing (3 years)
Economic assessment of the adaptation to climate change in coastal areas	To be defined	World Bank 241 495 000	To start in late 2010
Follow-up studies of the coastline in UEMOA member countries		UEMOA 1 960 000 000	Ongoing

Source : Project proposal

Chapter 4

The effects of the Clean Development Mechanism in Tanzania

Blessing Karumbidza and Wally Menne

INTRODUCTION

This essay explores the effects of financing climate mitigation activities in Tanzania, in particular, of tree plantations intended as carbon sinks. Funding for such projects might be linked to formal carbon markets, as with the Clean Development Mechanism (CDM) 'Afforestation/Reforestation' tree plantations under the Kyoto Protocol, or aimed at restoring 'forest cover' under the Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism being negotiated at the United Nations Framework Convention on Climate Change (UNFCCC). Other schemes, such as the Voluntary Carbon Standard, that certify voluntary emission reductions as tradable carbon credits are in operation, but have little credibility compared with UN-approved certified emission reductions.

Funding from Annex 1 (developed) countries for REDD+ projects in developing countries can either be granted or loaned directly, or channelled via a mitigation fund. Alternatively, investments in global carbon markets, linked to generating emission reduction credits, can be used to help meet Annex 1 country targets. In theory carbon credits would be 'retired' once offset against current emissions and a new supply of credits would then need to be generated by more 'sustainable' carbon emission reduction project activities in developing countries.

A proposed CDM tree plantation offset project at Idete in southern Tanzania is described in the case study below.[1] Some aspects of this project will also be found in REDD+ carbon projects, and it follows that these could point to similar problems with REDD+. The project has received direct financial support from the International Finance Corporation (IFC), a World Bank subsidiary, and the owner of the project, Green Resources AS in Norway, has been heavily funded by the Norwegian government's funding arms, Norad and Norfund. It has agreed to buy 400 000 carbon credits (quotas) if the CDM project is approved.[2] It appears that Green Resources AS may be less of an independent commercial entity than it claims to be, as the project proponent and the beneficiary could ultimately be the same entity, in this case the Norwegian government.

THE CONCEPT OF CARBON FINANCE

Carbon finance was conceived as a top-down response to climate change, seemingly based on the view that money can always 'fix the problem'. Usually this means funding more of the harmful activities that created the problem in the beginning, while avoiding any major changes to the dominant economic system.[3] This approach benefits wealthy countries in the North, allowing continued extraction and industrial processing of natural resources from countries in the global South. Fossil fuels are a major part of the resources that are transferred via this one-way system that concentrates the benefits of polluting activities in industrialised countries, while their CO_2 emissions are shared globally in the form of climate change.

Attempts to finance climate change mitigation projects have had limited success; and many have demonstrated the potential to perpetuate conditions that drive rather than ameliorate climate change, and thus cause further problems for affected local communities.[4]

THE CLEAN DEVELOPMENT MECHANISM

Since the establishment of the UNFCCC in 1992, various attempts have been made by industrialised countries

to devise methods to limit greenhouse gas (GHG) emissions. These culminated in the Kyoto Protocol adopted in 1997[5] – although only ratified in 2005 – which allowed for investment in 'clean' or low-carbon emission development in developing countries under the Clean Development Mechanism (CDM). The carbon credits earned from such projects through 'additional emission reductions' could then be used by polluting industries and other sources of GHGs in Annex 1 countries to offset a portion of their emission reduction targets. Theoretically, this would result in greater overall emission reductions, and simultaneously stimulate 'sustainable development' in developing countries.[6]

However, the climate benefits hoped for from the CDM have not been forthcoming: despite the great fanfare, and a vigorous and costly UN and World Bank campaign to promote the CDM, it has failed to deliver much more than a fraction of the GHG reductions originally hoped for. Instead it has led to financial speculation and this in turn to corrupt relationships between consultants and project owners.[7] Global GHG emissions have increased rather than decreased, and their effects in the form of extreme weather events will cause ecological and infrastructural damage and human suffering far into the future.

As shown by the case study, the promise of CDM finance can influence national governance structures in order to facilitate cheap access to natural resources, including land. It is driven by the profit motive, often at the expense of the developing countries where it is used, and can cause unintended but not unanticipated environmental and social harm. Developed countries that previously held sway in certain developing countries now being targeted for CDM emission offset projects are usually the ones actively involved in promoting the CDM and REDD+.[8]

The climate finance industry assumes it is needed, and that it will be effective against climate change. It also assumes that better alternatives do not exist, or would be poor substitutes for large-scale carbon offset/trading as climate change mitigation schemes. The logic of this seems unassailable, because the Kyoto Protocol decrees it so by supporting the use of market mechanisms. Simpler, more cost-effective solutions such as organic agriculture have been effectively excluded, probably because they offer few benefits to the carbon trading community, and could even undermine industrial-scale agriculture. The case study examines how Green Resources is appropriating valuable community grassland so that money can be made from perpetuating pollution in the North, and demonstrates the perversity of the carbon trading system.

Under the CDM it is possible to use tree plantations for projects intended to reduce atmospheric CO_2, even though it is unlikely they could demonstrate genuine additionality (sequestering more carbon than the grassland they replace). REDD+, however, which could theoretically reduce GHG emissions from forest loss by between 12 and 20 per cent (depending on whose educated guesswork is followed), is only now being debated for inclusion in a post-2012 (beyond the existing Kyoto Protocol provisions) climate regime.[9] Unfortunately, it is unlikely to be approved without being linked to a market-based mechanism, as is the case with the CDM.

HOW REDD+ MIGHT WORK

Originally conceived of as a way to preserve carbon in forests by reducing logging and other detrimental activities, REDD+ has become the subject of much discussion and debate. Since the Bali Climate Conference of the Parties (COP 13) in 2007, REDD+ has been broadened to embrace all manner of proposed carbon sequestration and conservation activities, including protecting seagrass colonies.

Vested interests in Annex 1 countries that cause pollution hope to create another CDM-type mechanism to produce cheap carbon credits in return for investments, not only in projects to conserve real forests but also in schemes to re-establish forest cover with tree plantations in previously deforested areas. Such reforestation projects have not been well received under the CDM, especially in Africa. Speaking at the 2010 International Union of Forest Research Organizations (IUFRO) World Congress, Ben Chikamei of the Kenya Forestry Research Institute stated that only 11 African countries could benefit from REDD projects through the World Bank, because complicated procedures and methodologies hinder expansion of CDM and REDD activities.[10] To date, the European Union Emissions Trading Scheme (EU ETS) has refused to buy credits from such projects due to uncertainties about the permanence of plantation carbon sink projects. Tree plantations are susceptible to huge wildfires; those plantation trees that survive mostly end up as rotting waste-paper in methane-spewing rubbish dumps.[11]

However, there is pressure from polluters for project approval procedures to be streamlined, and land-grabbing companies such as Green Resources and organisations like Envirotrade[12] are attempting to force CDM and REDD+ down Africa's throat. Although no official REDD methodology exists yet, there are private voluntary emission reduction (VER) standards that have been developed by consultant groups, and corporate-friendly NGOs such as The Nature Conservancy (TNC). A number of controversial offset projects have been 'certified' under these schemes.[13]

Getting mindset right, not REDD right

Closer examination of the situation in Tanzania reveals an array of externally funded projects and activities related to REDD. Among these are efforts to establish Tanzania as a REDD 'ready' country – psychologically and institutionally prepared for the anticipated rush to invest in REDD-type projects. To this end, funding from the government of Norway has been directed at training local organisations and government structures to be receptive to the idea of REDD.[14,15] This training is thus unlikely to emphasise the negative implications of signing away local people's rights to their forests and to their land to foreign companies to establish industrial monoculture plantations of alien timber trees, such as those at Idete, allegedly to benefit both the local community and the planet.

The Norwegian government reportedly decided in 2009 that its financial contribution towards the development of REDD in Tanzania could not be entrusted to the government of that country: according to a senior Norwegian academic, Peter Schei, US$100 million committed by Norway to be made available over five years was not given directly to the Tanzanian government due to concerns about corruption and that the money might be misappropriated.[16] Instead, Norway contracted a number of research institutions and NGOs in Tanzania to undertake research projects around various aspects of implementing REDD. What this suggests is that, while the organisations involved can be trusted to deliver responsible and reliable research and consultation services in return for payment, the Tanzanian government cannot.[17] In 2009 Norway (Norad) commissioned Econ Pöyry consultants to undertake a study 'Capacity Building for CDM in the United Republic of Tanzania'.[18]

REDD+ could become a successor mechanism to the CDM, which has struggled to take off in Africa for various reasons. Not least is that the CDM Executive Board of the UNFCCC has (mostly) approached CDM registration applications with such great diligence that, not for want of trying, very few projects have succeeded in being registered in Africa. In Tanzania only one CDM project has been approved, although high expectations from foreign investors have created much interest, especially in carbon sink plantation projects such as that described in the case study.

BACKGROUND: GEOGRAPHICAL CONTEXT

Tanzania is a large country with diverse peoples and an extensive wildlife resource that attracts many foreign tourists. Although a large portion of the country has been designated for conservation, there is limited capacity to protect and to manage these large areas, which cover 23 per cent of the land surface area. The main form of employment available to Tanzania's 38 million people is subsistence agriculture, in association with a vast informal industrial sector that exploits natural resources, notably timber from forest and woodland areas.

Idete village lies where Miombo woodland meets the grassland south of Mufindi in Iringa province, about 700 kilometres from Dar es Salaam. The elevated grassland plateau receives good rainfall which, together with its deep soil profile, provides conditions suited to timber plantations. There are also large tea plantations in the Mufindi area, but most local people depend on mixed subsistence farming to survive.

The town of Mafinga is the main commercial and administrative centre in the district.

GREEN RESOURCES LTD IN TANZANIA

A 2000 report by Norwatch, a Norwegian watchdog NGO, raised concerns about the carbon-offset efforts of a Norwegian-owned company with a tree plantation operation in Uganda.[19] The company concerned, then known as Tree Farms Ltd, had embarked on a campaign to acquire land in different countries in East Africa with a view to establishing vast tree plantations. The areas targeted were in remote rural regions, and the company acquired long leases on land in southern Tanzania. Harald Eraker, the author of the Norwatch report 'CO2lonialism' had opened a can of worms that have continued to squirm under the scrutiny of Norwatch. In 2009 Norwatch investigated the activities of Green Resources Ltd (formerly Tree Farms), and in June 2009 they published a highly critical report focusing on the manner in which community land had been leased to Green Resources Ltd.[20]

THE TIMBERWATCH RESEARCH PROJECT

In theory CDM finance through the sale of certified emission reductions (CERs) can only be approved if it would be impossible for a project to proceed without funding from the sale of carbon credits. When Timberwatch learned that Green Resources Ltd was attempting to register its controversial plantations in Tanzania as a CDM reforestation project, it decided to investigate further and to see what was happening on the ground. During the UNFCCC COP 15 in December 2009, Timberwatch released a preliminary report based on the initial investigation.[21] The defensive reaction from Green

Resources confirmed many of the problems identified.[22] After a number of visits to the site of the proposed Idete CDM plantation project in 2010 to gather information, a comprehensive report was released in March 2011 (available at http://www.timberwatch.org),[23] as the final part of the project which was generously funded by the Siemenpuu Foundation in Finland.

Further information on the 'proposed' Idete CDM plantation carbon sink project, which has already been established despite not yet being registered under the CDM, can be found on the website of the World Rainforest Movement[24] and in the original CCB-AR PDD (project design document).[25] The Green Resources website provides an overview of the company's plans for expanding its industrial tree plantations in the region.[26]

CASE STUDY: GOVERNANCE AND IMPACTS OF CDM TREE PLANTATIONS IN SOUTHERN TANZANIA

Introduction

By July 2010 Tanzania had only one registered CDM project (the Mtoni Landfill project) and two others at the validation stage (one of them being the Green Resources CDM plantation, which is the subject of this case study). There are many projects whose registration is slow owing to limited capacity in preparing documentation for project proposals, limited financial resources, and few opportunities to satisfy the registration procedures. Guidelines for linkages between the designated national authority (DNA) and project development, among other things, are also poor.

Green Resources owns and operates the former Tanzanian government Sao Hill timber mill, where it produces transmission poles and carpentry products. According to Green Resources Company Report for 2008/2009, the company is Africa's leading forestation company, which is 'growing trees to generate carbon credits and bio-energy and to manufacture wood products'. The company is proud that it has probably planted more new trees than any other private company in Africa during the past ten years; a record 4 200 ha of new forest was planted in 2008. The same report also indicates that the company 'holds more than 200 000 ha of land for future planting and conversion, and started the first harvest from its own forest in 2008'. The CDM aspect of the Green Resources project in Tanzania is simply part of an array of products. There is no consensus among officials at Green Resources' on whether the CDM is the company's main activity in Tanzania or what percentage of its tree plantation-based activities it occupies. According to the company report, all Green Resources' carbon offset revenues will be reinvested in new carbon offset activities or be used for community developments in Africa, 'making the credits some of the most attractive in the world'.

The Tanzanian subsidiary of Green Resources AS in Norway, Green Resources Ltd, has already planted 2 600 ha of its cheaply acquired 14 000 ha of land obtained from the Idete community in the Mufindi area of the southern highlands of Tanzania. It plans to plant a combination of eucalyptus and pine trees on 7 000 ha of this land. The community is also encouraged to plant trees on its remaining land, which the company has promised to buy when they mature. The primary motivation given for this investment is to earn income from the emerging carbon market. Including this project, Green Resources hopes to acquire not less than 170 000 ha of land in Tanzania alone, with the bulk (142 000 ha) coming from the biodiversity-rich and high rainfall Southern Highlands. The Tanzanian government, like many African regimes that exchange their natural resources for low-return foreign direct investments, is a willing customer and facilitator of such projects.

The irony of Norwegian support for this type of investment must be contextualised. Norway occupies an ambivalent position. On the one hand, it is a major oil producer and exporter through the company known as Statoil and contributes substantially to global GHG emissions. On the other hand, Norway promotes progressive policies (in social, environmental, human rights and other development issues). Claiming its interest in taking the lead in climate mitigation, Norway joined hands with France through the Oslo–Paris Accord, which appears to be a platform to advance the acquisition of land and position itself at the forefront of the carbon market. Taking advantage of the climate change debate, the Norwegian government has committed itself to mitigation projects around the world through the purchase of carbon reduction units (credits) for the purpose of offsetting its domestic carbon emissions. As such, the Green Resources plantations in Tanzania are important, as Norway hopes to rake in 400 000 carbon units (credits) from them.

Mobilisation of funds

Tanzania started to implement the Kyoto Protocol on climate change mitigation in February 2005 through the development of CDM guidelines on how to prepare a CDM project. At that stage some local CDM projects were already in the pipeline. In March 2008, Green Resources received 1,21 million Norwegian kroner

through the Norwegian embassy in Tanzania to conduct studies to establish the possibility of developing two additional CDM projects. The money was used, among other things, to carry out environmental impact assessments (EIAs) between 2008 and 2009, and to prepare the project design documents.[27] The funding for the EIAs was given to the company that was also implementing the project and whose interest was to get project approval.

The DNA in Tanzania, established in 2004, is in the Division of Environment in the Office of the Vice President. The DNA certifies that a project contributes to sustainable development goals and meets national development priorities. The DNA in Tanzania obviously has limited capacity and looks to the United Nations Development Programme (UNDP) and the Nairobi Framework for capacity building. The role of the UNDP in building this capacity can be considered problematic, as it could influence non-Annex 1 country positions on the CDM and confuse it with general development funding. For instance, the UNDP has to facilitate the DNA's capacity to establish the review procedures, formulate the national sustainable development criteria, formulate the national CDM strategy, develop a CDM investment guide, set up the DNA website and develop a communication strategy, among other things. The first phase of the UNDP CDM capacity development ended in June 2009. Communities where Green Resources is developing plantations have no knowledge of the processes beyond their immediate involvement through giving away their land. They do not form part of any management, monitoring or evaluation processes related to funding and its disbursement.

Implementing institution/set of institutions

Green Resources Ltd is an implementing institution for plantation CDM projects. The Norwegian government disburses project EIA and development finance through this supposedly private player. On the Tanzanian government's side, management of CDM finance and the implementation of a multi-stakeholder process is still in its infancy, leaving space open to the UNDP and private parties such as Green Resources to dominate the processes and the EIAs, thus shaping and pre-empting how the DNA responds to CDM project applications. Implementing institutions include government, the UNDP and private companies, with very little involvement of NGOs and community-based organisations. The involvement of the UNDP in CDM capacity building seems to dominate Tanzania's CDM efforts. In July 2010 the UNDP published terms of reference for Phase II capacity building, whose aim was to:

- Identify financing gaps, challenges and opportunities in the CDM sector in Tanzania
- Identify financial opportunities and possible sources for CDM projects in Tanzania
- Identify and establish a CDM model that will be used to facilitate investment in the country
- Develop criteria and conditions for beneficiaries of the proposed CDM-supporting financial model
- Propose a best way to disseminate the model to stakeholders, including financiers and project proponents

Institutions to manage the funds from a national to sub-national level are yet to be designated, and, as such, it is too early to comment on the possible role such institutions would play. Nor can one pre-empt how the public would perceive or access them. At the community level, capacity is non-existent. The community is called upon to provide land which now falls under village governance control. A lack of capacity in community institutions precludes them from understanding the deals they are signing, let alone undertaking a cost-benefit analysis of the projects they commit their resources to.

Actors and disbursement of funds

The results of the consultancy to inform Phase II capacity building, and the establishment of these institutions were due to be completed in December 2010. This implies that the systems for the monitoring and evaluation of how and what funds are spent as well as who does the monitoring and evaluation are yet to be established. There are usually many players in climate financing deals. Tanzania's interests are protected through the participation of the Vice President's Office, which is still developing the capacity for ensuring that benefits accrue to the country. Consultancy activities at the moment are organised by the investing country (Norway) through its embassy and the private company operating the project. The UNDP continues to fast-track capacity building in the DNA. As some CDM projects are already in the pipeline, this state of affairs does not inspire confidence that national development interests will be given priority over the profit interests of private parties.

Impacts on livelihoods, environmental issues and socio-cultural concerns

The sharing of costs and benefits for CDM plantation projects seems to be unbalanced, with the benefits accruing to the company while the costs are borne by the affected community. Tanzania is largely a rural economy, and ownership, access to and control of land

are central to securing livelihoods. Investments such as tree plantations that require vast land areas place pressure on poor communities. The strategy adopted by Green Resources includes persuading individual community members to grow trees in woodlots on community land, with the intention of sourcing the timber when mature, but also to derive immediate value from the woodlots through carbon credits. The cumulative effect of villagers planting between half a hectare and six hectares of timber woodlots in response to this pressure will be to reduce the availability of land for food production and other livelihood strategies. Thus, even if land remains in the hands of the community itself, if the main economic activity on such land is based on the production of a commodity for which the local community has no immediate need or use, it constitutes a form of land theft – as such land becomes practically unavailable to its rightful owners. This should also be contextualised in terms of the cost of clearing and restoring land after timber plantations have been grown on it, which is beyond the financial means or capability of rural communities.

The majority of the people of Tanzania are highly dependent on natural resources. The natural resources sector contributes an average of 5,7 per cent of the GDP. However, poor and unsustainable management threatens to precipitate poverty by eroding sources of livelihoods and destroying the environment.

On paper, Tanzanian land ownership systems empower the local community to make decisions relating to transactions with business entities regarding its land. However, local communities such as those at Idete and Makungu do not have the sophistication to deal with international land speculators who masquerade as investors and agents of development. For this reason, such investment is organised through a national government agency, the Tanzania Investment Corporation (TIC).

Based on experiences in southern Africa, Brazil and India, the land equation should form the basis upon which these investment programmes are either accepted or vetoed, taking into consideration the government of Tanzania's own admission that 'land is the engine for economic growth and population survival'. Since 80 per cent of the GDP in Tanzania comes from agriculture, any mismanagement and careless transfer of land would have severe consequences for its people. As no individual can own land, but only hold it in trust for future generations, it should be an ethical issue as to whether members of the present generation can commit the land they hold in trust for a period of time longer than they will be alive. On this basis, the 99-year leases offered to investment companies are morally and ethically indefensible.

The authors of a 2009 report from the Food and Agriculture Organisation (FAO), the International Fund for Agricultural Development (IFAD) and the International Institute for Environment and Development (IIED), have also considered whether these massive agricultural (and plantation) investments and international land deals in Africa are land grabs or development opportunities. Some suggest that land-grabbing is 'rightly a hot issue because land is so central to identity, livelihoods and food security'.[28]

The promotion of CDM plantation projects in Africa has reopened opportunities for land grabbing. Taking advantage of global forest policies, they deliberately confuse 'afforestation' and 'reforestation' with tree plantations, to give the false impression that the latter are forests. In Tanzania this takes the form of converting large grasslands and sensitive biodiverse areas to monoculture tree plantations of water-guzzling invasive exotic trees, such as eucalyptus and pine.

Proponents of this development paradigm have introduced a discourse that categorises Africa's land as degraded, marginal and of limited economic value. To facilitate 'economic use by foreign firms' thousands of hectares of land are being leased (in some cases sold) in the name of ensuring lasting land regeneration, and conservation of natural resources, thereby deriving economic benefit.

Climate change investment possibilities in the so-called forest sector have created massive opportunities for developed countries while presenting a threat to developing countries' economies and communities. Access to food and water has till now been mediated by the market, but has yet to be developed in rural Tanzania. Rural communities operate at the fringes of the market for goods and services, which creates an urban-based economy where wealth accumulation is always at the expense of rural people. In this scheme, the urban environment is complex, mechanised and modern, while the largely traditional rural area is relegated to being a source of cheap labour and natural resources.

One of the most important impacts of the plantations on livelihoods in rural communities is that, because the trees – especially eucalyptus – guzzle water, severe downstream flow reductions are common, which affects other people's food and water resources.

The main benefits to the community are expected to accrue from job opportunities and infrastructure investment in the area. While in the study area at Idete, we witnessed the low standard of social services especially in clinics and schools, which does not appear to constitute fair compensation to the community. It is also curious that Green Resources' business proposal and feasibility study have the only existing cost-benefit analysis of the project.

There is no evidence that the government departments that signed these deals performed their own studies to consider the extent to which the project could be mutually beneficial.

CONCLUSION

Climate funding directed towards land-extensive plantation projects has a negative effect on communities by undermining rural dwellers' land-based livelihood strategies, leaving them more vulnerable to poverty and food insecurity.

In its attempts to promote environmentally and socially harmful tree plantation projects as being sustainable and beneficial from a climate change mitigation perspective, Green Resources Ltd has helped to expose just how flawed the CDM is. In doing so it has provided an invaluable warning to other potential participants in CDM afforestation/reforestation projects. This should also serve to caution those who would dabble in REDD+.

There is a general trend in the carbon offset/carbon trading community of using misleading and often deceptive language to foster acceptance and endorsement of claimed carbon-sink tree plantation projects. For example, calling the destruction of ancient grasslands by planting vast tracts of invasive alien trees 'reforestation' is quite misleading. The UNFCCC specifically, and the UN as a whole, needs to address the issue of problematic terminology urgently, with a view to reintroducing impartiality and honesty into the global discourse on climate change mitigation.

NOTES

1 Green Resources Ltd, Idete CDM project description document (PDD), November 2008, http://cdm.unfccc.int/Projects/Validation/DB/U8X9GK2B480JL11FFZYY4569RLALS5/view.html (accessed 11 October 2010).

2 Norwatch, Climate project on cheap ground, http://www.norwatch.no/200906051306/english/other/climate-project-on-cheap-ground.html (accessed 11 October 2010).

3 SinksWatch, Carbon Trading 101, http://www.sinkswatch.org/campaign/carbon-trading-101 (accessed 11 October 2010).

4 Carbon Trade Watch, http://www.carbontradewatch.org (accessed 11 October 2010).

5 Kyoto Protocol, http://unfccc.int/kyoto_protocol/items/2830.php (accessed 11 October 2010).

6 UNFCCC CDM, http://cdm.unfccc.int (accessed 11 October 2010).

7 CDM Watch, CDM Watch – home, http://www.cdm-watch.org (accessed 11 October 2010).

8 Tamra Gilbertson and Oscar Reyes, *Carbon trading: how it works and why it fails*, Critical Currents, Occasional paper series, No. 7, Dag Hammarsjöld Foundation, 2009, http://www.dhf.uu.se/publications/critical-currents/carbon-trading-%e2%80%93-how-it-works-and-why-it-fails (accessed 11 October 2010).

9 Mongabay.com, Bali delegates agree to support forests-for-climate (REDD) plan, 16 December 2007, http://news.mongabay.com/2007/1215-redd.html (accessed 11 October 2010).

10 IISD, *IUFRO World Congress Bulletin* 178(3), 26 August 2010, http://www.iisd.ca/ymb/forest/iufro/iufroxxiii/html/ymbvol178num3e.html (accessed 11 October 2010).

11 Stephen Gardner, EU halts inclusion of EU ETS forestry credits until 2020, ClimateChangeCorp, 17 October 2008, http://www.climatechangecorp.com/content.asp?ContentID=5716 (accessed 11 October 2010).

12 Envirotrade, http://www.envirotrade.co.uk/ (accessed 11 October 2010).

13 Carbon scam: the Noel Kempff Climate Action Project in Bolivia, http://www.greenpeace.org/raw/content/usa/press-center/reports4/carbon-scam-noel-kempff-clima.pdf (accessed 11 October 2010).

14 Felician Kilahama, Robert Otsyina, Gerald Kamwenda et al, The United Republic of Tanzania: The Forest Carbon Partnership Facility readiness plan idea note, Forestry and Beekeeping Division, Tanzania Ministry of Natural Resources and Tourism, 30 October 2008, http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Tanzania_R_PIN_Revised_Feb_2009.pdf (accessed 11 October 2010).

15 Tanzania REDD initiative, http://www.reddtz.org/content/view/14/9/ (accessed 11 October 2010).

16 Peter Schei, personal communication to W Menne, Nairobi, 11 May 2010.

17 Michael Sandelson, Norway to receive Tanzanian aid refund, *The Foreigner*, 28 June 2010, http://theforeigner.no/pages/news/norway-to-receive-tanzanian-aid-refund/ (accessed 11 October 2010).

18 Econ Pöyry, Capacity building for CDM in the United Republic of Tanzania, http://www.norad.no/en/_attachment/128090/binary/49209?download=true (accessed 11 October 2010).

19 Harald Eraker, CO_2lonialism in Uganda, *Norwatch Newsletter*, 15 May 2000, http://www.norwatch.no/200005151191/english/other/co2lonialism-in-uganda.html (accessed 11 October 2010).

20 Pia A Gaarder, Climate project on cheap ground, Norwatch.

21 Blessing Karumbidza and Wally Menne, *Potential impacts of tree plantation projects under the CDM: an African case study*, Timberwatch Coalition, South Africa, December 2009, http://timberwatch.org/uploads/Draft%20Plantation_Projects_under%20CDM%20-%20Blessing%20&%20Wally(1).pdf (accessed 11 October 2010).

22 Green Resources Ltd, A forestry CDM/VCS case study from Tanzania, 23 January 2010, http://www.carbonpositive.net/fetchfile.aspx?fileID=174 (accessed 11 October 2010).

23 Blessing Karumbidza and Wally Menne, *CDM carbon sink tree plantations in Africa: a case study in Tanzania*, Timberwatch Coalition, February 2011, http://timberwatch.org/uploads/TW%20Tanzania%20CDM%20plantations%20report%20low%20res%20(1).pdf (accessed 11 October 2010).

24 Friends of the Earth International, World Rainforest Movement and FERN, Tree trouble: a compilation of testimonies

on the negative impact of large-scale monoculture tree plantations prepared for the sixth conference of the parties of the Framework Convention on Climate Change, http://www.wrm.org.uy/actors/CCC/trouble6.html (accessed 11 October 2010).

25 Idete CCB-standard plantation project description document, http://www.climate-standards.org/projects/files/tanzania/CCBA_PDD_Idete_21th_May_2009.pdf (accessed 11 October 2010).

26 Green Resources Plantations, http://www.greenresources.no/Plantations.aspx (accessed 11 October 2010).

27 Royal Norwegian Embassy in Dar es Salaam, Developing CDM projects in Tanzania, 18 May 2010, http://www.norway.go.tz/News_and_events/Energy/Developing-CDM-Projects-in-Tanzania/ (accessed 11 October 2010).

28 L Cotula, S Vermeulen, R Leonard and J Keeley, *Land grab or development opportunity? Agricultural investment and international land deals in Africa*, London/Rome: IIED/FAO/IFAD, 2009.

Chapter 5

The Clean Development Mechanism in South Africa

Trusha Reddy

South Africa (SA) ratified the Kyoto Protocol (KP) in 2002 as a developing or non-Annex 1 country. This has entitled it to take part in the clean development mechanism (CDM), an instrument of the KP, as a host of projects that developed (Annex 1) countries can invest in to meet their own emission reduction commitments. Yet, being one of the top 20 emitters of carbon dioxide[1] in the world, the country faces its own serious concerns about how to reduce emissions dramatically by transforming its energy sector (and, by extension, industry) and shifting to a low carbon pathway.[2] The country is also faced with serious development challenges, including increasing levels of poverty and unemployment, and is regarded as one of the most unequal societies[3] in the world where millions of people lack access to basic services such as water, sanitation and electricity. This therefore calls for dual attention to tackle poverty and environmental issues.

The SA government's favouring of increasing economic growth for development, over more direct forms of poverty reduction and sustainable development strategies, has led to a situation in which there has been some progress in recent years to address these dual challenges. However, the policies and strategies in place are often piecemeal or contradictory. On the one hand, there are initiatives to combat climate change while, on the other, there are many policies and plans that serve to intensify the production and consumption of dirty energy and which exacerbate socio-economic, environmental and health problems, primarily among the poor and vulnerable. As a consequence, the government's seemingly progressive international positioning at climate change talks cannot be backed up by consistent and reliable action on the ground.

The CDM falls within the government's focus on international investment to spur economic growth. But, even if it is considered as one in a basket of choices to deal with the mammoth task ahead of dealing with climate change (and development), this chapter argues that the CDM is very weak. The chapter reviews some of the governance arrangements of the CDM in SA, describing how it is failing, and given the burdens the CDM imposes at national and sub-national levels, it questions whether it is an effective or sound approach for the country.

THE CLEAN DEVELOPMENT MECHANISM IN SOUTH AFRICA

SA has adopted the use of the CDM as one in a basket of options to mitigate climate change and develop sustainably. The government appears to encourage the CDM because it can be a source of foreign investment by providing opportunities to access carbon finance.[4] Various policies and strategies aim to tackle climate change and mitigation but they often contain ambivalent or contradictory messages. The *National Climate Change Response Strategy* of 2004 states that, while emissions are expected to increase with economic development, it could be beneficial to adopt 'a future strategy that is designed to move the economy towards a cleaner development path'. However, it also calls for the prioritisation of development over the environment, stating that: 'the relocation of energy intensive industries from Annex 1 [developed] to non-Annex 1 [developing] countries should be promoted' although this 'may give rise to negative environmental impacts' and 'do little to alleviate the problem of unemployment'.[5] The strategy further promotes the expansion and protection of the country's coal markets, stating that: 'Annex 1 parties should initially concentrate on domestic actions that will not negatively impact on the market for fossil fuels from developing countries.'[6,7]

The strategy also states that adopting a clean pathway 'will require continued attention to the process that is currently being developed to access investment through the Clean Development Mechanism of the Kyoto Protocol, technology transfer and donor funding opportunities'.[8] SA signed the KP in 2002 and, when it came into effect in February 2005, the country became eligible to trade in carbon credits by hosting CDM projects. The strategy is not specific about how and to what extent the CDM will contribute to overall national sustainable development objectives. It thus assumes that increased pockets of investment in CDM projects will somehow lead to emission reductions.

As of August 2010 there were 156 CDM projects submitted to the designated national authority (DNA), of which 123 were project idea notes (PINs) and 33 project design documents (PDDs). Out of 33 PDDs, 17 are registered with the CDM Executive Board (EB). Four have been issued with certified emission reduction (CER) credits. Sixteen are at different stages of the project cycle – the DNA approval stage, the validation stage and/or the request for review stage. SA's CDM share represents 23,3 per cent of the total number of CERs in Africa. Only Nigeria has a higher number of CERs at 32,9 per cent of the total share of credits.[9] Africa has less than 2 per cent of the total number of projects in the world.

The profile of projects submitted to the DNA for initial review and approval includes bio-fuels, energy efficiency, waste management, cogeneration, fuel switching and hydropower, and covers sectors such as manufacturing, mining, agriculture, energy, waste management, housing and transport. Projects that do not fundamentally change the nature of energy production (including energy efficiency at 47 per cent for example, cogeneration and fuel switch, methane recovery, and nitrous oxide) represent the biggest share of projects.[10] Among those are key industrial players such as the petrochemicals giant, Sasol, which has already made four applications for CDM projects to date.

South Africa's flagship CDM project, the Kuyasa project (discussed below), involves the installation of solar water heaters, insulated ceilings and compact fluorescent lighting in low-cost houses, and is certified under the Gold Standard.[11]

GOVERNANCE, ACCOUNTABILITY AND TRANSPARENCY IN THE CDM

Mobilising resources

Funds are raised from various sources, including from developed country governments that have to meet emission targets under the KP and approved agencies/carbon funds and companies. In this section we highlight public sector and institutional finance support for CDM. Costs and other barriers to the implementation of projects are also explained.

Funding from the public sector

On 27 August 2005 the Kuyasa low-income housing project was the first CDM project to be registered in SA by the CDM EB. The project retrofitted 2 300 existing houses with solar water heaters, insulated ceilings and two compact fluorescent light bulbs (CFLs) each. Implementation costs were covered by the City of Cape Town government municipality through funding made available from the public works programme – a social responsibility programme – and the provincial department of housing put in R3 million.[12]

Project implementer South-South North (SSN) encountered many problems with Kuyasa that are typical of challenges with public sector financing. Firstly, the public sector requires bridging finance (usually with higher interest rates on loans) as CDM activities are usually not supported by existing budgets. 'This therefore requires the capacity to balance the benefits of carbon revenue with the primary delivery objectives of the local authority.'[13] Secondly, local public institutions are not allowed to act as CDM project proponents because of their legal status as public authorities. This means that they cannot directly access public funds for CDM projects. Buttressing this is the speculative nature of the carbon market, which hampers their direct participation. Thirdly, there are no dedicated resources available for design, management, implementation and monitoring of CDM project activities. Although Kuyasa is validated against the Gold Standard, which rewards projects that make significant contributions to sustainable development, the SSN concludes that: 'In its current state CDM is not the most appropriate vehicle for the public sector to derive significant sustainable development benefits.'[14]

Even if implementation costs were high it might be expected that the sale of emission reductions would compensate for this loss. Indeed, Kuyasa is linked to an intention of the 'pilot' project to 'demonstrate a viable model for the use of international financing linked to the reduction of greenhouse gas emissions under the CDM of the Kyoto Protocol, to leverage grant funding for energy upgrades to low income housing throughout South Africa'.[15] The Project set the reduction of greenhouse gas (GHG) emissions over a 21-year period in order to gain certified international emission credit income. However, the net present value of the income from reductions of emissions would cover only 20 to 30 per cent of the capital costs of the installation of these technologies, based on the current nature of the carbon market. In fact, '…the reality is that rather than

being an example of what the CDM can deliver, Kuyasa is a testament to what it can't. The project can't survive off carbon finance.'[16] Emily Tyler of the SSN, who was involved in the development of Kuyasa, argues that: 'The CDM actually adds little value (indeed it adds costs) to the very sorts of projects it was designed to encourage.'[17] Thus, she concludes in a later statement that there is 'no financial value added by the CDM for the project types which most closely fit the CDM's avowed objectives'.[18] The Kuyasa experience is thus emblematic of the limitations of financing 'good' projects by using the CDM.

Costs to implement and other barriers

The costs to implement a project are very high for small to medium developers of projects. Both the verification and validation processes conducted by the private companies (called 'designated operational entities' or DOEs) are expensive and technical.

As stated above, implementation costs of the Gold Standard project Kuyasa were covered by the City of Cape Town government municipality through funding made available from the public works programme and the provincial department of housing, which contributed R3 million.[19] According to Carl Wesselink of the SSN, it cost the Kuyasa developers 'half a million [rand] to get the project registered and another half million [rand] to get validated. Then there are implementation costs. Each time you verify you have to monitor, which is organised by the project participant – so there's more costs.'[20]

There is generally a low uptake of CDM projects in the country. Despite SA promoting itself as a reliable location for developing projects, the CDM hasn't taken off in the country because it is seen as less attractive than other investment options. This is attributed to the lack of clear signals that a long-term carbon market will prevail. Another reason is the low cost of electricity, which provides a weak incentive for energy efficiency projects.[21] In spite of these valid demotivating factors, a new and separate institution called the 'DNA' was established in 2004 to deal with the CDM, discussed in further detail below. Harold Winkler suggested that a more appropriate climate risk strategy would be to commit fewer resources to the CDM upfront rather than to divert scarce resources to this institution.[22] The government should rather invest money more wisely in institutions, projects and programmes that deliver more effectively on sustainable development and emission reduction goals and that do not face such serious barriers as the CDM.

For big project developers, such as Sasol, which has made four project applications through the CDM development process already, the input costs are secured from within their own budgets. As these companies are highly profitable, it is reasonable to assume that they can easily bear these costs, with the added benefit of accruing the profit from the sale of CERs. CDM projects also come with the additional benefit of providing a 'green' image for these companies while they may be able to continue 'business-as-usual', even expanding their operations. Sasol, for example, has developed CDM projects to reduce its emissions while expanding its operations, building new plants, and increasing its overall emissions.[23]

Implementing institutions

The local implementing institution of CDM projects is the DNA. The DOEs are private companies authorised by the CDM EB to validate and verify emission reductions of local CDM projects. We will discuss how both of these institutions relate to carbon finance and work in the local context.

Designated National Authority

The DNA for the CDM in SA is responsible for issuing formal host country approval for CDM projects. It was established in December 2004 (gazetted in 2005) in terms of the regulation under section 25 of the National Environmental Management Act (NEMA).[24]

The DNA staff currently consists of seven people: it is headed by a director with a personal assistant, and two deputy directors, one for project monitoring and evaluation (M&E) and the other for capacity building and promotion. Two energy officers support each of the deputy directors. There is one project administrator. The director, Lindiwe Chauke, has suggested that the organisation 'might need more capacity if there are more projects' to deal with.[25] A steering committee comprising nine government departments oversees the activities of the DNA.[26] There are no civil society, labour or business representatives on the steering committee and the meetings are not open to the public. Chauke explains the procedure for reviewing PDDs:

> We do a summary, attach a full project design document and send it to them for support. If they see a problem they tell us. They don't necessarily respond to every PDD. Sometimes they say they have no comments. We mostly get comments from the DEA and [the Department of] Science and Technology. [The Department of] Human Settlements doesn't usually respond. In principle, if there are no comments it means they are happy. Steering committee meetings are quarterly. We don't necessarily sit with the PDDs. Other operational matters are raised.[27]

Considering the lack of representation from various sectors and the non-responsiveness from some departments, the procedure appears inadequate. It is unclear

whether the unresponsiveness from the other departments in the steering committee may be construed as delinquency in reviewing the PDDs. If departments do not take the PDDs seriously this could pose a serious challenge for the registering projects that have integrity.

The DNA is housed within the Department of Energy (formerly known as the Department of Minerals and Energy). But this has a dubious history. Schneider and Grashof[28] state that in the beginning it was intended that the then Department of Environment and Tourism (DEAT) – now the Department of Water and Environmental Affairs (DWE) – which is the 'national focal point for climate change and a long-term driver in the process of establishing the DNA – hosts the DNA…Consensus was not reached on the set up of the DNA, particularly due to the considerable debate on the sustainability criteria. This could have reduced enthusiasm with DEAT in terms of proceeding with setting up the DNA, which was then offered to other ministries.' Presumably, the DEAT/DWE favoured more stringent sustainability criteria, which were not agreed to by others involved in the process.

The DME was finally appointed by cabinet, with Chauke stating that the 'rationale to house it in the (now) Department of Energy was because 75 per cent of emissions are in the energy sector'. This assertion masks the messiness that preceded the final allocation of departmental responsibility. It also speaks to a contradictory mandate of the Department of Energy (DoE), which is in charge of and has been largely responsible for increasing energy production and emissions, as compared to the aim of the CDM of achieving reductions in these areas.[29]

The debates on sustainability criteria finally ended when cabinet commissioned the SSN and the Palmer Development Group to develop the regulations for the DNA jointly. Meanwhile the SSN was also in the process of getting the first CDM project – a low-income housing project – registered by the CDM EB. This situation is typical of CDM practice, where conflicts of interest emerge because of the small number of actors involved in the practice; that is, those actors involved in drafting regulations are often those implementing and promoting the CDM. Yet those who draft the regulations are often in a position to benefit financially from those same regulations. In general, these issues also reflect an arbitrariness of the sustainable development criteria ultimately adopted.

There are three distinct roles that the DNA performs, namely: regulation, promotion and administration of the CDM. The main function of the DNA is a regulatory one, connected primarily to an evaluation of the sustainable development goals of projects. This role is seen as separate to that pertaining to control and management of carbon finance. However, this function constitutes an important dynamic in the CDM project cycle and is worth understanding better, especially as it is connected to the DNA's promotion role.

Regulatory role – this role of the DNA includes evaluating and providing final approval of projects nationally.[30] The scope of the assessment is limited to assessing the voluntary participation of SA in the CDM and the contribution of projects to the sustainable development of the country.[31] The DNA asks project participants to submit a PDD with an environmental impact assessment (EIA). Some projects can get exemption from submitting an EIA. Projects must comply with national regulations and then comply with the DNA and contribute to sustainable development.[32] The PDD is sent to the DNA and DoE at the same time. The DoE validates emission reduction calculations. The PDD is placed on the departmental website for 30 days for public consultation after the DoE's validation. But the internet is the only way that the public can access the information, which is unfair given that affected communities at the site of projects are most likely to be living in low-income areas without access to electricity, let alone the internet. An equity issue is that the steering committee that conducts the evaluation does not have a civil society or community representative on it. The DNA evaluates a project on the basis of comments and asks for supplementary information if necessary. It 'considers' the comments from communities that have responded. It should be stated that many communities are not even aware of CDM projects being conducted in their areas. There also doesn't appear to be any open criteria or feedback mechanism on how community comments are evaluated.

The DNA then sends recommendations and comments to the steering committee members and they in turn submit feedback to the DNA. Based on comments from the steering committee the DNA makes a final recommendation to the director-general (DG) in the DoE for approval. If approved, the project developer will be informed via a letter of approval prepared by the DG of the DoE.[33] The PIN assessment takes 42 days. A PDD approval takes 63 days. Developers are not charged any fees for host country approval as compared to some other countries that do charge these fees. The DNA does not judge the merits of the validation by the DoE, which appears to be a critical flaw in the process. Moreover, while the regulatory role only deals with assessing sustainable development criteria it could just be a token function given that emission reduction credits are what drive the system and those involved in project development. In fact, according to Winkler, 'much of the attention has focused on emissions reductions, however, with much less effort directed towards operationalising sustainable development objectives'.[34]

Once the project is being implemented, the DNA sends a request to the project developer and then to

the company to undertake site visits for M&E purposes. Once approved, the DNA undertakes the site visits. At the site visits the project developer is presented with a questionnaire and is required to confirm its commitment to the PDD. The DNA then compiles a report. However, according to Chauke, this report is 'not online. We have never given it to the public.' As communities are meant to be the primary beneficiaries of projects this apparent lack of accountability to the public is of serious concern. On the other hand, project developers benefit by not paying for the review of the PDD or the M&E assessment. Chauke states further that there is no financial M&E and the DNA assumes that the project developers and credit buyers undertake this responsibility. This represents a gap in oversight of projects by the DNA and could mean that financial irregularities, mismanagement and abuse go by unchecked and could have major implications for the benefits projects claim to make. The Auditor-General of South Africa audits the DNA in terms of commitment to its timeframes, but not in terms of funding.[35] This also represents inadequate oversight and could have major repercussions should the DNA take on more responsibilities. It also means that there is a failure to check declarations of interests of DNA staff and could mean that conflicts of interest go by unchecked. Hypothetically a DNA staff member could have shares in a CDM project or stand to benefit from the sale of emission reductions.

Box 1 Sustainable development criteria further explained

The DNA must state whether projects support sustainable development on balance. A project needs to have a positive impact in at least one of the sustainability aspects and can be neutral in the other two; however, if it has a negative impact in one of the aspects it is rejected. It is argued that,

> in some instances the DNA finds it difficult to justify its decisions, given that the decision could be later questioned in court. Currently there are no plans to address this issue and enhance the legal robustness of the DNA's decisions; aside from this, no changes have been made to the host country approval framework since the DNA was brought into being.[36]

Sustainable development criteria can also be vague and arbitrary and can allow big corporations to claim benefits falsely or overstate them. Even 'good' projects like Kuyasa may have a tough time proving sustainable development, in real terms, because communities cannot afford to maintain and replace the solar water and low-carbon light bulbs installed. The baseline of Kuyasa works on a suppressed demand logic, which means that although the energy use of low-income households is minimal developing a project of this nature that is directed at the poor links it to poverty alleviation goals.[37] But there are deeper issues to consider using this approach. The logic of sustainable development and reductions of emissions are pitted against each other here. Arguably with industry consuming less energy and the inclusion of renewable energy feed in tariffs there would be more clean energy for low-income households. This means that there should be less of a burden imposed on low-income households having to change, or to change first.

Promotional role – the DNA also takes on a marketing role to promote and facilitate the development of the CDM in SA and to secure an adequate share of CDM investment in the country.[38] The institution states that it promotes the country as a host of CDM projects for foreign investors, facilitating its participation in the carbon market and supporting negotiations between local sellers and international buyers of CERs.[39] Chauke argues that this means that, 'we compile a list of funders, [but] we don't get involved in actual financing. We facilitate this and it is open and accessible to funders. Most are companies not government.'[40]

Initially the regulation and promotion roles were going to be separated to prevent conflicts of interest. 'The DNA states today that over time it became clear, however, that this was a rather theoretical concern. Likewise, the DNA now engages in considerable promotion and awareness-raising activities and can benefit from its existing contacts, e.g. with successful CDM project developers. While the institutional separation of the two tasks may have a positive side, the CDM promotion was considered important and it was considered preferable that the DNA also promotes the CDM.'[41] However, the conflicts of interest should still be considered a serious threat to the integrity of the DNA. Despite the DNA having to regulate the CDM, maintaining a healthy number of projects and a market for investment takes precedence over this role.

Designated operational entities and their relations to the national context

The highest authority of the CDM is the Conference of the Parties (COP) serving as the Meeting of the Parties (MOP) to the KP, but the daily supervision of the mechanism has been delegated to the CDM EB.[42] The oversight of individual CDM projects has been re-delegated from the EB to the designated operational entities (DOEs). These are companies accredited by the EB to audit CDM projects through the project cycle. Many DOEs are large risk management firms which just add CDM validation and verification to their portfolio, whereas others are small local firms or even some non-profit organisations. Even though about 20 companies have been accredited as DOEs, a handful of them dominate the market completely.[43] Of the 26 DOEs listed by the DNA only three have offices in the country and these are only satellites of their head offices in the North. Verifying emission reductions therefore often happens in abstraction (possibly with the use of project developer reports and their claims) and not on site where these can be more easily proved.

Profit motive as a driving force

Emma Lund at Lund University states that the DOEs are part of the supervisory mechanism in the CDM as they are entrusted with making sure that emission reduction credits, albeit theoretically constructed, are credible. In essence, the DOEs exist to audit projects to ensure their integrity, and to maintain the sound implementation of CDM rules. However, they are also private companies that are driven by profit, and as the project developers hire and pay for the services of the DOEs they 'have an incentive not to scare their customers away by applying the rules overly strictly. The supervisory system of the CDM has consequently been heavily criticised for not being able to guarantee the environmental integrity of the mechanism.'[44]

This leads to a host of potential and real conflict of interest situations. In SA, there is at least one such reported case. KPMG, a transnational consulting company and registered DOE (listed on the United Nations Framework Convention on Climate Change (UNFCCC) website[45] although oddly not listed in the DNA's table of DOEs) assisted Sasol with developing its Natural Gas Conversion Pipeline CDM project from 2000. As DOEs are meant to be neutral and uninvolved in the design of CDM projects, this can be seen as a violation of the rules guiding DOEs.[46] It is, however, unclear whether this rule applies to just the projects that DOEs are validating and verifying and since KPMG weren't hired by Sasol to do this, there may be no obvious corruption. But clearly, given the important role the DOEs play in the system, this rule should be applied across the board. It is also unclear how and if the national government or DNA monitors projects for such issues because emission reductions remain out of the mandate of the DNA and the host government. Furthermore, there are no communities at the site of projects which are allowed to carry out monitoring, despite standing to be the most affected by a project's implementation. It is thus also dubious and in fact counter-intuitive that DOEs which are not based in the country and which rarely conduct on-site inspections of the projects are solely entrusted with such monitoring.

Box 2 Problems with 'additionality' as the basis for the CDM

Additionality is central to the environmental integrity of a project. Yet it is a slippery concept. The basic premise of proving that an intervention would not have happened if there hadn't been a CDM project is difficult to prove with certainty. Thus, projects that attempt to prove additionality or the counterfactual claim do so arbitrarily. By the same token it is also easy to make a false claim of additionality. In SA, Sasol twice attempted to get CDM funding for projects it was going to carry out anyway, including a gas pipeline project to Mozambique. The Bisasar Road landfill project also claimed to be doing something 'additional' by capturing methane gas from the dump and converting it to electricity. While the electricity generation may have been seen as additional, the gas gathering should have been required by minimum standards, especially since the landfill is located adjacent to a residential community which has been fighting for its closure for decades. In fact, the community has experienced many health impacts from the dump yet has faced broken promises from the local council to shut down the dump. So, in fact, what the community requests is for the dump to be closed down while the project intends to extend the lifespan of the dump. This shows that additionality does not guarantee environmental integrity, and the proof of 'additionality' collapses under closer scrutiny. Furthermore, this demonstrates the gap between public priorities and the project developer (the state), the exclusion of supposed beneficiaries (the community) and the gap between sustainable development and the CDM. The issues around additionality not only reveal the problematic relationship between the different actors – the DOE, EB, project developers and host country – and the fuzzy rules, but, more importantly, show that the definition of environmental integrity needs to be clear, sound and easy to prove at a local level for it to be effective and to reduce abuse.

Disbursement of funds

Sound democratic governance that respects social justice concerns, as enshrined in the SA Constitution, would ensure that funds from nationally implemented projects are disbursed in an accountable and transparent way that benefits the poor and vulnerable. In the case of the CDM the issue of selling certified emission reductions (CERs) is debated with reference to this statement.

Selling certified emission reductions

There are 28 CDM projects in SA, measuring a total of 19570kCER2010. This represents 23,3 per cent of the total number of CERs in Africa. Only Nigeria has a higher number of CERS at 32,9 per cent of the total share of credits.[47] Sasol alone gets 803 000 credits for its N20 project at a value of almost $10 million.[48] It has spent just US$700 000 on the catalyst to reduce its N2O emissions.[49]

Developed countries buy credits from CDM projects such as those in SA to meet their emission reduction targets while avoiding making reductions at source. This practice is dubious from both ethical and environmental perspectives. Offsetting is designed as an 'avoided responsibility' mechanism yet developed countries are primarily supposed to make reductions based on the 'polluter pays' and common but differentiated responsibility principles outlined in the UNFCCC. Environmentally, emissions are not really reduced but rather shifted to another part of the world, with the net reduction being zero. Proving that offset projects actually reduce emissions in themselves is also difficult as explained above in the discussion on additionality. There is a conundrum in the system as far as multinational companies are concerned. Companies like Sappi, the international paper and pulp company, and Arcelcor Mittal can 'buy' credits

from their operations in developing countries to offset the company's emissions from its developed country base operations. Thus, the company may be reducing its emissions in one place while increasing emissions in another place, or increasing its overall emissions. One of Arcelcor Mittal's energy efficiency projects in SA that was in the pipeline for some time was set up with precisely this purpose in mind. Arcelcor Mittal already has a major surplus of permits to pollute under the European Union Emissions Trading Scheme (EU ETS) – the biggest trading market of credits in the world – and the offset loophole presents an opportunity for it, and companies like it, to profit even more, without altering business-as-usual.

Carbon funds like World Bank's Prototype Carbon Fund provide a vehicle for commercialisation of emission credits and a profit maximisation structure for sellers. The driving motive is profit. What this means in reality is that emission reductions take a back seat. The Sasol Nitrous Oxide Abatement project for instance is involved with the MGM Carbon Portfolio, one of the two carbon funds operating in the country. The MGM Carbon Portfolio has been created by MGM International in association with Morgan Stanley, one of the biggest international investment and trading banks. Its core stated function is described as providing buyers and sellers with a secure vehicle for the commercialisation of emission reduction credits and a profit-maximisation structure for sellers. MGM International Group is the parent company of MGM Carbon Portfolio, founded in 2000. MGM is described in the marketing brochure as a project development, investment and commercialisation firm, whose objectives are the identification, design, negotiation, as well as execution and support of CDM projects.[50]

CONCLUSION

The CDM has not been able to catalyse investment in renewable energy due to a design that favours cheap and quick emission reductions, mostly gained from energy efficiency type projects. It is also not able to engage the public sector significantly in order to mobilise funds and promote renewable energy options. Costs to implement CDM projects are also highly prohibitive, thus making them viable only for big developers such as large industry. The implementing institutions in place are also problematic. As the unit issuing host country approval for CDM projects, the DNA takes on both a regulatory and promotional role. This is a significant conflict of interest which impacts on the integrity of its decisions. The channels for affected communities at the site of projects to influence decisions on projects are marginal considering the lack of effective channels for their participation and lack of complete transparency in how decisions are made. The DNA's operation is also hampered by the vague and arbitrary conceptualisation and operationalisation of sustainable development in evaluating projects. Moreover, sustainable development considerations take a back seat to those on emission reductions, on which the CDM is primarily based. DOEs that are in charge of validating and verifying emission reductions from projects are controversial. As private companies they are primarily driven by profit, and as they are paid by project developers, there is significant conflict of interest in this arrangement. Furthermore, the use of the concept of additionality as a way to assess a project's viability is subject to abuse by project developers. The issues around additionality reveal the controversial relationship between the different actors – the DOE, EB, project developers and host country – and the contentious rules.

Selling emission reductions to developed countries provides a way for these countries to avoid making reductions of their own, and thus to avoid major structural changes in their economies that must happen in order to address climate change. A similar argument pertains to large corporations. One of the key issues is when multinational companies invest in CDM projects to offset emissions from their operations based in developed countries. This may have the effect of increasing the company's overall emissions, especially when they are expanding their business at the same time. The claiming of credits by companies when government has made an investment in the project and when the country requires the emission reductions to meet its own targets is also a thorny issue that remains unresolved. As there remain no auditing and oversight of emission reduction claims within the country, this also poses a problem for authenticating emission reductions.

The CDM does not lend itself well to achieving countrywide structural changes given its ad hoc, project-based nature. Priorities are also determined by individual developers rather than national goals. In fact, the CDM allows a few companies to profit from projects, while minimal emission reductions or sustainable development goals are achieved. In many cases emissions are actually increased and there are negative impacts on communities at the site of projects. In a national context, the CDM poses challenges that are not easily remedied by reform of the governance arrangements. Fundamentally, SA needs to consider how to make emission reductions count towards national targets and to find the best ways to transform holistically and thoroughly to a low carbon development pathway. It is unlikely that the CDM can, in this instance, be considered as a mechanism of integrity and practicality to achieve these aims.

NOTES

1 According to Joanne Yawitch, Deputy Director-General of the Department of Environmental Affairs, speaking at the energy summit in 2007, South Africa ranks 11th in the world of carbon emitters.

2 Coal is recognised as being the biggest single contributor to global warming. Industry is responsible for 57 per cent of the total primary energy consumption and the energy sector as a whole is responsible for 65 per cent of South Africa's total carbon emissions from fossil fuels, in P Bond, R Dada and G Erion (eds), *Climate change, carbon trading and civil society: negative returns on South African investments,* South Africa: University of KwaZulu-Natal Press, 2007, 9.

3 The SA Gini coefficient (an instrument which measures inequality) was 57,78 in 2000 and remained at that value until at least 2007. South Africa is among the most unequal countries in the world but does not have the highest Gini coefficient, http://www.nationmaster.com/graph/eco_gin_ind-economy-gini-index (accessed 28 August 2010).

4 'Carbon finance' refers to the range of finance, technical assistance and brokering that accompanies carbon trading deals.

5 Department of Environmental Affairs and Tourism (DEAT), *A national climate change response strategy for South Africa*, 2004, 7.

6 Ibid.

7 A report by Groundwork examined the strategy document and adopted this viewpoint, and this argument is retained here. See D Hallowes, *The World Bank and Eskom: banking on climate destruction*, Pietermaritzburg: GroundWork, 2009, 19-20.

8 DEAT, *National climate change response strategy*, 4.

9 Caisse des Dépôts Mission Climat, UNEP RISOE Centre 2009, in S Giamporcaro and E Alberola, *The implementation of carbon funds in Africa: the Morocco carbon fund experience – lessons to be shared*, no date.

10 For a more detailed review of the projects represented as a pie graph go to: DNA, South Africa's CDM project portfolio up to 19 August 2010, but revised and available at: http://www.energy.gov.za/files/esources/kyoto/South%20African%20CDM%20Project%20Portfolio,%2017%20Oct%202011.pdf.

11 Gold Standard CDM projects are renewable energy or energy efficiency projects which have stricter additionality requirements and are meant to ensure that the sustainable development aspects of the CDM are maximised (G Erion, Low hanging fruit always rots first: observations from South Africa's crony carbon market, South Africa: UKZN, 2005.)

12 Interview with Carl Wesselink, South-South North, 20 August 2010.

13 No author, Thermal efficiency upgrade in low income housing in Kuyasa, South Africa, no date, http://www.natuurenmilieu.nl/pdf/0500_2.6_thermal_efficiency_upgrade_in_low_income_housing_in_kuyasa__background_paper.pdf (accessed 28 August 2010).

14 Ibid.

15 Ibid.

16 Bond et al, *Climate change, carbon trading and civil society*, 75.

17 Ibid.

18 Ibid.

19 Interview with Carl Wesselink.

20 Ibid.

21 L Schneider and K Grashof, *Capacity development for the Clean Development Mechanism: lessons learned in Ghana, India, Indonesia, South Africa and Tunisia,* Germany: Federal Ministry for Economic Cooperation and Development, 2006.

22 H Winkler, D Ogunlade and S Mwakasonda, Developing institutions for the clean development mechanism (CDM): African perspectives, *Climate Policy,* 5 (2005), 212.

23 T Taylor, Synthetic petroleum: Sasol's carbon expansion within the CDM system, in T Reddy (ed), *Carbon trading in Africa: a critical review*, South Africa: ISS, 2011, 49-61.

24 Designated National Authority, Department of Minerals and Energy, *Guidance for applicants of Clean Development Mechanism in South Africa,* South Africa: DME, 7.

25 Interview with Lindiwe Chauke, 23 August 2010.

26 Designated National Authority, 7.

27 Interview with Lindiwe Chauke.

28 Schneider and Grashof. *Capacity development for the Clean Development Mechanism*, 20.

29 Winkler et al, Developing institutions for the CDM, 217.

30 Designated National Authority, 7.

31 Ibid., 8.

32 Interview with Lindiwe Chauke.

33 Designated National Authority, 10.

34 Winkler et al, Developing institutions for the CDM, 208.

35 The Auditor-General of South Africa is a chapter 9 institution under the Constitution. It is an oversight body that audits publically owned entities or any institution that receives money for public benefit.

36 Schneider and Grashof, *Capacity development for the Clean Development Mechanism*, 23.

37 Thermal efficiency.

38 Designated National Authority, 7.

39 Schneider and Grashof, *Capacity development for the Clean Development Mechanism,* 31.

40 Interview with Lindiwe Chauke.

41 Schneider and Grashof, *Capacity development for the Clean Development Mechanism,* 32.

42 United Nations Framework Convention on Climate Change, https://cdm.unfccc.int/DOE/list/index.html (accessed 20 December 2010).

43 E Lund, *Dysfunctional delegation: why the design of the Clean Development Mechanism's supervisory system is fatally flawed*, 2009, 8, http://www.allacademic.com//meta/p_mla_apa_research_citation/3/1/2/3/2/pages312328/p312328-14.php (accessed 29 August 2010).

44 Ibid., 3.

45 United Nations Framework Convention on Climate Change.

46 Bond et al, *Climate change, carbon trading and civil society*, 97.

47 Giamporcaro and Alberola, *The implementation of carbon funds in Africa*.

48 O Reyes, *Brief 3: carbon markets in Africa*. ISS/PACJA Policy & technical brief series, forthcoming 2011.

49 Sasol, Sasol Nitrous Oxide Abatement Project: Project Design Document, 2007, 72, http://cdm. unfccc.int/Projects/DB/DNV-CUK1171877538.97 (accessed 29 August 2010).

50 Giamporcaro and Alberola, *The implementation of carbon funds in Africa*.

Chapter 6

Climate finance forest governance in Cameroon

Phil René Oyono

INTRODUCTION

While the debate on climate change is already relatively advanced in other parts of Africa, it is fairly new in the Congo Basin, where it began only in the mid-2000s.[1] The debate focuses on forest conservation, management and exploitation. The forests of the Congo Basin comprise the second-largest humid tropical forest ecosystem in the world – about 20 per cent of the remaining forests of this type. Cameroon, one of the countries belonging to the Congo Basin, has about 16,88 million hectares of rainforest. The annual rate of deforestation is estimated at 0,14 per cent.[2] Although not accurately measured, the rate of forest degradation is significant.[3] Experts estimate that forest degradation and deforestation are responsible, respectively, for 20 per cent and 14 per cent of global greenhouse gas emissions (GHGs) and are, therefore, vital issues.[4]

The international community produces scientific studies, policies, mechanisms and agreements to develop a shared vision and a global plan with the aim of reducing GHG emissions.[5] Despite understandable divergences, an international regime for climate change-related issues is being set up.[6] Countries of the Congo Basin generate a low percentage of global GHGs, and therefore have relatively little responsibility for reducing them. By maintaining forests of high ecological value, these countries have a strong argument for access to compensation in the new paradigm of climate finance and its principles.[7]

Without anticipating the future of existing international agreements and their national versions, the present contribution questions governance arrangements relating to climate finance in Cameroon. 'Governance', it should be noted, refers to principles, rules and regulation mechanisms. Although public information on institutional arrangements or any operational finance governance matrix is not yet available at the national level, this chapter seeks to correlate the national context and local context, where experiments are in progress.[8] This effort can, potentially, serve as an intermediate interpretative grid of climate finance governance in the country.

Linking the national context with the local context may help overcome the theoretical difficulty relating to the absence of a well-defined and functional national governance structure of climate finance. The development and implementation of democratic and distributive governance structures have key parameters:[9] a set of actors, responsibilities, institutional arrangements and choices, power relations, accountability, values, and principles (equity, rule of law, positive outcomes, etc.). This contribution explores the challenges of climate finance governance in Cameroon and makes some initial findings.

BACKGROUND: COUNTRY CONTEXT

Forest governance framework

The management of forests is a key issue for governance in Cameroon.[10] Forestry reforms conducted so far in the country are regarded as the most advanced in the Congo Basin.[11] The management of Cameroon's forests is governed by many legal instruments and administrative arrangements, including the Forestry Law 94/01 of 20 January 1994, which lays down forestry, wildlife and fisheries regulations, and the Provisional Zoning Plan of 1993, which is about to be revised and finalised. These two tools define a permanent forest estate and a non-permanent forest estate.

The permanent forest estate – which is the equivalent of a classified forest – consists of all the forests

definitively assigned to 'forest' and 'wildlife habitat' by the forestry legislation. This estate includes state forests – strictly belonging to the state and registered in its name – and council forests – forests allocated to rural councils (meaning rural local governments) and registered as councils' private property. The following categories are considered as state forests: national parks, faunal reserves, game ranches, botanical gardens, zoological gardens, production forests (forest concessions), protection forests and research forests.

Since 1995, two other basic tools have complemented the forestry reform. First, Decree No. 95/531 of 23 August 1995 laid down the Procedures for Implementing Cameroon's Forestry Regime and the National Forestry Policy. In 2004, this was reinforced by the Forest and Environment Sector Program, which is a comprehensive policy tool that defines areas and actions for sustainable forest management.[12] Second, a coherent and nationwide provision for the redistribution of forestry revenues was, for the first time, developed in 1998 – that is the Ministerial ***Arrêté*** ('Order') No. 000122/MINEFI/MINAT of 28 April 1998, which lays down the procedure for the use of logging forestry revenues intended for village communities. A revised version of this ***Arrêté*** was published in 2009.

The instruments listed above are accompanied by a cascade of legal and administrative provisions developed since the late 1990s. Very often, they are revised or completed with subsequent provisions. On the whole, this governance framework comprises three cardinal functions significant to this essay: (i) the institutionalisation of the forested Cameroon land use plan; (ii) the transfer of management rights to the local communities, through community forests; and (iii) the definition of a new policy vision for the redistribution of revenues accruing from commercial logging. Moreover, the 1995 Implementation Decree is significant in terms of governance in the forestry sector, since it defines procedures that establish a clear boundary between legality and illegality. Cameroon is part of the forest law enforcement, governance and trade (FLEGT) process set up in Central Africa in the early 2000s. FLEGT seeks, among other things, to promote and monitor transparency. Control measures against corruption and bad governance in the forestry sector are also regularly defined by decision-makers.

As the case study deals with payments for ecological services in community forests, it should be recalled that in Cameroon's forestry lexicon, 'community forests' are defined as forests forming part of the non-permanent forest estate. Community forests are covered by a management agreement between a village community and the Forestry Administration. The management of such a forest is the responsibility of the village community concerned.

A community forest may be demarcated only on land over which a village community has customary rights. This is the equivalent of a 'communal forest' in English-speaking countries.

Cases of natural resource revenue sharing

Access to revenue accruing for natural resources is a crucial issue in Cameroon. For instance, the issue of forestry revenue redistribution is strongly associated with social justice, equity, legal security and governance.[13] This section briefly presents two mechanisms relating to natural revenue sharing in Cameroon. One is logging revenues intended for village communities and the second is oil compensations allocated to the local communities during the construction of the Chad-Cameroon pipeline. Lessons learned from the governance of these revenues can help guide policy and strategies for the structuring of climate finance governance in the country.

Forestry revenues and oil compensations

Forestry revenues allocated in the form of annual forestry fees are one of the key provisions of the 1994 Forestry Law. The Joint ***Arrêté*** No. 000122/MINEFI/MINAT of 28 April 1998, establishing the procedures for the use of logging revenues intended for neighbouring village communities, and its newly revised version (2010) complement the law. This ***Arrêté*** stipulates that for the development of village communities living near forest concessions under exploitation, part of commercial logging revenues shall be transferred to them. These forestry fees are paid annually. They are distributed as follows: 50 per cent for the central state; 40 per cent for the rural council within which the forest concession is being logged; and 10 per cent for the neighbouring village communities.

Council committees for the management of the annual forestry fees are set within each rural council. They are chaired by mayors and local administrative authorities. Village representatives attend as members and, in principle, should have a voice in decision making about the use of money intended for the local communities. In each council, the committee should, annually, establish priorities for the socio-economic development in each village. The funds are then transferred from the Ministry of Finance (central level) to the council levels, for the financing of community level projects.

Oil compensations were another example of distribution of revenues. In the course of the installation of the pipeline, forest ecosystems adjacent to villages were destroyed, completely or partially. In response to the damage caused, the Cameroon Oil Transportation Company (COTCO), in a joint initiative between

Cameroon and the World Bank, set up a compensation plan. Four types of compensation were defined: (i) individual compensation, applied to individuals or nuclear families; (ii) community compensation for villages, groups of villages and rural districts; (iii) regional compensation, for groups of rural districts; and (iv) compensation for vulnerable peoples, namely the pygmies, a forest-dependent indigenous community. The amounts of compensation were not defined on a proportional basis: calculations were made based on the damage created by the pipeline.

Lessons learned from the governance of natural resources' revenues

The governance of revenues derived from natural resources has been continuously assessed since the early 2000s and numerous studies have identified outcomes derived from the process. The willingness of central authorities to redistribute forestry revenues equitably is highly questionable,[14] insofar as there are doubts about the real capacity of the central state to escape from its image of a 'forestry state', meaning a state linking its function of 'wealth producer' and of 'developmental state' with the exploitation of forest resources and logging. An assessment of the amount of power wielded by each stakeholder in the redistribution structure has been carried out by some researchers,[15] who conclude that local government authorities and local representatives of the central state have taken over the redistribution of forestry revenues at the expense of the local communities, which are unable to develop counter-hegemonic strategies.

The development of a framework for the redistribution of forestry revenues is indicative of Cameroon's policy and decision-makers' efforts to promote public participation, social justice and prosperity. In the sub-regional context (the Congo Basin), where central states and political regimes have for a long while privileged a kind of private management of public goods,[16] the institutionalisation of forestry revenues' redistribution is in itself a significant option. For example, in 2008 approximately $14 million[17] in annual forestry fees was redistributed to the local governments and the local communities.[18]

Nevertheless, the redistribution of forestry revenues is marked by weak governance, irresponsible representation and bad practices at the top. These trends are interesting for both strategic research and policy design. As is the case for many components of the forestry sector, forestry revenues' redistribution is dominated by corruption and a lack of transparency.[19] As an illustration, a study of the governance of forestry revenues in three rural councils of Cameroon reports that: 'Of the US$ 7 million allocated, almost US$ 2 million is unaccounted for during the period 2000–2004, and of the US$ 1,7 million allocated for village development within these local government units, almost US$ 1 million is unaccounted.'[20] The authors write of 'broken promises' in revenue redistribution and conclude that practices throughout the process remain highly questionable.

These amounts of money are embezzled by mayors and local representatives of the central state, at the expense of local development and the local communities. The whole process is dominated by a lack of downward accountability practices, elite capture and the weakness of law enforcement.[21] Expected socio-economic outcomes are, by and large, disappointing, insofar as there is no positive socio-economic transformation associated with forestry revenues in villages and rural councils.[22] For some analysts,[23] although elected authorities in local governments are unanimously blamed for mismanagement and embezzlement, they are only scapegoats in a system that does not allow the rural population to sanction directly the misuse of annual fees via the current electoral system. Therefore, the issue of forestry funds' governance is embedded in a more global system of weak national governance.

Three key observations emerge from the study of oil compensation governance. First, although the distribution process has met some environmental justice concerns, such as the principles involved in redistribution, it is – from the local actors' perspective – viewed as a 'business' fully managed from outside by COTCO and the central government.[24] Second, the flow of different types of compensation has been characterised by numerous glitches, negotiated access and influence peddling,[25] becoming, in the end, an arena where external actors (COTCO and state representatives) exercise their hegemony over village communities, including through state violence. Third, there has been no real socio-economic change in the villages, despite negative ecological impacts caused by the pipeline.[26]

Climate institutional framework and arrangements at national level

As stressed above, the building up of a climate institutional framework and strategic thinking are still at the development phase. This institutional base is being consolidated year after year by national experts and policy makers. At the international level, Cameroon has signed and ratified a host of conventions on climate and citizens' economic rights, including: the UN Convention on Biological Diversity, the UN Framework Convention on Climate Change, the Kyoto Protocol, the UN Convention to Combat Desertification, the Montreal Protocol, the

Basel Convention and the African Union Charter on Human and Peoples' Rights.

At the national level, many legal instruments, institutional arrangements and strategies deal with the climate issue. These include the National Commission for Environment and Sustainable Development, the Inter-Ministerial Committee for the Environment and National Focal Points for International Conventions.

A series of national strategies – each proposed by a leading ministry – can serve as potential entry points for the climate mitigation and adaptation efforts: the Poverty Reduction Strategy Paper (Ministry of Economy and Planning), the National Environment Management Plan (Ministry of Environment), the Rural Development Sector Strategy Paper (Ministry of Agriculture), the Growth and Employment Strategy Paper (Ministry of Economy and Planning and Ministry of Employment), the National Participatory Development Programme (Ministry of Economy, Ministry of Agriculture and Ministry of Forests and Wildlife), the National Energy Action Plan for Poverty Reduction (Ministry of Energy and Ministry of Forests and Wildlife), the National Action Plan for the Fight against Desertification and the Initial National Communication on Climate Change (Ministry of Environment).

If there is an institutional framework being built around the climate issue, there is, conversely, no formal governance structure for financing climate at the national level. Such a structure must rest on a given number of preconditions, including a context, funds, actors, institutional arrangements, rules and indicators for monitoring and evaluation. Nevertheless, there is a major and growing interest in mechanisms and arrangements relating to Reduced Emissions from Deforestation and Degradation (REDD). The government of Cameroon has just completed the writing up of its REDD-readiness proposal, to be submitted to donors such as the Food and Agriculture Organisation (FAO), the UN Environment Programme (UNEP), the UN Development Programme (UNDP) and the African Development Fund (ADF). If granted, these funds will be used for the planning of REDD strategies in the country, including information sharing and capacity building.

REDD is defined as a set of arrangements through which developed countries allocate compensation to developing countries for their efforts in the reduction of GHG emissions generated by deforestation and degradation.[27] REDD is based on a series of mechanisms, including conservation of the forest cover, reforestation and finance negotiation: its implementation generates intense debates about the outcomes within the international community. It is viewed as a global instrument that could liberate significant mutual benefits – that is, reduce GHG emissions and induced effects while, at the same time, fighting against poverty and community vulnerability, particularly in countries such as Cameroon. There has been very little research so far into risks and possible negative effects (land individualisation, rejection by the forest-dependent people, resistance from the bottom, elite capture, omnipresence of the central state, lack of local empowerment, etc.).

Many funding opportunities are now becoming available. Two examples are the Forest Carbon Partnership Facility (World Bank) and the UN-REDD (UNDP, FAO and UNEP). A Congo Basin Forest Fund (CBFF) has also been set up: hosted by the African Development Bank (AfDB), it aims to provide benefits from an international regime on REDD and payments for ecosystem services. Applicants can be sub-regional organisations, national governments, research centres, international NGOs, national NGOs, community-based organisations and the private sector. The CBFF intends to take early actions to protect the forests of the sub-region. The fund receives proposals for initiatives.

There is no concrete initiative which, as in the case of forestry revenues and oil compensations, rests on a pyramidal structure involving a donor, the central government, and NGO and local communities. On the contrary, existing initiatives are institutionally segmented, meaning that funds are given directly to the central government, research centres, NGOs or the private sector. This essay articulates strategic thinking on one of the existing pioneer structural models and finance configurations. It is an initiative funded by the CBFF/ADF. Its institutional chain and its governance structure involve the donor, a national NGO and two village communities. At least three funded initiatives with such a structure exist in Cameroon.

CLIMATE FINANCE CASE STUDY

Introduction

The goals of the national NGO conducting the climate finance project, the Centre for the Environment and Development (CED), are to support sustainable development initiatives and to promote community rights to resources and benefits. This organisation has received a grant from the AfDB for payments for environmental services through a community-level project in the eastern and southern regions of Cameroon. The particularity of this case study rests on two parameters: (i) the absence of the central state or local administrative authorities along the chain; and (ii) the conversion of the use of two community forests from the production and sale of planks to community conservation and sustainable use.

This last point is worthy of attention. In the humid forest zone of Cameroon, existing community forests are exploited through small-scale logging operations for the production of planks, which are afterwards sold in town markets.

According to the forestry legislation in effect, revenues from the sales are community revenues and should be invested in community projects. Reliable studies show that, because of greed, many community forests are overexploited within a short time.[28]

The project provides payments to village communities which have decided to leave small-scale logging and conserve their community forests while conducting activities with a high potential for sustainable forest management, including alternative activities and livelihoods (alternatives to 'slash and burn' agriculture, small-scale livestock, fishing, etc.).

Project development steps

The project was implemented as follows. At the beginning, the Centre for Environment and Development (CED) – after a call for proposals – designed and planned an operational and methodological process, before submitting it to the CBFF/ADF. After the selection of its project, CED made an institutional commitment to the CBFF/ADF, through a formal agreement. Two community forests were then selected out of a wide range of community forests. In order to get the community adherence and free consent, CED staff conducted a series of consultations with the villages, resulting in a shared vision of what had to be done. Formal agreements were then signed with the two village communities.

Livelihood surveys helped identify forest assets and forest resources' utilisation, on the one hand, and capture household level revenues, on the other. This step was followed by baseline scenario exercises and carbon quantification. During three months, CED staff focused on the design of a governance structure and institutional arrangements for payment mechanisms. In each village, individual as well as family projects aiming at reducing the loss of forest cover and conserving biodiversity in the community forests were selected through a participatory approach. Commitments to 'good ecological' behaviours were ritualised. A monitoring framework was designed with the village communities and payments were made on the basis of 'performance' and good ecological results.

Project governance structure

Mobilisation and disbursement of funds, and implementing institutions

Three key actors occupy the institutional arena of this 'payments for forest conservation' project. First are the donors (CBFF and ADF). They have powers and responsibilities over funds and they follow up the management of the grant. Each village community was granted an amount of $58 000. As pointed out above, the project was funded after a proposal submitted by CED was accepted.

Second are CED and Plan Vivo. CED is the medium-level recipient of the funds. This organisation has powers over the management of the funds at the sub-national level. It ensures an appropriate redistribution of funds through individual and family projects. While communicating between the donors and the two village communities, CED is upwardly accountable to the donors and downwardly accountable to the local communities. Plan Vivo is the firm which measured carbon in the two community forests. It is responsible for continuously assessing carbon stocks in the two community forests.

Third are the local communities: they are the recipients of the funds. They are committed to CED and their donors to conduct ecologically sound small projects – such as sustainable agriculture and other alternative activities – likely to ensure biodiversity conservation in the forest. Therefore, the two village communities have a social and ecological responsibility. Funds allocated to individuals and families should be managed properly and micro-projects should not endanger forest resources. The two village communities are accountable to CED.

Local institutions are involved in the governance of the project and of finance. For instance, a management committee was set up in each village and is in charge of the withdrawal and redistribution of funds to individuals and families for setting up micro-projects. Management committees are strictly upwardly accountable to CED and downwardly accountable to the village communities. In each village, technical committees are in charge of the follow up of individual and community micro-projects. These also account to CED. In addition, village chiefs should, in principle, make sure that there is a collective action functioning around the project, in terms of collective internal rules and norms relating to forest conservation and management of funds.

To sum up, the CBFF and ADF are financing community efforts aimed at conserving forests and contributing to the reduction of GHG emissions. CED is 'hosting' the funds, monitoring principles defined upstream with the local communities – such as good ecological behaviours – disbursing funds and following up the two experiments. The village communities retain customary rights to the forest and are, at the same time, responsible for its sustainable management and conservation. Village management committees manage the funds.

Lessons and future scenarios

The CED/CBFF project was set up in the two villages with a lot of community expectations. At the beginning,

the village communities had no real understanding of what their duties and responsibilities would be.[29] In time, they started mastering all the stakes and challenges relating to the payments for ecological service arrangements. Written agreements signed with CED put an end to all the hesitations and misunderstandings around the project.[30] To date, the two experiments have been well governed. The redistribution of funds, still at the early stage, is conducted with transparency. Committees set up to manage funds ensure a responsible representation.

This is a local finance governance-based scheme. The internalisation and appropriation of such experiments may take time. Local collective action and traditional socio-political organisation will contribute to the success of existing arrangements and commitments. Also, local democracy is needed throughout the process. The absence of the central state and its sub-national representatives in this structural model may look like an advantage in the governance of these climate finance arrangements. However, the magnitude of the global debate on climate finance is above the local capacities and stakes. Numerous climate finance itineraries are being designed in Cameroon and the case study presented in this essay is just one itinerary among a number of possible itineraries. Although local governance regimes may look promising in terms of transparency, the presence of the central state is still needed for high-level negotiations, in order to build a 'national discourse' on the issue. If NGOs are, generally, accountable to donors, they are not very often ready to account to the local communities.

The project presented here will therefore be challenged by power relations between CED and the local communities, in an institutional context generally marked by the 'top-down' syndrome.

If well conducted in terms of governance, community participation and local democracy, this project will encourage the use of NGOs as channels for climate finance redistribution and management at the sub-national level. This would be a success story, and be scaled up in Cameroon and expanded to other Congo Basin countries. Donors and the international community would therefore publicise positive outcomes generated by a direct partnership with NGOs and the local communities. This scenario predicts and presupposes a 'win-win' option: forest biodiversity is conserved and the local communities are given the means of improving their income through alternative activities based on ecological sustainability.

But how many success stories are there with NGO intervention at the local level in Cameroon? If, as is mostly the case, local level climate interventions are, in the short run, dominated by mismanagement, elite capture and bad governance, existing misunderstandings between NGOs and the local communities will continue in the long term. Indeed, this will lead to poor institutional, social, economic and ecological results. Under such circumstances, donors and the international community will face the 'partnership dilemma' already existing to some extent in the development arena. They will question the reliability of institutional choice in using NGOs as governance 'playmakers' in climate finance models.

KEY OPPORTUNITIES AND THREATS FOR CLIMATE FINANCE

At this juncture, the design process of climate finance governance arrangements should take advantage of the following opportunities. Cameroon is hosting some very important regional initiatives which are concerned with, among others, climate finance and governance issues. These include, for instance the Commission for Central Africa Forests (COMIFAC), which is in charge of the harmonisation of forestry policies in the Congo Basin.[31]

The country has designed – and is implementing – the most advanced forest management decentralisation model, from which, for example, community forests and access to benefit mechanisms are derived.[32] The granting of management powers and responsibilities to forest-dependent communities mitigates major negative effects of the historical 'conflict of forest ownership' between the state and the local communities. Equally, the process of power transfer encourages the beneficiaries to further conserve forests for economic benefits.[33] The government of Cameroon has also developed a series of strategies and tools likely to be used in climate finance, while at the same time aimed at improving the living conditions of the population and forest conditions. These include a poverty reduction strategy, a participatory development national programme, a growth and employment strategy and a national plan for indigenous peoples.

The Congo Basin Forest Partnership (CBFP) and its operational arm, the Central Africa Regional Program for the Environment (CARPE), have institutionalised a conservation-based landscape approach in the Congo Basin, to reduce the rate of deforestation and loss of biodiversity in and around protected areas. Two conservation landscapes, out of 12, have geographic components in Cameroon. This asset is considered a climate finance opportunity, for its conservation objectives. Finally, institutional pluralism – especially the efforts of civil society organisations to improve public participation, fight against poverty and promote good governance – is a strong opportunity for climate finance in the country.

On the other hand, climate finance arrangements and governance will inevitably face a number of threats in Cameroon. Corruption and the weakness of public

accountability as well as corporate responsibility – among NGOs and private sector firms – stand out. Corruption in issues relating to natural resources in the Congo Basin is not, as is often said, found only among central state and sub-national state representatives.[34] Rather, it involves a wide range of actors, including foreign actors. In connection with this, illegal timber exploitation and the reluctance of Asian logging companies to comply with timber certification are serious threats to climate finance.

Poorly implemented administrative decentralisation may also be a threat. If strong financial powers and resources are still concentrated in the hands of appointed sub-national administrative authorities, at the expense of elected sub-national bodies, sub-national administrative units will become the niches of undemocratic climate finance regulation, fragmented governance and undermined public participation.

The structure of forest tenure, ultimately pro-state, is viewed as a threat. According to the existing legal framework of forest management and land use, the state owns all forests. Only 7 per cent of forests are managed by the local communities, thanks to community forests – about 149 across the country.[35] The local communities, however, have no legal ownership rights to forests. Whoever has rights to forests will, legally, have rights to climate funds and carbon credits.[36] Without legally secure ownership rights to forests, effective community participation in forest and biodiversity conservation will remain limited.[37] The way leading to the balance of rights to forests between the state and the local communities is therefore long.[38]

In addition, ongoing land grabs in the Congo Basin[39] – with central governments allocating land to foreign agro-industrial companies without the free consent of the local communities – represent a huge challenge for ecosystem conservation, the promotion of community tenure rights and climate finance.

CONCLUSION

Central African states are considered to be the most corrupt states on the continent. Their reputation has, however, improved since the turn of the century. This is a promising development, since the structure of climate finance cannot exclude the state. Therefore, Cameroon's decision-makers and experts are duty-bound to consolidate public efforts in favour of transparency and the rule of law in public affairs and public goods management. Though still relatively corrupt, Congo Basin states are flexible enough towards the international community and donors.

At present, only very small parts of the population are informed on global trends and negotiations relating to climate finance. Civil society organisations and the general public are 'kept away'. The risks of a potential marginalisation of local communities and institutionally 'weak' actors in benefit sharing are very high. Will carbon finance follow the same process of undemocratic governance as the public management of forestry and oil compensation? The answer to this question depends on the way – democratically – the international community, decision-makers, researchers, professionals and advocates lay down the foundations for the governance structure, implement it and monitor it through clear and simple principles, criteria and indicators, using inputs such as lessons drawn from ongoing experiments.

Creating a relevant methodology is necessary for adaptive vision and practices in climate finance governance. In that sense, failures and successes should be used as lessons for implementation and correctives. Adaptive methodologies should therefore be incorporated in the process, with tools and approaches that can be adjusted at any time and validated by concrete experiments. Inputs from policy and strategy research will therefore be crucial.

NOTES

1 R Nasi, P Mayaux, D Devers et al, A first look at carbon stocks and their variation in Congo Basin forests, in C de Wasseige, D Devers, P de Marcken et al (eds), *The forests of the Congo Basin: state of the forest 2008*, Luxembourg: Publications Office of the European Union, 2008.

2 R Eba'a, D Devers, C de Wasseige et al, State of the forests of Central Africa, in C de Wasseige et al, *The forests of the Congo Basin: state of the forest 2008*, Luxembourg: Publications Office of the European Union, 2008.

3 D Gbetnkom, Deforestation in Cameroon: immediate causes and consequences, *Environment and Development Economics* 10(4) (2005), 557–572, http://journals.cambridge.org/action/dispalyAbstract (accessed 10 September 2008).

4 B Hare and K Macey, Tropical Deforestation Emissions Reduction Mechanism (TDERM), Discussion Paper, Amsterdam: Greenpeace, 2007. See also A Karsenty, T Sembres and M Randrianarison, Paiements pour services environnementaux et biodiversité dans les pays du sud: le Salut par la déforestation evitée?, *Revue Tiers Monde* 202 (2010), 1–18.

5 Hare and Macey, Tropical Deforestation Emissions Reduction Mechanism.

6 Karsenty et al, Paiements pour services environnementaux et biodiversité dans les pays du Sud, 1–18; and G Lescuyer, A Karsenty and R Eba'a Atyi, New tool for sustainable forest management in Central Africa: payments for environmental services, in C de Wasseige et al, *The forests of the Congo Basin: state of the forest 2008*, Luxembourg: Publications Office of the European Union, 2008.

7 E Lee and S Mahanty, Payments for environmental services and poverty reduction: risks and opportunities, Issues Paper, Bangkok: RECOFTC, 2009; and G P Dkamela, S Minmeyer, S Kabamba et al, *Forests for climate in the Congo Basin: questions and*

answers for understanding the challenges and opportunities of REDD, Washington, DC: WRI, 2009.

8 Dkamela et al, *Forests for climate in the Congo Basin*. See also P R Oyono, Community conservation, ecological benefits and collective action: lessons for CED pilot experiments, Strategic note, Yaoundé: CED, 2010.

9 J Phelps, E L Webb and A Agrawal, Does REDD+ threaten to recentralize forest governance? *Science* 328 (2010), 12–13.

10 D Brown, Forestry as an entry-point to governance reforms: the case of Cameroon, London: DFID, 2002; and A Karsenty, Gouvernance des forêts tropicales: l'exemple du Cameroun, *Informations et Commentaires* 119 (2002), 1–13.

11 P R Oyono, J C Ribot and A M Larson, Green gold and black gold in rural Cameroon: natural resources for local governance, justice and sustainability, Working Paper 22, Washington, DC: World Resources Institute, 2006.

12 A J Eyebe and G P Dkamela, The promotion of a national policy and governance agenda for conservation lessons learnt from Cameroon, in D Yanggen, K Angu and N Tchamou (eds), *Landscape-scale conservation in the Congo Basin: lessons learnt from the Central Africa Regional Program for the Environment (CARPE)*, Kinshasa & Yaoundé: CARPE & IUCN, 2009.

13 Oyono et al, Green gold and black gold in rural Cameroon.

14 A Karsenty, Vers la fin de l'etat forestier? Appropriation des espaces et partage de la rente forestière au Cameroun, *Politique Africaine* 75 (1999), 7–12.

15 Eyebe and Dkamela, The promotion of a national policy and governance agenda for conservation lessons learnt from Cameroon; P Bigombé, The decentralized forestry taxation system in Cameroon: local management and state logic, Working Paper 10, Washington, DC: WRI, 2003.

16 E Dungia, *Mobutu et l'argent du Zaïre*, Paris: L'Harmattan, 1993; M A O Aluko, The institutionalization of corruption and its impact on political culture and behavior in Nigeria, *Nordic Journal of African Studies* 11(3) (2002), 393–402; and H Eriksson and B Hagströmer, Chad: towards democratisation or petro-dictatorship? Discussion Paper 29, Uppsala: MAI, 2005.

17 Dollar amounts in this chapter are in US dollars.

18 S Ebia, Contribution du Cameroun à l'élaboration d'un mécanisme mondial de financement de la gestion durable des forêts, Paper prepared for the 8th World Session of the UN Forum on Forests, New York, 24 April–1 May 2009.

19 Bigombé, The decentralized forestry taxation system in Cameroon; P O Cerutti and L Tacconi, Forests, illegality, and livelihoods in Cameroon, Working Paper 35, Bogor: CIFOR, 2007; and K Morrison, P O Cerutti, P R Oyono et al, Broken promises: forest revenue sharing in Cameroon, WRI note, Washington, DC: WRI, 2009.

20 Morrison et al, Broken promises.

21 Eyebe and Dkamela, The promotion of a national policy and governance agenda for conservation lessons learnt from Cameroon; Bigombé, The decentralized forestry taxation system in Cameroon.

22 Bigombé, The decentralized forestry taxation system in Cameroon; A C Milol and J-M Pierre, Impact de la fiscalité décentralisée sur le développement local et les pratiques d'utilisation des ressources forestières au Cameroun, Yaoundé: The World Bank & DFID, 2000; H Ngoumou, Etude empirique de la fiscalité forestière, unpublished master's thesis, ENGREF, Montpellier, 2005; P O Cerutti, G Lescuyer, S Assembe et al, The challenges of redistributing forest-related monetary benefits to local governments: a decade of logging area fees in Cameroon, *International Forestry Review* 12(2) (2010), 130–139.

23 Eyebe and Dkamela, The promotion of a national policy and governance agenda for conservation lessons learnt from Cameroon; Bigombé, The decentralized forestry taxation system in Cameroon; Cerutti et al, The challenges of redistributing forest-related monetary benefits to local governments, 130–139.

24 R Tatchi, Compensations: les exclus du plan de la COTCO, *Bubinga* 41 (2001), 13–14.

25 S A Nguiffo, Pipeline: des illusions noyées dans le pétrole, *Bubinga* 53 (2002), 14–15.

26 G P Dkamela, Economie politique du processus de compensation des dommages dus au Projet Pipeline Tchad–Cameroun: référence à la zone de Kribi–Bipindi–Lolodorf–Ngoumou, Yaoundé: CIFOR, 2002.

27 L Cotula and J Mayers, Tenure in REDD: start-point or afterthought? *Natural Resources Issues* 15, London: IIED, 2009.

28 Bigombé, The decentralized forestry taxation system in Cameroon; P Abe'ele, G M Nguenang, N A Eboule Singa et al, Etat des lieux de la foresterie communautaire au Cameroun, Yaoundé: MINEF, 2004.

29 P R Oyono, P O Cerutti and K Morrison, Forest taxation in post-1994 Cameroon: distributional mechanisms and emerging links with alleviation and equity, Working Paper, Washington, DC & Bogor: WRI & CIFOR, 2009.

30 Ibid.

31 D Abouem, P Bigombé, T Fomete et al, *Aperçu de la législation forestière en Afrique Centrale*, Yaoundé: The World Bank, 2006.

32 Bigombé, The decentralized forestry taxation system in Cameroon; and P R Oyono, C Kouna and W A Mala, Benefits from forests in Cameroon: global structure, issues involving access and decision-making hiccoughs, *Forest Policy and Economics* 7(3) (2004), 357–368.

33 Dkamela et al, *Forests for climate in the Congo Basin*.

34 Cerutti and Tacconi, Forests, illegality, and livelihoods in Cameroon.

35 P R Oyono, New niches of community rights to forests in Cameroon: tenure reform, decentralization category or something else? *International Journal of Social Forestry* 2(1) (2009), 1–23.

36 L S Cotula, S Vermeulen, R Leonard et al, *Land grab or development opportunity? Agricultural investment and international land deals in Africa*, London & Rome: IIED & FAO, 2009.

37 W Sunderlin, J Hatcher and L Liddle, *From exclusion to ownership? Challenges and opportunities in advancing forest tenure reform,* Washington, DC: Rights and Resources Initiative, 2008.

38 Oyono, New niches of community rights to forests in Cameroon, 1–23.

39 Cotula, *Land grab or development opportunity?*

Chapter 7

Threats posed to Asia by climate change

The complexity of navigating climate finance

Nicola Bullard[1]

INTRODUCTION

Climate change poses a real economic and environmental threat to Asia.

The region is home to more than half of the world's poor, of whom two-thirds are women. Sixty per cent of the world population lives in Asia and, of this, 60 per cent depend on agriculture, fisheries, forests and other ecosystems for its livelihood.

In the past decades, Asia has experienced high rates of economic growth matched by ever-increasing greenhouse gas emissions. This growth, while boosting GDP, has not translated into widespread improvements in well-being. Instead, millions of people have been marginalised and natural resources have been depleted. Consequently, communities and ecosystems are highly vulnerable to the current and predicted impacts of climate change.

Assessments of the actual and projected impacts of climate change indicate that adaptation should be the priority across the region, given the hundreds of millions of people whose lives and livelihoods are affected. However, the regional institutions, multilateral development banks and national governments are, by and large, focusing on mitigation.

As the following chapters show, economic growth, albeit green or sustainable, remains the overarching national and regional policy objective. Energy and infrastructure development projects are seen as key to achieving this objective, and instruments such as the Clean Development Mechanism (CDM) are an easy source of finance for these projects.

Governance questions arise at all levels. Regionally, the Association of Southeast Asian Nations (ASEAN), the Asian Development Bank and the World Bank are setting climate policy. Historically, these institutions have promoted growth-oriented economic policies and infrastructure development that have had a negative effect on the environment and people, more often than not without the participation of the supposed 'beneficiaries' or redress for those who are negatively affected. There is no reason to believe that their approach to climate policy will be any different.

At the national level, climate is a relatively new and extremely complex realm of policy making. So far, national governments have adopted a 'business as usual' approach where, as is evident in the case studies, vested interests and existing power groups control and even benefit from climate policy and climate finance. Nonetheless, there are signs that civil society groups and social movements, as well as academia and the media, are starting to take a greater interest in debates about climate change and are demanding a greater role in how policy is shaped.

But the challenges remain, as the complexity of navigating climate finance shows. In doing this research, the overall impression is that the (limited) sources of finance for mitigation and adaptation are driving climate policy and priorities, rather than the other way around. So long as this is the case, democratic deficits will continue to grow.

Key proposals to address the emerging issues include:

- Regional and national climate plans should be developed with the full participation of the social sectors most vulnerable to and affected by climate change.
- Finance and other resources should be mobilised to support the implementation of these democratically developed plans.
- Finance should not depend on the creation of carbon credits and other market mechanisms that are based

in the dominant development model and promote high-risk financialisation of nature. Resources should be mobilised through publicly accountable and transparent mechanisms.

As a priority, regional and national climate plans should address the immediate and medium-term impacts of climate change through investments in adaptation and mitigation actions that support communities and vulnerable social sectors to increase their well-being and resilience.

Climate finance should prioritise investments and activities that facilitate a move away from energy-intensive and unsustainable production and consumption towards more equitable, sustainable and democratic systems that enhance ecological recovery and social justice.

Decisions about the use of climate finance should be made transparently, involving all social sectors and particularly those most affected by climate change. These groups should also have direct access to and control over finance for local-level activities.

AN OVERVIEW OF THE CHALLENGES POSED BY CLIMATE CHANGE AND CURRENT SOURCES OF FINANCE

Climate change poses a real economic and environmental threat to Asia and the Pacific. The region is home to more than half of the world's poor, who will suffer the most from the adverse impacts.[2]

The estimated annual investment needs for environmental issues are as high as $100 billion,[3] including $30 billion for renewable energy, $28 billion for adaptation to climate change, $14 billion for energy efficiency, and $8 billion for sustainable management of water resources.[4]

Millions could become climate-induced migrants, with the poorest people in the poorest countries likely to experience the earliest and greatest suffering.[5]

We believe that solving the climate crisis and injustice requires basic transformation of the global system – economic, political, socio-cultural. Given the narrow window of time to prevent catastrophic, irreversible consequences of the climate crisis we must work even harder to hasten the process of profound social transformation, relying first and foremost on the collective strength, action and solidarity of peoples' movements within our countries and across borders.

A Platform for Climate Justice of Asian Movements, Organizations and Networks August 2009[6]

REGIONAL CONTEXT

Asia covers vast territories and encompasses a great diversity of ecosystems, cultures and economies.[7]

With 3,8 billion people, Asia is home to 60 per cent of the world population. Two countries – China and India – together account for 40 per cent of the world population. In 2009, almost 60 per cent of the population was classified as rural, meaning that more than two billion people are still largely dependent on forests, fisheries and small-scale agriculture.[8] [9] At the same time, the region includes several wealthy industrialised countries (Singapore, South Korea and Japan) and two of the world's fastest growing economies, China and India. Excluding Japan, all countries in Asia are classified by the United Nations Framework Convention on Climate Change (UNFCCC) as non-Annex 1. The majority of Asian countries have added their name to the Copenhagen Accord: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, the People's Democratic Republic of Lao (Lao PDR), Maldives, Mongolia, Nepal, Republic of Korea and Singapore. Notably absent are: Thailand, the Philippines and Vietnam.

SOURCES OF GREENHOUSE GAS EMISSIONS

Asia contributes about 31,4 per cent of global greenhouse gas (GHG) emissions. Of that, 55,0 per cent is from energy and 5,2 per cent from industrial processes. Together, agriculture (18,9 per cent) and land-use change and forestry (16,4 per cent) account for more than 35,0 per cent of emissions. Hence, any action on mitigation will have to address these two sectors.[10]

According to 2007 estimates, four Asian countries were among the top ten sources of carbon dioxide (CO_2) from fossil fuels: China (22,3 per cent of the global total), India (5,5 per cent), Japan (4,3 per cent) and South Korea (1,7 per cent).[11]

However, in per capita terms, most Asian countries have low GHG emissions. Based on 2005 figures, India ranks 149 in the world (excluding land-use change) at 1,7 CO_2e tonnes per capita, and China ranks 82 with 5,5 CO_2e tonnes per capita. In contrast, Australia ranks 6 in the world with 27,4 CO_2e tonnes per capita and the United States is number 9 with 23,5 CO_2e.[12]

Across the region (excluding Japan), the energy sector accounts for 55 per cent of the region's GHG emissions. The demand for energy to drive economic growth and consumption is enormous and increasing. According to the Asian Development Bank (ADB) projections, energy demand in Asia is set to double from 3 227 million tonnes of oil equivalent (Mtoe) in 2006, to 6 325 Mtoe by 2030. China and India will account for the majority of

the increase, primarily driven by rapid economic and population growth, industrialisation and urbanisation.[13]

Deforestation and land-use change (such as urbanisation, plantations and industrial agriculture) are a major source of GHG emissions, contribute to loss of livelihood and biodiversity, and disturb ecosystems.

Up to 84 per cent of Indonesia's emissions are due to deforestation and land-use change. Between 2000 and 2005, an estimated 0,71 million hectares or 7 100 km^2 of Indonesia's forests were lost each year to logging and clearing.[14] Over five years, this is equivalent to an area the size of the Netherlands.[15] Indonesia alone accounts for approximately 27 per cent of global emissions from land-use change and deforestation.[16]

CLIMATE CHANGE IMPACTS

Climate change impacts in Asia are widespread and devastating for people and ecosystems.
An incomplete list of actual and predicted effects includes: rising sea level, shifting rainfall patterns, coastal erosion, increasing salinity of freshwater estuaries, loss of coral reefs and coastal mangroves, inundation and ultimately drowning of low-lying islands, rapidly melting glaciers, temperature variations, cyclones, more intense and frequent floods and droughts, decreased agricultural production, forced migration, loss of livelihood, landlessness, increased health risks and even death.[18]

As mentioned, almost 60 per cent of the population – about two billion people – are dependent on agriculture or fisheries. Coastal regions especially at risk are the delta regions of Bangladesh, Myanmar/Burma, Vietnam and Thailand, and the low-lying areas of Indonesia, the Philippines, and Malaysia. An estimated several hundred million people would be displaced from the coastal zones in the event of a one-metre rise in sea level.[19]

Table 1: A region at risk[17]

The East and Asia Pacific region is home to many of the top dozen countries worldwide in terms of vulnerability to climate-related threats, especially floods and storms (highlighted below). The human toll of environmental damage in the region is already significant and will rise if not checked urgently by investment and policy measures.

Drought	Floods	Storms	Sea level rise
Malawi	Bangladesh	Philippines	All low-lying island states
Ethiopia	China	Bangladesh	Vietnam
Zimbabwe	India	Madagascar	Egypt
India	Cambodia	Vietnam	Tunisia
Mozambique	Mozambique	Moldova	Indonesia
Niger	Laos	Mongolia	Mauritania
Mauritania	Pakistan	Haiti	China
Eritrea	Sri Lanka	Samoa	Mexico
Sudan	Thailand	Tonga	Myanmar
Chad	Vietnam	China	Bangladesh
Kenya	Benin	Honduras	Senegal
Iran	Rwanda	Fiji	Libya

Note: The typology is based on both absolute effects (e.g. total number of people affected) and relative effects (e.g. number affected as share of GDP).

Source: World Bank, Sustainable Development Network, Environment Department, 2008.

Figure 1 shows that, according to most studies, the impacts of climate change are overwhelmingly negative. The ADB estimates that by the end of this century the effects of climate change – if unchecked – could reduce GDP in Southeast Asia by 6,7 per cent annually.[20]

As well as the effects of climate change, the ecological and social impacts of rapid, resource-intensive economic growth are already felt across the region. A 2005 United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) report on the state of the environment in Asia noted that 'the pattern of growth has placed the environmental sustainability of the region in jeopardy' and that 'declines in fishery resources, marine and coastal degradation, biodiversity and forest loss, land degradation and natural disasters have continued to affect human health and livelihoods and increased the vulnerability of member countries'.[21] Thus, the synergistic effects of economic growth and climate change render vast sections of the population even more vulnerable to climate change.

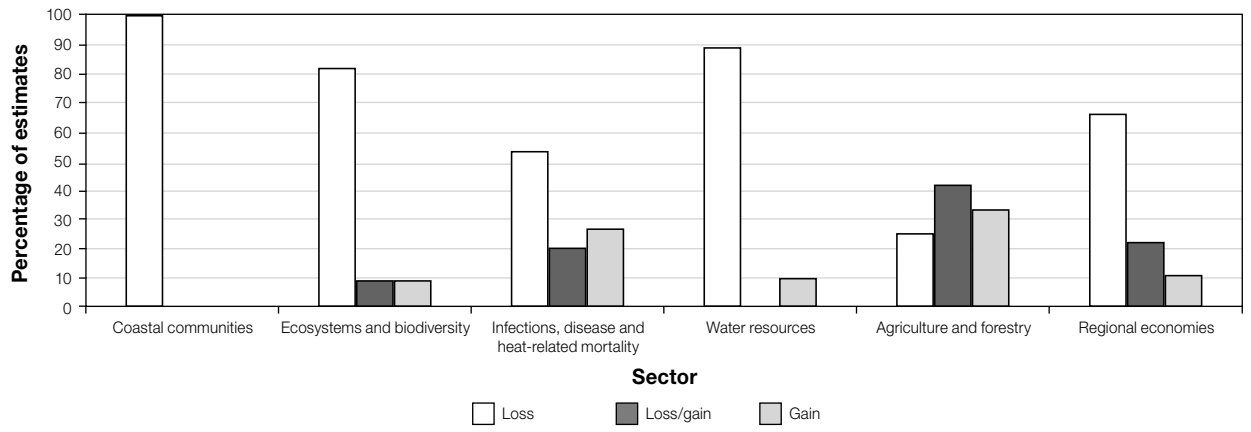
In this scenario, the impacts on women are likely to be disproportionate. In Asia, two-thirds of those classified as 'poor' are women; this is particularly acute for women in rural areas. Women's participation in agriculture is growing, partly due to the urban migration of men, while the number of female-headed households is increasing. In addition, poor women and rural women have less access to health services, education and economic opportunities. Although women generally show great resilience in the face of adversity, the double impact of impoverishment and climate change will only increase their burden and jeopardise their health and well-being and that of their families.[22]

Thus, the challenges for tackling the current and predicted effects of climate change (adaptation) and reducing GHG emissions (mitigation) are formidable in a region where the majority of people and especially the majority of women are already vulnerable and impoverished.

THE ECONOMIC CHALLENGE

Most governments and institutions in the region are firmly wedded to growth as the main objective of economic policy. The challenges posed by climate change are thus seen in the context of how to reduce both GHG emissions and dependence on fossil fuels, and also drive economic growth. Policies of national governments, the Asian Development Bank (ADB,

Figure 1: Indicators of vulnerability to climate change[23]



Individual estimates of climate change impacts are presented as a percentage of estimates that reflect losses from climate change, gains from climate change, or the potential for both gains and losses, depending upon study assumptions.

see Box 1), the World Bank, regional UN agencies such as UNESCAP and the Association of Southeast Asian Nations (ASEAN) aim for 'low carbon growth' or 'green growth'.

The World Bank approach to climate focuses on 'sustainable growth', developing market mechanisms and leveraging private sector financing. *The World Development Report 2010: Development and Climate Change* argues that pricing carbon – either through cap-and-trade or a carbon tax – is the best way to generate and direct carbon finance resources 'where the mitigation costs are lowest and the adaptation needs greatest'.[28]

Accessing global carbon markets and developing domestic carbon markets are vigorously promoted across the region. The ADB argues that this is necessary because public finance for climate change is inadequate. Moreover, the ADB assumes that the UNFCCC negotiations will result in more market-based mechanisms, and their role is to facilitate access to finance through these mechanisms, especially for least developed countries (LDCs).[29] Already China is trialling a domestic emissions-trading scheme, which is expected to be fully active by 2015, and the ADB recently announced that it would

Box 1 Asian Development Bank

The ADB has a strangely contradictory analysis of the impacts of economic growth: on the one hand, economic growth is cited as the cause of environmental degradation and climate change; on the other, the problems themselves are seen as a threat to further economic growth.

'Economic growth is taxing the environment, hastening the depletion of the region's energy and natural resources, and feeding global climate change. These problems, individually and combined, imperil economic growth and could erode recent development gains and diminish those yet to come.'[24]

Since climate change has been identified as a major economic and environmental threat to the region, the ADB strategy is to integrate climate change into its planning and investment to 'ensure continued economic growth' – despite its own admission that economic growth is one of the drivers of climate change.[25]

Climate change is integrated into the economic growth strategy by promoting clean energy, sustainable transport and urban development, managing land use and forests for carbon-sequestration, and strengthening governance and policies.

Presently, the ADB funds its climate agenda through grants and loans – principally in the energy sector – as well as 'carbon funds' to assist countries to access global carbon markets. Finance is mobilised through concessional funds, leveraging private sector capital, and maximising the use of market mechanisms.

The ADB has established four main windows for accessing finance for carbon credits: the Asia Pacific Carbon Fund ($150 million), Technical Support Facility (technical assistance only), Credit Marketing Facility (technical assistance only) and the Future Carbon Fund (projected to be between $100 and $200 million) which uses carbon credits generated beyond 2012 to provide financing for clean energy projects.

The bank has also invested $100 million as seed capital to help set up five private sector equity funds for clean energy projects, which it hopes will attract $1 billion in additional private sector capital.

In 2009, the ADB disbursed $600 million in grants for 'low-carbon, climate resilience investments'.

Compared to its total lending for 2009 of $13,2 billion – of which almost half is for roads, airports, power plants, and water and sanitation – the funds available for climate mitigation and adaptation are relatively small.

In the framework of 'green' or 'sustainable' growth, the ADB places great emphasis on the energy sector, and in particular energy efficiency. In 2008, the bank reported that over one-quarter of all its loans included a 'clean energy' component.

However, given that the baseline is traditional coal-fired power plants, the definition of 'clean' is relative.

By 2013 the bank aims to be lending $2 billion a year for 'clean energy' investment.[26,27]

support the establishment of a carbon finance district in Beijing and the development of the China Beijing Environmental Exchange.[30] India has already introduced an 'energy-efficiency certificates' trading scheme that is (perhaps optimistically) anticipated to grow to $16 billion in the next five years.[31]

Under the auspices of UNESCAP, governments across the region have adopted a 'green growth' approach. The main elements are: sustainable consumption and production, greening business and markets, sustainable infrastructure, green tax and budget reform, eco-efficiency indicators, and investment in natural capital (investing in natural ecosystems and including developing ecosystem service markets).[32]

The ASEAN established an ASEAN Climate Change Initiative (ACCI) in 2007 to co-ordinate between environmental, social welfare and disaster management agencies. As yet, there is no ASEAN-wide climate policy either at the regional level or in the UNFCCC negotiations, although civil society groups engaging with the ASEAN are advocating that environmental issues be raised to the same level as the other pillars: social and cultural, political and security, and economic.

Groups are also pushing for a regional approach on financing for adaptation, specifically in the form of grants. At present, there is no common strategy and the major recipients of adaptation financing – the Philippines and Indonesia – are being financed through loans from the ADB and the World Bank.

Although ASEAN members do not operate as a bloc in the UNFCCC, there is a political commitment to regional integration in all policy areas – including climate – by 2015.

The South Korean government recently launched the East Asia Climate Partnership and established the Global Green Growth Institute to foster 'green growth' and specific mitigation and adaptation projects in 'cost-effective and growth-friendly ways'.[33]

Table 2 Current sources and scale of international financing for climate change adaptation and mitigation[37]

Sources	Implementer	US$ billion	Notes
Mitigation			
UNFCCC			
Clean Development Mechanism		18	Potential delivery by 2012
GEF Trust Fund	GEF	2,4	Disbursed
Multilateral			
Climate Investment Funds	World Bank	5,6	Pledged 2009–2012
Forest Carbon Partnership Facility	World Bank	0,4	US$160 million disbursed
Carbon Partnership Facility	World Bank	0,5	US$140 million disbursed
Bilateral			
Cool Earth Partnership	Japan	8	Pledged 2008–2012
Climate and Forest Initiative	Norway	2,3	
International Climate Initiative	Germany	0,6	US$347 million disbursed
International Forest Carbon Initiative	Australia	0,2	Pledged 2007–2012
Total mitigation		**38**	
Adaptation			
UNFCCC			
GEF	GEF	0,4	US$130 million disbursed
Adaptation Fund	AFB	0,3–0,6	Estimated 2008–2012
Multilateral			
Climate Investment Funds	World Bank	0,6	Pledged
Bilateral			
Cool Earth Partnership	Japan	2	Pledged 2008–2012
International Climate Initiative	Germany	0,2	
Total adaptation		**3,5**	
Total		**41,5**	

SOURCES OF CLIMATE FINANCE

A plethora of climate funds operate across the region. These include the Global Environment Facility (GEF), the Adaptation Fund (AF), the Least Developed Countries Fund (LDCF), the World Bank's Forest Carbon Partnership Facility (FCPF), and the Multilateral Development Bank (MDB)-administered Climate Investment Funds (CIFs).

The ADB and bilateral agencies also channel resources toward 'clean' energy and other climate projects in the region and the World Bank Carbon Finance Unit is active in purchasing emissions certificates.

The United Nations Environment Programme (UNEP)-GEF funds 144 projects in Asia compared to 246 in Africa and 889 globally. Of these, 83 are for mitigation actions worth approximately $360 million and 20 are for adaptation projects worth approximately $136 million, of which just two projects in Bangladesh account for $77 million – or more than half.[34]

About 40 per cent of the World Bank's climate portfolio – $500 million – is allocated to Asia. China receives the largest share of project financing, mainly focusing on energy efficiency and renewable energy. Half of the bank's carbon finance projects are in China, followed by Indonesia, the Philippines, Malaysia and Thailand.[35] These projects focus on energy efficiency in power and industry, industrial gas emissions reduction, waste management and reforestation.[36]

CLIMATE FINANCE PRIORITIES

Mitigation and adaptation

Table 2 shows that globally mitigation receives ten times the resources of adaptation, at least in terms of pledges, and of the $38 billion for mitigation almost half comes through the CDM.

It is estimated that South Asia, East Asia and the Pacific would need up to $35 billion a year between 2010 and 2050 for adaptation.[38] Nevertheless, mitigation projects receive the lion's share of Asia's climate policy and funding focus. In the region, there are 113 mitigation projects, with 28 in China, 16 in India, eight in Thailand and seven in the Philippines. In contrast, despite the high levels of risk and vulnerability, there are only 40 adaptation projects: three in the Philippines, two each in India and China, and one in Thailand.[39] See Table 3 for regional comparisons.

Clean Development Mechanism

The vast majority of CDM projects are registered in Asia: 77,14 per cent of the total 2 329 CDM projects. Of those, 71,43 per cent are in just six countries: China has 925 projects (39,75 per cent), India 520 (22,35 per cent), Malaysia 83 (3,57 per cent), Indonesia 48 (2,06 per cent), Korea 43 (1,85 per cent) and the Philippines 41 (1,76 per cent). See Table 3 for regional comparisons.

Reducing Emissions from Deforestation and Forest Degradation

Given that deforestation is a major source of emissions in the region, the Reducing Emission from Deforestation and Forest Degradation (REDD) initiative will be a significant source of financing. At present, about nine REDD projects are funded in the region, six of them in Indonesia. The major funders are the FCPF (a consortium of bilateral agencies, governments and NGOs), UN-REDD and the International Forest Carbon Initiative (Australian

Table 3 Regional shares of climate projects, finance and certified emission reductions (CERs)

	All				Adaptation				Mitigation				REDD				CDM			
	Projects		Funds US $m		Projects		Funds US $m		Projects		Funds US $m		Projects		Funds US $m		Projects (registered)		CERs issued	
	No.	%	$	%	No.	%	$	%	No.	%	$	%	No.	%	$	%	No.	%	Total	%
Total	**513**	**100**			**166**	**100**		**100**	**301**	**100**		**100**	**46**	**100**		**100**	**2 329**	**100**	**429 166 255**	**100**
X-border	22	4,3			23	13,6			38	12,6			5		10,9	0	0	0	0	
Asia	165	32,2			29	17,5			91	30,2	376,7		11	23,9			1 763	77,14	357 088 681	83,20
Africa	147	28,7			76	45,8			56	18,6	146,5		13	28,3			45	1,93	1 943 287	0,45
Americas	84	16,4			12	7,2			55	18,2	180,4		8	17,4			476	20,37	63 935 046	14,89
Europe	42	8,2			4	2,4			36	11,9	120,6		2	4,3			13	0,55	-	-
Mid. East	34	6,6			11	6,6			22	7,3	49,8		1	2,2			30	1,28	5 948 267	1,38
Oceania	19	3,7			11	6,6			3	1,0	1.9		6	13,0			2	0,08	250 974	0,0

Sources http://www.climatefundsupdate.org (updated August 2010; accessed 1 October 2010) and UNFCCC CDM statistics.

government). The Indonesian government recently signed a letter of intent to start a multi-year $1 billion project to reduce deforestation and protect peatland in Indonesia. This is likely to be the first of a number of large-scale REDD-type projects in the region.[40]

Least Developed Countries Fund

Six Asian least developed countries (LDCs) have completed their National Adaptation Programme of Action (NAPA) and can access adaptation finance through the LDCF managed by the GEF: Afghanistan, Bangladesh, Bhutan, Cambodia, Lao PDR and the Maldives. Between them, $45 million in grants was approved by April 2010. The global fund for all LDCs is only $224 million in total, with just $169 million received to date.[41]

Given the extreme vulnerability of millions of people to the immediate impacts of climate change and their scant resources to adapt, the gulf between the finance for mitigation and that for adaptation speaks volumes about government priorities: economic growth – even if it's a paler shade of green – is the winner. Governments prefer the easy route of accessing funds through the CDM to taking on the harder political struggle of finding money for adaptation.

GOVERNANCE ISSUES IN ASIA

In the past three decades, many countries in Asia have recorded impressive levels of economic growth. Even though it is acknowledged that this has been achieved at a high social and ecological price, there is still an unshaken belief that the future will be the same as the past, albeit with fewer GHG emissions.

Regionally, the climate strategy is vague, at the level of governments and the MDBs. Based on the documents and reports of the UNESCAP 'Green Growth' initiative and the ADB, there is little that goes beyond generalisations about sustainable or green growth and assertions that this will alleviate poverty and protect the environment. Indeed, there is little to suggest that the approach to climate is anything more than business as usual, albeit with a green hue. If past practices of bilateral and multilateral donors, as well as corporations and investors, are any indication of the future, it is unlikely that there will be a major shift in the approach to 'development' in Asia.

Across the region, there are significant deficits in democratic participation, transparency and accountability of governments and the private sector. Five countries have freedom of information legislation, and four more have bills in the pipeline. However, even if there are sound legislation and clear channels for complaint and redress, the social groups most likely to be adversely affected by climate change or by the impacts of mitigation or adaptation projects are the most marginalised: urban poor, peasants, the indigenous population, women, fishers, and so on.

At the national level, it is only in the past few years that climate change has moved up the political agenda and many countries have begun to develop national climate change strategies. However, as with policy development in general, the approach is top-down and it is only through the actions of social movements and NGOs that governments have opened the space for even minimal participation of civil society in debates on policies and priorities. For example, in Thailand and the Philippines, civil society groups have had some success in opening up some spaces for broader consultation.

However, the general impression is that, in the absence of detailed and long-term regional and national climate policy and plans, the availability of finance drives the climate agenda. This is evident through the high level of CDM financing – which is both relatively easy to access and coherent with promoting economic growth – even though in terms of actual needs and risks, adaptation should be the priority across the region.

This seemingly opportunistic approach to accessing climate finance through the CDM is incompatible with good governance practices of participation, consultation, prior and informed consent of affected groups, thorough investigation of alternatives, and assessing the social and environmental implications outside the narrow scope of the CDM.

CONCLUSION

Although governments and regional institutions have taken up the challenge of climate change, the overarching policy response is to promote 'green growth'. Climate finance therefore is seen first and foremost as a means to achieve growth, especially in the energy sector. However, regional climate policy is still vague and in the absence of a clear strategy to drive the allocation of resources, it appears that the resources are driving the strategy.

Because of the scarcity of resources for adaptation, and the abundance of 'low hanging' CDM or 'clean' energy projects in the region, most finance is for mitigation. Most of this finance is in the form of loans or from the sale of certified emission reductions (CERs) through the CDM or other carbon finance initiatives.

Given that climate policy is effectively a 'greening' of the existing growth-oriented economic policies, there is no incentive for change in the status quo. It is likely that the MDBs, governments and the private sector will continue to operate as usual in terms of promoting

large-scale infrastructure investments aimed to spur growth, with minimal regard for social and other non-climate environmental impacts and with very weak mechanisms for redress or participation by affected groups and communities.

RECOMMENDATIONS

Regional and national climate plans should be developed with the full participation of the social sectors most vulnerable to and affected by climate change.

Finance and other resources should be mobilised to support the implementation of these democratically developed plans.

Finance should not depend on the creation of carbon credits and other market mechanisms that are based on the dominant development model and promote high-risk financialisation of nature.[42] Resources should be mobilised through publicly accountable and transparent mechanisms.

As a priority, regional and national climate plans should address the immediate and medium-term impacts of climate change through investments in adaptation and mitigation actions that support communities and vulnerable social sectors to increase their well-being and resilience.

Climate finance should prioritise investments and activities that facilitate a move away from energy-intensive and unsustainable production and consumption towards more equitable, sustainable and democratic systems that enhance ecological recovery and social justice.

Decisions about the use of climate finance should be made in a transparent manner that involves all social sectors and particularly those most affected by climate change. These groups should also have direct access to and control over finance for activities developed and implemented at the local level.

NOTES

1 Nicola Bullard is a senior associate with Focus on the Global South and co-ordinates the climate justice programme.

2 Asian Development Bank (ADB), http://www.adb.org/climate-change/ (accessed 12 January 2010).

3 All dollars, unless otherwise indicated, are US dollars.

4 ADB, *Strategy 2020: the long-term strategic framework of the Asian Development Bank 2008–2020,* Mandaluyong City, Philippines: ADB, 2008, 28.

5 ADB, *Focused action: priorities for addressing climate change in Asia and the Pacific,* Mandaluyong City, Philippines: ADB, 2010, 4.

6 A Platform for Climate Justice of Asian Movements, Organizations and Networks, Bali, August 2009, 1, http://xa.yimg.com/kq/groups/21180607/1434660339/name/asia.

7 In this paper the geographic scope of Asia is defined as East Asia and South Asia, based on the World Bank categories: Afghanistan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Korea (North and South), the People's Democratic Republic of Lao, Malaysia, Maldives, Mongolia, Nepal, Pakistan, the Philippines, Thailand, Timor-Leste, Sri Lanka and Vietnam. These are all non-Annex 1 countries. Although not a recipient of World Bank financing, Singapore is also a non-Annex 1 country.

8 Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World population prospects: the 2008 revision* and *World urbanization prospects: the 2009 revision,* http://esa.un.org/wup2009/unup/ (accessed 1 October 2010).

9 Mark W Rosegrant and Peter B R Hazell, *Transforming the rural Asian economy: the unfinished revolution,* Washington DC: International Food Policy Research Institute, 2001.

10 World Resources Institute, *Climate Analysis Indicators Tool (CAIT) Version 7.0.*

11 United Nations Statistics Division, Department of Economic and Social Affairs, Millennium Development Goals Indicators, *Series: Carbon dioxide emissions (CO2), thousand metric tons of CO2 (CDIAC),* 2008, http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749 (accessed 1 October 2010).

12 World Resources Institute, *Climate Analysis Indicators Tool (CAIT) Version 7.0.*

13 ADB, *Energy policy,* Mandaluyong City, Philippines: ADB, 2009. The three pillars of the ADB energy policy are: promoting energy efficiency and renewable energy; maximising access to energy for all; and promoting energy sector reform, capacity building, and governance.

14 http://www.wri.org/map/forest-cover-loss-indonesia-2000-2005-starting-point-norwegian-billion-reduce-deforestation (accessed 20 February 2011).

15 Kemen Austin, Fred Stolle and Beth Gingold, *What's next for Indonesia-Norway cooperation on forests?* World Resources Institute, 13 July 2010, http://www.wri.org/stories/2010/07/whats-next-indonesia-norway-cooperation-forests (accessed 1 September 2010).

16 The addition of estimated emissions from deforestation and land-use change in national emission estimates changes significantly per capita emissions. For example, in 2000 Malaysia's per capita emission was 6,7 CO_2e tonnes; if land-use change and deforestation are included, the figure is 37,2 CO_2e tonnes. Similar figures for Indonesia are 2,4 and 14,9 respectively. These figures indicate the significant contribution of deforestation and land-use change to emissions from the region.

17 World Bank, *A climate for change in East Asia and the Pacific. Key policy advice from World Development Report 2010,* Washington DC: IBRD/The World Bank, 2010, 7.

18 Intergovernmental Panel on Climate Change (IPCC), *Climate change 2007: impacts, adaptation and vulnerability,* WMO and UNEP, 2007, 59.

19 IFAD, *Climate change impacts: South East Asia,* April 2009, http://www.ifad.org/events/apr09/impact/se_asia.pdf (accessed 1 October 2010).

20 ADB, *Focused action: priorities for addressing climate change in Asia and the Pacific,* 64.

21 United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), *Review of the state of the environment in Asia and the Pacific, 2005*, E/ESCAP/SO/MCED(05)/1 4 March 2005.

22 ADB, *Fighting poverty in Asia and the Pacific: the poverty reduction strategy,* Mandaluyong City, Philippines: ADB, undated, 12.

23 Benjamin L Preston, Ramasamy Suppiah, Ian Macadam, Janice Bathols, *Climate change in the Asia Pacific region: a consultancy report prepared for the Climate Change and Development Roundtable,* Australia: CSIRO, 2006, 2.

24 ADB, *Strategy 2020: the long-term strategic framework of the Asian Development Bank 2008–2020,* 3.

25 ADB, http://www.adb.org/Climate-Change/default.asp (accessed 1 October 2010).

26 ADB, http://www.adb.org/clean-energy/ (accessed 1 October 2010).

27 ADB, *Guidelines for estimating Asian Development Bank (ADB) investments in renewable energy and energy efficiency projects,* ADB: undated, 5, http://www.adb.org/Documents/Clean-Energy/Guidelines-Estimating-ADB-Investments.pdf (accessed 1 October 2010).

28 World Bank, *World development report 2010: development and climate change,* Washington DC: IBRD/The World Bank, 2010, 22.

29 ADB, *Focused action: priorities for addressing climate change in Asia and the Pacific,* 21.

30 Lisa Friedman, *Asian Development Bank helps Beijing set up international carbon trade center*, Washington DC: E&E Publishing LLC, 24 September 2010.

31 Kate Mackenzie, Will Chinese emissions trading schemes gather momentum?, *Financial Times*, 11 February 1010.

32 See UNESCAP website, http://www.greengrowth.org/index.asp.

33 Seoul to bring G20 leaders' attention to 'green growth', *The Korean Times*, 22 August 2010.

34 See UNDP-GEF, http://ccmap.undp.org/ (accessed 1 October 2010).

35 The World Bank Carbon Finance Unit operates at least 12 separate funds. According to its website the 'CFU does not lend or grant resources to projects, but rather contracts to purchase emission reductions similar to a commercial transaction, paying for them annually or periodically once they have been verified by a third party auditor. The selling of emission reductions – or carbon finance – has been shown to increase the bankability of projects, by adding an additional revenue stream in hard currency, which reduces the risks of commercial lending or grant finance. Thus, carbon finance provides a means of leveraging new private and public investment into projects that reduce greenhouse gas emissions, thereby mitigating climate change while contributing to sustainable development.' http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTCARBONFINANCE/0,,contentMDK:21841841~menuPK:4125909~pagePK:64168445~piPK:64168309~theSitePK:4125853,00.html (accessed 1 October 2010).

36 World Bank, *A climate for change in East Asia and the Pacific*, Washington DC: IBRD/The World Bank, 2009, 11.

37 Charlie Parker, Jessica Brown, Jonathan Pickering et al, *The little climate finance book*, Oxford UK: Global Canopy Programme, 2009, 20.

38 World Bank, *The costs to developing countries of adapting to climate change: new methods and estimates – the global report of the economics of adaptation to climate change study consultation draft*, http://siteresources.worldbank.org/INTCC/Resources/EACCReport0928Final.pdf (accessed 1 October 2010).

39 See http://www.climatefundsupdate.org (accessed 1 October 2010).

40 Austin, Stolle and Gingold, *What's next for Indonesia-Norway cooperation on forests?* http://blog.norway.com/2010/07/13/what%E2%80%99s-next-for-indonesia-norway-cooperation-on-forests/ (accessed 17 August 2011).

41 UNFCCC, http://unfccc.int/cooperation_support/least_developed_countries_portal/ldc_fund/items/4723.php (accessed 1 October 2010).

42 Friends of the Earth US, *Smaller, simpler and more stable: designing carbon markets for environmental and financial integrity,* Washington DC: Friends of the Earth US, September 2009.

Chapter 8

Clean Development Mechanism governance in Thailand

Jacques-chai Chomthongdi[1]

CONTEXT

Experts forecast that if greenhouse gas (GHG) emissions continue on the 'business as usual' path, the average temperature in Thailand will increase by 1°, 2° and 4° C in the next 30, 50 and 80 years respectively. Rain patterns crucial to the livelihood of the majority of Thais who still live in rural areas will change drastically over the same period. Bangkok alone will experience economic damage estimated to be at least $47 billion over the next 40 years.[2]

At the same time as being a victim of climate change, Thailand has increased its contribution to global warming in the last few decades. Between 1950 and 2000, Thailand's accumulated man-made GHG emissions were 0,35 per cent of the global total. This put Thailand 42nd in the world ranking. However, due to accelerated economic growth, by 2005 Thailand had rapidly moved up to 24th position with a 0,95 per cent share of global emissions. Although Thailand's per capita emission in 2005 was 5,6 tonnes per annum, which was under the world average of 5,8 tonnes, there is an enormous gap between per capita emissions in the provincial areas and those of the capital Bangkok, which is in the same league as London and New York.

It is clearly stated in Thailand's National Action Plan (2010–2019)[3] that the current model of development, based on energy-intensive rapid industrialisation, is the main factor for the fast rise in GHG emissions.[4] Thailand's emission intensity per GDP is now the highest among Southeast Asian economies at 789 tonnes per million US dollars. The ASEAN and world averages are 747 and 602 tonnes per million US dollars respectively. The key contributors to GHG emissions in Thailand are the energy and industrial sectors. Together they are responsible for at least 73 per cent of national emission. Based on the current projection, GHG emission from the energy sector will grow 4,7 per cent yearly between 2005 and 2020.[5]

Even with this knowledge it seems that no Thai government is considering embarking on a different development track. The Thai state is still pressing forward with new industrial zones and enlarging existing ones. Climate change is seen by decision-makers as both a challenge and an opportunity: the challenge is to focus on adaptation much more than mitigation, while the opportunity is seen in the potential new sources of finance in the area of mitigation. Thus far, there are four main potential channels of finance identified by the government: the Global Environment Facility (GEF); adaptation funds under the United Nations Framework Convention on Climate Change (UNFCCC); readiness funds under the World Bank's Forest Carbon Partnership Facility (FCPF); and carbon credits sold under the Clean Development Mechanism (CDM) scheme.

The GEF funds received by Thailand, which are managed by the Office of International Cooperation on Natural Resources and Environment under the Ministry of Natural Resources and Environment, have been less than $3 million a year on average. The funds are distributed among government agencies and a number of NGOs.[6] Although Thailand has certain characteristics that could be categorised as part of the Most Vulnerable Group and is ready in terms of having a national implementing entity (NIE), adaptation funds and the main FCPF fund have not been made available to the country to this date.[7] Under the scenario where finance from multilateral mechanisms for public money has not delivered, the CDM has become an attractive source for future climate finance for both the government and the private sector.

THAILAND GREENHOUSE GAS MANAGEMENT ORGANIZATION

In January 2008, the Thailand Greenhouse Gas Management Organization (Public Organization), or TGO, was established under the Ministry of Natural Resources and Environment as the designated national authority for CDM (DNA-CDM) in Thailand. The main duties of the TGO are to analyse and screen the CDM projects for issuance of the Letter of Approval (LoA) and to monitor projects. Therefore, the TGO, which is the sole body for overseeing and filtering CDM projects, is central to the development and direction of CDM in the country.

Since its inception, the TGO has issued 111 LoAs, totalling 6 947 295 million tonnes of CO_2 equivalent per year (biogas 67,59 per cent, biomass 20,13 per cent, and other CDMs 12,28 per cent). Out of the 111 CDM projects, 37 projects (accounting for 2 143 903 million tonnes CO_2 equivalent per year) are now registered with the CDM Executive Board (CDM EB). However, currently only two projects have received issuance of Certified Emission Reductions (CERs). These projects are A.T. Biopower Rice Husk Power Project (100 678 tonnes of CO_2 equivalent per year, 21 December 2005 – 30 June 2007) and Korat Waste to Energy (714 546 tonnes of CO_2 equivalent per year, 1 May 2003 – 16 June 2007).[8]

RESOURCE MOBILISATION

In order for each project to receive the LoA, it must meet sustainable development and additionality criteria set by the TGO. Yet, according to observations by community leaders and environmental experts, several projects are in a grey area because of their negative impacts on the environment and the lack of convincing evidence of their 'additionality' – that is, they are not merely business as usual ventures.[9] Many biogas and biomass power projects have a generating capacity of just below 10 megawatts, which is the size required by law for an environmental impact assessment (EIA). The reason is partly to avoid the cumbersome process, cost and risk of doing an EIA.

Although the TGO has elaborated an extensive set of sustainable development criteria, there are doubts regarding several potential CDM projects.[10] For instance, the rice husk-burning biomass power station has been perceived and presented by the TGO as an operation that uses 100 per cent waste product to generate electricity. This is clearly not the case for most farmers. Rice husks are used in both animal raising and fertilising agricultural land, so it is hardly 'waste'. A sharp increase in the price of rice husks due to the demand from the power plant has led farmers to replace this natural fertiliser with chemical substitutes. Hence, this type of project undermines sustainable development and contributes to global warming by encouraging farmers to use nitrogen concentrate chemicals. However, it still receives the TGO's enthusiastic endorsement and the project developers receive the financial benefits while the social and environmental costs of the project are borne by the community and other government departments (such as those associated with health impacts).

The case for additionality is extremely murky since project developers and the TGO have an interest in making the projects appear different from the baseline scenario. At a recent conference organised by the TGO,[11] a CDM project operator noted that a 'carbon credit is like a bonus as the project's electricity sale also receives [the] state subsidized grid-rate', but moments later also stated that 'without carbon credit this project would not be realized'.[12]

At the same event, a high-ranking TGO staff member encouraged potential CDM project developers by assuring them that there are ways of assisting with the additionality requirement. The NGV-Bus project of the Thai government was cited as an example of a potential CDM project. It is well known that this project was planned long before any consideration regarding its CDM potential and it will happen with or without CERs. Still, senior TGO staff explained how it could be made eligible as a CDM project. It seems, therefore, that the TGO is far more interested in the potential to generate carbon credits (and hence finance) through the CDM than to use it as a tool to support new, genuinely additional reductions in GHG emissions. It should be noted that the TGO's main revenues are from project registration fees and, more importantly, benefit sharing from the sale of carbon credits by project developers. However, the information regarding the income that TGO receives from promoting CDMs is not publicly available.

INSTITUTIONAL ASPECT

The highest authority within the TGO is the Board of Directors, which is also the body that signs off on LoAs. Although there is a wide range of CDM project categories, and CDM projects could have various environmental, social and other impacts at different project locations, the composition of the board members is noticeably restricted. Of the nine members, four are government officials, three are from the private sector or have close links with it, while two are from academia.[13] Even though most CDM projects in Thailand involve small- or medium-size power generators in rural areas, there are no experts on social, environmental or health issues, nor are there civil society or local community organisation representatives.

Another interesting feature of the TGO is that it has a prominent role in the Kyoto Protocol track negotiations of the UNFCCC. In 2009, the TGO acted as Thailand's main negotiating body on the Kyoto Protocol. This is problematic: at national level, the TGO has the duty to promote the CDM and even promote carbon markets, yet it also represents the country in international negotiations that have a much wider coverage. Since the TGO is making money out of the CDM, the conflict of interests is evident. The Kyoto Protocol negotiation from the Thai side might concentrate on the flexible mechanisms with an emphasis on CDM to generate as much income as possible while overlooking other aspects of the protocol. This inclination was reflected in the National Negotiating Framework on Climate Change prepared by the Ministry of Natural Resources and Environment for the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change, more commonly known as COP 15.[14]

It would not be an exaggeration to claim that the TGO has more interest in producing money from CDMs than in mitigating global warming, given that it is a profit-making organisation. Indeed, the executive director openly advertised this income-generating aspect in a published article last year by describing carbon credits as 'money from the sky'.[15]

DISBURSEMENT OF FUNDS

With its conflict of interests and the lack of a mechanism to ensure transparency and accountability, the TGO could potentially focus on business interests at the expense of other areas such as public welfare. This could result in CDM projects that are weak in sustainable development standards, even though TGO policy states the principle that a CDM project should be approved only where social and environmental sustainability are demonstrated to be enhanced.[16] For example, residents near the A.T. Biopower Rice Husk Power Project, mentioned above, complained about respiratory problems and skin irritations. It is important to note that rice husk ash has a high percentage of silica (SiO_2) which causes silicosis (an irreversible lung disease).[17] Also, villagers complained of noise pollution. Instead of operations being slowed operations or the engine being modified, earplugs were offered to villagers. 'Each time the villagers have complained about the station, the standard response has been to offer them gifts to stay quiet'.[18] In this case this happened without any recorded TGO intervention.

To be fair, the mandate of TGO ends when the project achieves CDM status. Moreover, these problems existed already in many non-CDM biomass projects. However, it is clear that meeting the TGO's sustainable development criteria and becoming a CDM project left most, if not all, existing problems unsolved.

Furthermore, the TGO is interested only in the part of the project associated with the carbon credits, and not the project as a whole. For example, how the land was acquired or whether other parts of the operation emit toxic waste is not considered or monitored by the TGO.

In terms of 'benefit sharing' there is no TGO requirement that funds be allocated to benefit local communities. However, in the case of the A.T. Biopower project, the company established a one million baht 'community' fund that was used to provide the 'gifts' mentioned above. In the absence of any clear mechanism for benefit sharing, it is likely that examples such as this will be the norm.

CONCLUSION

The TGO was established to facilitate access to funds through the CDM. However, there is a great deal of research to support the conclusion that the CDM, as currently operating, is not an effective way to reduce GHG emissions in the North, nor is it an effective way to introduce clean technology and other appropriate mitigation measures in the South.

In the case of the TGO, it seems that broader considerations, such as the overall national strategy to reduce GHG emissions, vested and conflicting interests, project sustainability, and social and environmental impacts, are not systematically addressed nor is there a mechanism to ensure that potential benefits of such projects are shared between the different actors (business, community, workers, and so on).

RECOMMENDATIONS

Mechanisms to facilitate technology transfer through public finance and open-source access, rather than carbon markets, offsets, and private intellectual property rights, would be more beneficial and accountable to the wider community.

However, given that the CDM is one of the main sources of climate finance at the moment, safeguards need to be put in place to ensure that financial and other interests do not distort assessments of sustainability and impacts.

The TGO Board should be balanced between diverse sectors, including those representing social and environmental interests, so that CDM projects promote genuine sustainability.

In terms of structure, there should be two independent entities, with separate functions and governance. One entity would be responsible for promoting and

facilitating CDM projects, while the other would have the role of assessing, approving, licensing and monitoring CDM projects. This separation would ensure that financial and other vested interests do not distort decisions about benefits, impacts and sustainability.

NOTES

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2 Office of National Resources and Environmental Policy and Planning, National Master Plan on Climate Change 2010–2019, Office of National Resources and Environmental Policy and Planning, November 2009, 13.

3 The National Master Plan on Climate Change 2010–2019 was developed by the Office of National Resources and Environmental Policy and Planning in 2009. It includes national strategies on both mitigation and adaptation, and identifies measures at all levels. Unfortunately it was developed with very limited public participation.

4 Office of National Resources and Environmental Policy and Planning, National Master Plan on Climate Change 2010–2019, 32.

5 Ibid.

6 Thus far, several climate-related projects proposed by associations and foundations, including the Red Cross, Thailand, have been able to access GEF money. For example, a six million baht fund was recently approved for a project to develop an adaptation guideline co-ordinated by the Red Cross.

7 Thus far, only Senegal and Honduras have been approved by the Adaptation Fund Board.

8 Thailand Greenhouse Gas Management Organization (TGO), Thailand CDM projects, http://www.tgo.or.th/index.php?option=com_content&task=category&sectionid=6&id=30&Itemid=40 (accessed 18 August 2010).

9 Chaipong Muangduang, personal communication, 20 August 2010.

10 Wanun Permpibul, personal communication, 18 August 2010.

11 Carbon credit: new commodity generating income for the country, a conference co-organised by Thailand Greenhouse Gas Management Organization and Thai Bankers' Association, Siam City Hotel, Bangkok, 5 July 2010.

12 Natee Sithiprasat, presentation at Carbon credit: new commodity generating income for the country conference co-organised by Thailand Greenhouse Gas Management Organization and Thai Bankers' Association, Siam City Hotel, Bangkok, 5 July 2010.

13 TGO, The board of directors of Thailand Greenhouse Gas Management Organization, http://www.tgo.or.th/english/index.php?option=com_content&task=view&id=35&Itemid=41 (accessed 18 August 2010).

14 Nisakorn Kositratna, presentation at the development cooperation seminar on climate change: 'Thai voices are heard in Copenhagen' co-organised by the Office of National Resources and Environmental Policy and Planning, the United Nations Country Team in Thailand and the Thai Working Group for Climate Justice, Queen Sirikit Conference Centre, Bangkok, 14 September 2009.

15 Sirithan Pairoj-Boriboon, Carbon credit 'money from the sky, not difficult but not easy', *Matichon*, 2 August 2009, 5.

16 To evaluate CDM project candidates for the issuance of a Letter of Approval (LoA), the TGO has established 'Sustainable Development Criteria' for screening, evaluating and approving CDM projects in Thailand. With respect to the criteria, there are four major groups of sustainable development indicators: (1) natural resources and environment indicators; (2) social indicators; (3) development and/or technology transfer indicators; and (4) economic indicators. See http://www.tgo.or.th/english/index.php?option=com_content&task=view&id=55&Itemid=52 (accessed 23 February 2011).

17 Tamra Gilbertson and Oscar Reyes, *Carbon trading: how it works and why it fails*, Critical Currents Occasional Paper Series 7 (2009), Dag Hammarskjold Foundation, 66–71, 67.

18 Gilbertson and Reyes, *Carbon trading*, 68.

Chapter 9

Clean Development Mechanism governance in the Philippines

Joseph Purugganan[1]

BACKGROUND

The Clean Development Mechanism (CDM) under the Kyoto Protocol is a climate finance mechanism that the Philippine government has been promoting as an investment measure to support its climate change mitigation and adaptation initiatives.

In the context of chaotic climate financing, however, the critical issue for a highly vulnerable country like the Philippines is whether the funds from mechanisms like the CDM help the country directly address its growing climate-related needs or merely represent another source of profits for corporations and elite interests.

COUNTRY CONTEXT

The Philippines has been described as a climate hazard hotspot and a country highly vulnerable to the negative effects of climate change.[2] In 2009, the country experienced 25 disasters, topping the list of countries, ahead of China and the United States.[3]

Climate has always been a factor influencing development in the Philippines. Government's own assessments point to increasing risks and pressures from weather-related events on the economy.[4] The government estimates that disasters – mostly weather-related, such as typhoons, floods and droughts – have cost the country about 20 billion pesos in damages annually since 1990.[5]

The predicament of the Philippines is the classic case of a low emitter contributing very little to the problem of climate change – with emissions of less than 1 per cent of global greenhouse gas (GHG) emission levels – yet high on the list of countries vulnerable to climate change and in dire need of additional resources that would allow it to adapt to the adverse impacts.

INSTITUTIONAL AND POLICY ARRANGEMENTS

The Philippines has in many respects been ahead of most countries in trying to frame both an institutional and policy response to the problem of climate change. An interagency committee on climate change (IACC) was established as early as 1991 to co-ordinate various climate change-related activities, propose policies and prepare Philippine positions for United Nations Framework Convention on Climate Change (UNFCCC) negotiations.

Since then the Philippine government has moved to institutionalise climate in official policy by establishing high-level institutions and mechanisms such as the Presidential Task Force on Climate Change (PTFCC), established in 2007, and, more recently (2009), the Philippine Climate Change Act, a law which aims to incorporate climate change into government policy formulations and establish a framework strategy and programme on climate change. It likewise established the Philippine Climate Change Commission (PCCC), which now stands as the government's sole policy-making body on climate change. Its role is to co-ordinate, monitor and evaluate programmes and action plans relating to climate change.[6]

With the creation of the PCCC, the government hopes to address long-standing concerns about the overlapping and sometimes competing functions of the different national agencies working on climate change. The PCCC must be able to steer the agencies in one direction, recognising key competencies and harmonising roles and functions. In its early stages, however, the PCCC already encountered problems in co-ordinating the agencies' functions. In Copenhagen, for example, this manifested

itself when the vice-chairman of the Commission of the Philippines agreed with the Copenhagen Accord without the consent and approval of the other agencies and prior to any public consultation on the matter. This mistake was corrected later in a formal letter to the UNFCCC Secretariat. The incident, however, indicates the challenges that still face the Philippines in defining a cohesive response to climate change.

In all these institutional and policy responses, the Philippines adopts a multi-pronged strategy to address climate change. It strives to achieve a balanced approach to climate change action with equal emphasis on mitigation and adaptation. It recognises the enormous need to adapt to the negative effects of climate change, especially in light of the disaster-prone character of the country. Yet there is also a strong political desire to make a positive contribution to the global efforts to stabilise GHG emission levels.

The National Framework Strategy on Climate Change (NFSCC) came out in April 2010. The goal of the Philippines, as defined in the NFSCC, is to build the adaptive capacity of communities and increase the resilience of natural ecosystems to climate change, and optimise mitigation opportunities towards sustainable development.[7]

Furthermore, the national framework calls for a synergy of adaptation and mitigation because they have a mutually beneficial relationship. Adaptation, however, is defined as the anchor strategy. The approach of the Philippines is to initiate mitigation measures such as energy efficiency and conservation, renewable energy development and sustainable transport. Even Reducing Emission from Deforestation and Forest Degradation (REDD+) initiatives are undertaken in the context of adaptation.[8]

CLIMATE FINANCE

Direct climate-related financial flows to the Philippines have taken the form of external grants and loans, government counterparts to external flows, and budgetary appropriations and disbursements. External grants have come from multilateral agencies (World Bank, the Asian Development Bank, the United Nations and the European Community), bilateral or country donors, the Global Environment Facility (GEF), foreign NGOs, and foreign and local private foundations.[9]

A national study commissioned by the government estimates that the cost of implementing priority mitigation measures would amount to as much as $29 billion between 2008 and 2030 for the energy sector alone and points out seriously inadequate financing for both climate change adaptation and mitigation measures.[10] The report further points out that budgetary allocations by the Philippine government from the period 2004 to 2009 for direct and indirect climate change programmes exceeded the amount from external sources: the former was $1,576 billion; the latter was only $0,509 billion in direct and indirect grants and $0,354 billion in direct and indirect loans.[11]

Climate finance has been at the centre of recent debates in the Philippine senate over questions of fund governance and accountability. The senate deliberations have raised a number of critical issues on climate finance in the Philippines. Apart from the obvious concern over the inadequacy of external financial resources, issues raised include: the composition of funds coming in (a comparative review of climate funds from 1992 and with projections until 2018 shows more funds taking the form of loans than grants); the misguided prioritisation of mitigation over adaptation measures; misuse of funds; and low capacity or oversight and regulation of these resources.

Climate change financing has been described by some NGOs as nothing short of chaotic. They have called the government to task through the Climate Change Commission to institute mechanisms that ensure effective fund delivery, fiduciary and transparency requirements that build public trust, participation by civil society organisations and congressional oversight.[12]

OVERVIEW OF THE CLEAN DEVELOPMENT MECHANISM IN THE PHILIPPINES

One source of climate finance that the Philippines has been engaged in for some time is the CDM. While it is not a major source of climate finance, the Philippines continues to look at the CDM as part of a wider menu of financing options.

The UNFCCC currently lists 41 registered CDM projects in the Philippines. This represents a mere 1,75 per cent of the total 2 338 registered CDM projects across the globe.[13] The Philippine government, however, has been encouraging the implementation of more CDM projects. Apart from generating much needed investments for climate-mitigating projects, the CDM is also viewed by government as a means to attract more equity and debt investors.[14]

While the nature of the projects varies, the overwhelming majority of the projects in the Philippines involve waste – landfills, hog manure, sewage, agricultural residues, etc.[15]

As much as 87 per cent of credits will come from projects that involve the installation of equipment or technology as part of an existing process (e.g. the installation of digesters in swine farms, gas recovery pipes in landfills, incinerators in cement kilns), while the rest are

stand-alone (e.g. building new wind plants and geothermal projects).[16]

CDM GOVERNANCE

Mobilisation of funds

The Philippine government targeted at least ten CDM projects for implementation in its drive to promote investments under its Medium Term Philippine Development Plan.[17] The CDM is also eyed in the context of the country's pursuit to develop renewable energy sources.[18]

Actors

There are a number of stakeholders in the CDM project cycle. Apart from the designated national authority (DNA), which evaluates and approves the projects at the national level, the other major players include project developers or project participants; a host of facilitators and technical advisers, including banks and other financial intermediaries; the designated operational entity (DOE), which validates and requests the registration and verifies emissions' reduction claims of a registered project; and the CDM Executive Board (EB).[19] Other stakeholders in the process include emission reduction prospectors, green companies and NGOs, and local government units.

The highly technical nature of project development has made the CDM process almost the exclusive domain of a small group of project developers and companies that have developed the expertise necessary to secure approval. One of them, Philippine Bio-Sciences Company (PhilBio), for instance, claims to have developed more than 60 per cent of nationally approved CDM projects and 25 out of 38 Philippine projects registered with the CDM Executive Board in Bonn, Germany, with a total of almost three million tons of carbon emission reductions (CERs) from its CDM projects.[20]

Local government units have also joined the CDM bandwagon. In 2007 the Quezon City government developed and implemented the Biogas Emissions Reduction Project, touted as the first CDM project in solid waste management in the Philippines and in Southeast Asia. The Quezon City government also sees the project as its contribution to the mitigation of global warming and climate change.[21]

Fund design and approval process

The CDM is a flexible mechanism under the Kyoto Protocol, which is designed to provide funds for mitigation projects in developing countries from the sale of CER units to corporations in developed countries. In CDM parlance there is the concept of additionality, where developers must demonstrate that their claimed emissions reductions would not have materialised without the revenue from the CDM. The number of CER credits a specific project can earn is determined by an estimate of how much carbon emission it produces in a baseline scenario. A lot hinges, therefore, on the project proponent's claims of emission reductions and on the ability of the regulating agencies to validate these claims.

The Philippine DNA has defined a four-step approval process for CDM projects involving project application, evaluation, endorsement and approval.[22] The entire process, including new methodology production and approval, and the development of the project design document, all the way to project registration, can take a little over a year to complete.

Implementing institution

Through Executive Order 320, the Department of Environment and Natural Resources (DENR) was designated as the national authority for the CDM. As DNA it must undertake the assessment and approval of CDM projects and monitor their implementation.

Stakeholder consultations

There is a section in the project design document detailing stakeholder comments. The term 'stakeholder' – at least in this section of the project document – refers mainly to local or community stakeholders. There is a short checklist for the stakeholder consultations that the project developer must accomplish, which generally includes proof of written announcement or invitation, list of participants, minutes of proceedings, summary of issues and concerns raised, proposed measures to address issues and concerns, and a site or vicinity map with stakeholder profiling. How effective the public consultations are in articulating community concerns and effecting changes to the project design is not apparent. In the case, for example, of the biggest project in the Philippines, the Montalban Methane Recovery and Power Generation Project, the issues raised in the public consultation over the possible dislocation of adjacent communities, job creation, and even the application of the new technology were not adequately reflected in the final project design document.[23]

Other issues: CDM profits and corporate control

There is definitely money being made in CDM projects in the Philippines. Depending on the market price of carbon,

exchange rates and actual verified reductions, all the currently registered projects could collectively earn about 0,8–2,5 billion pesos annually. Assuming all projects in the pipeline are successfully registered, they could potentially earn another 0,8–2,4 billion pesos annually. For the duration of their crediting periods, registered and potential projects could earn 13–40 billion pesos.[24]

The big question, however, is whether the money circulating around CDM actually helps the Philippines directly address its climate-related needs. Who actually benefits from the CDM?

Almost half of all the credits from registered projects in the Philippines will go to a single developer, the Montalban Methane Power Corporation, with the rest of the developers claiming no more than 10 per cent of the credits each. About two-thirds of all projects receive less than 1 per cent each. Most of the CDM's foreign investors are based in the United Kingdom (24 projects with 62 per cent of the credits) while investors from 14 other countries are involved in the rest.[25]

The CDM's main beneficiaries in the Philippines are the richest individuals and families and their conglomerates that already own a large proportion of the assets and exert disproportionate political power in the country. The CDM in this context is seen as further strengthening the hand of these local interests. Furthermore, a new political constituency is created; one that is expected to support the CDM's perpetuation and expansion, block any moves against it, and oppose measures that may affect its ability to earn from CDM projects.[26] We see this influence in a number of ways, from financial contributions made by individuals and their corporations to political parties and candidates and more direct participation in elections by political clans. (The Zamora family, for example, which was cited in Herbert Docena's report 'Costly, Dirty Money Making Schemes', is a well-known political family with members in congress.)

While corporate interests garner the huge profits, the government hopes to get a slice of the money: directly through the 2 per cent levy for adaptation funds and a levy on the national CDM approval process, joint ventures and fees; and indirectly through taxes on company revenues. This strengthens the link between its own interests and those of the CDM developers and gives it reason to find ways to make the most of the scheme.[27]

Conflicts of interest

An evaluation of registered projects in the Philippines shows that most of the 'credits' being generated will go to projects that further exacerbate climate change and compromise sustainable development. In many cases, they will provide additional revenues to some of the country's largest and most politically powerful conglomerates, with businesses in extractive and fossil fuel-intensive activities, that continue to invest in 'dirty' as opposed to clean technologies. Their projects claim funding to pursue objectives such as environmental protection and waste management that could otherwise be achieved with more effective government and community action, such as the full implementation of the law on solid waste management through waste segregation and recycling. But with government itself earning from the CDM, these actions are also undermined by the CDM.[28]

CONCLUSION

The Philippines is a country highly vulnerable to climate change, which is in dire need of financial resources to adapt to its adverse impacts. Over the years, the government has struggled to cope through its own budgetary allocations. Now, as the economic toll from more frequent disasters rises and as the changing climate manifests itself in more long-term economic and social impacts, the strain on the economy can only be eased by additional external financial resources.

External resources for climate-related activities, however, have been inadequate. Furthermore, the finance has come more in the form of loans for mitigation measures than grants for adaptation, even though the latter has been identified as the national imperative.

The government, driven either by the availability of fund sources or by its own desire to contribute to the reduction of GHG emissions, has focused more on mitigation than adaptation. This bias is slowly being addressed, however, in terms of official policy as reflected in the national framework strategy, which defined adaptation as the anchor strategy. But it remains an issue in the area of climate finance, where the bulk of money coming in is still earmarked for mitigation actions.

The Philippines has also eyed the CDM under the Kyoto Protocol as a possible source of additional resources and a means to support investments towards sustainable development. The CDM is likewise viewed as a means to attract more equity and debt investors. Despite the official rhetoric on the CDM, officials in the agency overseeing CDM projects know that it is a money-making scheme for corporations. Their attitude, which is reflected in the manner in which they approve projects, is to make the most out of the scheme and take advantage of the financial opportunity, since it is already in place and other countries are doing the same.[29]

Although the CDM indirectly supports climate change adaptation through the 2 per cent levy on projects, which goes to the UNFCCC's adaptation fund, it

is clear from official government pronouncements that the CDM is perceived as an opportunity to get additional funds to support mitigation rather than more urgent and needed adaptation actions.

While profits are being made in the CDM, the benefits go mainly to rich and powerful families and conglomerates. Additional revenues from the CDM give them more political clout and leverage, not to mention additional resources to expand their other business interests which, in the case of CDM developers in the Philippines, are in industries that contribute further to the problem of climate change.

In terms of finance governance, a number of issues need to be addressed. Apart from the obvious concern over the inadequacy of external financial resources, issues raised include: the composition of funds coming in (with more funds taking the form of loans than grants); the misguided prioritisation of mitigation over adaptation measures; misuse of funds; and low capacity for oversight and regulation of these resources.

RECOMMENDATIONS

The Philippines needs to find adequate funds to support urgent adaptation measures. Strengthening the governance structures and mechanisms is a crucial first step. Since the PCCC is barely a year old, the priority is to fine-tune the role of the commission as the leading national agency on climate change vis-à-vis the other national agencies (like environment, energy, foreign affairs).

The current debates in the senate about climate finance and the strong demand from various civil society actors and movements for greater public finance for adaptation are likewise important in bringing about more transparent and responsive mechanisms of climate finance in the country other than the CDM.

It is clear that apart from the small revenue generated by the government from fees, there are minimal benefits from the CDM in terms of additional resources to support the national programme on climate change. Conversely, the CDM has become a source of profits and additional revenues for corporations that ironically have large interests in economic activities that exacerbate the problem of climate change.

The Philippine government should at the very least stop promoting the CDM as a finance mechanism and relying heavily on the CDM levy. It should rather concentrate on advocating strongly at the international level for greater contributions to the adaptation fund. This should be in the context of insisting that the Annex 1 countries carry out emission cuts domestically rather than the current heavy reliance on offset mechanisms like the CDM.

NOTES

1 Joseph Purugganan is a researcher associate with Focus on the Global South, based in the Philippines. He co-ordinates the Focus trade programme and is a member of the Philippine Movement for Climate Justice (PMCJ).

2 Arief Anshory Yusuf and Herminia Francisco, *Climate change vulnerability mapping for Southeast Asia*, Economy and Environment Program for Southeast Asia (EEPSEA), January 2009.

3 Femke Vos, Jose Rodriguez, Regina Below et al, *Annual disaster statistical review 2009: the numbers and trends*, Centre for Research on the Epidemiology of Disasters, 2010.

4 New risks and pressures, PTFCC website, http://www.doe.gov.ph/cc/nrp.htm (accessed 12 August 2010).

5 Jose Ramon T Villarin, M Antonia Y Loyzaga, Antonio G M La Viña et al, In the eye of the perfect storm: what the Philippines should do about climate change, Working Paper, July 2008, 59, http://www.observatory.ph/SCJ_doc.pdf (accessed 29 June 2009) as cited in Focus Report on CDM in the Philippines.

6 Philippine Climate Change Act, 2009.

7 National Framework Strategy on Climate Change, 2010.

8 WRI 2007, as cited in National Framework Strategy on Climate Change, 2010.

9 National Environmental, Economic and Development Study (NEEDS) on Climate Change. Resources, Environment and Economics Centre for Studies, Inc. (REECS). 18 March 2010.

10 NEEDS on climate change, 10.

11 Ibid.

12 Institute for Climate and Sustainable Cities (ICSC) and Oxfam, Financing adaptation or funding chaos? Adaptation, finance and Philippine climate policy: a climate policy report, Philippines Institute for Climate and Sustainable Cities and Oxfam-GB, July 2010.

13 Clean Development Mechanism (CDM), Registered project activities by host party, http://cdm.unfccc.int/Statistics/Registration/NumOfRegisteredProjByHostPartiesPieChart.html (accessed 27 August 2010).

14 Lucille Sering, 10 CDM basics, presented at the seminar on carbon finance for cities, 2009, http://www.scribd.com/doc/24207411/10-CDM-Basics-by-Usec-Lucille-Sering (accessed 26 August 2010).

15 Herbert Docena, Focus on the global South, CDM in the Philippines: costly dirty money-making schemes, July 2010, 21.

16 Docena, Focus on the global South, 22.

17 Medium term Philippine development plan (2004–2010). Copy available at http://www.neda.gov.ph/ads/mtpdp/MTPDP2004-2010/MTPDP%202004-2010%20NEDA%20v11-12.pdf (accessed 29 August 2010).

18 Ibid.

19 Sering, 10 CDM basics.

20 PhilBio website, http://home.philbio.com.ph/index.php?option=com_content&task=blogcategory&id=14&Itemid=35 (accessed 12 August 2010).

21 Payatas facility bags Galing Pook Award, news report, the Quezon City government website, January 2009, http://www.quezoncity.gov.ph/index.php?option=com_content&view=article&id=159:payatas-facility-bags-galing-pook-award&catid=1:latest-news&Itemid=122 (accessed 22 August 2010).

22 CDM Philippines, Frequently asked questions, http://cdmdna.emb.gov.ph/cdm/public/cdm-faq.php?main=qa&sub=faq#7 (accessed 25 August 2010).

23 Minutes of the public consultation for the Montalban Methane Recovery and Power Generation Project, 12 July 2007, http://www.carboncapitalmarkets.com/upload/Montalban/Attachments/Attachment4/Attachment4f.pdf (accessed 27 August 2010).

24 Docena, Focus on the global South, 75.

25 Ibid., 22.

26 Ibid., 78.

27 Ibid.

28 Ibid., 22–23.

29 Interview with government official involved in CDM national approval process, 18 June 2009, as cited in Docena, Focus on the global South.

Chapter 10

The state of climate change in Latin America

Dimensions and sources of climate finance

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INTRODUCTION

Latin America faces significant challenges as a result of climate change, yet stands to receive relatively little climate finance from public sources. Far larger investments, linked to the carbon market, are being made through the Clean Development Mechanism (CDM) and Reducing Emissions From Deforestation and Degradation (REDD). This section begins with an overview of the state of climate finance in Latin America. It then offers three case studies showing the implications of this funding in relation to projects currently under development in Chile, Brazil and Peru.

REGIONAL CONTEXT

Latin America is home to about 9 per cent of the world population and accounts for about 8 per cent of global greenhouse gas (GHG) emissions.[2] This figure is rising at a rate of 2,3 per cent annually, the result of various economic, social and demographic factors. Yet the continent's contribution to the problem of global warming as a whole remains modest: Latin America accounted for 3,8 per cent of global carbon dioxide emissions from fossil fuel combustion in the 20th century, compared to over 30 per cent from the US.[3]

Aggregate figures for GHG emissions tell only part of the story, however, and mask a high degree of inequality between countries and between different social actors within them. In terms of regional balance, Mexico and Brazil are the main emitters and, together with Venezuela and Argentina, they account for 79 per cent of the region's emissions (excluding those from land use change).[4]

Latin America as a whole has a relatively low level of emissions per unit of GDP and per capita. However, the distribution is extremely unequal, corresponding to inequalities within countries. Argentina, Brazil, Chile and Mexico all have Gini coefficients of considerably over 0,5 – Brazil's is 0,57 – and there remains a strong correlation between wealth and GHG emissions from final consumption, as observed by the United Nations Environment Programme (UNEP) among others.[5]

Emissions related to energy production account for only 26 per cent of GHG emissions in Latin America, compared to a global average of 59 per cent. This is mainly due to the extremely high proportion of emissions related to land use, land use change and forestry (LULUCF), including deforestation, which contribute 46 per cent of the region's GHG emissions, compared to a global average of 18 per cent.[6]

The high proportion of emissions in rural areas is neither significantly caused by rural populations (which account for about a quarter of the population of Latin America) nor directly beneficial to them. Over 60 per cent of people living in rural areas remain below the poverty line. They face threats to their food sovereignty and rights to territory from the expansion of industrialised agriculture and extractive industries, which are chiefly accountable for the continent's high level of LULUCF emissions.[7]

CLIMATE CHANGE IMPACTS

A wide range of climate change impacts is expected in Latin America. In the eastern Amazon region, temperature increases and decreases in soil water are projected to lead to the gradual replacement of tropical forest by savannah.[8] Species extinction and significant biodiversity loss are also predicted in tropical areas. This includes the loss and dieback of coral reefs in the

Caribbean, which host nurseries for two-thirds of the region's fish and play an important role in storm protection.[9] Climate change will also have negative impacts on food sovereignty, with a projected decline in livestock productivity and certain staple crops.

In addition, changing rainfall patterns and the retreat or disappearance of Andean glaciers will considerably reduce water supplies and thus increase water stress for about 77 million people.[10] Changes in precipitation patterns and the disappearance of glaciers are projected to significantly affect water availability for human consumption, agriculture and energy generation.

The estimated cost of climate-related disasters currently exceeds $5 billion each year in Latin America and the Caribbean.[11] This is projected to rise as the climate changes.

THE ECONOMIC CHALLENGE

International estimates assume a development model narrowly focused on economic growth. Based on this assumption, electricity demand in Latin America is expected to double between 2008 and 2030.[12]

At present, the carbon intensity of electricity production in the region is increasing, as a result of greater reliance on natural gas and coal.[13] A 2010 survey found that 513 power generation projects were under construction across Latin America, with 27 gigawatts (GW) of gas, 20 GW of coal and over 8 GW of new hydroelectric power production capacity.[14] However, caution needs to be exercised when assessing the climate impact of hydroelectric power, which currently accounts for about 15 per cent of the total energy supply in the region.[15] Statistics tend to treat dams as zero emissions, or bundle them into an overall figure for 'renewable' energy, yet routinely fail to take into account methane emissions.[16] In addition, claims of sustainability overlook the considerable environmental and social impacts of such projects.

According to the World Bank, a variety of international financial institutions and other agencies, the region faces challenges in how to continue industrialisation (including in agriculture) while simultaneously attempting to reduce the carbon footprint of this expansion. This narrative has met with significant challenges from social movements and a number of governments in the region, however. For example, the People's Agreement emerged from the World People's Conference on Climate Change and the Rights of Mother Earth, which was hosted by the Bolivian government in April 2010 and involved a broad range of international and regional social movements, civil society groups and community representatives. The Agreement issued a strong rejection of 'a model of limitless and destructive development', denouncing the capitalist model that

> imposes mega-infrastructure projects and invades territories with extractive projects, water privatization, and militarized territories, expelling indigenous peoples from their lands, inhibiting food sovereignty and deepening socio-environmental crisis.[17]

This contestation over development models provides an important backdrop to debates on climate finance for infrastructure, because it frames many of the assumptions underlying the projected scale and direction of climate financing.

SOURCES OF CLIMATE FINANCE

Latin America currently receives only a small amount from international climate finance initiatives, with just $222 million disbursed to date for mitigation efforts, and $57 million for adaptation.[18]

Most of this money goes to Brazil, Mexico, Colombia, Peru and Chile – while poorer countries, including Paraguay and Bolivia, receive proportionately less climate finance. These inequalities are, at least in part, politically motivated, with the US cutting $3 million to Bolivia and $2,5 million to Ecuador from its Global Climate Change initiative on the grounds that these countries had refused to ratify the Copenhagen Accord.[19]

The current figures for climate financing could, however, be dwarfed by the funding attracted to REDD schemes, and private money channelled through the CDM. As a result, these mechanisms are the main focus of this chapter.

CLEAN DEVELOPMENT MECHANISM

The CDM, established under the Kyoto Protocol, is the largest carbon offset scheme in the world, with 2 703 registered projects in developing countries and over 3 000 more awaiting approval as of 1 January 2011.[20] Based on current prices, the credits generated by the end of 2012 could be worth over $30 billion.[21]

Although carbon offsets are often presented as emissions reductions, they do not actually reduce emissions. At best, they move reductions to where it is cheapest to make them, which normally means a shift from Northern to Southern countries. GHG emissions continue to be made at one location on the assumption that equivalent savings will happen elsewhere. The projects that count as 'emissions saving' range from building hydroelectric dams to capturing methane from industrial livestock facilities.

These 'savings' are calculated according to how much less GHG is presumed to be entering the atmosphere than would have been the case in the absence of the

project. But there is no method to demonstrate that it is carbon finance that makes the project possible. Researcher Dan Welch sums up the difficulty: 'Offsets are an imaginary commodity created by deducting what you hope happens from what you guess would have happened.'[22] Estimates vary, but academic analysis of existing projects suggests that between one-third and three-quarters of projects do not represent 'emissions savings' by any reckoning. The companies behind such projects are paid to do what they would have done anyway, while the credits allow companies in industrialised countries to exceed their emissions cap. The projects themselves have frequently exacerbated social and environmental conflicts.[23]

Latin America and the Caribbean currently host 496 registered CDM projects, 18 per cent of the global total.[24] These projects are mainly concentrated in Brazil and Mexico, which account for 39 per cent and 20 per cent of the region's CDM projects respectively, followed by Chile with 9 per cent. The concentration of CDM financing in Brazil is even more marked when viewed through projections of the number of carbon credits (certified emissions reductions, or CERs) expected to be issued by the end of the first commitment period of the Kyoto Protocol in 2012. Of a projected total of 383 million credits in the region, the UN Risoe Centre estimates that almost 168 million issued will be related to projects in Brazil, accounting for 44 per cent of the regional total. With current price projections ranging from $10 to $15 per CER, this would amount to up to $2,5 billion. On the same basis, the total value of carbon credits issued in Latin America as a whole by the end of 2012 might range from $3,8 billion to $5,7 billion.

Across the region, the largest number of CDM projects involve hydroelectric power. The CDM pipeline, which includes registered projects and those at the CDM validation stage, lists 224 hydroelectricity projects, 219 relating to methane avoidance (these often involve the burning of biomass), and 124 related to landfill gases. However, landfill gas projects in the region tend to yield a larger number of credits, and are expected to account for almost 110 million CERs by 2012 (28,5 per cent of the regional total), followed by 54 million (about 14 per cent) from hydroelectricity projects.

It is abundantly clear, then, that the CDM is among the major climate finance mechanisms in Latin America. However, uncertainty about how to verify emissions from LULUCF has led to strict rules on such projects within the CDM. The United Nations Framework Convention on Climate Change (UNFCCC) currently caps the use of LULUCF credits at 1 per cent of base year emissions, meaning that industrialised countries face a limit on how many they can buy. The European Union Emissions Trading System (EU ETS), which drives most of the demand for offsets, currently excludes LULUCF credits altogether. And, finally, such projects can only be developed on land that was not forested before 1990. In Latin America, 19 aforestation and reforestation projects have been approved to date, six of which are in Colombia. However, this focus could change as new CDM methodologies are created. More pressingly, the development of REDD schemes is already changing the climate finance landscape. For this reason, REDD is the second focus of this report.

REDUCING EMISSIONS FROM DEFORESTATION AND DEGRADATION

According to official Food and Agriculture Organisation (FAO) data, Latin America has some of the highest deforestation rates in the world, with over five million hectares of forests lost in the last decade alone.[25]

REDD schemes are presented as a solution to this problem. The concept assumes that deforestation happens because too little economic value is placed on intact forests, and that providing money for conservation to forested countries in the South will help to protect them. Yet this idea has proven to be highly controversial. In particular, concerns have been raised that REDD provides perverse incentives and rewards to those who have contributed most to deforestation, including plantation owners.

The definition of forests currently adopted in international REDD negotiations – following the lead of the FAO – fails to distinguish between standing forests and plantations. Biodiverse, natural forests could therefore be burnt or logged and replaced with plantations, but this would not be treated as 'deforestation'.[26] The lack of a clear distinction is no accident. Defining a forest simply in terms of tree cover – rather than complex ecosystems and the livelihoods of peoples interacting with them – has long been used as a cover for the expansion of industrial-scale plantations. The UNFCCC uses a loose definition knowingly, and against the backdrop of significant resistance.[27]

Further challenges come from indigenous peoples and forest communities, who warn that putting a price on forests will encourage further land grabs by large companies and governments. This claim is borne out by some initial experiences with REDD pilot projects, as discussed below.

With a plethora of multilateral funds and donor countries, the overall picture on REDD remains scattered. It is abundantly clear, however, that REDD is already happening in advance of any formal agreement at the UNFCCC.

In climate financing terms, the largest single fund is the Amazon Fund, created in August 2008 and managed by the Brazilian Development Bank. It had disbursed $60 million by September 2010, with eight projects approved (including the Juma project, discussed below), and a further 30 submitted for approval. Norway is the largest partner in the fund, and was the sole donor until December 2009, with further pledges of $125 million for 2010 and 2011.[28] These sums form part of a total $1 billion of Norway's oil revenues pledged for REDD+ and adaptation activities between 2009 and 2015.[29]

The World Bank, meanwhile, has begun the process of piloting programmes under its new Forest Investment Programme (FIP), with Brazil, Mexico and Peru chosen for the first phase of the scheme.[30] Norway is a key backer here too, alongside the US, UK and Japan. As with other World Bank funds, the fund's governance structure ensures that donor countries retain a significant degree of control over the available money. This will be reinforced by the concessional nature of a significant proportion of the FIP funding.[31] The nature of the projects to be supported is also under question, with Simon Counsell of the Rainforest Foundation, a UK-based NGO, warning that the FIP will support '"business as usual" World Bank forest sector lending – particularly for plantations and "sustainable forest management" (i.e., industrial-scale logging of natural forests)'.[32]

The FIP, in turn, builds upon the ongoing work of the World Bank in promoting REDD readiness through its Forest Carbon Partnership Facility (FCPF), which is encouraging institutional and policy changes to prepare the way for REDD investments in 15 countries in Latin America and the Caribbean.[33] As of November 2010, Costa Rica was the only country in the region to have received a 'formulation grant' from the FCPF – an initial $200 000, which will be used to develop a REDD Readiness Preparation Proposal.[34]

The other major international climate finance initiative is the UN-REDD programme, which has approved funding for initiatives in Bolivia ($4,7 million) and Panama ($5,3 million).[35]

REDD READINESS AND THE VOLUNTARY CARBON MARKET

Latin America has played a pioneering role in the commercialisation of 'forest carbon', with Ecosystem Marketplace reporting in its *State and Trends of the Forest Carbon Market 2009* that the region has accounted for 22 per cent of forestry transactions on the voluntary carbon market to date, second only to North America.[36] The majority of forestry credits so far issued relate to aforestation/reforestation activities, but REDD+ credits are expected to emerge rapidly, encouraged by the development of methodologies for accrediting such projects under the Voluntary Carbon Standard (VCS).

Three such methodologies have been approved to date under the VCS,[37] which is a joint initiative between The Climate Group (a corporate-backed, not-for-profit organisation), the International Emissions Trading Association and the World Economic Forum. In developing voluntary standards, the proponents of the VCS hope to maximise the revenue streams achieved by the unregulated issue of carbon credits and to pilot methodologies which might subsequently be included in a mandatory system.

REDD PILOTS

An October 2009 survey by the Center for International Forestry Research listed 14 demonstration activities underway in Latin America, with a further 30 at planning stages.[38] The initial REDD projects in Latin America have been initiated by a mix of government and intergovernmental agencies, NGOs and corporations. A survey of projects by The Nature Conservancy, a US-based NGO, reveals that most of the corporate backers are US-based energy companies, including American Electric Power (AEP), BP America, Chevron, Exelon and PacifiCorp.[39] Other corporations with interests in REDD pilots include General Motors, Hyundai Motors America, Marriott Hotels, BSkyB and the Walt Disney Company. Most expect to receive carbon credits from the projects, with the remainder sold on the voluntary carbon market.

The international institutions and development agencies developing pilot projects include the World Bank, Inter-American Development Bank, the European Union, German Technical Cooperation (GTZ) and the US Agency for International Development (USAID). Among the NGOs supporting projects, The Nature Conservancy has been active in a number of projects, with the World Wide Fund for Nature (WWF) and Conservation International among those also investing in projects. A number of local or national NGOs are also participating.

GOVERNANCE ISSUES IN LATIN AMERICA

The regional strategy for climate finance in Latin America remains ill-defined and poorly targeted. This is, in large part, due to the relatively high reliance on private carbon finance in the overall policy mix, which has contributed to a mismatch between people's needs and the distribution of funds. This is particularly true of the CDM, which has channelled finance to middle-income countries as opposed to the poorer countries.

Within countries, the CDM also tends to be concentrated around large projects rather than community-controlled projects. With transaction costs for setting up CDM projects at $50 000 and upwards, this is unsurprising.[40]

The emergence of REDD funding raises new co-ordination problems. At present, the proliferation of multilateral funds and privately financed initiatives allows for little coherence or co-operation. The lack of clear information on these programmes inhibits transparency and accountability. Neither state institutions nor regional bodies exist to provide information on REDD projects, and its availability is piecemeal across a range of agencies.

It also appears that there is little political will to make information about CDM and REDD projects public. Even among civil society organisations, as is shown by the Chilean case, there is little knowledge of how climate funds are managed at country level. The emphasis on private finance, which tends to guard data behind a wall of 'commercially sensitive' information, may be one factor underlying this. A lack of co-ordination could also explain the lack of transparency.

CONCLUSION

Climate finance relies too much on private financing through the CDM and, increasingly, the emergence of new REDD mechanisms. Alternative development models, as advocated by a number of governments in the region (notably Bolivia) and civil society organisations, have challenged this focus, however, and provided a broader critique of their emphasis on industrialised agriculture and export-led growth.[41]

Only a small proportion of climate finance is directed to adaptation (which tends to be an unattractive proposition for unsupported private investment), while the remainder of public climate finance tends to come in the form of conditional loans. In terms of global equity, this contradicts the basic obligation that industrialised countries have for the restitution and repayment of climate debt.

The sale of CERs through the CDM or other carbon finance initiatives is also a major source of climate finance. There is currently an abundance of 'low hanging fruit' – CDM projects that generate large volumes of CERs through the implementation of only minor changes using existing technologies. Such projects do little to contribute to a more sustainable development path.

More fundamentally, the CDM tends mostly to subsidise larger-scale, well-capitalised projects that would most likely have happened anyway (despite its 'additionality' criteria). This is because CERs are only issued after the event, and their issuance is subject to a high degree of risk and uncertainty. As such, projects that are genuinely 'additional' tend to be an unattractive proposition for investors. By contrast, climate finance often requires financing up front, of the kind that the CDM fails to provide.[42]

In terms of the balance of projects, LULUCF represents a significant share of Latin America's GHG emissions, and there can be no doubt that tackling deforestation in particular is an important priority. However, to do so effectively requires, first and foremost, a clear assessment of the underlying structural causes. Halting the spread of agribusiness is a crucial priority here – whereas REDD schemes could well provide subsidies for expanding monoculture plantations, which would exacerbate the problem, and encourage energy-intensive and unsustainable agriculture.

RECOMMENDATIONS

Climate finance should be established on the basis of clear principles of responsibility, ethics and justice. It should be set within a framework where it is considered to be the payment of a climate debt.

This means its provision should be mandatory, and derive from stable and predictable public sources in Annex I countries. It must also be new and in addition to existing official development assistance obligations. It must be sufficient in scale to repay the climate debt and meet the mitigation, technology and adaptation needs of the global South.

The basis for the distribution of climate finance is that it should be responsive to the needs of the local communities in areas where projects are established. This requires that the rights and cultures of indigenous peoples and forest communities are respected, rather than a top-down 'conservation' framework that overlooks their rights and can lead to displacement from forests and rural areas. The financial incentives provided by the REDD mechanism, in particular, are likely to promote land speculation, which contradicts this aim.

Democratic planning is needed at the outset, with the full participation and consultation of local communities at the project planning stage. Decision-making needs to be transparent, and accessible to all social sectors. This requires the creation of new information and oversight mechanisms, allowing greater scope for public comment and scrutiny over projects. It also requires greater control over the flows of climate finance, through tighter market regulation relating to the environmental and social impacts of private investment, and a greater share of public investment.

Climate finance should address the immediate and longer-term impacts of climate change, and contribute

to shifting investments away from fossil-fuel infrastructure and energy-intensive production.

In contrast, carbon market financing tends to focus on short-term mitigation actions drawing on existing technologies, often providing additional subsidies to major polluters and companies engaged in deforestation.

NOTES

1 Additional reporting by Carbon Trade Watch.

2 In this chapter, the geographical scope of Latin America includes the Caribbean. Unless stated otherwise, all statistics refer to this whole region.

3 World Resources Institute, Contributions to global warming, http://earthtrends.wri.org/maps_spatial/maps_fullscale.php?mapID=488&theme=2 (accessed 19 January 2011).

4 United Nations Environment Programme (UNEP) and Economic Commission for Latin America and the Caribbean (ECLAC), *Vital climate change graphics for Latin America and the Caribbean*, Panama City, Panama: UNEP, 2010, 26.

5 United Nations Environment Programme, *Assessing the environmental impacts of consumption and production: priority products and materials, a report of the working group on the environmental impacts of products and materials to the International Panel for Sustainable Resource Management*, Paris, France: UNEP DTIE, 2010, 11.

6 Ramón Pichs-Madruga, Climate change mitigation and sustainable development: lessons for Latin America and the Caribbean, Intergovernmental Panel on Climate Change, 30 December 2010, http://unfccc.int/files/meetings/cop_16/media/application/pdf/101130_mw_ipcc.pdf (accessed 19 January 2011).

7 International Fund for Agricultural Development (IFAD), Strategy for rural poverty reduction: Latin America and Caribbean, http://www.ifad.org/operations/regional/2002/pl/pl.htm (accessed 19 January 2011).

8 Intergovernmental Panel on Climate Change, *Climate change: synthesis report, 4th assessment*, Geneva, Switzerland: IPCC, 2007, 50.

9 World Bank, *World development report 2010: development and climate change*, Washington DC, USA: IBRD/The World Bank, 2010, 6.

10 Intergovernmental Panel on Climate Change, *Climate change,* 50.

11 Alice Caravani, Neil Bird and Liane Schalatek, *Climate finance fundamentals. Regional briefing: Latin America*, Heinrich Böll Stiftung, 2010, 1.

12 World Bank, *Energy matters: achieving secure and clean energy in Latin America and Caribbean*, Washington DC, USA: World Bank, 2010, 1.

13 Intergovernmental Panel on Climate Change, *Climate change,* 50.

14 Breakbulk Online, 513 power projects under development in Latin America, 16 July 2010, http://www.breakbulk.com/project-cargo-heavy-lift/513-power-projects-under-development-latin-america (accessed 19 January 2011).

15 Economic Commission for Latin America and the Caribbean, *Renewable energy sources in Latin America and the Caribbean: situation and policy proposals* 2004, Bonn, Germany: ECLAC/GTZ, 2004.

16 Duncan Graham-Rowe, Hydroelectric power's dirty secret revealed, *New Scientist*, 24 February 2005.

17 World People's Conference on Climate Change and the Rights of Mother Earth, People's Agreement, 22 April 2010, Cochabamba, Bolivia, http://pwccc.wordpress.com/2010/04/24/peoples-agreement/ (accessed 19 January 2011).

18 Caravani, Bird and Schalatek, *Climate finance fundamentals*, 2.

19 Bolivia protests suspension of climate aid, *Associated Press*, 10 April 2010, http://abcnews.go.com/International/wireStory?id=10339684 (accessed 19 January 2011).

20 UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 January 2011, http://cdmpipeline.org/ (accessed 19 January 2011).

21 UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 January 2011, estimates that 2 794 billion credits will be issued by the end of 2012. An estimate of US $11 per credit was used.

22 Dan Welch, A buyer's guide to offsets, *Ethical Consumer* 106, (May/June 2007).

23 Tamra Gilbertson and Oscar Reyes, *Carbon trading: how it works and why it fails*, Uppsala, Sweden: Dag Hammarskjöld Foundation, 53–65.

24 UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 January 2011. All subsequent statistics on the CDM in Latin America are from this source, unless otherwise stated.

25 Food and Agriculture Organization, World deforestation decreases, but remains alarming in many countries, FAO publishes key findings of global forest resources assessment, Rome, 25 March 2010, http://www.fao.org/news/story/en/item/40893/icode/ (accessed 19 January 2011).

26 Chris Lang, REDD will fail with the current definition of 'forest', *REDD Monitor*, 8 September 2009, http://www.redd-monitor.org/2009/09/08/redd-will-fail-with-the-current-definition-of-forest/ (accessed 19 January 2011).

27 Global Forest Coalition, Groups unite to challenge the definition of forests under UNFCCC/REDD, 12 December 2008, http://www.scoop.co.nz/stories/WO0812/S00295.htm (accessed 19 January 2011).

28 US Embassy Brasilia, Brazil: Amazon Fund and other funds to protect the environment – making real progress, December 2009, http://cablegategame.com/cable/09BRASILIA1460 (accessed 19 January 2011).

29 Caravani et al, *Climate finance fundamentals*, 3.

30 Climate Funds Update, Forest Investment Program, http://www.climatefundsupdate.org/listing/forest-investment-program (accessed 19 January 2011).

31 Ibid.

32 Bretton Woods Project, Update on the climate investment funds, July 2010, http://www.brettonwoodsproject.org/art-566530 (accessed 19 January 2011).

33 The full list includes: Argentina, Bolivia, Chile, Colombia, Guyana, Paraguay, Peru, Suriname, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. See Climate Funds Update, Forest Carbon Partnership Facility, http://www.climatefundsupdate.org/listing/forest-carbon-partnership-facility (accessed 19 January 2011).

34 Ibid.

35 UN REDD Programme Fund, Projects by country, 19 August 2010, http://api.ning.com/files/Dm6sdSE8j9VFZOxhghbNAoUxAZo-

FQuqCSHv59hZ-wyG3OpuNOC2*uWxkWlcWyU-k4r6YbRtbFg6-BVLpdn0jLf*F8-ZBvHA/CpiadeUNREDDProgrammeFundProjectsbyCountry.xls (accessed 19 January 2011).

36 Katherine Hamilton, Unna Chokkalingam and Maria Bendana, *State and trends of the forest carbon market 2009*, Washington DC, USA: Ecosystem Marketplace, 2010.

37 Andrea Welsh, Carbon projects poised to issue first verified REDD credits under VCS, Forest Carbon Portal, 4 December 2010, http://www.forestcarbonportal.com/news/carbon-projects-poised-issue-first-verified-redd-credits-under-vcs (accessed 19 January 2011).

38 Sheila Wertz-Kanounnikoff and Metta Kongphan-apirak, *Emerging REDD+: a preliminary survey of demonstration and readiness activities*, Bogor Barat, Indonesia: Centre for International Forestry Research, 2009, 3.

39 Mariano Colini Cenamo, Mariana Nogueira Pavan, Marina Thereza Campos et al, *Casebook of REDD projects in Latin America*, Manaus, Brazil: The Nature Conservancy and Institute for Conservation and Sustainable Development of Amazonas, December 2009.

40 United Nations Development Programme, *The Clean Development Mechanism: a user's guide*, New York: UNDP, 2003, 58.

41 World People's Conference on Climate Change and the Rights of Mother Earth, People's Agreement.

42 Jutta Kill, Saskia Ozinga, Steven Pavett and Richard Wainwright, *Trading carbon: how it works and why it is controversial*, Moreton in Marsh, UK: FERN, 2010, 87–106. While the carbon market offers, in theory, a means to address this by the 'forward-selling' of credits, the cure is in many ways worse than the disease – since it implies gambling on yet-to-be issued credits. This speculative market, which mostly involves trades made 'over the counter', tends to be a source of short-term profit for financial institutions rather than a stable income stream for project building, and contributes to the formation of destabilising speculative bubbles.

Chapter 11

Celulosa Arauco in Chile

José Elosegui and Sebastián Valdomir (REDES/Friends of the Earth Uruguay)[1]

INTRODUCTION

Chile contributes a mere 0,2 per cent to global greenhouse gas (GHG) emissions. However, the country is vulnerable to climate change because of its geographic location and socio-economic position. Some of the impacts include changing rainfall patterns, variations in sea level, agriculture restructuring, desertification, melting glaciers, decreased water supply, human health problems and the increased frequency of the El Niño phenomenon. These combined impacts have a direct effect on the socio-economic development and the national security of Chile.[2]

Although mitigation within Chile is important, adaptation to climate change requires more urgent action. The government has stated that adaptation is critical in response to the climate crisis and as a milestone for the country's future development.

The Chilean government officially recognises that GHG emissions have increased considerably within the country by key polluting sectors, including energy, agriculture, industrial processes and waste management. In response to this, the Chilean government has been active in promoting and implementing the Clean Development Mechanism (CDM).

As of January 2011, there are 41 registered CDM projects in Chile.[3] The majority of projects are designed to capture methane, with additional projects for electricity generation from biomass and hydroelectricity.

CELULOSA ARAUCO Y CONSTITUCIÓN (CELCO)

Celulosa Arauco y Constitución (CELCO) currently has three CDM projects which produce energy from forestry biomass. The company burns a mix of bark, sawdust and other remains from the manufacturing of forestry products to produce electricity. Currently electric power from biomass in Chile accounts for less than 2 per cent of production.

Two of the CELCO CDM projects are located in the Yungay municipality, where tree plantations cover over 70 per cent of the territory. Most of the wood from these plantations is used in the company's paper and pulp mills.

The CDM projects are based in three company power plants devoted to producing paper pulp. Two of the power plants, Nueva Aldea Fase 1 (29 megawatts (MW)) and Nueva Aldea Fase 2 (37 MW) are located in Ranquil, Ñuble province, in the VIII Biobío Region.

The third power plant, 'Trupan' (29 MW), is located in the Cholguan complex, in Yungay municipality, also in Ñuble province in the Biobío region.

The Nueva Aldea Fase 1, Nueva Aldea Fase 2 and Trupan projects involve the following participating companies: Inversiones Celco S.L. (of the Arauco group, based in Madrid, and approved by the designated UK national authority) and Cantor Fitzgerald Europe (based in London, and with the support of the designated Swiss national authority).

The Nueva Aldea Fase 1 power plant was registered on 31 March 2006. It is expected to reduce 106 122 metric tons of CO_2 equivalent (CO_2e) per year, from 1 January 2005 to 31 December 2011.[4] Nueva Aldea Fase 2 was registered on 2 June 2006 and it is expected to reduce 125 424 metric tons of CO_2e per year, from 1 April 2007 to 31 March 2014.[5] The Trupan plant was registered on 6 June 2006 and was expected to have reduced 101 846 metric tons of CO_2e per year from 1 May 2003 to 30 April 2010.[6] All of the projects can be renewed.

CELCO has an installed capacity of 537 MW of energy generation, of which 134 MW is linked to the national grid system. The CDM methodology is based on the premise that linking biomass to the national grid from burning forest waste avoids burning the fossil fuels that would be needed to generate the same electricity.

CLIMATE AS INTER-BUSINESS

CELCO sells certified emission reductions (CERs) to Inversiones Celco and Cantor Fitzgerald Europe, which are then entitled to use the CERs to comply with their allotted emissions. The companies can also sell these credits on to the international market to produce an extra source of income.

According to the website Zona Forestal, CELCO's operation was crafted through CantorCO_2e, the broker and branch of the Cantor Fitzgerald group located in the UK. CantorCO_2e acted as an underwriter and closed the deal. The Japanese company Tepco purchased the bonds through its buying agent ABN Amro Bank.[7]

In 2007 CELCO became the first Chilean forestry corporation to sell CERs. It sold 482 129 CERs on the market.

In October 2008, CELCO sold 255 592 CERs from the Nueva Aldea and Trupan plants. These were sold at 19,05 euros each, a relatively high price, totalling almost 5 million euros. The operation was made through the first online commercial platform launched by CantorCO_2e.[8]

By July 2009, CELCO was among the companies which sold the highest quantity of CDM credits nationwide – having issued over 1 million CERs, and showing profits in the tens of millions of euros. CELCO sells the most credits on the CDM market from electric power generation from forestry biomass in the world.[9]

The example of CELCO in Chile unveils a sophisticated corporate network which feeds financial interests directly back within its tight loop. The companies are closely associated with one another. In this case, CantorCO_2e, the broker chosen by CELCO, is part of the same economic group as Cantor Fitzgerald, one of the companies participating in the three CDM projects. Further, Inversiones Celco is part of the Arauco Group in which CELCO also participates. This provides a convenient financial feedback between related companies, and illustrates a more general trend in carbon finance: it tends to remain in the hands of a small circle of actors with specialised knowledge of carbon trading platforms.

LACK OF PUBLIC INFORMATION

Local communities, NGOs and activists often report that it is very difficult, if not impossible, to access public information about CELCO's transactions related to the CDM. Little information is provided by the government and records are kept away from public view. According to Lucio Cuenca, director of the Santiago-based Environmental Conflicts Observatory:

> This issue is not widely known or debated in Chile; the government propaganda and the corporate propaganda are extremely strong. The previous and current governments have promoted the CDM as their main tool to address climate change.[10]

In addition, Cesar Aguila, from Salvemos Cobquecura, a local civil society organisation, stated: 'It is truly not easy to find information about this industry online, because their control over the media is very strong.' Aguila also claimed that:

> Arauco is bribing communities who have opposed their operations, through so called 'good neighbor policies', by which they give away as presents different products such as boats, fishing nets or even forested plots to local fishermen so that they can start as new forestry workers. That is what is happening in our area with the Cobquecura's Union of Fishermen, which backed out from its original opposition to the submarine sanitation pipeline that was built by Celulosa Nueva Aldea to pour liquid waste directly into the sea.

Aguila explained that in this way CELCO is 'replacing local governments in terms of aid distribution, it is silencing them and its opponents'.[11]

Additionally, the activist highlighted the expansion of CELCO's tree plantations. 'In our municipality, tree plantations cover over 70 per cent of the territory, and all of this is authorised by the State and most probably by President Sebastián Piñera, who recently took office,' he said.

SOCIAL AND ENVIRONMENTAL CONFLICTS

The company presents itself as 'environment-friendly', however, CELCO's operations in almost every region of Chile show that it is far from being an environmentally responsible company.

On the contrary, it uses the CDM and carbon credits to 'greenwash' its image instead.

Monoculture tree plantations displace rural communities and depopulate rural areas. They have eroded lands and left them useless for other crops while decreasing water and agricultural sources, which has had a serious effect on food sovereignty in the region.

CELCO has devastated other regions of Chile, including Valdivia, in the XIV Los Ríos Region, near the Carlos Andwater Nature Sanctuary.

Before the pulp mill was installed, several communities in the surrounding areas protested against CELCO, approximately ten months before the start of the pulp milling operations in Valdivia in October 2004. 'It was becoming evident that the sanctuary was a victim of one of the most emblematic environmental disasters in the recent history of the country.'[12] The black-necked swan, one of the sanctuary's flagship species, began to die off or move away, affected by the dumping of industrial waste from the Valdivia pulp mill into the Cruces River.

Out of approximately 5 000 black-necked swans that were living in the sanctuary in 2003, according to data from the Universidad Austral, by March 2005 there were only 160 left, and those recorded as dead amounted to 350. These figures do not include the swans that might have died in areas of the sanctuary difficult to access (80 per cent of the wetland); when those are taken into account, the total death toll of swans is estimated at more than 1 000.[13] Swan and fish populations and all the fauna and flora of the Cruces River were affected, and the crisis had economic impacts in the whole province, threatening the cherry and dairy agro-exporting industries and tourism, among other sectors.

In August 2004, the Horcones plant, in the Arauco municipality in the VIII Biobío Region, was responsible for a turpentine spill. The water supply was contaminated and several citizens were poisoned due to contact with the liquid. In April 2005 there was a second spill. The plant has been dumping its waste directly into the sea for over 30 years. Fisher-folk unions are concerned that the damage is irreparable, because typical marine aquatic resources in the area face progressive depletion. They also denounce the 'irregular' dumping of waste at night.[14]

The dumping of previously treated waste (according to the company's commitments) into the sea is a common practice for CELCO. In December 2009, the company began to do the same in its Nueva Aldea plants, and, in February 2010, the Regional Environment Commission of the Los Rios Region authorised the installation of a submarine pipeline from the Valdivia plant, the same pulp mill responsible for the Cruces River disaster.[15] Fisher-folk, indigenous peoples' organisations and the general public reacted strongly against this decision.[16]

In June 2007, Licancel, a plant located in the VII Maule Region (close to the VIII Biobío Region, where the Nueva Aldea and Trupan plants are located), hit the news after a second toxic spill in the Mataquito River, following a first spill that had resulted in the death of many birds and fish. The first spill had motivated an investigation against the company, and the local sanitary services agency had suspended its operation temporarily. CELCO declared that the new spill was an 'accident', caused by a broken pipe, and decided to suspend the plant's operations indefinitely, but was severely criticised by the national government.[17]

According to the Chilevision television channel, CELCO's infamous black liquid

> may have contaminated 22 kilometers of the Mataquito River [through] two alleged clandestine pipelines. This was an environmental disaster that forced CELCO to change its former policy of silence. Now, the company is recognising its responsibility and has fired three top executives from Licancel and is offering economic aid to the affected fisherfolk communities. But the harm has already been inflicted and little was done to prevent it.[18]

The Nueva Aldea plant has also been in the public eye since its construction stage in 2004 and 2005. At that point, Chilean environmental authorities fined CELCO numerous times because of several breaches of the law.[19]

The company was accused of exposing four subcontracted workers in the plant to radiation. One of the workers had to be sent to France for treatment, while the other three had to have periodic medical checkups. On 10 February 2006, approximately 120 employees filed a complaint against CELCO and the subcontractor. This lawsuit came on top of two other previously submitted legal complaints.[20]

In June 2006, shortly after the plant began to operate, the socialist Senator Alejandro Navarro requested that the National Environment Commission investigate the spill of a suspected chemical substance in Nueva Aldea. Navarro considered this a serious issue, not only because of the incident itself, but also due to the fact that CELCO failed to inform CONAMA and the authorities about the event. The allegations were accompanied by a series of photographs taken inside the plant by Greenpeace volunteers, but the company chose to downplay the spill.[21]

CONCLUSION

The example of CELCO in Chile is a clear example of the CDM creating perverse incentives for polluters. Far from benefiting local communities, CDM money is concentrated in the hands of a handful of corporate interests, between whom the project financing circulates.

Underlying this problem is a significant inequality of information. Whereas CELCO and its partners, Cantor Fitzgerald and CantorCO_2e, have specialised knowledge of carbon trading platforms, local communities, NGOs and activists report that it is very difficult, if not

impossible, to access public information about the CDM projects – making monitoring very difficult.

Overall, this helps CELCO to greenwash its image with the help of the CDM, but does little to alter Chile's emissions.

NOTES

1 Additional reporting by Carbon Trade Watch.

2 Comisión Nacional del Medio Ambiente, Resumen Ejecutivo Plan de Acción Nacional de Cambio Climático 2008–2012, Gobierno de Chile, December 2009, http://www.conama.cl/portal/1301/article-47573.html (accessed 16 February 2011).

3 UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 January 2011, http://cdmpipeline.org/ (accessed 16 February 2011).

4 United Nations Framework Convention on Climate Change (UNFCCC), Project 0258: Nueva Aldea Biomass Power Plant Phase 1, http://cdm.unfccc.int/Projects/DB/DNV-CUK1138279173.34/view (accessed 16 February 2011).

5 UNFCCC, Project 0346: Nueva Aldea Biomass Power Plant Phase 2, http://cdm.unfccc.int/Projects/DB/DNV-CUK1143329749.99/view (accessed 16 February 2011).

6 UNFCCC, Project 0259: Trupan Biomass Power Plant in Chile, http://cdm.unfccc.int/Projects/DB/DNV-CUK1138289069.87/view (accessed 16 February 2011).

7 Celco vendió primeros bonos de carbono en mercado japonés, Zona Forestal, 25 June 2007, http://www.zonaforestal.cl/actualidad/219-celco-vendio-primeros-bonos-de-carbono-en-mercado-japones/ (accessed 16 February 2011).

8 Celulosa Arauco concreta venta de 255.592 bonos de carbono en remate electrónico, *La Tercera*, 3 October 2008, http://www.latercera.cl/contenido/26_58516_9.shtml (accessed 16 February 2011).

9 Christian A Patrickson, Experiencias y lecciones aprendidas en el MDL de Celulosa Arauco, Subgerente de Desarrollo de Arauco Generación S.A., October 2009.

10 Personal communication, 9 August 2010.

11 Personal communication, 5 August 2010.

12 Lucio Cuenca Berger, Celulosa Arauco en Valdivia: el desastre ambiental en el Río Cruces, resultado del modelo forestal chileno, http://www.olca.cl/oca/chile/region10/cisnes152.htm (accessed 16 February 2011). See also María Selva Ortiz et al, Entre el desierto verde y el país productivo: el modelo forestal en Uruguay y el Cono Sur, Montevideo, Uruguay: REDES-Amigos de la Tierra Uruguay and Casa Bertolt Brecht, 2005.

13 Ibid.

14 Enlace Mapuche Internacional, Pescadores de Arauco cuentan historial de contaminación de planta Horcones de Celco, 16 February 2006, http://www.mapuche-nation.org/espanol/html/medioambiente/ma-ntcs-18.htm (accessed 16 February 2011).

15 Edgar Brizuela, Ducto submarino comenzó a descargar en el mar residuos de la celulosa Nueva Aldea, La Discusión (Chile), 3 December 2009, http://www.diarioladiscusion.cl/index.php?option=com_content&view=article&id=4281:comenzo-sus-operaciones-emisario-submarino-de-celulosa-nueva-aldea&catid=36:chillan&Itemid=2 (accessed 16 February 2011).

16 Ricardo Bustos, Detractores de ducto en Valdivia preparan acciones legales, *La Nación* (Chile), 24 February 2010, http://www.lanacion.cl/noticias/site/artic/20100224/pags/20100224203119.html (accessed 16 February 2011).

17 Patricio Meza, Pedirán cierre definitivo de planta Licancel tras nuevo derrame: 'Ya fue suficiente burla', Terra, 19 June 2007, http://www.terra.cl/actualidad/index.cfm?id_cat=302&id_reg=804690 (accessed 16 February 2011).

18 Desastre ecológico en Río Mataquito, http://www.youtube.com/watch?v=W-Xjq_ZvUYY&feature=related (accessed 16 February 2011).

19 Observatorio Latinoamericano de Conflictos Ambientales, El historial sancionatorio del complejo forestal Nueva Aldea de Celco, 23 February 2006, http://www.olca.cl/oca/chile/region08/itata23.htm (accessed 16 February 2011).

20 Ibid.

21 Observatorio Latinoamericano de Conflictos Ambientales, Piden a la CONAMA investigar presunto derrame químico en planta de Celco, 28 June 2006, http://www.olca.cl/oca/chile/region08/itata43.htm (accessed 16 February 2011).

Chapter 12

Madre de Dios Amazon REDD Project, Peru

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CONTEXT

Peru has 72 million hectares of tropical forests. Gaining access to this land has always been a chaotic process, however, and there is no integrated land registry that outlines the uses of and rights over these forests. The 1990s ushered in Washington Consensus policies, and the development of a legal framework for forestry promoting external private investment. The Forestry and Wild Animals Law, introduced in 2000, was intended to achieve this territorial reordering, but it has not yet been consistently implemented on the ground. The absence of clearly enforceable land rights has been one of the main causes of social conflicts and problems for implementing any normative measures.[2]

The main institution dealing with national environmental issues, in co-ordination with regional and local governments, is the Ministry of Environment (MINAM), which was created in 2008 through Legislative Decree 1013.

The Ministry of Agriculture also has an important role, not only because it covered all forest issues before the MINAM was created under the National Institute of Natural Resources (INRENA), but also for currently having under its 'guard' all territories dedicated to agricultural use and hydro resources, among others.

In September 2010, MINAM released the *Route of Life* report, announcing the 'National Forestry Conservation Programme', which intends to 'conserve' 54 million hectares of tropical forests through the Reducing Emissions from Deforestation and Forest Degradation (REDD) mechanism. The MINAM declares itself to be already defining the maps needed to start conserving these forests: 'of the 54 million hectares to be conserved, 16 million hectares belong to forests in 61 Protected Natural Areas'.[3] However, even though about 38 per cent of the rainforest is protected territory, only a quarter of these areas do not allow direct resource extraction while the rest can legally be the site of industrial agriculture, logging and even hydrocarbon extraction. By failing to institute proper safeguards the state has abandoned the protected areas.[4]

In May 2010, the National Organisation of the Amazon Indigenous People of Peru (AIDESEP), the biggest indigenous organisation in Peru, publicised its position on its rejection of the REDD programme as a market mechanism, affirming that:

> There is an intense international pressure to surround and engage Indigenous peoples in this REDD business …. While for the last 10 years [there has been no pass] for giving titles to any Indigenous community in the Amazon; the state that privatises everything is now quickly and easily delivering thousands of hectares to forest concessions, plantations, and now even worse with the 'environmentalist excuse' of REDD.[5]

These warnings went unheeded, as Peru, along with 37 other Southern countries, joined the World Bank's Forest Carbon Partnership Facility (FCPF), which aims to prepare the countries with the necessary reforms to implement REDD. In June 2010, Peru presented its REDD Preparation Proposal (R-PP) to the World Bank.[6] There have been serious concerns about both the process of formulating the document and the document itself, highlighting problems in the assessment of deforestation and forest degradation scenarios it causes; the rights of indigenous peoples and local communities; the participation of rights holders, and governance and monitoring.[7] Daysi Zapata, vice president of AIDESEP, declared that:

> AIDESEP has not participated in the preparation process for REDD; in April the Ministry of Environment has sent a letter informing us about the process. It would have been better to invite us to help with the writing of the document. Even more when the Ministry began the REDD+ process in the year 2008.[8]

This case study of the Madre de Dios Amazon REDD Project exposes a scheme that is primarily benefiting the logging industry. A private consortium profits by selling timber and lumber from a concession granted by the Peruvian government, while keeping control of other unexploited areas. Its proximity to the Inter-Oceanic Highway gives the consortium the necessary justifications to allege threats to its territory (fires, illegal logging, settlements, migratory agriculture), and therefore construct the rationale for a REDD project, which results in another source of profits derived from the sales of carbon credits from the unexploited areas of its concession. In short, the consortium simultaneously profits from logging and from the prevention of logging.

REDD PROJECT AND ACTORS

In the middle of the Amazon, where Brazil, Peru and Bolivia meet, lies a crucial pass of the Inter-Oceanic Highway, a project which forms part of the Initiative for the Integration of the Regional Infrastructure of South America (IIRSA).[9] The highway, promoted largely to meet the demand for Brazilian soy by Asian biofuel and grain markets, connects Brazil with the Pacific Ocean ports in Peru, thus uniting the continent from east to west.

In this context, the Madre de Dios Amazon REDD Project, located in the Iñapari municipality, Tahuamanu province, Madre de Dios department, aims to 'respond to the implementation of the Inter-Oceanic highway with a protected area that starts at less than 50 kilometres from the road'. The project developers argue that the area is threatened because 'the new road will bring settlers who subsist on farming and ranching economies that create deforestation'. They estimate that within ten years the project will generate 11 million metric tons in carbon credits.[10]

This REDD project operates under the rubric of 'sustainable forest management' in two forest concessions, which are developed by the companies Maderera Río Acre SAC[11] ('Maderacre') and Maderera Rio Yaverija SAC ('Maderyja'). On 31 May 2002, both companies were granted forest concessions with identical contracts by the Peruvian government through INRENA for a renewable period of 40 years. Maderacre covers 49 736 hectares, and Maderyja 49 556 hectares.

In 2008, these companies formed a consortium, and in fact they are managed by the same person. According to the company's own website, 'Maderacre Group is made up of 19 shareholder partners, all living in Iñapari, and historically involved in activities related to forests and their surroundings'.[12] However, according to information included in the project design document (PDD) of the REDD project, the company is owned by a Chinese investor group.[13]

The Peruvian Forestry Law No 27,308 establishes a cap for the forest concessions granted to private actors of 50 000 hectares. However, in this case, the consortium circumvents this ruling, with the same person controlling and exploiting the 99 292 hectare area covered by the Madre de Dios Amazon REDD project.

According to the maps provided by the company, both concessions border indigenous communities' territories (Tierra Indígena Rio Acre in Brazil and Comunidad Nativa Belgica in Peru), ecological reserves (Estación Ecológica Rio Acre in Brazil), and a reserve of indigenous peoples living in 'voluntary isolation' in Peru. Both concessions are at the forefront of expanding private forestry concessions on indigenous peoples' territories, threatening their cultures and livelihoods.

In fact, the Native Federation of the Madre de Dios River and Tributaries (FENAMAD),[14] the region's main organisation of indigenous communities, shows that the territories that were granted to the consortium belong to indigenous communities which are not recognised and lack proper property titles over their land. The only community inside those forest concessions with property titles that are formally recognised by the Peruvian state is 'Belgica'. There have been several indigenous mobilisations in the Madre de Dios region to demand communities' recognition as landowners, however.

On the other side stand the two NGOs developing this REDD Project: Greenoxx,[15] based in Montevideo, Uruguay, but with allies and projects around the world, and AIDER (the Association for Research and Integral Development), based in Lima, Peru.[16]

The Greenoxx Global Environmental Program is a company that presents itself as 'a program specially designed for companies, industries, institutions, non-governmental organizations and governments that intend to mitigate climate change through Forestry Projects and Avoided Deforestation Projects'. This programme consists of Greenoxx NGO and Greenoxx Consulting, the first of which is in charge of submitting and managing forest investments and avoided deforestation projects, while the latter is in charge of exploring new trade mechanisms for the development of projects in 'areas such as bio-energy, renewable energies, methane capture, land use change, etc. within the Kyoto Protocol and the Voluntary Markets of emission reductions'.[17]

Finally, another player indirectly involved in the project is WWF-Peru, which carries out studies to implement and create legal frameworks for REDD in Peru, establishing the bases for the realisation of 'the economic value of forests'.[18] WWF-Peru signed a Cooperation Agreement with both forest concessions in April 2005, to help them achieve Forest Stewardship Council (FSC) certification.

When both concessions were granted this certification in January 2007, Greenoxx argued that 'one of the main reasons for obtaining the FSC certificate was the generation of carbon credits'.[19] Additionally, WWF is in charge of carrying out 'a diagnostic evaluation, consultation, mapping and census of the neighbor population'.[20]

According to the PDD, published in June 2009, the REDD project started in May 2006. The goals of the project are to 'contribute to the sustainable development of rural producers living in the buffer zone', and to 'reduce the vulnerability of the project area from external factors of deforestation and degradation'.[21]

Maderacre affirms that in its first five years of operations, the rate of job creation at this concession was one job for every ten hectares under production, which results in a maximum of 250 workers per year in the forest production phase, though not the whole year. The company also owns a sawmill in the same Iñapari municipality, where approximately 20 people work.

However, this should be viewed in the context of the broader socio-economic situation of the region, which is extremely poor. Smartwood's public audit report of the forest concession states:

> Iñapari is a mainly rural municipality with a low population density (0,05 inhabitants/Km^2) (INEI, 2005), which means the concession is located far from populated areas. According to Peru's Human Development Report (UNDP, 2006), the per capita income in Iñapari is the lowest in Tahuamanu ($85 per month).[22]

Finally, another interesting element is that the possibility of entering the business of carbon credits was not in the strategic planning by the Maderacre–Maderyja consortium – at least up until early 2005. The possibility of establishing a new business enterprise based on the commercialisation of carbon credits was something that was added to a pre-existing commercial strategy based solely on forest exploitation.

FINANCIAL ASPECTS

Greenoxx is in charge of trading the emission reduction certificates (carbon credits) produced by the project on the voluntary carbon markets. It has been a participant member and offset aggregator at the Chicago Climate Exchange (CCX)[23] since November 2006, and is part of the CCX Forestry Committee and CCX Technical Advisory Committee for Crediting Forest Conservation Projects.[24]

CCX began in Chicago in October 2003 as a private and self-regulated stock exchange, where the credits from CDM and REDD offset projects are registered and traded.

> As Offset Aggregator, Greenoxx NGO is able to submit projects to the CCX and at the same time, commercialize its offsets in the CCX Trading Platform. In this way, Greenoxx NGO will be able to promote forestry projects all over Latin America and therefore contribute to the development of forests that will sequester carbon dioxide from the atmosphere, in this way helping to mitigate the effects of Climate Change.[25]

In May 2010, Greenoxx sold the first credits from the Madre de Dios Amazon REDD Project. The transaction generated $280 000 on the CCX voluntary market, with 40 000 metric tons of carbon credits generated between 2006 and 2009 fetching a price of $7.[26]

In this case, the credits were bought by another timber company: China Flooring Holding Inc., China's largest supplier of wood flooring. Besides being a large wood consumer, in 2008 the company received $100 million from Morgan Stanley and the International Finance Corp, a group of the World Bank, for the development of large-scale monoculture plantations in the province of Jiangxi.[27] With the credits bought at the CCX, China Flooring Holding Inc. will be able to 'greenwash' its activities and/or profit by reselling the credits on the financial carbon markets.

In this way, there is a clear 'division of tasks' in relation to the different economic uses of the project: the Maderacre-Maderyja consortium exploits the forests (wood extraction and sawing, wood sales) and Greenoxx sells the carbon credits on the CCX voluntary market. In addition, Greenoxx also registers the project as a voluntary initiative of environmental certification in order to raise the price of the carbon credits it offers.

For instance, in May 2010, Greenoxx registered the Madre de Dios Amazon REDD Project at the Markit Environmental Registry.[28] 'The registry of the project is essential for its commercialization, since it is the only way to guarantee to the buyer the property of the certificates, as well as to avoid the double counting risk, giving the Project the highest transparency.'[29]

According to the PDD, the potential carbon 'saving' from the concessions is 39,32 million metric tons of CO_2 in Maderyja and 39,18 million tons in Maderacre.[30] The first 40 000 tons were sold at $7 per ton of carbon.

CONCLUSION

It is not only the climate that loses with offset mechanisms. The pressure upon indigenous and forest-dependent communities is enormous and includes the threat of their territories being dispossessed. The emissions rate from deforestation and selective logging of forests increased in Peru during 2010 due to the asphalting of the Inter-Oceanic Highway.[31] From 2003 to 2009, the designated areas for hydrocarbon exploration and exploitation in Peru increased from 15 per cent to more than 70 per cent of the Amazon territory, where '40 hydrocarbon blocks are overlapping to hundreds of Indigenous communities and 4 are threatening directly the groups living in "voluntary isolation"'.[32]

The lack of governance in the Amazon territories is creating the necessary loopholes for private actors and interested allies to get their hands on forest concessions. There is a general mistrust of the government's development ideas and disagreement with them, especially among Amazonian communities. This has resulted in several confrontations between indigenous peoples and armed forces, which have mainly been caused by disputes over territory.

The timber industry, on the other side, has strong interests to include 'sustainable logging' in the activities eligible to earn REDD credits. The NGO Global Witness alleges that a major cause of forest degradation and a precursor to deforestation is industrial logging, even when it follows 'best practices' to reduce its impact. In the Brazilian Amazon, for example, 32 per cent of 'selectively' logged forests were completely destroyed over a period of four years.[33]

This clearly explains the logic of the Madre de Dios Amazon REDD project. Not only can logging companies earn profits from their standard lumber and timber activities, but they can also profit from talking up the threat of further deforestation, on the basis of which they generate REDD carbon credits. MINAM, eager to start with the REDD race, is establishing plans without proper consultations and giving more concessions without clarifying the actual owners of the territories. Local communities have been organising more strongly with regional federations and associations. The most likely result is the expansion of local conflicts over territorial rights and access to livelihoods.

NOTES

1 Additional reporting by Carbon Trade Watch.

2 L Capella and M Sandoval, *REDD en el Perú: consideraciones jurídicas para su implementación*, Lima, Peru: Sociedad Peruana de Derecho Ambiental – SPDA, 2010.

3 Ministry of Environment, Peru, *Forest: the route of life*, Lima, September 2010, http://www.minam.gob.pe (accessed 10 December 2010).

4 M Dourojeanni, A Barandiarán and D Dourojeanni, *Amazonía Peruana en 2021*, Lima: ProNaturaleza, DAR, SPDA, ICCA, 2010.

5 Asociasión Interétnica de Desarrollo de la Selva Peruana – AIDESEP, *A través de pronunciamiento público sostiene que proyecto REDD debe reestructurarse totalmente*, (May 2010), http://www.aidesep.org.pe/index.php?codnota=1392 (accessed 15 November 2010).

6 World Bank, *Peru informal report*, R-PP (2010), http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Sep2010/Segunda_Borrador_RPP_16_sep_10.pdf (accessed 5 November 2010).

7 Rainforest Foundation Norway, UK and US, Environmental Investigation Agency, Global Witness, *Comments on Peru's Readiness Preparation Proposals*, (2010), http://www.forestcarbonpartnership.org/fcp/node/80 (accessed 5 November 2010).

8 Derecho Ambiente y Recursos Naturales (DAR), *En REDD (2010)*, http://www.dar.org.pe/enredd/redd_jun.pdf (accessed 5 November 2010).

9 IIRSA includes all South American countries with investments in highways, trains, waterways, energy generation and its distribution lines. Its technical coordination committee is formed by representatives of three regional financial organisations: the Interamerican Development Bank, the Andean Development Corporation and the Financial Fund for the Cuenca de la Plata Development.

10 Matthew Vree, Dealing with deforestation: is the carbon market the best way to preserve the world's forests?, *Carbon Watch*, 11 May 2010, http://www.pbs.org/frontlineworld/stories/carbonwatch/2010/05/dealing-with-deforestation.html (accessed 16 February 2011).

11 Maderacre, http://www.maderacre.com (accessed 16 February 2011).

12 Ibid.

13 Greenoxx, Project Design Document (PDD) Madre de Dios Amazon REDD Project, 16, http://www.maderacre.com/?c=p&m=s&i=/c=p&m=s&i=servicios_ambientales (accessed 5 November 2010).

14 Federación Nativa del Río Madre de Dios y Afluentes (FENAMAD), http://www.fenamad.org.pe (accessed 16 February 2011).

15 Greenoxx, http://www.greenoxx.com (accessed 16 February 2011).

16 AIDER, http://www.aider.com.pe (accessed 16 February 2011).

17 Greennox, Global environmental program, http://www.greenoxx.com/en/greenoxx.asp (accessed 16 February 2011).

18 WWF Peru, http://peru.panda.org (accessed 16 February 2011).

19 The FSC gives forest certification to timber operations. It was 'established to promote a responsible management of the world's forests'. See Forest Stewardship Council, http://www.fsc.org (accessed 16 February 2011).

20 Greenoxx, Project Design Document, 32.

21 Ibid., 13–14.

22 Ibid., 19.

23 Chicago Climate Exchange, Members of CCX, http://www.chicagoclimateexchange.com/content.jsf?id=64 (accessed 16 February 2011).

24 Greenoxx NGO, http://www.greenoxx.com/en/ngo.asp (accessed 16 February 2011).

25 Chicago Climate Exchange, Greenoxx NGO joins Chicago Climate Exchange, 28 November 2006, http://www.chicagoclimateexchange.com/newsAndPressReleaseList.jsf (accessed 5 November 2010).

26 Greenoxx, Greenoxx sells 40,000 certificates from REDD project, http://www.greenoxx.com/en/news.asp#noti_094 (accessed 5 November 2010). Dollar amounts in this chapter are in US dollars.

27 Michael Wei, China floor maker gets $100 million in pre-IPO funding, Reuters, 10 June 2008, http://www.reuters.com/article/idINPEK30828720080610 (accessed 5 November 2010).

28 Madre de Dios Amazon REDD Project, http://www.markit.com/en/products/registry/markit-environmental-project-details.page?method=project_details&access=mer-access&project_id=100000000000350 (accessed 16 February 2011).

29 Greenoxx, Madre de Dios Amazon REDD Project is registered in Markit, http://www.greenoxx.com/en/news.asp#noti_095 (accessed 5 November 2010).

30 Greenoxx, Project Design Document, 119.

31 Rhett Butler, Peru's rainforest highway triggers surge in deforestation, according to new 3D forest mapping, *Monga Bay*, 6 September 2010, http://news.mongabay.com/2010/0906-carbon_mapping_peru.html (accessed 5 November 2010).

32 Dourojeanni, Barandiarán and Dourojeanni, *Amazonía Peruana en 2021*, 63.

33 Global Witness, *Vested interests: industrial logging and carbon in tropical forests*, London: Global Witness, 2009.

Chapter 13

Juma Amazonas REDD Project, Brazil

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PROJECT BACKGROUND

The Juma Sustainable Development Reserve, in the southern region of Amazonas State, Brazil, is the site of a Reducing Emissions from Deforestation and Forest Degradation (REDD) project. It is promoted by the Amazonas Sustainable Foundation, working under the auspices of the State Secretariat of the Environment and Sustainable Development of Amazonas. The project is being developed by the State Centre for Conservation Units (linked to the former Secretariat of the Environment), an NGO called the Institute of Conservation and Sustainable Development of Amazonas, and the Marriott hotel chain, which provides financial support to the project.

The Juma Sustainable Development Reserve was created in 2006. The REDD project occupies an area of 589 612 hectares of the Amazon forest within the reserve. The project documentation claims that its implementation will avoid the deforestation of 329 483 hectares of forest in the period up to 2050. According to the project design document (PDD), improvement works on the BR319 and AM174 highways are possible causes of forest degradation and destruction. The project claims to be a response to this threat, generating carbon credits as part of a financial mechanism that aims to ensure oversight and control of deforestation in the area.

OBJECTIVES OF THE REDD PROJECT

The project is based on granting a monthly sum to families living in the area of the Juma Sustainable Development Reserve. The mechanism, called 'Bolsa Floresta', involves payments of $28 made to nearly 339 families living in 35 communities in the area of the project. In return for these payments, the families make a contractual commitment neither to burn nor to deforest the rainforest; this will be verified through regular inspections.

This approach has met with a variety of criticisms, among them that it displaces 'blame' for deforestation from large-scale logging and agribusiness operations to local communities, and that it uses carbon credits as a form of 'greenwashing'. In June 2010, the World Rainforest Movement (WRM) published a critique of the Juma project.[2] A major criticism focused on claims that the project resulted in a loss of basic income and livelihoods for local communities.

In response, the Amazonas Sustainable Foundation (FAS) issued a public letter in defence of the project.[3] According to FAS,

> the Program Bolsa Floresta Familiar is just one of the four elements of the Program. The strategy to increase the income is focused on the Bolsa Floresta Ingreso, which invests an average of 4,000 reais a year ($2,270) per community. … Another element of the Program is the Bolsa Florestal Social, which invests an average of 4,000 reais per community a year to improve education, health, transport and communication activities. Finally, the Program includes the Bolsa Floresta Asociacion, which is the support to grassroots local organizations with the costs of its logistics, plus a motor boat, solar panels, Internet connection, computers and supplies.[4]

The number of families of each community was not specified.

A key aspect in assessing the project is to look at the existing activities of the communities affected by it. These communities practise subsistence agriculture, raise

small animals for their own consumption, collect fruit from the forest, fish and hunt. They do not, however, hold property titles to the lands on which they live.

The communities' activities have caused neither significant destruction nor deforestation of the rainforest. Some relatively small parts of the rainforest were deforested in the areas close to the communities as a result of family farming. The PDD of the REDD project notes that:

> [A]ccording to the most recent data, as of June 2007, only 6,493 hectares of forest in the Juma Reserve (1.18 per cent of the total area) had been cleared (INPE, 2008). About 98.82 per cent of the forests in the Juma Reserve are still intact. The very small percentage of deforestation that does exist can be explained by small-scale agricultural production for domestic consumption …. Forest disturbances found along the Novo Aripuanã-Apuí road are attributable to the illegal extraction of timber by loggers from outside the Reserve (mainly along the road).[5]

While family grants (such as Brazil's broader 'Bolsa Família' programme) can be an essential measure in the fight against the country's serious problem of rural poverty, the connection between the Bolsa Floresta payments and carbon offsetting is highly problematic. It misidentifies the main causes of deforestation – since the existing data shows that local subsistence activities account for a minute proportion of the overall deforestation in the area. The environmental risk here is clear: the project does nothing to address the extraction of timber by loggers, which could well increase as a result of the upgrading of the Amazon highways. The project implicitly apportions blame to local communities for existing deforestation, while ignoring the larger structural factors and industrial actors involved. In then using local community payments as a form of offset, it sets up an ethically problematic equivalence: the 'avoidance' of deforestation through community payments – accompanied by an intrusive monitoring system – generates an offset which allows larger-scale polluters in the global North to continue polluting. Poor communities are implicitly viewed as the 'cause' of deforestation, while the structural over-consumption patterns that drive illegal logging are not addressed.

The contracts signed by the families to participate in the Bolsa Floresta programme state that, to receive a subsidy, they may not log or burn the primary forests under any circumstances, including the development of family farming. There is no formal impediment to the communities continuing to develop agriculture practices in secondary forest areas, and the technical bodies that promote the project provide assistance to promote sustainable agriculture practices that would require neither significant changes nor deforestation and degradation of the rainforest.

Besides the payment of the subsidy (obtained in exchange for not deforesting), another objective of the REDD project is to support employment for the communities, as a result of 'sustainable business', through encouraging administration capacities, market development for forestry products and services, entrepreneurship, institutional strengthening, training and education.

Another objective is to strengthen environmental control and oversight. Based on different deforestation scenarios, the project claims that it will prevent the deforestation of nearly 330 000 hectares of Amazon forest until 2050 – equivalent to the emission of 189 million metric tons of CO_2 into the atmosphere.

In order to achieve this, part of the funds generated by the financial mechanisms is to be paid to the communities living in the reserve. Yet even the PDD notes that the key drivers of deforestation in the Juma Reserve area are not linked to the action of the communities but mainly to the action of illegal logging industries involving cattle-ranching, agriculture, agrofuel and agribusiness.

FINANCIAL ASPECTS

Financial contributions are provided by the transnational hotel chain Marriott and the Bradesco Bank. Marriott Hotels carries out various 'green' initiatives, while Bradesco is the private entity that contributes most of the capital – together with the State of Amazonas – to create the FAS. In order to build the foundation it invested $23 million in 2008. Other smaller private investors also provided funds for the launch of the project. Marriott committed to providing $2 million over a period of four years for project implementation. Bradesco contributes an annual $5,5 million, which is the projected income from the FAS credit card programme.[6]

A further agreement exists between the FAS, the State of Amazonas and Marriott. This agreement awards rights to the carbon credits generated by the REDD project to be purchased directly by the hotel chain. One particular characteristic of this project is that the carbon credits generated are not commercialised – at least not initially – on a stock market or carbon auction platform. Thus, it is an emissions offset mechanism set up to compensate Marriott's emissions directly, which are estimated to be 3 million metric tons of CO_2 per year. Other companies may also be allowed to purchase the carbon credits, but to be able to do so they must obtain the explicit authorisation of Marriott.

Finally, Marriott 'compensates' for its emissions by paying for carbon credits generated in Juma. The company does not just take funds from its revenues to cover this payment, however. Rather, it 'invites' its guests to make donations. Customers can pay $10 per night at the hotel, which is tax-deductible for US donors, to support the project.[7]

As with similar projects, in the Juma case the three main sources of project funding are: the initial direct financial contributions, funds generated by carbon trading and, for the long term, a trust fund set up to guarantee the sustainability of the project:

> The systematic generation of resources resulting from the REDD carbon credits depends on the implementation of actions to curb deforestation and a program to monitor carbon emissions, as well as the signing of contracts with financial partners and the transfer of resources to a management endowment fund. The creation of this endowment fund establishes a stable long-term mechanism that can guarantee the longstanding application of the necessary resources to supply the maintenance needs of the Reserve.[8]

The project was formally established on 3 July 2006 and extends until January 2050. Currently, the project's earnings are used to pay communities directly, and the foundation maintains the balance of the fund with the contributions made when the project was initiated.

OTHER ACTORS INVOLVED IN THE JUMA PROJECT

In addition to those directly involved, a variety of other actors have indirect links to the Juma REDD Project through the provision of funds or services to the programmes managed through it. The case of Coca-Cola Brazil is one example. In early 2009, Coca-Cola Brazil donated $11 million for the implementation of the Bolsa Floresta Program.

At the end of 2009, a partnership was set up between the Juma project and the Amazon Fund (Fondo Amazonia), whereby the fund will provide resources to the Juma Sustainable Development Reserve between 2010 and 2014. This fund was created in 2008 with the aim of attracting resources for the preservation of the Amazon forest. It is managed by the National Bank of Economic and Social Development (BNDES) of Brazil.[9]

The Amazon Fund's initial funding was provided by the Norwegian government.

Further, the international consulting firm PricewaterhouseCoopers has been auditing the accounts of the FAS on a voluntary basis since June 2008 and providing free legal advice on contracts and agreements since 2008. The outcomes of the audits and management assessments of the past two years are available on the FAS website.[10]

At the international level, the REDD Juma project has links with the Ministry of Environment of Mozambique to facilitate the adoption of policies developed by the Bolsa Floresta Program. This initiative is also supported by the Norwegian Embassy in Mozambique. The UK-based International Institute for Environment and Development (IIED) also has an agreement with FAS that allows the institute to conduct scientific research and study REDD implementation policies for their application in other countries.

In the field of certification, the Juma project has been the first case in Brazil and Latin America to be certified as an Avoided Deforestation project. In September 2008, the project was granted Climate, Community and Biodiversity Alliance (CCBA) certification, issued by the German certification firm TÜV SÜD. This company is also conducting the certification of the Juma Reserve under the VCS (Voluntary Carbon Standard) mechanism.

CONCLUSION

The Juma project is pioneering the REDD scheme, and in so doing highlights the significant challenges that it will pose. The project targets local communities' activities, but its own documentation shows that these are not a significant cause of deforestation. Rather, the main environmental risk is from the extraction of timber by loggers. The Juma project is being used to 'compensate' for the upgrading of Amazon highways. These upgrades will give better access to large-scale loggers and so significantly increase deforestation risks.

The key point here is that blame for deforestation is implicitly apportioned to the local community, but larger structural factors and industrial actors' roles are overlooked. Moreover, the social impacts of the project itself have been criticised for the threats they pose to the livelihoods and basic income of the local communities.

NOTES

1 Additional reporting by Carbon Trade Watch.

2 Brazil: Juma REDD test case in the Amazon, World Rainforest Movement Bulletin 155, June 2010, http://www.wrm.org.uy/bulletin/155/Brazil.html (accessed 16 February 2011).

3 Carbon Watch, *The carbon hunters* [video], Berkeley, USA: Frontline/World, 11 May 2010, (reporting by Mark Schapiro, produced by Andres Cediel and Daniela Broitman), http://www.pbs.org/frontlineworld/stories/carbonwatch/2010/05/the-carbon-hunters.html (accessed 16 February 2011).

4 Amazonas Sustainable Foundation's complete response to the World Rainforest Movement is available in Portuguese at http://wrm.org.uy/paises/Brasil/FAS.pdf (accessed 16 February 2011).

5 FAS-Amazonas, The Juma Sustainable Development Reserve Project: reducing greenhouse gas emissions from deforestation in the State of Amazonas, Brazil, project design document, 29 September 2008, 24, http://www.fas-amazonas.org/en/secao/juma-redd-project (accessed 16 February 2011).

6 Co-Fundadores, Amazonas Sustainable Foundation, http://www.fas-amazonas.org/pt/secao/parceiro (accessed 16 February 2011).

7 Marriott International, Why preserve the rainforest? http://www.marriott.com/green-brazilian-rainforest.mi (accessed 16 February 2011).

8 FAS-Amazonas, The Juma Sustainable Development Reserve Project, 42.

9 Amazon Fund, http://www.amazonfund.gov.br/FundoAmazonia/fam/site_en (accessed 16 February 2011).

10 FAS-Amazonas, Publications, http://www.fas-amazonas.org/en/section/publications (accessed 16 February 2011).

Chapter 14

Towards a just and effective climate finance regime

Developing country experiences, priorities and principles

Webster Whande and Trusha Reddy

Climate finance is a critical element of any future global agreement to address the impacts of climate change. International agreement on climate finance will provide impetus to rebuild trust between developed and developing countries in negotiations in order to secure a fair, comprehensive and binding deal. But as developing countries anticipate billions of dollars flowing from developed countries to address the devastating effects of climate change, it is important to recognise that the amounts of funding, the number of institutions and the coherence in the global architecture will be of little value without democratic governance of the funds at a local level. The plight of vulnerable people in developing countries is thus based on funding that is fairly and effectively mobilised, managed and disbursed.

On the basis of these understandings, the Institute for Security Studies' Corruption and Governance Programme drew in civil society experts from three regions in the world – Africa, Asia and Latin America – to share critical experiences of fund governance in their national and sub-national contexts. These regions face devastating climate change impacts and are thus most likely to receive a large share of climate finance. This report is a compilation of these developing world perspectives. It presents a 'grounded approach' to the governance of climate finance. In other words, it examines how three common funds, namely the Adaptation Fund, the Clean Development Mechanism (CDM), and the Reducing Emissions from Deforestation and Forest Degradation (REDD) work in practice, and what their intended or unintended effects are on recipient countries and local beneficiaries. The report also considers to what extent universal democratic principles of accountability, transparency, public participation, inclusiveness and social justice are taken into account when funds are applied in these contexts. Peculiar trends, such as new and different types of corruption, are also highlighted in the study. In this chapter, some of the findings in preceding chapters are quoted verbatim to allow the authors' voices to be heard and guide the presentation of conclusions. Finally, the common experiences are translated into a normative approach that details general priorities and principles for funding that should be considered in determining governance arrangements for existing, new and reformed funds. Much of the information is anecdotal (or context-specific) but is instructive when construed as general trends, given that common experiences are taken into account. Further studies are surely needed to provide more depth and a range of views, and a comparison of how principles match up to environmental and other legal conventions and ethical frameworks.

REGIONAL EXPERIENCES AND TRENDS

Over 80 per cent of the world's population lives in Africa, Asia and Latin America.

Sixty per cent of the world's population lives in Asia alone, and the continent is home to half of the world's poor. Sixty per cent of the Asian population is dependent on agriculture, fisheries, forests and other ecosystems for their livelihoods. The continent contributes 31,4 per cent to global greenhouse gas (GHG) emissions, although in per capita terms most Asian countries have low emissions. Of that, 55 per cent of emissions come from energy and 5,2 per cent from industrial processes. Agriculture and land use change and forestry account for 35 per cent of emissions. Four countries – China, India, Japan and South Korea – are leading sources of

carbon dioxide emissions from fossil fuels globally, thus making emissions highly uneven across the continent. Africa houses about 14 per cent of the world's population and accounts for 3,8 per cent of global GHG emissions. The largest source of emissions is energy, even though this is highly skewed, with South Africa claiming about 45 per cent of the commercial energy-related emissions. Traditional fuels such as wood are also an important source. Ninety per cent of people on the continent have no access to electricity and other conventional sources of energy. Latin America houses about 9 per cent of the world's population and accounts for about 8 per cent of global GHG emissions. Although its annual emission rates are rising at the rate of 2,3 per cent annually as a result of greater reliance on natural gas and coal, its contribution to the problem as a whole remains modest.

The long list of actual and predicted natural effects of global warming across the regions includes: increased temperatures and changes in precipitation, more severe and frequent droughts and floods, species extinction and biodiversity loss, loss of coral reefs and coastal mangroves, rising sea levels and reduced fresh water supplies. The effects on humans are predicted to be catastrophic. These include threats to food sovereignty through loss of agricultural lands, decline in livestock productivity and certain staple crops, forced migration, and new diseases causing increased health risks and higher mortality rates. Low-lying islands in Asia face the threat of being completely inundated as the sea level rises. In Latin America the gradual replacement of tropical forests by the savannah in the eastern Amazon is of concern. Climate change poses a further threat in Africa, given the existing multiple stressors such as water scarcity, disease and ecosystem failure. The devastating impacts are inextricably linked to the high number of vulnerable populations that have poor adaptive capacities.

Balance between adaptation and mitigation funding

Adaptation continues to be the main area needing urgent climate action in all three regions. Globally, mitigation receives ten times the resources that adaptation receives, at least in terms of pledges. Of the $38 billion[2] for mitigation almost half comes through the CDM.

Mitigation receives the majority share of Asia's funding focus. There are 113 mitigation projects and just 40 for adaptation, despite adaptation being a priority. Thus far, regional institutions, multilateral development banks and national governments are by and large focusing on mitigation. In Latin America $222 million has been committed for mitigation compared to $57 million for adaptation. The balance between adaptation and mitigation might be explained by the geographical distribution of funds thus far. In both Asia and Latin America, most of the money goes to richer countries with comparatively higher emissions. Africa receives the lowest level of funding since mitigation finance is prioritised in fast-developing economies. CDM finance is also weak, for this reason, although the REDD programme is expected to bring in more finance. Finance from the Adaptation Fund under the UN Framework Convention on Climate Change (UNFCCC) is being provided only to Senegal on the African continent.[3]

Private sector interests have driven mitigation finance due to the incentive of big returns on investments. Mitigation, through carbon markets, is also more attractive to developed countries because it can be used as a mechanism to offset domestic emissions. Adaptation funding is politically and economically more difficult to obtain because of the lack of incentives tied to it. It comes largely through public sources. Experience with official development assistance (ODA) has shown that its delivery is uneven and marked by a lack of transparency. The lack of an effective global mechanism to fund adaptation as opposed to mitigation (which is covered by the Kyoto Protocol and its flexible mechanism, carbon trading) also hinders its widespread and abundant application.

Public versus private finance

Private funding for climate action is more prevalent than public funding in all three regions, despite its uneven and problematic implementation thus far. In Asia, as with other regions, the availability of finance drives the local climate agenda. Given that private finance is more readily available, this usually means that mitigation projects take precedence over adaptation ones, as discussed above. The opportunistic approach to accessing finance also means that democratic governance principles of participation, consultation, prior and informed consent, investigation of alternatives and assessment of social and environmental implications might not necessarily be considered when funding decisions are made. As the national experiences discussed below show, local funding needs and safeguards are often incompatible with those determined by funders. Furthermore, the predominance of private finance is out of sync with the demands of many developing countries, which see public finance as a means to redress historical climate debt. Ongoing debates also suggest a movement towards using public funds to leverage the provision of private funds. In this

context, bilateral funding can also be used to encourage private actors.

Role of regional development banks

In all three regions, we observe the positioning of regional development banks as key players in climate finance. The African Development Bank (AfDB), for example, is positioning itself to manage funds earmarked for the African continent through its proposed Africa Green Fund. The biggest fund in Latin America, the Amazon Fund, is managed by the Brazilian Development Bank. In 2009 the Asian Development Bank (ADB) disbursed $600 million in grants for low-carbon, climate-reliance investments. However, compared to its total lending, climate change funds are still relatively small. This positioning is also secured through the setting up of climate funds, the hosting of and participating in strategic conferences and the recruitment of skilled personnel. More significantly, both the AfDB and the ADB contribute to climate policy in their regions. While it may be seen as advantageous to locate funds within the regions from a governance perspective the modus operandi of regional banks is not seen as any different to the World Bank.

Development banks, such as the World Bank, have been criticised for their historical role in promoting growth-oriented economic policies and infrastructure development that had a negative effect on the environment and people. Until the 1990s, the experience was marked by the lack of participation of supposed beneficiaries and redress for those who are negatively affected. The ADB plans to integrate climate change into its planning and investment to ensure continued economic growth despite its own admission that economic growth is one of the drivers of climate change. Thus it remains to be seen whether and how development banks' funding of climate change initiatives will transcend this historical legacy. The development banks also place great emphasis on energy sector investments, many of which are fossil fuel-based. This raises a conflict of interests in their continued funding of both fossil-fuel-based and renewable energy.

As well as the historical legacy of regional banks, questions remain over their effectiveness as channels for climate finance, given their means of operating – giving out more loans than grants (developing countries see loans as further debt creation), their accountability to shareholders that include not only member countries but also international investors, and their focus on economic growth and development as the means to progress. Their legitimacy and relation to the UNFCCC are also in question, as they establish funds outside of the official process.

EXPERIENCES WITH CLIMATE FUNDING IN AFRICA, ASIA AND LATIN AMERICA

Country experiences of three common types of climate funds are discussed in this report. These funds include the Adaptation Fund (Senegal), the CDM (Chile, Thailand, Philippines, South Africa), and REDD (Brazil, Cameroon, Peru, Tanzania). The most striking and perhaps contentious features of fund governance are described to illustrate key problem areas and to make recommendations for resolving them. Good practice is also noted in part.

Mobilising resources for climate action

Most of the ongoing efforts for resource mobilisation are focused at an international level. However, as cases discussed in this report indicate, more attention needs to be paid to the nature of mobilisation of resources at national and sub-national levels. Particularly, the principles of the ***polluter pays***, climate change requiring ***common but differentiated responsibilities*** according to historical roles and current capabilities, and funds being ***new and additional*** to existing development support as well as ***predictable*** need to be considered in developing benchmarks for evaluation.[5]

Adaptation

Policies: There are lessons to be learned from Senegal's success in accessing direct funds through the Adaptation Fund. These lessons are in an analysis of the content of documents submitted to the Adaptation Fund Board. Access to direct funds through the Adaptation Fund has remained low for countries applying for National Implementing Entity (NIE) status, and Senegal's approach and experiences can be useful for other countries. While there are positive lessons to be learned, it is important to note that Senegal's experience with adaptation funding in general has been marked by a lack of alignment between climate change and other relevant policies, strategies and actions. Therefore, despite some success with gaining direct access to the Adaptation Fund, the adaptation priorities are not necessarily reflected within the framework of its National Adaptation Programme of Action (NAPA). In operational terms, it will be interesting to evaluate how the adaptation project objectives are consistent with the NAPA and could potentially contribute to its implementation.

Community consultations: The depth and content of consultations with affected communities for the Adaptation Fund support varied from one target to another. For instance, locals were asked to share their

problems but were not asked to provide their perspectives on solutions. It seems that there is a missing link between researchers and local communities who provide knowledge and recipients and policy-makers.

Actors: The case of Senegal highlights the nature of capacity constraints where the same actors that are involved in general development issues at central and decentralised levels are also involved in climate change work. There is considerable duplication of skills and unclear roles and responsibilities. Key actors sometimes do not understand all the issues or the uniqueness of the project, yet they are in charge of implementation.

Clean Development Mechanism

Distortion of needs: The benefits of CDM investments are often inequitably distributed within the countries where they are implemented – often in urban areas rather than rural areas – and also between developers in developed and developing countries. A possible explanation of this is in an analysis of the sectoral distribution of CDM initiatives. These have largely been in the generation of energy and not in resource-specific areas such as forestry and agriculture, which are largely distributed in rural settings. The distribution of initiatives is further determined by the potential to generate revenues for project developers. As a result, addressing real climate change and development challenges in rural areas has been negatively affected.

As well as the rural-urban distribution of projects, developing countries – in particular emerging economies – are limited in claiming credits from CDM projects. In South Africa, these issues are especially stark, considering that the country is one of the top 20 polluters globally and therefore needs to make its own emissions reductions. But the CDM does not allow the reductions it makes from projects to count towards a country's own emission targets. If emission reductions were counted domestically, it would be considered as double counting. This highlights the need for developed and developing (especially fast-developing) countries such as South Africa to reduce emissions at source.

The conceptualisation of the CDM was premised on fast-growing economies, which leaves out the majority of poor countries, where the challenges of adaptation are immense. South Africa shows that the CDM has not been able to catalyse renewable energy due to a design that favours cheap and quick emissions reductions mostly gained from energy efficiency projects. It has also not been able to engage the public sector significantly in order to mobilise funds and promote renewable energy options. In Thailand, the CDM has become attractive because finance from multilateral mechanisms, including adaptation funds, has not been delivered. In the Philippines, as with Thailand, the CDM is perceived as an opportunity to get additional funds to support mitigation rather than more urgent and needed adaptation actions.

Additionality and sustainable development criteria: In Thailand, several projects that have received funds are in a grey area because they lack convincing evidence that they are not just business-as-usual ventures; in fact, they have negative social and environmental impacts. Both the designated national authority (DNA) and project developers have an interest in making the projects appear additional because they both stand to gain from the sale of certified emission reduction (CER) credits. The DNA thus tells project developers that it can assist them with making the additionality requirement. The DNA also benefits, as it receives registration fees. One of the biggest CDM players in Chile is a company that is not environmentally responsible and has used the CDM to 'greenwash' its image. These cases draw attention to the potential abuse of the concept of additionality by project developers and the DNAs. More to the point, they reveal the controversial relationship between the different actors and the contentious rules. South Africa demonstrates a further controversy: multinational companies invest in CDM projects in developing countries in which they are based to offset their carbon emissions in developed countries in which they are also based. This may in fact have the effect of increasing the companis' overall emissions, especially when they are expanding their operations at the same time. The South African case also shows that there is a vague and arbitrary conceptualisation and operationalisation of sustainable development in evaluating projects. Moreover, sustainable development drivers usually take a back seat to those on emissions reductions, on which the CDM is based.

Domination of certain actors: In the Philippines the CDM is dominated by a small group of project developers and companies that have developed the expertise necessary to secure project approval. A sophisticated corporate network, closely connected and with financial interests feeding back into the loop, is found in Chile. There is a small circle of actors with specialised knowledge of carbon trading platforms. In South Africa, too, the costs of implementing projects are prohibitive, thus making it viable for big developers such as large industry players only.

Stakeholder consultations: There is only a short checklist that developers have to work through in the Philippines. Project design documents also do not reflect the issues raised by communities and the negative effects of projects, including the dislocation of adjacent communities, job creation, and the application of new technology.

Transparency and information: In Chile it is very difficult to access information about the projects. Government records are kept away from public view and the lack of transparency makes it very difficult to monitor projects.

Reducing Emissions from Deforestation and Forest Degradation

Private and public: In the Tanzanian case study on REDD, publicly sourced bilateral funds are linked to opening investment opportunities for the private sector from the donors' home countries. The case raises ethical concerns where private and public funds are linked, and in particular where priorities for climate action are set and for whom they are made. At the same time, leveraging of funds between public and private sources is increasingly being recognised as a potential way to meet future fund requirements.[6]

Land rights: The issue of land rights is pervasive across case studies. In Peru, there is no integrated land registry detailing use of and rights over forests. There are companies that keep control of exploited and unexploited areas of forests, profiting from both the logging and prevention of logging. Concessions are at the forefront of expanding territories of these companies into indigenous peoples' land, threatening their cultures and livelihoods. The lack of proper policies and governance makes it possible for private actors to get concessions which have caused local conflicts. Communities practise subsistence agriculture, and in Brazil, for example, they do not hold property titles to the lands on which they live. This also causes conflict between these communities and logging companies that are able to encroach on their space.

In Cameroon the state owns all forests. Only 7 per cent is managed by local communities. The danger inherent in REDD projects is similar to the ongoing 'land grab' processes in the Congo Basin where central governments simply allocate land to foreign agro-industrial companies with the free consent of the local communities. On paper, in Tanzania, land ownership empowers the local community to make decisions about their land in transactions with business entities. However, communities have to negotiate not only with global land speculators but also with their own government, whose drive for foreign direct investments often overshadows addressing land and resource rights issues. The ongoing arrangements are significant not only to the current leadership but to future generations. Communities do not own land but rather hold it in trust for future generations; 99-year leases offered by funders' investment companies are not negotiated on the basis of full prior and informed consent. Project funders provide training to communities about giving up their land rights, but it is unlikely that they will highlight the negative implications of doing so. Communities also have no knowledge about the processes beyond their immediate involvement through giving away their land; they do not form part of any management, monitoring or evaluation processes related to funding. Certain terms, such as 'degraded', 'marginal' and 'unused', have been used by foreign actors to facilitate acquiring land.

Sustainable logging: The term 'sustainable logging' has been used for companies in Peru to benefit from REDD credits without making necessary changes to their unsustainable practices. The Brazil situation appears worse. Communities sign contracts not to burn or cause destruction to their forests, which are subject to regular inspections. However, local communities contribute minimally to overall deforestation. Thus, what this system does is to misidentify the causes of deforestation and the larger structural factors and industrial actors involved. The minimal avoidance of deforestation through community payments and an intrusive monitoring system generates the offset and creates the profit. Social impacts and the threat of loss of livelihood and basic income, meanwhile, are ignored in this arrangement. Likewise, in Tanzania, sustainable forestry masks the donor's own contributions to climate change and displaces their commitment to taking responsibility to reduce their own harm to the environment in another country.

Sources of funding – synthesised thoughts

Country cases indicate that there are various funding sources for financing both adaptation and mitigation, despite developing country calls for a single co-ordinated fund. In Tanzania, finance for REDD initiatives is currently from bilateral sources. In Senegal, funds flow both from the Adaptation Fund and bilateral sources. Multilateral sources are also involved in many of the initiatives discussed here.

Single-fund approach versus multiple sources: These experiences should enrich debates on whether to have a single and coherent global fund or multiple sources, and also raise questions about the desirability of a single approach. In particular, it should perhaps be noted that having a single coherent fund does not mean limiting other avenues that might have existed in the past. This raises crucial questions: Should an international fund be complemented by other funds? And, how are these other sources of funds governed to ensure transparency, lack of excessive conditionalities and accessibility? The Senegalese case highlights the duplication challenge of multiple sources when unmanaged, while, at the same time, it notes the potential contribution that multiple

sources can have for adaptation activities. As well as contributing to climate change adaptation and mitigation, multiple sources of funds should be subject to common guidelines and standards to ensure that the conditions under which they are made available, their channelling and disbursement are made according to local needs.

Direct access: Access is hampered by conditionalities, the inability to meet pledges, and institutional constraints on the part of recipient countries. The Adaptation Fund's direct access modality has thus been welcomed by developing countries. However, the Senegalese case and low-level approval of NIEs show that there are inherent problems with: putting in place the requisite internal institutional structures to access the funds; the potential for conflict of interest where actors play multiple roles in fundraising; and implementing and monitoring. While capacity is a key concern, the Senegalese case study also shows that strategic partnerships between the government and other organisations with independent autonomy can be crucial in forging ahead with the implementation of the initiatives for climate adaptation and mitigation.

Bilateral funding: It should be emphasised that in the cases discussed here, bilateral funding constitutes a channelling of funds but can also be considered in terms of disbursement. Despite the challenges of accounting for resources that come from bilateral sources as additional to development assistance, some cases indicate that a number of targeted bilateral sources have been made available for climate change. Unfortunately, the conditionalities attached to bilateral funding are not clearly defined and understood nor are they openly declared. One issue that has caused great concern in relation to bilateral funding is when it is linked to private sector investments. The case of Tanzania illustrates that bilateral funding can be used as a 'pathfinder' for advancing the interests of private sector investors in developing countries. These private sector interests might not necessarily address local challenges in relation to adaptation to climate change. Instead they exacerbate them through displacements and limited access to life-sustaining natural resources. Similarly, other outside actors such as international conservation agencies might be overly excited about increasing acreage for conservation areas without due regard for indigenous and local peoples. A key conclusion from the Tanzanian and South American cases in this respect is that social and environmental safeguards have to be incorporated in administering and implementing climate finance. Four of these safeguards are the protection of tenure rights, the protection of livelihood resources, free and prior informed consent, and ensuring access to and use of resources while at the same time advancing the conservation demands of natural resources.

'Pyramid' of climate finance versus national and sub-national priorities: Other cases, however, indicate that donors form the apex of the 'pyramid' of climate finance, with intermediaries at national and sub-national levels disbursing funds. The actual unit at which benefits are distributed or shared is variable, with the Cameroon case seemingly providing for both individuals and family units. At a local level, the Cameroon case further shows that governance institutions have been put in place. Accountability questions, it appears, are central to the functioning of these governance structures at a local level. It is suggested that these structures are accountable to the donors (upward) but not also to the communities (downward), which would ensure socially sanctioned and ecologically viable initiatives. The 'pyramid' structure of climate finance accountability, however, contrasts with a key observation from the cases: climate finance should be driven by national priorities and not the other way round. Basing climate finance on national priorities raises the question of how accountability mechanisms should be structured. A number of other issues, apart from using national priorities to determine climate finance, have been raised in these case studies. These include the rights and livelihood needs and tenure security at local levels. That these issues are at a local level suggests that accountability measures should be downwardly oriented.

Implementing institutions

Local institutions are important vehicles for delivering climate finance. They need to show that they are transparent, accountable and equitably represented,[8] among other things, to be regarded as legitimate actors and to be effective. This section examines the role of institutions in national and sub-national contexts across the three regions covered in this report, using the criteria described here as benchmarks for good practice.

Adaptation

Roles and responsibilities: Until June 2011, Senegal was the only African country to have an NIE, and thus have access to the Adaptation Fund of the UNFCCC. The directorate for the environment is the biggest unit in the ministry, has a number of responsibilities, and dominates the process of climate finance administration, giving little space to implementing entities to influence project design and orientation. However, it faces chronic human resource deficits that affect its co-ordinating role. It also works on the negotiations team. The director has a seat on the Adaptation Fund Board and is the main

contact for the CDM. Having one person entrusted with multiple responsibilities raises the issue of effectiveness and also highlights a potential conflict of interest where roles and responsibilities intersect. There is also a lack of clarity about roles of implementing organisations, particularly the NGOs involved.

Clean Development Mechanism

Stakeholder representation: The DNA in Thailand includes no experts on environmental or health issues and no civil society or local community organisation representatives. Civil society is also not represented on the DNA in South Africa. There are not many channels for affected communities to voice their views; therefore they have a marginal impact on decisions about projects being implemented.

Roles: In both Thailand and South Africa the DNA has conflicting roles. The DNA is the negotiating body on the Kyoto Protocol and promotes and regulates the CDM nationally in Thailand. Likewise, in South Africa the DNA promotes and regulates the CDM. Designated operational entities (DOEs), which validate and verify emission reduction claims, are similarly shrouded by controversy. DOEs are usually big audit and risk management companies that are driven by profit and paid by project developers. There is therefore a conflict of interests built into this arrangement. These companies are also usually based overseas and do not undertake auditing and oversight of emission reduction claims within the country. This poses a problem for authenticating emission reductions.

Reducing Emissions from Deforestation and Forest Degradation

Structures and accountability: In Cameroon REDD structures are being developed that are parallel to those of the state, with NGOs being implementing agencies with upward accountability to donors. However, they do not appear to be downwardly accountable to local communities. The central state is largely absent from these arrangements, but is needed to build a national discourse on the issue. Similarly, in Tanzania, the funder contracts NGOs and research institutions for research and consulting services. NGOs end up dominating processes and thus pre-empt how the DNA responds to the CDM (forest) applications (where forest initiatives are linked to the CDM).

Disbursement of funds

Climate change impacts are felt most profoundly at the local level. Funds need to be effectively disbursed, in the form of projects or relief efforts, so that vulnerable communities can survive and adapt to changes. Key considerations for disbursing funds include: subsidiary and national/local ownership; and that they are precautionary and timely, appropriate, do no harm, are directly accessible to the most vulnerable and are gender equitable.[9] These considerations are used as benchmarks as we evaluate the disbursement of different funds in countries across the three regions.

Adaptation

Funds from the Adaptation Fund have not been disbursed yet. However, the fund is designed to ensure direct access by developing country parties. The Senegalese case study focuses on coastal areas, in particular to mitigate the effects of sea level rise, flooding, salinisation of freshwater resources and degradation of mangroves. The successful disbursement of funds to the Senegalese case study is important not only for vulnerable communities at the project site but for other countries wanting direct access to funds.

Clean Development Mechanism

Benefit sharing: There are questions of local ownership and the sustainability of CDM initiatives. The case of Thailand shows that there is no requirement by the DNA that funds be allocated to benefit local communities and there is no clear mechanism for benefit sharing. Almost half of all the credits will go to one single developer in the Philippines – the main beneficiaries are, in fact, the richest families and conglomerates that already own a large proportion of the assets and exert disproportionate political power in the country. The CDM strengthens the hand of these local interests. A new political constituency is created, one that supports the expansion and perpetuation of the CDM, blocks any moves against it and opposes measures that may affect the families' ability to earn from the CDM projects. The CDM gives these families additional clout and leverage, and additional resources to expand their business interests. In the Philippines an evaluation of registered projects reveals that credits go to projects that will exacerbate climate change and compromise sustainable development. They are also linked to businesses that continue to invest in dirty technologies. Projects claim to achieve environmental benefits, but these could be achieved better through government laws and community action. However, when governments benefit from the CDM, there is a disincentive for them to initiate laws or their compliance. Furthermore, there are contentions about the rights to the technology and its maintenance, for example solar water heaters that are put into low-cost housing. Governments may provide a subsidy but they do not have claims over the technology and are not entitled to maintain it. Communities may also get the

technology but may not be able to afford maintenance. Nor do they receive the benefit from the sale of CERs.

Reducing Emissions from Deforestation and Forest Degradation

Benefit sharing: Tanzania shows no evidence of job creation or infrastructure development. There is no evidence that government conducted its own studies to confirm benefits. It seems that companies alone carried out many cost-benefit analyses. As suggested above, it is doubtful if monetary benefits to communities in Brazil replace the actual losses in livelihoods, and cultural and spiritual meaning derived from land and natural resources. This arrangement also denies the communities access to the forests, which is an essential part of their social, cultural and economic life.

The equivalence issue is also pertinent in Tanzania, where families hold land in trust for future generations. The issue of the rights of future generations also comes into question, since they are not part of this decision-making process. In Cameroon communities are given alternative activities based on ecological sustainability, which is regarded as a win-win situation for promoting conservation and livelihoods. However, it is unclear what these 'activities' are, how they were negotiated and how rewarding communities find them.

POLICY RECOMMENDATIONS FOR NATIONAL AND SUB-NATIONAL GOVERNANCE OF CLIMATE FUNDS

The following recommendations are directed at African, Asian and Latin American regional and national decision-makers and negotiators.

- Fine tune the role of the commission on climate change to be a leading agency on climate change – vis-à-vis other national agencies (environment, energy, foreign affairs).

Adaptation Fund

- Align funding proposals with national goals such as encapsulated in the NAPA or other national climate action strategies.
- Promote the co-ordination and coherence of different donor efforts, in particular the bilateral donor initiatives.
- Secure comprehensive multi-stakeholder consultation processes to capture the challenges and proposals for solutions.
- Clarify and support the separation of different institutional responsibilities to avoid duplication of roles.
- Share activities among capable individuals to foster and preserve institutional memory and limit chances for conflict of interest.

Clean Development Mechanism

- Find adequate funds to support adaptation measures if mitigation, and thus the CDM, is not a priority.
- Shift from prioritising energy efficiency to focusing on renewable projects instead.
- Separate the regulatory and promotion roles of main actors involved, such as the DNA, to reduce conflicts of interest.
- Implement adequate safeguards to ensure that financial and other interests do not distort sustainable development and emission reductions assessment criteria.
- Ensure stakeholder (particularly civil society) representation on the DNA Board.
- Ensure stakeholder (and especially affected community) representation on decision-making bodies for projects.
- Put in mechanisms that ensure that financial and other interests do not distort decisions about benefits, impacts and sustainability.
- Ensure an even distribution of projects to prevent undue influence of certain big industry or political players.
- As economies develop, ensure that emission reductions count towards national targets, without being double-counted in developed countries.

Reducing Emissions from Deforestation and Forest Degradation

- Promote national social and environmental interests for benefits to accrue to local communities and indigenous populations.
- Ensure inclusive, public participatory processes that involve governments to avoid setting up parallel, unaccountable structures.
- Put in place social and environmental safeguards to avoid communities' losing access to and use of land.
- Avoid the deliberate confusion of land concepts such as 'marginal', 'underutilised' and 'degraded' to prevent land grabs. The definition of 'standing forests' should be recognised and clearly differentiated from reforestation or afforestation.
- Provide full disclosure of the implications of initiatives that affect local people's land access, farming activities and livelihoods.
- Balance the carbon storage capacity of forests with the requisite social and rights' safeguards for local

and indigenous peoples who rely on forests for multiple benefits, including livelihoods and shelter.

PRIORITIES FOR JUST AND EFFECTIVE CLIMATE FINANCE

As the climate finance regime is still emerging, the identification of priorities and principles contributes to the development of a normative framework on fund governance at national and sub-national levels. The issues raised here present a grounded approach that synthesises common experiences in funding arrangements across developing countries in the three regions studied.

Climate policy should be based on environmental and developmental needs in a country and region

Climate policies should be determined by the environmental and developmental context and needs, and not by the availability or opportunistic provision of finance. In the absence of a coherent and co-ordinated global climate finance governance system, it is likely that the diversity of funds through bilateral and multilateral sources will continue to maintain conditionalities attached to access. Instead of being guided by the donor funding priorities, developing countries should instead base their policies on local realities on the ground. Climate finance priorities have largely been set at an international level and by donors, rather than being driven by national plans of action for both adaptation and mitigation.

Bottom-up approach must ensure nested projects at an appropriate scale

Global climate change negotiations have largely been informed by national, regional and global dynamics. Yet the impacts of climate change are felt profoundly at local levels. Not only should climate policy be informed at these levels but national and sub-national experiences should also be a basis upon which policy is formulated and climate action derived.

Funding must match the specific adaptation needs of affected recipients

Adequate adaptation finance is a key aspect of climate change negotiations. From the cases explored, it is clear there is a need for finance to match the adaptation needs of those affected. It is also clear that the methodology to calculate adaptation costs needs to be improved and standardised for estimates to be viewed as accurate.

Separate public from private sources of funding

A key requirement for developing countries is that climate finance should be sourced from public coffers. Cases in this publication, however, indicate that climate finance is skewed in favour of private sources and where public funding is available, it is often used to open channels for private investments. Experiences indicate the need to treat the two sources independently of each other to allow for accurate reflection of the contribution of each source. More importantly, the overwhelming danger with private funding is that profits rather than social or environmental safeguards drive the availability and provision of finance, and implementation of projects.

While the cases highlight the dangers of linking public and private funds, policy proposals are clearly in favour of treating private funds as leverage for public sources if adequate amounts are to be raised for climate change action.

Ensure developing countries' free and unencumbered access to appropriate renewable energy technologies and other sustainable approaches

A major gap identified in the case studies is that climate finance has not catalysed the transfer and utilisation of renewable technologies and other sustainable approaches at national and sub-national levels. A lack of meaningful technology transfer to the developing world has fuelled scepticism over mechanisms such as the CDM. The perpetuation of fossil fuel-based technologies through development financing could also crowd out investment in clean technologies in developing regions.

Ensure the integrity of emission-reducing projects by implementing safeguards in assessment criteria

An important finding is that the criteria to determine whether sustainable development and emission reductions requirements are met are unclear and subject to abuse. Terms such as 'additionality' in CDM parlance are particularly fraught because it is difficult to show what benefits outside of business-as-usual projects they offer. Implementing adequate and appropriate criteria will thus mitigate financial and other interests distorting assessments for illicit private benefit.

Make emission reductions count towards national targets

As economies grow in the developing world there is a pivotal need for emission reductions from externally funded projects to count towards national targets. This means countries must be responsible for finding ways of alleviating their own damage to the environment and contributing to effective solutions. At the same time, there must be a mechanism in place to ensure that developed countries also reduce emissions at source and another to prevent double counting of emissions where emissions are offset in the developing world.

Instil complementary policies, planning and implementation among public institutions in developing countries

Policy formulation, planning and implementing programmes should be co-ordinated as a matter of urgency if competing and conflicting approaches are to be avoided. National and sub-national institutions can be involved in activities that lead to duplication of roles and responsibilities. The cases in this study highlight some of the challenges of duplication of activities, even while many of the countries featured have initiated umbrella national climate change institutions and laws.

Capacitate national and sub-national implementing institutions to be upwardly and downwardly accountable

Accountability of institutions is key to the successful implementation of climate finance. While much focus is put on upward oversight mechanisms, a key accountable requirement is downward to those most affected by climate change. In this respect, accountability is not only in terms of finances but in terms of providing adequate information and report backs to allow communities to make the right decisions about their participation in funded initiatives.

Ensure inclusive decision-making processes that ensure viable, effective and just outcomes

Findings indicate that not all stakeholders are included in decision-making processes on projects. Civil society and affected communities are largely left out of the boards of institutions and from key aspects of project implementation. Furthermore, they are not provided with all the relevant information about projects that will affect them. Climate financing processes must ensure that there are inclusive public participatory processes so that projects can maximise impacts and minimise harm.

Prioritise protecting the livelihoods and rights of indigenous and local communities

Country experiences in this report point to the vital need to protect local livelihoods and rights that may otherwise be disrupted by various outside interventions. Concerns have been raised that climate finance meets developed country GHG offsetting needs or private sector investment interests.

The rights and livelihoods of communities in developing countries need to be protected. For this to happen,

Table 1: Priorities and principles for just and effective climate financing at national and sub-national levels

Resource mobilisation	Climate policy should be based on environmental and developmental needs in a country and region
	Bottom-up approach must ensure nested projects at an appropriate scale
	Funding must match the specific adaptation needs of affected recipients
	Separate public from private sources of funding
	Ensure developing countries' free and unencumbered access to appropriate renewable energy technologies and other sustainable approaches
	Ensure the integrity of emission-reducing projects by implementing safeguards in assessment criteria
	Make emission reductions count towards national targets
Implementing institutions	Instil complementary policies, planning and implementation among public institutions in developing countries
	Capacitate national and sub-national implementing institutions to be upwardly and downwardly accountable Ensure inclusive decision-making processes that ensure viable, effective and just outcomes
Disbursement of funds	Prioritise protecting the livelihoods and rights of indigenous and local communities
	Guarantee and maintain social stability and environmental sustainability

communities must participate in processes and have access to information.

Guarantee and maintain social stability and environmental sustainability

The paradox of some of the experiences with climate finance is that it can act as a source of instability, in particular when communities are displaced in pursuit of environmental actions not informed by local realities.

Where local and indigenous communities need to be displaced, climate finance should contribute to sustainable environmental management to ensure that this does not become a source of conflict.

NOTES

1 Dollar amounts in this chapter are in US dollars.

2 In June 2011, the Adaptation Fund Board approved NIE status for Benin and a first Regional Implementing Entity for the West African Development Bank.

3 These principles are used in and adopted by Liane Schalatek and Neil Bird, *Climate finance fundamentals: a normative framework for climate finance*, Heinrich Böll Stiftung North America and Overseas Development Institute, http://www.odi.org.uk/resources/download/5158-english.pdf, 2010.

4 The UN Secretary General's High Level Advisory Group on Climate Change Financing notes that to meet the $100 billion a year target by 2020 multiple sources have to be considered.

5 Schalatek and Bird, *Climate finance fundamentals*.

6 Ibid.

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This publication was made possible by the Hanns Seidel Foundation. In addition, general ISS funding is provided by the governments of Denmark, the Netherlands, Norway and Sweden.

Hanns Seidel Foundation

ROUNDTABLE REPORT

ISBN 978-1-920422-64-6