



# The Clean Development Mechanism in Relation to Energy in East Africa

Status Quo, Obstacles and Recommendations

Published by  
Deutsche Gesellschaft für  
Technische Zusammenarbeit (GTZ) GmbH

GTZ – Regional Energy Advisory Platform (East Africa)  
PO Box 41607  
00100 – Nairobi, Kenya

T +254 20 273 1834  
F +254 20 273 1836  
E [info@gtz-reap.org](mailto:info@gtz-reap.org)

Internet: [www.gtz.de](http://www.gtz.de)

Sektorvorhaben Energising Africa

Philippe Simonis, Regional Energy Coordinator (Lead Editor)

David Otieno, Regional Energy Advisor (Assisting Editor)

Michael Franz, Energy Consultant (Author)

Nairobi, November 2007

## Table of Contents

Preface.....	3
List of Acronyms.....	4
Index of Tables.....	5
Executive Summary.....	6
<b>1 Introduction.....</b>	<b>7</b>
<b>2 CDM-related capacity requirements.....</b>	<b>9</b>
<b>3 “Hard facts”: the status quo of the CDM-sector in relation to energy in East Africa.....</b>	<b>11</b>
3.1 Legislative frameworks.....	11
3.2 Institutional setups of the Designated National Authorities.....	12
3.3 DNA approval process.....	14
3.4 CDM projects.....	16
3.5 Donor activities.....	17
3.6 Complementary technical and financial services.....	19
<b>4 “Soft Issues”: information, attitudes and perceived obstacles of key stakeholders from the energy sector.....</b>	<b>20</b>
4.1 Information on the CDM.....	20
4.2 Attitudes towards the CDM.....	24
4.3 Legislative and Institutional framework.....	25
4.4 Obstacles to the CDM identified by stakeholders and country consultants.....	26
<b>5 Recommendations by stakeholders and country consultants.....</b>	<b>27</b>
<b>6 Conclusions.....</b>	<b>32</b>
6.1 Review of the key findings.....	32
6.2 General aspects for supportive interventions.....	34
6.3 Specific options for supporting the CDM in the field of energy.....	35
<b>Sources.....</b>	<b>37</b>
<b>Annex I : Terms of Reference.....</b>	<b>41</b>
<b>Annex II : Research template.....</b>	<b>43</b>



## Preface

Dear Reader,

The Clean Development Mechanism (CDM) should be a “flexible”, market based instrument to address climate change issues. It should contribute not only to mitigating greenhouse gas emissions in an efficient and effective manner, but also to technology transfer and sustainable development in the developing countries hosting projects under the CDM.

Regrettably, our daily experience in the African context, suggests that the high targets of the CDM could not be met. In fact, a substantial level of disillusionment and even frustration can be noted amongst representatives from private and public sectors in Africa: the CDM is much too ambiguous and complicated.


There have been much comments and search for remedies considering this underperformance of the mechanism in Africa. Obvious facts are that a market-based mechanism favors the “easy” projects, in other words those projects where large amounts of greenhouse gases can be mitigated and hence many “credits” generated in a single project. Another one is that an investment-centred instrument such as the CDM will face problems in countries that are attributed a generally unattractive investment climate – a prevailing situation in most African countries.

However, these factors – as relevant and unfortunate they might be – are beyond the reach of short-term remedies. Improving an investment climate is a complex process that requires sustained and multi-sectoral interventions on a long term basis.

What we as the German Technical Cooperation (GTZ) can do is focus on our core business capacity development. It has been noted that the CDM requires substantial capacities. Adopting a wide understanding of capacities, this comprises technical, institutional, and of course financial aspects, amongst others.

Much has been said and also attempted to do in terms of capacity development for the CDM. However, what has been lacking so far is an assessment of the capacities focusing on the East African region and the energy sector. This report, prepared by the GTZ Regional Energy Advisory Platform (East Africa) on behalf of the GTZ sector initiative Energising Africa, attempts to fill this gap.

We hope that you will find it useful, and we are looking forward to receiving your feedback.



**Philippe Simonis**

**Regional Energy Coordinator**

**GTZ Regional Energy Advisory  
Platform, East Africa**



**Holger Liptow**

**Head**

**GTZ Energising Africa**

## List of Acronyms

<b>CD4CDM</b>	Capacity Development for the CDM-Project (UNEP-Risø-Centre)
<b>CDM</b>	Clean Development Mechanism
<b>CEEST</b>	Centre for Energy, Environment, Science and Technology (Tanzania)
<b>CER</b>	Certified Emission Reduction
<b>CPA</b>	CDM Programme Activity (Project Activity under a Programme of Activities)
<b>DFID</b>	Department for International Development (United Kingdom)
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EB</b>	Executive Board (of the CDM at the UNFCCC-secretariat)
<b>EEA</b>	Ethiopian Electric Agency
<b>EIA</b>	Environmental Impact Assessment
<b>EPA</b>	Environmental Protection Agency (EPA)
<b>EPMS</b>	Environmental Protection and Management Services (Tanzania)
<b>ERC</b>	Energy Regulatory Commission (Kenya)
<b>ESD</b>	Energy for Sustainable Development (UK, Kenya)
<b>GEF</b>	Global Environment Facility
<b>GTZ</b>	German Technical Cooperation
<b>GTZ-REAP(EA)</b>	Regional Energy Advisory Platform (East Africa) of GTZ
<b>KIA</b>	Kenya Investment Authority
<b>NAPA</b>	National Adaptation Programme(s) of Action
<b>NEMA</b>	National Environment Management Authority (Kenya)
<b>NGO</b>	Non-Governmental Organization
<b>PDD</b>	Project Design Document
<b>PIN</b>	Project Idea Note
<b>PoA</b>	Programme of Activities
<b>PPA</b>	Power Purchasing Agreement
<b>PV</b>	Photovoltaic
<b>SSA</b>	Sub-Saharan Africa
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change

## Index of Tables

Table 1:	CDM projects by region (07/2007).....	7
Table 2:	Key capacity requirements for the CDM.....	10
Table 3:	Kyoto Protocol Ratification/Acceptance.....	11
Table 4:	Overview on the DNA functions and setup.....	14
Table 5:	Overview on the DNA approval process.....	15
Table 6:	Overview on registered energy-related CDM projects in the region.....	16
Table 7:	Overview on energy-related CDM projects under validation.....	17
Table 8:	Interview partners and respondents by country and sector.....	22
Table 9:	General obstacles as identified in several countries.....	26
Table 10:	Consolidated recommendations Ethiopia.....	28
Table 11:	Consolidated recommendations Kenya.....	29
Table 12:	Consolidated recommendations Tanzania.....	30
Table 13:	Consolidated recommendations Uganda.....	31
Table 14:	Lineup of key capacity-related obstacles and corresponding recommendations.....	33
Table 15:	General aspects for supportive intervention.....	34
Table 16:	Specific options for supporting the CDM in the field of energy.....	35

## Executive Summary

This paper is the consolidated output of a study commissioned by the Regional Energy Advisory Platform (East Africa) of GTZ. The objectives were to establish capacity-related obstacles towards the CDM in relation to energy in the East African region and to make recommendations accordingly. It is based on case studies by professional consultants for each of the four countries under consideration: Ethiopia, Kenya, Tanzania and Uganda.

While only Tanzania and Uganda have one project each registered, both Kenya and Uganda have a large number of projects moving in the pipeline. Ethiopia has fallen behind. Neither country has a policy framework that adequately provides for the CDM, but promising efforts are ongoing, in particular in Ethiopia and Uganda. The institutional capacities, especially with regards to the Designated National Authorities (DNA), are generally insufficient. The major constraints are inadequate financial and human resources. The availability of professional technical and financial services is also generally limited, although Kenya and Tanzania have a small number of professional institutional CDM service providers.

The level of general awareness, specific information and detailed knowledge about opportunities, requirements and risks of the CDM among key stakeholders that were consulted remains generally low, both in public and in private sector. The general attitude towards the CDM can be characterized as carefully optimistic. While most respondents are aware of the general functions of the CDM as mitigating climate change and fostering sustainable development, its respective performance in the East African region is criticized. A potential role as an instrument of foreign aid is only acknowledged in the context of aid components in existing or planned projects.

The stakeholders and consultants identified a number of obstacles with a great level of coherence between the countries, namely: low awareness and lacking information, inadequate technical capacities to develop CDM projects, low availability of financial services, insufficient institutional capacity as well as unspecific and unfavourable policy frameworks. They also identified a list of targeted recommendations accordingly.

In addition, specific recommendations were made for the energy sector: to provide tailored information on the CDM for energy stakeholders, to support the collection of baseline data for energy projects, to build technical capacity specifically for energy consultants, to back up energy CDM projects vis-à-vis financial intermediaries, to advise on energy project identification and prioritization, to add CDM components to existing energy projects, to develop and support new energy-related CDM projects, to support and develop “programmatic CDM” activities, to build specific energy-related capacity at the DNA, to support the establishment of one “stop shops for energy projects” and to support the establishment of conducive legal and regulatory sector framework for energy projects.

# 1 Introduction

The Clean Development Mechanism (CDM) was designed to meet two objectives: to contribute to climate change mitigation and to foster sustainable development of non-industrialized countries. Under the CDM, projects that reduce greenhouse gas emissions and contribute to development in the host country at the same time can yield certified emissions reductions (CER). These can be used by actors from developed countries with Kyoto reduction targets to offset their own emissions.

**Table 1: CDM projects by region (07/2007)**

Region <sup>1</sup>	Projects
Asia and the Pacific	437
Latin America and the Caribbean	278
Africa	21
Other	6

So far, the benefits of the CDM such as investment and employment generation or technology transfer are distributed rather unevenly. Most CDM projects are located in the fast growing emerging markets of East Asia or Latin America, whereas Africa has been largely bypassed. While India boasts 258 projects, followed by Brazil (104), China (101) or Mexico (90), in East Africa only Uganda and Tanzania host one registered project each<sup>1</sup>. The COP/MOP 2 (CMP2) in Nairobi acknowledged this and embraced the “Nairobi Framework” as an approach to “support developing countries, especially in Africa, in participating in the CDM”.

The CDM is about investment. Recent years have seen the development of a market where project developers and host countries compete for investors. The uneven distribution of CDM projects implies that Africa suffers from a competitive disadvantage. Three main reasons have been identified<sup>2</sup>:

- The limited opportunities for large scale projects in Africa
- The generally less attractive investment climate in most African countries, in particular in Sub-Saharan Africa (SSA).
- The inferior CDM related capacities of African countries.

Development assistance cannot tackle these shortcomings equally effective. The economies in SSA – with the exception of South Africa – are just not large enough to provide a significant pool of large-scale projects, if any. Investment climate is a complex issue that can be tackled best through long-term, multi-sectoral approaches. CDM-capacity, however, can be developed relatively quickly. *German Technical Cooperation (GTZ)* has supported various developing countries in the CDM<sup>3</sup>.

Against this background, and to prepare the grounds for appropriate action, GTZ has – through the *Regional Energy Advisory Platform (East Africa)* – commissioned this study on the CDM in the field of energy in East Africa.

The objective is to take stock of the CDM project activities as well as related institutional setups and legal frameworks, and to highlight capacity related obstacles towards the CDM in Kenya, Uganda, Tanzania and Ethiopia. This will allow identifying options for targeted action.

The sources for this study – unless indicated otherwise – are reports for each country that were compiled by consultants<sup>4</sup>. The consultants were:

<sup>1</sup> UNFCCC (2007): Registered Projects by Region, <http://cdm.unfccc.int> [25.07.2007].

<sup>2</sup> Jung, Martina (2005): Host country attractiveness for CDM non-sink projects. HWWA Discussion Paper 312.

<sup>3</sup> The Climate Protection Programme for Developing Countries (CaPP) has supported national CDM strategy studies in Indonesia, China, Columbia, Morocco and Chile as well as the set up of DNA and CDM promotion in public and private sector in Ghana, South Africa, Indonesia and Tunisia.

<sup>4</sup> The reports of the consultants are available from GTZ-REAP(EA) upon request.

<b>Ethiopia</b>	Mr. Bekuritsion Kassahun	Freelance consultant, former General Manager of National Meteorological Service Agency, Permanent Representative of Ethiopia to the World Meteorological Organisation, former Focal Point to the UNFCCC.
<b>Kenya</b>	Prof. Dr. John K. Nganga	Head, Department of Physical and Environmental Meteorology, University of Nairobi, co-author of Third and Fourth Assessment Report of the IPCC, member of the Kenyan National Climate Change Activities Coordination Committee.
<b>Tanzania</b> (Joint undertaking)	Mr. Hubert Meena	Chairman and Director of the Centre for Energy, Environment Science and Technology (CEEST Foundation).
	Dr. Oscar Kibazohi	Director of Environmental Protection and Management Services (EPMS) and Senior Lecturer at the University of Dar Es Salaam.
<b>Uganda</b>	Mr. Bernard Namanya	Executive Director, Climate Change Legal Center, consultant to the Ugandan Government in drafting CDM approval rules as well as rules and procedures for National CDM Secretariat.

The consultants were provided with specific Terms of Reference and a detailed research template in order to allow for cross-country comparison. Whereas the process was generally characterized by a professional atmosphere, the template was – with a few exceptions – not always followed to a satisfying extent. Nevertheless, the amount of gaps could be kept at a minimal level.

The study focuses on capacities of the private and public sectors in the four countries. Directly project-related aspects such as potentials for the CDM in a country or location or specific opportunities for projects will not be considered. It commences by giving a very brief overview of the capacity requirements of CDM projects. The status quo of the CDM sector in East Africa will be assessed, with a focus on legislative frameworks, institutional setups, DNA functions and project approval process as well as donor activities and the availability of complementary technical and financial services. It will proceed by outlining the information about and perceptions towards the CDM among key stakeholders in the energy sector specifically. Finally, the report will present conclusions and a list of potential targeted activities.

## 2 CDM-related capacity requirements

In order to ensure that emissions are indeed reduced and the project actually contributes to sustainable development in the host country, very specific and complex validation and monitoring procedures are embedded into the CDM project cycle<sup>5</sup>:

A project developer is obliged to develop a *Project Design Document (PDD)*, describing the project comprehensively and explaining issues like additionality of the project, the methodology of achieving the emissions reductions, or the monitoring plan which will allow verifying the reductions. In addition, he has to obtain approval from the host country *Designated National Authorities (DNAs)*, in order to ensure that the parties participate voluntarily and that the project contributes to sustainable development in the host country. Each project needs to be validated by an independent body, a so-called *Designated Operational Entity (DOE)*. The validation entails confirming whether all prerequisites have been met, e.g. ratification of the Kyoto Protocol, publication of the PDD, environmental impact assessments, additional emissions reductions or compliance with methodological rules. A validated project can request registration by the *CDM Executive Board (EB)*. Every project needs to be monitored as outlined in the PDD. On these grounds, the emissions reductions will be verified periodically by a DOE. Based on a successful verification, the DOE will certify the reductions generated by the project.

These complex procedures translate into both high CDM-related transaction costs as well as high capacity requirements for project participants. While the capacity requirements apply to all parties, they pose a significant challenge to participants from developing countries.

Project developers need to be able to prepare and implement a project. DNAs – and other relevant public institutions – need to have the capacity to review and approve projects. Complementary service providers play a vital role in project preparation, implementation and financing. A vital CDM sector requires a conducive policy framework, an attractive investment climate and supportive promotional activities. An essential primary requirement for the development of a vibrant CDM sector is awareness among key stakeholders in public or private sector, in particular among potential project developers, about the opportunities and challenges of CDM projects.

The following chapters will, based on country case studies by local consultants, appraise in how far these requirements are met in the East African context, which obstacles towards the CDM exist and what can be done in order to overcome those obstacles – with a focus on the energy sector.

---

<sup>5</sup> For more information on the CDM policy cycle and related aspect see the guidebooks provided in the Sources section.

**Table 2: Key capacity requirements for the CDM**

<b>Requirement</b>	<b>Description</b>	<b>Key Actor(s)</b>
<b>Awareness and information</b>	General awareness and information about the CDM.	All relevant actors in private and public sector
<b>Technical capacity</b>	Detailed knowledge and skills required to develop, implement, monitor (Project developers) and validate/verify (DOE) CDM projects.	Project developers, Designated Operational Entities (DOE; if applicable)
<b>Institutional capacity</b>	Ability of relevant institutions to put rules and procedures for CDM projects in place, to provide support to project development as well as to review projects against the rules and to approve/disapprove them accordingly.	Designated National Authorities (DNA), other relevant regulators and authorities
<b>Legal / Policy-framework</b>	Presence of a conducive framework of policies, laws and regulations, both in general with regards to the overall investment climate as well as specifically for the CDM or relevant sector legislation and regulation.	Policymakers and regulators

### 3 “Hard facts”: the status quo of the CDM-sector in relation to energy in East Africa

This section has the objective of “hard fact” finding in taking stock of the CDM in the field of energy in East Africa. It will outline the legislative frameworks, the institutional setups, the project approval procedures, the status of CDM projects, and previous donor activities.

#### 3.1 Legislative frameworks

All East African countries in question have ratified and accepted the UN Framework Convention on Climate Change and the Kyoto Protocol. In Ethiopia and Kenya, acceptance/acceptance and entry into force were, however, delayed by a couple of months.

Table 3: Kyoto Protocol Ratification/Acceptance<sup>6</sup>

Country	Ratification/ Acceptance/Accedence	Entry into Force
Ethiopia	14.04.2005	13.07.2005
Kenya	25.02.2005	26.05.2005
Tanzania	26.08.2002	16.02.2005
Uganda	25.03.2002	16.02.2005

While none of the four countries has a specific CDM law or policy, the multisectoral nature of the CDM and the complex project development rules and procedures imply that a broad range of sector policies and regulations, e.g. environmental conservation, energy, manufacturing, natural resources or foreign direct investment, are of relevance to the CDM and need to be considered by project developers.

The number of existing or upcoming policies and regulations that explicitly mention and take note of the CDM is limited.

#### Ethiopia

The “Plan for Accelerated and Sustainable Development to End Poverty in Ethiopia” (PASDEP) refers to promoting the CDM in Ethiopia. In 2005, an ambitious “Draft Strategy and Action Plan for the Clean Development Mechanism in Ethiopia” was prepared by the *Environmental Protection Authority*. A draft law/directive on CDM has been prepared by this authority and is currently in government approval.

#### Kenya

The proceedings of the *Electricity Regulatory Commission*<sup>7</sup> (ERC), the “Energy Act 2006” and the “Kenya Forest Policy” specifically provide for carbon finance activities. No further legislative action on the CDM is envisaged at this time. The policy foundation in the “Sessional Paper No. 4 on Energy (2004)” is completely silent on the CDM.

<sup>6</sup> UNFCCC (2006): Kyoto Protocol. Status of Ratification, <http://unfccc.int/> [26.07.2007].

<sup>7</sup> The ERC was previously known as Electricity Regulatory Board. Through the “Energy Act 2006” it will be reorganised into the ERC.

## Tanzania

While no regulation or policy in Tanzania specifically addresses the CDM yet, various policies or regulations, e.g. the “Environmental Management Act (2004)” or the “National Transport Policy (2003)” offer indirect linkages by calling for targeted action on climate change. The “Environmental Management Act (2004)” mandates and requires the Minister of Environment to issue guidelines to address climate change. In this context, the government is reviewing the existing CDM investors guide. The elaboration of guidelines for the DNA is due to begin shortly.

## Uganda

Only the “Renewable Energy Policy for Uganda” as of 2007 calls for taking advantage of the CDM in providing the necessary framework for private sector investors in renewable energy projects. However, two draft policies and laws are under development: the “National Adaptation Programme of Action (NAPA)” will, among other interventions, highlight the “Climate Change and Development Planning Project”, which will aim at mainstreaming climate change issues including CDM into development planning and implementation at all levels. In addition, the “The National Environment (United Nations Framework Convention on Climate Change and the Kyoto Protocol) Order (2007)” will establish the “National Climate Change Board” and the “National Climate Change Secretariat”. Both bodies will be, inter alia, jointly responsible for CDM projects in Uganda.

### 3.2 Institutional setups of the Designated National Authorities

#### Ethiopia

The DNA in Ethiopia is presently set up as a single-government type<sup>8</sup>, where the *Environmental Protection Agency (EPA)* undertakes all activities. When the DNA was set up in 2005, existing experience from the initially responsible *National Meteorological Services Agency* was not integrated.

The focus of the DNA is on regulatory activities. Promotional undertakings are not visible, and it could not be established to which extent the draft law in preparation can be expected to address this.

The negotiations in the context of the above mentioned draft law on the CDM indicate that the planned institutional arrangement will resemble an inter-ministerial model, where a *National CDM Advisory Panel* will provide for the representation of various government bodies but also for private commercial and NGO sector representatives<sup>9</sup>. In addition, the panel is supposed to be empowered to recommend policies, rules or standards for the CDM. The country report implies that there will be also a permanent body responsible for the day-to-day activities.

---

<sup>8</sup> “One department or ministry undertakes all DNA activities and may invite technical experts upon demand. The DNA Secretariat may also be responsible for marketing and promotion of the CDM”, Hayashi, Daisuke / Michaelowa, Axel (2007): p. 7.

<sup>9</sup> The draft law foresees a CAP comprising representatives of the *Environmental Protection Authority (Chair)*, the *Ethiopian Science and Technology Agency*, the *National Meteorological Agency*, the *Chamber of commerce*, the *Ministry of trade and industry*, the *Geological Survey of Ethiopia*, the *Ethiopian Electric Power Corporation*, the *Ministry of Agriculture and Rural Development*, the *Ministry of Mines and Energy*, the *Ministry of foreign Affairs* and a NGO representative.

Currently, the DNA is the Deputy Director of EPA, performing all DNA functions, without a specific budget outside the EPA provisions. Three other EPA officials support the DNA in addition to their formal duties: the heads of the legal and the project coordination unit as well as the plan and program officer.

## Kenya

The Kenyan DNA is a two-unit model<sup>10</sup>. The *National Environmental Management Authority (NEMA)* is responsible for the regulatory tasks. Currently, these responsibilities are being undertaken by the *National Focal Point for Climate Change* at NEMA, which performs as the secretariat to the *Clearing House Mechanism* - without any further budget, and on top of the other climate-related tasks. The DNA in Kenya strongly builds on existing individual experience in climate change-related issues. The staff comprises the Focal Point and two assistants.

The *Kenya Investment Authority (KIA)* is responsible for promotion. However, these tasks are not operational within the KIA yet. Hence, the National Focal Point covers also the promotional aspects, mainly through marketing, e.g. participation in the Carbon EXPO, and providing information. Thus, the current de-facto setup of the Kenyan DNA resembles the inter-ministerial, two-tier<sup>11</sup> model. Due to the financial and staff constraints, the promotional activities are very limited in scale and scope.

All relevant Government departments are part of the *National Clearing House*, which draws its membership from the *National Climate Change Activities Coordination Committee*<sup>12</sup>. The Clearing House Mechanism checks CDM projects for compliance with national requirements and legislation as well as with the sustainability criteria.

## Tanzania

The Tanzanian DNA follows an inter-ministerial two-tier model in which most of the relevant government sectors, private sector as well as the NGOs have a stake and are supposed to participate fully in the functions and processes of CDM. The DNA has a budget of about 75,000 US\$ (2007/2008) and a permanent staff of four. The *National CDM Steering Committee* is responsible for general issues<sup>13</sup>. The day-to-day activities are carried out by the *National CDM secretariat*.

Apart from the core regulation and policy activities, the DNA also provides information, creates awareness, builds capacities and gives support in project development. In addition, it is planned to engage in marketing activities.

---

<sup>10</sup> "Activities of a DNA are split into two parts. Regulatory functions are assigned to a department responsible for climate change while promotional functions elsewhere in another government department or an independent unit", Hayashi, Daisuke / Michaelowa, Axel (2007): p. 7.

<sup>11</sup> "All relevant government departments are integrated into a DNA as permanent members. The Ministry of Environment can act as a coordinator but all member departments undertake approval of projects", *ibid*.

<sup>12</sup> As of 27<sup>th</sup> March 2007 the functions of the Clearing House have been combined with that of the GEF National Task force that reviews and approves GEF projects.

<sup>13</sup> The composition is as follows: Vice President's Office (Chair), President's Office - Planning, Economy and Empowerment, Ministry of Natural Resources and Tourism, Ministry of Energy and Mineral and Ministry of Industries and Trade Marketing.

## Uganda

Since 2006, when the responsibilities were formally taken over from the Meteorology Department, the DNA is operating through a *National Climate Change Steering Committee* under an inter-ministerial two-tier model<sup>14</sup>.

The DNA neither has a budget nor permanent staff. The day to day activities are currently carried out by two members of staff in the department of meteorology, without additional reimbursement.

Due to the lack of resources, no promotional activities are undertaken. However, Uganda was represented at the CarbonEXPO 2007 through the *Uganda Investment Authority*. Nevertheless, the operations are hampered by the fact that some of the participating ministries have not assigned permanent representatives to the DNA. As a result, different officers participate in each meeting, which does not allow for continuity in the DNA's operations.

**Table 4: Overview on the DNA functions and setup**

	Type	Day-to-day operations	Budget	Permanent staff <sup>15</sup>	Promotional activities	Participation in Carbon EXPO
<b>Ethiopia</b>	Single-government	Environmental Protection Agency	-	(1+3)	-	No
<b>Kenya</b>	Two-unit (de facto: inter-ministerial)	[National Environmental Management Authority]	-	(3)	Yes [NEMA stands in for KIA]	Yes
<b>Tanzania</b>	Inter-ministerial	National CDM secretariat	75,000 US\$	4	Yes [but no marketing]	No
<b>Uganda</b>	Inter-ministerial	[Department of Meteorology]	-	(2)	-	Yes

### 3.3 DNA approval process

This section describes the DNA approval process. The actual criteria that are applied by the DNA in reviewing CDM projects shall neither be presented nor assessed here.

#### Ethiopia

The approval process is at an early stage of development. Hence, no transparent rules are available, let alone published. The above mentioned draft law is supposed to provide for a participatory and transparent 2-step-process. The *Advisory Panel* will undertake initial

<sup>14</sup> The following Ministries or Agencies are permanently represented: Environment (Chair), Agriculture, Energy, Uganda Investment Authority, National Forest Authority, National Environment Management Authority, the DNA itself and one NGO representative.

<sup>15</sup> Brackets indicate that the staff works on the DNA activities aside of other functions.

screening as well as the final review of CDM projects<sup>16</sup>, make recommendations, upon which the DNA (secretariat) will make the final decision. The sustainability criteria as well as methods for testing projects for compliance with the criteria are also at a draft stage.

## Kenya

The DNA follows a two-step approval process, with an initial screening of Project Idea Notes and a final review of the Project Design Document. Testing is done against the National CDM Guidelines and the sustainability criteria. Guidelines and criteria as well as the process as such are supposed to be transparent and available upon request, however, neither document is accessible on the website. Methods of testing sustainability have not been specified.

## Tanzania

The process is two-step: PIN are reviewed against the criteria for sustainable development, and approved by a letter of no objection. PDD are reviewed by the *Steering Committee* in conjunction with the DNA, which issues a Letter of Approval upon successful completion of the process. The letter has to be cleared by the Permanent Secretary, Vice President's office. An administrative fee is to be paid to the DNA to cover the cost of the review and the corresponding meetings. This process is standardized and applied to all projects. Criteria for sustainable development are in place. Whether they are published or whether there are criteria for testing was not established by the consultant.

## Uganda

The Ugandan DNA follows a two-step approval process. Project developers are advised to submit a PIN to the DNA for a letter of consent that the project is feasible. The final review is done by the *National Climate Change Steering Committee*. The committee reviews the PDD and produces a report advising the Minister of Environment whether or not to approve the project. Upon approval, the letter is signed by the minister. Testing is done against the criteria for sustainable development. Methods for testing are specified. The process is standardized and applied to all projects. The process is transparent and the record of meetings and the decision of the minister are accessible on request. In future, a website will publish guidelines and other relevant documentation.

**Table 5: Overview on the DNA approval process**

Country	Process type	Standardized?	Sustainability Criteria (SC)?	Methods for testing the SC?	Available upon request?	Published on website
Ethiopia	N/A [in preparation: 2-step]	N/A [Yes]	N/A [Yes]	N/A [Yes]	N/A [Yes]	N/A
Kenya	2-step	Yes	Yes	No	Yes	No
Tanzania	2-step	Yes	Yes	N/A	Yes	No
Uganda	2-step	Yes	Yes	Yes	Yes	No

<sup>16</sup> The draft law set out that the review will assess projects against the following criteria: qualification for participation, content and design of the PDD, baseline methodology and emission reductions, terms relating to funding and technology transfer, crediting period, monitoring plan and expected sustainable development effectiveness.

### 3.4 CDM projects

At the time of the compilation of this paper, only two projects were registered in East Africa, both of them in the energy sector: A landfill gas recovery and electricity generation project in Dar Es Salaam, and the West Nile hydropower project in Uganda.

Four projects were under validation: three in Kenya, of which all were energy projects, and one reforestation project in Uganda.

**Table 6: Overview on registered energy-related CDM projects in the region**

Country	Project Title	Project Type	Annual CER
Ethiopia	-	-	-
Kenya	-	-	-
Tanzania	Landfill gas recovery and electricity generation at "Mtoni Dumpsite", Dar Es Salaam, Tanzania	13 : Waste handling and disposal	202,271t (large scale)
Uganda	West Nile Electrification Project (WNEP)	1: Energy industries (renewable - / non-renewable sources)	36,210t (small scale)

#### Ethiopia

It stands out that Ethiopia has fallen behind its neighbour states. The consultant produced evidence that two projects on reforestation / biofuels were the only CDM projects that had approached the DNA for letters of no objection so far.

#### Kenya

Several projects are moving in the pipeline – most of them related to energy<sup>17</sup>. Three projects are in Validation (see table 7). *Ecogen Windfarm Ltd. (Kenya)* is developing a 30 MW wind energy project at Kinangop, near Lake Naivasha. Cheng Yong Company Ltd. is developing a project to produce charcoal from bagasse. A number of projects were recently submitted for DNA approval: A fuel switch (from fuel oil to biomass) project at *Michimukuru/Kiegoy Tea Factories* in Meru with a desired annual CER yield of 100,000t CO<sub>2</sub>e, a reforestation project by *The International Small Group Tree-Planting Clean Air Corporation (TIST)*, a fuel switch project (oil to Biomass) for factories, a biofuel (Jatropha) project for Migori and Malindi districts, a 50 MW wind farm on NGong hills, a biofuel (Jatropha) project in Msambweni, a project to replace motor with treadle pumps, a 7.5 MW cogeneration (electricity from bagasse) project at *Chemelil Sugar Company*, a solar PV project and a reforestation by the *Greenbelt Movement* (1,800 ha under the "World Bank Biocarbon Fund"). *KenGen* has a number of projects in preparation, with the support of World Bank. These, and the Green Belt reforestation project, are said to be most advanced.

<sup>17</sup> The consultant did not provide reliable estimates for the respective CER yields. More detailed information on the projects can be provided by GTZ REAP-EA upon request.

## Tanzania

The “Wind Energy Tanzania Power Project” (212,800t CO<sub>2</sub>E per year) is awaiting government approval. The PDD for the “Mwanguya and Kyoto Works” (100,000t) project, aiming at generating electricity from renewable energy, is under development. A project on afforestation and reforestation in Dodoma has been rejected, both by the DNA and the EB.

## Uganda

For Uganda, the consultant reported a surprisingly large number of projects in different stages of development. However, only one reforestation project is actually in validation. The others have either developed only PIN or are developing / have drafted PDD's. Half of them are sink projects, the others are related to energy, e.g.: “Solar PV based Rural Electrification” (16,000t CO<sub>2</sub>E per year), “Hydromax Hydro project” (41,000t), “Kakira Sugar works Ltd Cogeneration Project” (35,136t), “Kampala Landfill to Energy project” (49,305t), “Mt. Elgon Hydro power” (25,750t) or Kampala Jellitone-Briquettes (3,747t)<sup>18</sup>.

None of the countries has hosted a project or project developers that were engaged in developing a new methodology so far.

**Table 7: Overview on energy-related CDM projects under validation**

Country	Project Name	Project Type	Annual CER
Ethiopia	-	-	-
Kenya	“35 MW Bagasse Based Cogeneration Project” by Mumias Sugar Company Limited (MSCL)	1: Energy industries (renewable - / non-renewable sources)	95,522t (large scale)
	Olkaria II Geothermal Expansion Project	1: Energy industries (renewable - / non-renewable sources)	175,026t (large scale)
	Sondu Miriu Hydro Power Project	1: Energy industries (renewable - / non-renewable sources)	211,068t (large scale)
Tanzania	-	-	-
Uganda	-	-	-

### 3.5 Donor activities

UNDP is currently setting up a “Regional Capacity Building Project for Sub-Saharan Africa”, with funding from Sweden, Spain and possibly Finland. The project aims at “assisting the seven participating countries to create an operation CDM and voluntary carbon market framework” in 7 countries, among them Ethiopia, Kenya and Tanzania<sup>19</sup>. It will build on public and private sector capacities in developing, implementing and approving (DNAs) carbon finance project, build linkages with investors and purchaser, identify investment opportunities, share information and exchange knowledge, provide targeted

<sup>18</sup> More detailed information on the projects can be provided by GTZ REAP-EA upon request.

<sup>19</sup> The other countries are the Democratic Republic of Congo, Mauritius, Mozambique and Zambia. Further information can be obtained upon request by REAP-EA.

technical/methodological assistance and support project development through the *MDG carbon facility*. The project is implemented directly through the *UNDP Programme Support Unit* in New York.

## **Ethiopia**

The consultant did not provide information regarding CDM-specific donor activities.

## **Kenya**

The *World Bank* is supporting KenGen in CDM activities, in particular through capacity building for a specialized corporate unit under the CF-Assist program. The Greenbelt Movement is undertaking a project aimed at building capacity in Land Use, Land Use Change and Forestry (LULUCF) under the Bio Carbon Fund. The National Focal Point for Climate Change currently operates as the DNA with funding support from GEF (meant for National Communications work).

The consultant pointed out that a greater commitment of the government in the CDM would require justification through the implementation of activities on the ground and registration of projects with the CDM Executive Board.

## **Tanzania**

A range of donors have already engaged in capacity building activities in Tanzania. The Austrian government supports capacity building in Tanzania, Uganda and Ghana. In Tanzania, this is through *CAMCO International* and *Energy for Sustainable Development*. Tanzania is also part of the second phase of *UNEP Risø's* CD4CDM project, through EPMS and CEEST. The activities under this initiative comprise training workshops, awareness seminars and identification of possible PIN (around 10), with the aim of delivering four high quality PDD, and mainly targeted at the private sector. The *Norwegian International Program for Petroleum Management (PETRAD)* organized a workshop. DFID and CEEST undertook a study on the CDM and poverty alleviation.

## **Uganda**

A number of activities and projects in capacity building for the CDM in Uganda has been listed, most of them through multilateral bodies. Four projects supported the establishment of the DNA, two of them have been completed<sup>20</sup>. The *World Bank* and the *Global Environment Facility (GEF)* under the "Energy for Rural Transformation Program" and the "Prototype Carbon Fund" supported the "Uganda West Nile Hydropower Project" in 2001. From 2002 to 2005 *UNCTAD* and the *Earth Council* supported the *Sustainable Development Promotion Centre*. In 2003-2004, the *Worldbank* supported the development of a CDM promotion concept paper for Uganda. "CDM Susac" aimed at identifying key opportunities and players, in particular in the energy sector. Ongoing activities are "CF-Assist" and CD4CDM.

---

<sup>20</sup> Completed: "Start-up CDM in ACP countries", Funding from the EU and UK's Climate Change Challenge Fund to Department of Meteorology (2000–2002); "The WB National Strategies Study: Capacity Building for the Kyoto Protocol", Worldbank support under the NSS program to Department of Meteorology (2003). Ongoing: Capacity Development for the CDM in Uganda, funding from Dutch government through UNEP and UNEP- Risø, Phase 2 targets the Department of Mechanical Engineering at Makerere University and the Department of Meteorology (2002-); African-assist Initiative, support from the Worldbank to Department of Meteorology (2004-).

## 3.6 Complementary technical and financial services

### Ethiopia

The availability of technical and financial services for CDM project development could not be established. Based on the previous findings, however, and taking the statements of the actors from Ethiopia as presented in the following chapters into consideration, it can be reasonably deduced that these services are not or only to a very limited extent available.

### Kenya

Three actors are reported to have a considerable level of technical experience: *Energy for Sustainable Development Africa (ESDA)* has been involved in developing both CDM and voluntary market projects as well as related publications and workshops. ESDA is a subsidiary of *Energy for Sustainable Development (UK)*, who recently merged with *CAMCO International*. *ECM Centre Ltd.* is an independent consultancy with a high reputation in Kenya, having played a key role in developing the Mumias Sugar Company bagasse cogeneration project that is currently under validation. Following an invitation of its CEO to the Carbon EXPO in 2005, *KenGen* has – with the support of the World Bank – set up a specialized corporate unit to develop CDM projects suitable for the vast underlying potentials of its core business electricity generation. From the financial intermediaries in Kenya only *Kenya Commercial Bank (KCB)* is known for having expressed interest in an involvement in CDM project financing. The exact status is not known.

### Tanzania

The consultants that were contracted to prepare the country report for this study have a significant amount of experience in CDM related activities. Both *Environmental Protection and Management Services (EPMS)* as well as the *Centre for Energy, Environment, Science and Technology (CEEST)* are well known names in the CDM community through their involvement in capacity building, awareness creation and information dissemination as well as project development. In addition, the Tanzania Traditional Energy Development and Environment Organization (TaTEDO) has demonstrated relevant experience, e.g. through an engagement in CDM capacity building. Due to the generally low level of awareness about the CDM in Tanzania as outlined below, and due to the very limited experience with CDM projects in Tanzania, the availability of financial services in Tanzania is generally low. However, a representative from a Tanzanian financial intermediary has recently participated in a forum on CDM financing in South Africa.

### Uganda

The consultant noted that there is only a very small number of consultants with experience in CDM project development: Dr. Kucel Samuel Baker (Technology Consult-Faculty of Technology, Makerere University), Mr. John Begumana (National Forestry Authority), Dr. Mackay Okure (Faculty of Technology, Makerere University), and Mr. Adam Sebbit (Faculty of Technology, Makerere University). The availability of financial services was rated equally low. There are only two institutions known for their engagement in energy funds considering CDM projects: the *Development Finance Company of Uganda (DFCU)* and *Shell Uganda Ltd.*

## **4 “Soft Issues”: information, attitudes and perceived obstacles of key stakeholders from the energy sector**

Fundamental awareness, specific information and detailed knowledge are central for identifying, promoting and realising CDM projects. Attitudes towards the CDM reveal perceptions of the mechanism and can help to explain underperformance as a result of misperceived requirements for projects and roles for project participants and other related actors. At the same time, key stakeholders may provide most useful insights, based on their respective experience, into obstacles and corresponding potential remedies.

The following section aims at getting a better idea of the “soft” issues around the CDM. It is based on interviews with and questionnaires from key stakeholders in the sector. Again, a detailed template was provided by GTZ REAP. Slight shifts of focus between the countries are a result of the individual style of the consultants and their slightly varying interpretations of the underlying template.

### **4.1 Information on the CDM**

#### **Ethiopia**

Those actors who have been previously involved in the process of developing CDM projects, consultants working in the energy sector and those from the private sector who have participated in CDM related workshops have a reasonable to very good level of understanding about CDM and CDM activities in Ethiopia. However, they expressed that in particular the wider private sector at all levels including the banking and insurance sector as well as the potential institutional stakeholders have little to none understanding about CDM and CDM project activities.

Another group of respondents, mainly energy experts in the government institutions or working for NGOs have a very poor level of information of the CDM – despite the fact that they are very conversant with energy issues. Most of them listed the internet as the source of their knowledge. Some, however, came to know about the CDM only after receiving the questionnaire or conducting the interview.

#### **Kenya**

The interviews have established large differences in the level of knowledge on the CDM among key stakeholders, despite the high level of the interview partners in their respective institutions. The difference was attributed to the exposure of the respondent to and his interaction with other experts at a national or international level as well as their level of involvement in CDM-related activities in the country. In general, the main objective of the CDM was clear. However, the specific understanding of the relationship between the two goals (reaching reduction goals for developed, contributing to sustainable development for developing countries) was limited, even with senior representatives of key ministries. A representative from the municipality level had no knowledge about the CDM, despite the potentials of projects in urban transport or waste management. Private sector representatives from large companies and the electricity utilities were generally well informed, partly also because of a double function as employees and freelance consultants on relevant issues. Representatives from smaller business had significantly less knowledge. The consultants and NGOs that were interviewed had been directly involved in related activities, hence a high level of knowledge. While those who knew about the CDM also knew

who the DNA is, the understanding of the DNA's functions was limited, in particular in private sector.

## **Tanzania**

It was noted that there are only very few locally available sources of information on the CDM: the Vice Presidents Office (VPO), CEEST Foundation, TaTEDO and EPMS as well as the Danish Embassy or the GTZ office. The level of awareness about the CDM on government representatives was good, while private sector or NGO were mostly not aware<sup>21</sup>. Only a few respondents were aware of the twin role of the CDM. The most popular source of information was the internet, while a few involved key persons also had the knowledge from workshops and seminars. In addition, only a few respondents were aware of the role of the DNA, in particular from private sector or NGO.

In summary, several areas of missing information were highlighted through the interviews: What the CDM and what it's purpose are, what the potential benefits of the CDM for Tanzania are, what the DNA and it's functions are, rules and procedures for CDM project development, funding opportunities and how local investors can be involved, as well as the future prospects of the CDM.

## **Uganda**

Key stakeholders are aware of principal functions of the CDM. However, they highlighted a generally low level of information, having derived their limited knowledge from the internet, newspaper articles and discussions with experts. Key players from public sector, e.g. representatives of the Ministry of Energy, the Rural Electrification Agency and the Electricity Regulation Authority had only limited knowledge about the role and functions of the DNA. At the same time, representatives from the government noted a high level of 'ignorance' within private sector. This was explained with inadequate information provision and insufficient awareness creation, the technical and complex nature of the CDM, and inadequate incentives for the private sector due to lacking quick and direct benefits from engagement in the CDM.

---

<sup>21</sup> It must, however, be noted that the consultant did not interview representatives from the energy sector, e.g. electricity utilities. Despite the methodological shortcomings, the findings presented here add value due to the fact that the consultants contracted for this assignment in Tanzania have been involved in almost all CDM-related activities in Tanzania so far. Therefore, their judgment can be estimated to be fairly correct.

**Table 8: Interview partners and respondents by country and sector**

	<b>Public sector</b>	<b>Business</b>	<b>Consultants and donors</b>	<b>NGO and research/education</b>
<b>Ethiopia</b>	<p><b>Enviromental Protection Authority</b></p> <ul style="list-style-type: none"> <li>- Mr. Dessalegn Mesfin, DNA</li> <li>- Mr. Wondwesen, Policy and legal head</li> <li>- Mr. Mohamed Ali, Program coordinator</li> </ul> <p><b>Ethiopian Rural Energy Development and Promotion Centre (EREDPC)</b></p> <ul style="list-style-type: none"> <li>- Mr. Asres W. Giorgis, Director General</li> <li>- Mr. Amare Hadgu, Renewable Energy</li> <li>- Mr. Ephrem Hussien, SWERA Project</li> </ul> <p><b>National Meteorological Agency</b></p> <ul style="list-style-type: none"> <li>- Mr. Abebe Tadege, Head of Research Dept</li> </ul> <p><b>Mines &amp; Energy Energy Regulation</b></p> <ul style="list-style-type: none"> <li>- Mr. Melis Teka</li> </ul>	<p><b>Ethiopian Electric Agency (EEA)</b></p> <ul style="list-style-type: none"> <li>- Mr. Getahun Moges, Director General</li> <li>- Mr. Girma Alemu</li> </ul> <p><b>Ethiopian Resource Group</b></p> <ul style="list-style-type: none"> <li>- Mr. Hilawe Lakew, Managing Director</li> </ul> <p><b>MEGEN Power</b></p> <ul style="list-style-type: none"> <li>- Mr. Melessaw Shanko, Managing Director</li> </ul> <p><b>Power Systems ABB/Finland</b></p> <ul style="list-style-type: none"> <li>- Mr. Mika Turpeinen</li> </ul> <p><b>ETH Petroleum Corp</b></p> <ul style="list-style-type: none"> <li>- Mr. Worku Gosaye, Corporate Energy Expert</li> </ul> <p><b>Bio-fuel project Afforestation</b></p> <ul style="list-style-type: none"> <li>- Mr. Ambache</li> </ul>	<p><b>GTZ</b></p> <ul style="list-style-type: none"> <li>- Mr. Samson Tolessa, Sun Energy Program Manager</li> <li>- Ms. Hiwote Teshome, Sun Energy Senior Energy Advisor</li> </ul>	<p><b>Lutheran Church Renewable Energy Program</b></p> <ul style="list-style-type: none"> <li>- Mr. Tauno Pihlava</li> </ul>
<b>Kenya</b>	<p><b>Ministry of Energy</b></p> <ul style="list-style-type: none"> <li>- Faith Odongo, Senior Renewable Energy Officer</li> <li>- Paul Mbuti, Renewable Energy Officer</li> </ul> <p><b>Ministry of Trade and Industry</b></p> <ul style="list-style-type: none"> <li>- Gregory Munyao, Deputy Director of Industries</li> </ul> <p><b>Kenya Investment Authority (KIA)</b></p> <ul style="list-style-type: none"> <li>- Robert Bwire- Investment Promotion Manager</li> </ul> <p><b>Ministry of Planning</b></p> <ul style="list-style-type: none"> <li>- John Nyangena, Senior Economist</li> </ul> <p><b>Ministry of Environment and Natural Resources</b></p> <ul style="list-style-type: none"> <li>- Emily Massawa, UNFCCC Focal Point / DNA</li> </ul> <p><b>Nairobi City Council</b></p> <ul style="list-style-type: none"> <li>- Isaac Muraya Kimani, Assistant Director of Environment</li> </ul>	<p><b>Kenya Planters Cooperative Union (KPCU)</b></p> <ul style="list-style-type: none"> <li>- Kokoth Odhiambo, Value addition Manager</li> </ul> <p><b>Kenya Tea Development Authority (KTDA)</b></p> <ul style="list-style-type: none"> <li>- Peter Wachira, Planner/ economist</li> </ul> <p><b>Kenya Power and Lighting Company (KPLC)</b></p> <ul style="list-style-type: none"> <li>- Boniface Kinyanjui, Assistant Planning Engineer</li> </ul> <p><b>Kenya Generation Company (KENGEN)</b></p> <ul style="list-style-type: none"> <li>- Pius Kollikho, Senior Hydrologist</li> </ul> <p><b>Bamburi Cement</b></p> <ul style="list-style-type: none"> <li>- Bernard Osawa, Business Manager: Alternative fuels</li> </ul> <p><b>Kenya Association of Manufactures (KAM)</b></p> <ul style="list-style-type: none"> <li>- Paul Kirai, National Project Manager, GEF-KAM Industrial Energy Efficiency Project</li> </ul>	<p><b>Energy for Sustainable Development Africa (ESDA)</b></p> <ul style="list-style-type: none"> <li>- Stephen Mutimba, Managing Director</li> </ul> <p><b>Environmental Cost Management (ECM) Center LTD</b></p> <ul style="list-style-type: none"> <li>- Tom Owino Owuor, Executive Director</li> </ul> <p><b>Comtronics LTD</b></p> <ul style="list-style-type: none"> <li>- Peter Orawo- Chairman</li> </ul>	<p><b>Intermediate Technologies Development Group (ITDG)</b></p> <ul style="list-style-type: none"> <li>- Daniel Theuri- Senior Coordinator: energy program</li> </ul> <p><b>Solar-Net</b></p> <ul style="list-style-type: none"> <li>- Christopher Oludhe-Board Member</li> </ul>

<p><b>Tanzania</b></p>	<p><b>Ministry of Energy</b>  - Mr. Mwhava, Assistant commissioner for renewable energy</p> <p><b>Vice President's Officer- Division of Environment (VPO-DoE)</b>  - Fred Manyika, Environmental officer  - Swai, Senior Environmental management officer  - Angela Madete, Assistant Director for Environmental pollution</p> <p><b>Tanzania Industrial research and Development Organisation (TIRDO)</b>  - Wilson Lugano, Senior Researcher</p> <p><b>Tanzania Bureau of Standards</b>  - Rosemary Ndesamburo, Standards officer</p> <p><b>Ministry of Health</b>  - Arnold Mukandara, Medical Doctor</p> <p><b>National Environmental Management Council (NEMC)</b>  - Environmental officer</p>	<p><b>Akiba Commercial Bank</b>  - Credo Simbeye, Inhouse Trainer</p> <p><b>CRDB Bank</b>  - Emamnuel Elisante, Relationship manager  - Corporate banking</p>	<p>)</p>	<p><b>Envirocare (NGO)</b>  - Abdallah Mkindi, Environmental officer</p> <p><b>Lawyers' Environmental Action Team (LEAT)</b>  - Legal counsel</p>
<p><b>Uganda</b></p>	<p><b>Meteorology department, Ministry of Water and Environment</b>  - Phillip Gwage, Meteorologist (DNA)  - Isabiry Paul, Civil Servant</p> <p><b>Uganda Investment Authority</b>  - Godfrey Ssemakula, Assistant Director</p> <p><b>Energy Resources Department</b>  - Kiza Michael, Senior Energy Officer  - Eng. Henry Bidafala, Assistant Commissioner for Energy</p> <p><b>Rural Electrification Agency</b>  - Barbara Musoke Ntambi, Manager, Public Information and Outreach</p> <p><b>Electricity Regulatory Authority</b>  - Eng. James Moses Omara-Ogwang, Engineer</p>	<p><b>Kakira Cogeneration Project</b>  - Farhan Nakhooda, Projects Director</p> <p><b>Uganda Carbon Bureau Ltd.</b>  - Bill Farmer, Chairman</p> <p><b>Private Sector Foundation</b>  - Geoffrey Ssebuggwawo, Director, BUDS-ERT</p>	<p><b>Clean Development Centre</b>  - Robert Fischer, Technical Advisor</p> <p><b>GTZ</b>  - Ulrich Laumanns, Project Officer</p>	<p><b>Environmental Conservation Trust</b>  - Pauline Nantongo, Executive Director</p> <p><b>Makerere University, Department of Mechanical Engineering</b>  - Dr. Mackay Okure, Lecturer/Mechanical Engineer  - Dr. Adam M Sebbit, Mechanical Engineer</p>

) Note: For Tanzania, no consultants were interviewed since the two consultancies working in the field were contracted to conduct the study

## **4.2 Attitudes towards the CDM**

### **Ethiopia**

This group of respondents that had been previously involved in CDM related activities has a clear understanding of the distinctions between the CDM, ODA and FDI. The others understand the CDM as a mechanism in which ODA, FDI or similar type of arrangement can be synonymous. In general, most respondents were aware of the role of the CDM as an instrument to mitigate climate change through appropriate investment. The vast majority agreed that the CDM was not successful in either regard. Most of the respondents rejected the view of the CDM as an instrument of foreign assistance.

### **Kenya**

All persons interviewed were aware of the CDM as an instrument to mitigate climate change, although perceived to be unsuccessful due to its very limited implementation in the country and the very low level of information. The view that it was an instrument of foreign aid was widely rejected. Those with a relatively high level of information on the subject agreed that the CDM was a way to attract foreign investment. Most of the others were not aware of the linkage between climate change and foreign investment. However, all respondents agreed that the CDM was not successful in attracting investment. The main reason given was that no project had been implemented so far. Regarding a role of the CDM to trigger domestic investment, the opinions were split roughly along the same lines, whereby even the proponents clarified that this role was potential and had not been realized yet. Hence the overall assessment of the actual contribution of the CDM to development in Kenya was negative.

### **Tanzania**

While most of the respondents were aware of the role of the CDM as a tool to mitigate climate change, it was also stated that it was not successful in this regard. The majority of respondents also agreed that the CDM was not a tool to attract foreign aid. In terms of its potentially complementary role in fostering development, the insiders agreed that the CDM was not successful so far. While most respondents agreed that the CDM was meant to trigger investment, it was deemed unsuccessful at the same time.

### **Uganda**

While all respondents noted that the CDM is an instrument for climate change mitigation and also an important tool to trigger foreign investment, they were also of the view that it has not been successful. Due to the capacity building component, some saw it also as an instrument of foreign aid, citing projects that indeed did receive support from development partners. However, most respondents rejected this view, and a senior DNA representative noted that CDM is not "aid" but business, which is voluntary and governed by the market principles of demand and supply. With regards to the energy sector, one respondent pointed out that if the CDM was working properly in Uganda, we would see more people interested in renewable energy options

because it would be more profitable. In Uganda, perceptions were most optimistic regarding the development of CDM projects in the forestry sector.

### **4.3 Legislative and Institutional framework**

#### **Ethiopia**

The majority of the respondents had no opinion on either the legislative or the institutional framework due to a lack in detailed knowledge about the CDM. However, some respondents stated that the DNA and his team have a very good knowledge of the CDM issue but were inadequately equipped with financial and human resources.

#### **Kenya**

The general feeling was that the legislative framework for the CDM in Kenya is not well developed. Particular concern was raised regarding the CDM Guidelines<sup>22</sup>, which were seen to be overdue for revision. The DNA was reported to respond timely and competently to requests. However, it was noted that the staffing was inadequate to allow the DNA to perform satisfactorily. By those who had actually participated in CDM projects, the approval process was seen as taking too long. The transparency of the approval process received mixed ratings by the same group of respondents. Mixed statements were also given regarding the promotional performance of the DNA, which is supposed to be handled by KIA but currently among the responsibilities of the Climate Focal point at NEMA. The availability of necessary information for CDM projects, e.g. baseline data, was seen to be inadequate.

#### **Tanzania**

Most of the respondents were not aware of any legislative framework for the CDM in Tanzania. The few that were aware classified it as rather weak. No response indicated a good performance of the DNA or other relevant institutions. In addition, most respondents were not aware of the process of CDM project approval, or the status of CDM activities in Tanzania. The CDM investors guide<sup>23</sup> was cited as a noteworthy exception. There was no awareness of promotional material or activities provided or undertaken by the DNA.

#### **Uganda**

The need to tailor the policy framework better to the CDM by amending the respective laws and policies was noted. The respondents further stressed the necessity to strengthen and to build the capacities of key elements in the relevant bureaucracy, also at the local and district level. Key respondents were unable to assess the performance of the DNA since it was hardly visible as an institution. The lack of a well resourced DNA office as well as fully committed and technically qualified staff was pointed out. With regards to the approval process, the

---

<sup>22</sup> Available upon request from REAP (EA).

<sup>23</sup> Likewise.

respondents urged to further streamline procedures as well as to reduce the bureaucracy and certain bottlenecks accordingly.

#### 4.4 Obstacles to the CDM identified by stakeholders and country consultants

The following table presents a list of obstacles that were identified by the interview partners and respondents.

**Table 9: General obstacles as identified in several countries**

<b>Obstacle</b>	<b>Explanation</b>
<b>Information</b> (Ethiopia, Kenya, Tanzania, Uganda)	Inadequate general awareness and information about opportunities, requirements and risks of the CDM in general and about the CDM project cycle and the functions of the DNA in particular among key stakeholders, both from private as well as from public sector (apart from actors who had been directly involved previously).
<b>Technical Capacity</b> (Ethiopia, Kenya, Uganda)	Lacking technical capacity and knowledge within private and public sector to develop individual CDM projects and hence an attractive CDM portfolio for the respective country. In addition, the absence of a Designated Operational Entity (DOE) in East Africa was noted.
<b>Financial services and capital</b> (Kenya, Tanzania, Uganda)	Lacking availability of capital to (pre)finance the development of CDM projects and of complementary financial services, in particular with regards to risk management.
<b>Institutional Capacity</b> (Ethiopia, Kenya, Tanzania, Uganda)	Generally weak institutional framework, a delayed setting up of the required institutions, lacking availability of a (sectoral) one-stop center for CDM projects and corresponding bureaucratic barriers and bottlenecks in the process of developing CDM projects, double burden of DNA (project approval and promotion activities) facing inadequate staffing and financial resources.
<b>Legislative Framework</b> (Ethiopia, Kenya)	A generally lacking reflection of climate change issues in legislative frameworks. Specifically, a fragmented legislative framework for CDM projects, where project developers need to take a wide variety of laws and regulations into consideration. In addition, a lacking regulatory framework for specific activities, e.g. waste management.

## **5 Recommendations by stakeholders and country consultants**

This section builds on the recommendations for action that were pointed out by the interview partners and respondents and by the consultants themselves. Consolidated recommendations for each country are presented in country specific categories (Tables 10-13). Where applicable, referral to the role of foreign actors or specific aspects related to the energy sector is indicated. The table also highlights which of the above mentioned obstacles is tackled by the respective recommendation.

**Table 10: Consolidated recommendations Ethiopia**

<b>Recommendation</b>	<b>Explanation</b>	<b>Problem tackled</b>
General I: Create Enabling Framework	The overall objective for domestic actors in order to tap the opportunities of the CDM should be to create favorable and attractive conditions for CDM activities.	N/A
General II: Address (bureaucratic) reluctance towards private sector	The traditional and systematic resistance of the public sector to work together with the private sector as a partner should be tackled and addressed at all levels, in particular within the bureaucracy.	N/A
General III: “Learning by doing”	Improving the performance of the CDM in Ethiopia should follow a “learning by doing” approach of developing projects while building the institutional and technical capacity within public sector.	N/A
General IV: Central coordination by the DNA	The CDM related tasks should be initiated and coordinated the DNA, who should also create a consultative mechanism to integrate local stakeholders.	N/A
Information and Awareness creation	Relevant public sector actors should be informed, actively seek to enhance their level of information, and support private sector in the same. Private sector should actively seek to improve its level of general information as well as specific knowledge about the CDM and also seek participation in capacity building activities.	Information
Consider sourcing out of promotional DNA tasks	Outsourcing the promotional DNA responsibilities to a competent private institution or (with proper financial support) to public media outlets with proven capability should be considered.	Institutional capacity
Remove legislative and institutional barriers	Barriers related to legislation and institutional issues should be removed. Policies, laws and regulations should be streamlined for the CDM, but also with regards to sector specific issues. Policymakers need to internalize this. In addition, the DNA’s resources should be significantly upgraded.	Institutional capacity, Legislative framework
Cooperate with development partners	The technical assistance of development partners should be actively sought and incorporated in order to start the process.	All
Initiate Kick-start program	The government should – through the DNA, but flanked by all relevant actors – initiate a kick-start program for the CDM in Ethiopia. The program should focus on the project level, with particular regards to the simplified small-scale projects, and with complementary capacity building to address technical, institutional and policy issues.	Information, Technical Capacity, Institutional capacity
Energy sector: Remove obstacles for private sector involvement	Regulatory and bureaucratic obstacles towards private sector participation are particularly critical for the energy sector, where public authorities and development partners should make special and sustained effort to create opportunities for private investment, e.g. by reviewing and streamlining Power Purchase Agreements in order to facilitate market access.	

**Table 11: Consolidated recommendations Kenya**

Recommendation	Explanation	Problem tackled
Information and Awareness creation	There is need to initiate a comprehensive awareness program or campaign for industry and other project proponents, including financial institutions, on the CDM and climate friendly technologies as well as on the opportunities that they offer for contributing to the country's sustainable development.	Information
Technical Capacity Building	There is the need to carry out technical capacity for CDM project developers, in particular for small companies. The focus should be on the identification of potential CDM projects as well as on support services such as marketing, monitoring and certification of CDM projects. This should build on existing experience of previously involved actors. The Kenya Association of Manufacturers should be integrated as a multiplier.	Information, Technical Capacity
Institutional capacity-building	The DNA needs to be equipped with adequate financial and human resources. In addition, the DNA needs to be assisted in formulating and implementing an effective communication strategy. A registry for tracking the progress of CDM projects should be put in place. The National CDM Guidelines should be revised with the involvement of various stakeholders, in particular private sector. National inventories with relevant technical and baseline-information should be undertaken. Finally, Kenya Investment Authority should be empowered and integrated into the DNA as the promotional wing.	Institutional capacity
Improve CDM-related policy framework	The policy framework needs to be focused in order to provide incentives for investors to venture specifically into CDM projects. In addition, clear incentives need to be given for investing into appropriate and clean technologies. In addition, policy-related bodies such as the "Parliamentary Network on Renewable Energy and Climate Change" (PANERECC) should be integrated into promoting the CDM in Kenya.	Legislative framework
Regional cooperation	Establish a center for information and technical support to energy-related CDM projects in East Africa. In addition, exchange of information and experience, also with interested parties beyond East Africa could be facilitated.	All
Pilot project	In order to implement the above recommendations effectively, a project should be developed for demonstration purposes, with complementary efforts addressing the above. The project should be adequately resourced by government as well as local and international donors and partners.	All

**Table 12: Consolidated recommendations Tanzania**

<b>Recommendation</b>	<b>Explanation</b>	<b>Problem tackled</b>
Information and Awareness creation	Implementation of a thorough CDM awareness campaign to stakeholders, starting with the most important industrialists, farmers, entrepreneurs (“low hanging fruits”).	Information
Technical capacity building	The government should actively support and empower the private sector and civil society to develop CDM projects. Private sector and civil society should suggest areas that would need more emphasis.	Technical Capacity
Funding for CDM activities and sensitization of financial sector	Adequate funds to support CDM activities should be provided. Financial institutions should be sensitized about the CDM in order to facilitate project implementation by simplifying credit modalities and providing credit for local investors.	Financial services and capital
Institutional capacity-building for DNA and other relevant institutions	The capacity of the current DNA should be improved and a truly multi-sector, multi disciplinary model considered allowing for effective project identification and supporting to project developers. Adequate human and financial resources should be provided. The DNA itself should be made independent empowered to establish its legal framework and to create guidelines for the CDM. The DNA should identify CDM projects, especially in energy sector and promote them at international level. In addition, CDM capacity building should take place at key institutions, e.g. the Ministries of Energy, Environment, Industries and Trade, Natural Resources and Tourism as well as Planning and Land utilization.	Institutional capacity, legislative framework
Improve and streamline legislative framework	Existing policies and legislation should be reviewed to reflect the CDM. The DNA should be empowered to participate in this process. The “Environment Management Act” (2004) should be amended to incorporate the CDM. The Minister should make regulations and guidelines on the CDM under the EMA. In general, national environmental policy should be enforced by giving timelines to adopting non-polluting. The role of Environmental Impact Assessments (EIA) in CDM project development needs to be acknowledged. Various policy makers should be sensitized on the CDM projects so that they facilitate the formulation of the institutional and legal framework.	Legislative framework
Foreign Actors: Focus support on Africa	Foreign actors who are development partners should provide funds for developing appropriate skills as well as for infrastructural support relevant to the CDM. Foreign investors should consider Africa particularly Tanzania as a key partner and avail investment funds, facilities and technologies for CDM projects.	<b>All</b>
Energy specific: Focus on energy sector as key aspect of CDM	Since most CDM projects are energy-related, public sector and private actors as well as donors should focus on the energy-sector and towards utilizing the available resources to generate power using minimal cost and inexpensive technology.	<b>All</b>

**Table 13: Consolidated recommendations Uganda**

Recommendation	Explanation	Problem tackled
General: Integration of private sector into the CDM process	There is need to integrate the private sector stronger into the CDM project development process. Important private sector actors professed complete ignorance of the CDM. Thus, there is need to bring the private sector on board through sensitization and creating awareness among stakeholders, capacity building, preparation of guidelines and financial support.	All
Awareness creation	There is need to raise awareness among the different stakeholders. Providing capacity building for all the stakeholders on the role and functions of the DNA.	Information
Technical capacity building	There is need to build the capacity of the private and public sectors in order to promote CDM projects on a competitive basis. Capacity building is needed in the following areas; quantification of emissions reductions, project identification and formulation of viable projects, monitoring project performance and marketing.	Technical Capacity
Institutional capacity building, in particular for the DNA	There is need to strengthen the DNA. This can be by establishing a well resourced DNA office, separating the DNA from the mainstream government departments and employing well trained and motivated staff.	Institutional capacity
Policy framework: finalization of NAPA	The ministry responsible for environment needs to finalise NAPA to pave the way for a policy on carbon trade that will provide the necessary legal and institutional framework, put in place a conducive environment, increase investor confidence and spur growth of the CDM sector.	Legislative framework
Foreign actors: Support sensitization as well as technical capacity building	Sensitization programmes for CDM projects, targeted at raising awareness, policy formulation and project development should be supported, e.g. through the development of user-friendly manuals as well as sensitization/capacity building, and through partnering with local participants in training through school curricula or workshops, involving all stakeholders.	Information, Technical Capacity
Foreign actors: Support private sector involvement	There is need to support the participation of the private sector in the fast growing voluntary carbon markets. The foreign partners should establish joint ventures with local partners.	All
Foreign actors: Support of project development	There is need to support the establishment of a fund that will support the development and effective management of the CDM projects	Technical Cap., Fin. Serv.
Foreign actors: Support of institutional capacity building	There is need to support the establishment of a fully fledged DNA with sufficient resources to execute its mandate <sup>24</sup> .	Technical Capacity
Energy specific : Establish a one-stop center	There is need to also help establish a one stop center for CDM issues in the energy sector. This will help support and address specific issues of the energy sector	Information, technical capacity, institutional c.
Energy specific : Inform about CDM and energy sector	Thus there is need for rigorous awareness campaigns that would enlighten people on the potential of CDM projects in the energy sector	Information
Energy specific : Establish an incentive regime	There is need to put in place an incentive regime for CDM projects in the energy sector, e.g. through tax holidays, provision of necessary land and facilitation of project development .	Legislative framework

<sup>24</sup> The CD4CDM project of UNEP- Risø supports this in its 2<sup>nd</sup> phase.

## 6 Conclusions

### 6.1 Review of the key findings

This report has not revealed breaking news. The problems of developing countries in attracting CDM projects have been analysed extensively in the past, and this assignment has benefited greatly from these efforts and experiences in laying out the ToR for the consultants as well as the research template.

Nevertheless, the paper has put four countries and one sector in the spotlight and attempted to undertake a comprehensive assessment of hard and soft factors that shape or even determine the actual development of CDM projects in the East African energy sector.

It is important to note that both the country case studies by the consultants as well as the bulk of this report were compiled before the “Possible Elements of the Nairobi Framework” were published on the UNFCCC website<sup>25</sup>. There is a very high level of congruence between the key aspects as outlined in the paper published by the UNFCCC secretariat and the recommendations provided by stakeholders “on the ground” in East Africa.

The study has established that only two countries can look back onto one registered CDM project each, with three projects under validation in Kenya. A considerable number of projects is in earlier stages of the “pipeline”, in particular in Kenya and Uganda, while Ethiopia is left behind.

The consultants further revealed that no CDM-specific legislative frameworks exist in the countries under consideration, although promising policy foundations and reform efforts are in place or on the way respectively.

The DNA setup varies between the four countries. None of the countries can claim Michaelowa’s “optimum institution” of a “CDM Office that is independent but has full approval powers”<sup>26</sup>. Nevertheless, most countries have his second best option, a two-tier system with a board for defining criteria and priorities and a secretariat handling the day-to-day-business implemented. Only the DNA of Tanzania has permanent staff and a budget. Some DNA are engaged in promotional activities, but all are facing serious resource constraints in these efforts. The procedures for project approval are supposedly transparent, published and available upon request. However, no country has put a comprehensive, accessible and user-friendly website in place.

A number of donors have engaged in previous capacity building efforts. Tanzania, Uganda and to a certain extent (biased towards the World Bank) Kenya have benefited considerably, and it can be reasonably deduced that this had a positive influence on the relative success of these countries in having projects registered or under validation. UNDP has just launched a large capacity building project covering, among others, Ethiopia, Kenya and Tanzania.

The availability of complementary technical and financial services for project development is generally low. Nevertheless, at least in Kenya, Tanzania and Uganda a number of consultants with experience and even some few specific funding opportunities were reported.

The survey on the “soft factors” revealed a lack of general awareness, specific information and detailed knowledge among the wider public and private sectors, but even among those institutions or actors who (should) have a direct stake in the CDM. Opportunities from or requirements and risks of CDM projects are not generally known.

The attitudes towards the CDM are – naturally - spread unevenly between those who had been involved in the CDM previously and those who had not. In general, most stakeholders are aware of

---

<sup>25</sup> UNFCCC (2007): Possible Elements of the Nairobi Framework, <http://cdm.unfccc.int/> [30.07.2007].

<sup>26</sup> Michaelowa, Axel (2003): CDM Host Country Institution Building, in: Mitigation and Adaptation Strategies for Global Change, 8/2003, p. 201.

the primary functions of the CDM as a potential channel for investment into projects that mitigate climate change and simultaneously promote sustainable development. Where it is seen as an instrument of foreign aid, this is mostly because of an aid or assistance component in existing or planned projects.

It is important to note that this study revealed great similarities between the four countries under consideration, both through the assessment of the status quo as well as through the opinions and recommendations of stakeholders and consultants. The needs are generally the same, with slight advantages of Tanzania with respect to DNA resources and particularly Kenya with regards to technical capacity for developing CDM projects. The respondents of the survey and the consultants congruently highlighted five key capacity related obstacles and made a number of corresponding recommendations:

**Table 14: Lineup of key capacity-related obstacles and corresponding recommendations**

<b>Obstacle</b>	<b>Recommendation</b>
Low level of awareness and information about the CDM	Conduct sustained awareness campaigns in order to sensitize stakeholders from public and private sector on the CDM
Insufficient technical capacity to develop projects	Build the technical capacity of project developers, including project owners, complementary technical and financial service providers as well as to a certain minimum level key actors from relevant public institutions
Low availability of financial services for CDM project	Provide direct support to start-up projects and sensitize financial service sector
Inadequate institutional setup to effectively support and promote CDM projects	Install an efficient institutional DNA setup, equip the DNA's, with adequate financial and human resources, and establish a transparent and unbureaucratic project approval process.
Fragmented and unspecific legislative frameworks	Streamline climate change in general and the CDM in particular into the policy framework, including sectoral regulations relevant to different types of CDM projects.

Several consultants made particularly valuable contributions: Both the Ethiopian as well as the Kenyan consultant suggested to kick-start the development of CDM projects through pilot projects, focusing on small-scale activities, maintaining transparency in a process designed for demonstration, and providing complementary capacity building activities at all relevant levels and sectors. The Kenyan consultant highlighted the need to establish a regional center for information and technical support to energy-related CDM projects in East Africa and for international exchange. The Ethiopian and the Ugandan consultant stressed the fundamental requirement of a stronger integration of the private sector into the identification and development of CDM projects, into the design of institutional rules and procedures as well as of policy frameworks. This is of paramount importance, given the nature of the CDM as a vehicle for private investment.

Furthermore, some consultants made useful recommendations specifically with regards to the energy sector:

The Tanzanian consultants called for focusing on energy as a key issue with multi-sectoral implications for sustainable development. The Ugandan consultant added a call for a sustained and focused awareness creation effort among energy-related actors.

The Ethiopian consultant pointed out a key aspect: the need to tackle specific obstacles for private investment into the energy-sector. A good example is the question of grid-access for private

investors. The case of the negotiations between Mumias Sugar Company Ltd. and the Kenya Power and Lighting Company (KPLC) over a Power Purchasing Agreement for the electricity generated by Mumias' cogeneration CDM project demonstrates the tremendous difficulties facing producers willing to feed electricity into the national grid. CDM project in renewable energy are seriously hampered if not rendered impossible by such impediments. National legislation and regulation should tackle this issue swiftly and effectively by standardizing and simplifying the rules for IPP.

The Ugandan consultant suggested to establish one-stop centres for developers of energy-related CDM projects. This would greatly simplify project development. The centres should receive and review PIN's, provide technical and legal guidance, and facilitate a projects way through the various public institutions whose consent for any particular CDM project is required. Ideally, CDM project developers would only be dealing with one institution. Hence, the centres should be attached to the DNA's.

The Ugandan consultant also proposed to put in place incentive regimes for CDM projects in the energy sector, e.g. through tax holidays, direct subsidies or preferential treatment in land allocation, in order to increase the competitiveness of investments in energy-related CDM project and attract investors accordingly.

## 6.2 General aspects for supportive interventions

Based on the efforts of the consultants and the input of the sector stakeholders that have been summarized in this paper, a potential supportive intervention of GTZ could take the following into consideration.

**Table 15: General aspects for supportive intervention**

Option	Explanation
<b>Tailor activities to identified obstacles and recommendations of sector stakeholders</b>	The interventions should be tailored to the obstacles and recommendations as identified by the sector stakeholders and the country consultants. Specific work-plans and approaches should be developed in close liaison with the respective stakeholders and experienced resource persons. This point is further strengthened by the strong correspondence of the items presented in the present paper and the "Possible Elements of the Nairobi Framework" recently published by the UNFCCC secretariat.
<b>Launch similar activities in neighbouring countries</b>	The regional similarities in status quo, obstacles and proposed recommendations call for a regional approach that allows realizing synergy benefits of support given in parallel to neighbouring countries, e.g. by launching similar activities simultaneously in several countries in the region.
<b>Focus on "low-hanging fruits"</b>	In order to reap quick benefits and to minimize risk, efforts should be focused on low-hanging fruits. In other words, activities should concentrate on those countries that already have a certain minimum level and experience in CDM related activities
<b>"Learning by doing" approach</b>	Efforts should follow a "learning by doing approach" and centre on actively supporting a small number of feasible projects while conducting complementary capacity building efforts for involved public and private sector representatives. In parallel, efforts should be directed at guiding policymakers in streamlining the policy framework and allocating a required minimum budget to essential institutions, in particular the DNA.

<b>Maximize demonstration effect through transparency</b>	Given the lack in general awareness and specific information even among sector stakeholders, a key aspect of the approach should be an implementation in full transparency, in order to ensure a strong demonstrative effect to the end of reaching out to and creating awareness for all relevant stakeholders.
<b>Set up a regional coordination and liaison office</b>	A regional approach should entail setting up a regional coordination and liaison office. Its responsibilities should be to facilitate exchange of experiences between the actors in the participating countries, to maintain a continuous flow of information in order to establish a vital CDM community in the region, and to market CDM projects from the region.

### 6.3 Specific options for supporting the CDM in the field of energy

Projects or programmes willing to provide direct support to energy related activities in the field of the CDM in East Africa could engage in the following activities:

**Table 16: Specific options for supporting the CDM in the field of energy**

<b>Option</b>	<b>Explanation</b>
<b>Inform energy stakeholder on CDM</b>	Inform private and public sector stakeholders in the field of energy on the opportunities and requirements of the CDM, e.g. through a website or by producing tailored booklets and brochures.
<b>Support collection of baseline data for energy projects</b>	Support the collection and dissemination of relevant baseline data for project development in the energy sector, e.g. fuel consumption of thermal power stations, recent plant additions, electricity generation and capacities etc.
<b>Building technical capacity for energy consultants</b>	Provide specific support in building technical capacities for consultants and professionals in the field of energy.
<b>Back up energy CDM projects vis-à-vis financial intermediaries</b>	Assist energy project developers in overcoming the reluctance of financial intermediaries in financing the underlying project activities, e.g. by issuing letters of endorsement or by backing up energy project developers directly in the respective negotiations.
<b>Advise on project identification and prioritization</b>	Assist potential project owners and project developers in identifying and prioritising projects, e.g. by initiating studies establishing and quantifying potentials of projects in the energy sub-sectors.
<b>Add CDM components to existing energy projects</b>	Tailor CDM components to existing energy projects, e.g. by bundling many small sites in a given project activity into one CDM project <sup>27</sup> .
<b>Develop / support new projects</b>	Develop and support the development of new energy projects, with a focus on areas that are relatively “unattractive” for private sector project

<sup>27</sup> According to the CDM rules and procedures, this must, however, not result “diversion of official development assistance and is to be separate from and not counted towards the financial obligations of Parties included in Annex I”, UNFCCC (2002): Decision 17/CP.7. Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol.

	<p>developers, e.g. small-scale projects with a large number of individual. In supporting and partnering with private sector, technical cooperation should maximize the pro-poor impact and the general development orientation.</p>
<p><b>Support and develop “programmable CDM”<sup>28</sup> activities</b></p>	<p>In close liaison and partnership with host country authorities and other stakeholders design, develop, implement and support “Programmes of Activities” (PoA) or project activities within PoA in the field of energy. This is of particular relevance since this option is very new, hence requiring further specific guidance at host country level, while at the same time being targeted at and offering great potentials for the less and least developed countries in SSA.</p>
<p><b>Develop and improve specific energy-related capacity at the DNA</b></p>	<p>Assist the DNA in the process of reviewing and approving energy projects, e.g. by providing training for DNA staff both on energy-related technological aspects.</p>
<p><b>Support the establishment of one “stop shops for energy projects”</b></p>	<p>Specifically advise the relevant stakeholders, in particular in the Ministries of Energy and in the respective DNA’s on setting up “one-stop shops” for CDM project developers in the field of energy.</p>
<p><b>Support the establishment of conducive legal and regulatory framework for energy projects</b></p>	<p>Support policymakers and regulators in the energy sector in integrating the CDM into the sector framework, e.g. by advising on how to enable private investors to feed electricity from renewable sources into the grid, or by supporting the development of strategies, laws and regulations for biofuels.</p>

<sup>28</sup> In order to “enhance the chances of small and poor countries getting access to the CDM”, the CDM EB has recently published procedures, guidelines and related documents for “Programmes of Activities” (PoA). A PoA is a “voluntary coordinated action by a private or public entity” which coordinates/implements any policy or measure that reduces/removes GHG emissions. Under a PoA, “CDM programme activities” (CPA) can be registered as project activities. While each PoA can envelope an unlimited number of CPA, each CPA needs to apply the same technology, baseline and monitoring methodology. This opportunity to develop a large number of individual activities covering a wide geographic area “under a single ‘programme’ umbrella”. UNFCCC (2007a): Press release. Way cleared for Kyoto mechanism to boost green investment in developing countries – CDM EB; UNFCCC (2007b): Guidance on the registration of project activities under a programme of activities as a single CDM project activity.

## Sources

### ▪ Country reports

Kassahun, Bekuritsion (2007): Research in the Field of the Clean Development Mechanism (CDM) in Ethiopia.

Meena, Hubert E. / Kibazohi, Dr. Oscar (2007): Consultancy Report on GTZ Regional Energy Advisory Platform, Eastern Africa (REAP-EA) Research in the Field of the Clean Development Mechanism in Tanzania.

Namanya, Bernard (2007): Clean Development Mechanism (CDM) in Relation to Energy in Uganda.

Nganga, John K. (2007): Research in the Field of the Clean Developing Mechanism (CDM) in Relation to Energy in Kenya.

### ▪ Guidebooks and introductions

Figueres, Christiana (Ed.) (2002): Establishing National Authorities for the CDM. A Guide for Developing Countries.

Greene, William (2005): Carbon Finance for Africa – An Investor's Guide. Africapractise

Introduction to the CDM; Umweltministerium Baden-Württemberg (2005): Flexible Instrumente im Klimaschutz. Emissionsrechtelandel, Clean Development Mechanism, Joint Implementation. Eine Anleitung für Unternehmen;

Michaelowa, Axel / Krey, Matthias / Butzengeiger, Sonja (2004): Clean Development Mechanism and Joint Implementation. New Instruments for Financing Renewable Energy Technologies. Thematic Background Paper for the International Conference on Renewable Energies, Bonn.

Ministry of the Environment, Japan / Global Environment Centre Foundation (2006): CDM/JI Manual for Project Developers and Policymakers.

Unep Risø Centre on Energy, Climate and Sustainable Development (2005): Clean Development Mechanism PDD Guidebook: Navigating the Pitfalls.

Unep Risø Centre on Energy, Climate and Sustainable Development (2004): CDM Information and Guidebook. Second edition.

Unep Risø Centre on Energy, Climate and Sustainable Development (????): Clean Development Mechanism.

United Nations Development Programme (2003): The Clean Development Mechanism. A User's Guide.

### ▪ Research papers

Hayashi, Daisuke / Michaelowa, Axel (2007): Efficient DNA operation: Lessons from different DNA settings in non-Annex-B countries. HWWI Research Paper 4-10.

Jung, Martina (2005): Host country attractiveness for CDM non-sink projects. HWWA Discussion Paper 312.

Michaelowa, Axel (2003): CDM Host Country Institution Building, in: Mitigation and Adaptation Strategies for Global Change, 8/2003, 201-220.

- **Presentations**

Bess, Mike (2001): CDM Capacity Building in Africa. Presentation at DEG Environment – CEC, Brussels.

Mwakasonda, Stanford (2006): "Africa is energizing itself". Presentation at the 6th Global Forum on Sustainable Energy, Vienna, 29 Nov -1 Dec 2006.

- **Other**

UNFCCC (2002): Decision 17/CP.7. Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol.

UNFCCC (2007): Registered Projects by Region, <http://cdm.unfccc.int> [25.07.2007].

UNFCCC (2007): Registered Projects by host party, <http://cdm.unfccc.int/> [25.07.2007].

UNFCCC (2007) : Possible Elements of the Nairobi Framework, <http://cdm.unfccc.int/> [30.07.2007].

UNFCCC (2007a): Press release. Way cleared for Kyoto mechanism to boost green investment in developing countries – CDM EB, <http://cdm.unfccc.int/> [10.09.2007].

UNFCCC (2007b): Guidance on the registration of project activities under a programme of activities as a single CDM project activity, <http://cdm.unfccc.int/> [10.09.2007].

## **Annexes**

- I        Terms of Reference for Consultancy on Research in the field of the  
Clean Development Mechanism in relation to Energy in COUNTRY**
  
- II        Research template**



## **Annex I : Terms of Reference for Consultancy on Research in the field of the Clean Development Mechanism in relation to Energy in COUNTRY**

### **1. Purpose**

The GTZ Regional Energy Advisory Platform, Eastern Africa (REAP-EA), has the mission to streamline and support energy related projects and programs in the Eastern African region. The Clean Development Mechanism embraces, amongst others, projects in the field of energy, with the aim to compensate emissions in the Annex B countries of the Kyoto protocol through investments in non-Annex B countries to mitigate greenhouse gas emissions and contribute to sustainable development in the host country. However, the CDM is widely criticized for its complex procedures, requiring extensive technical knowledge and generating high transaction costs in project development and implementation. In addition, CDM has so far largely bypassed Africa, most of the projects being located in newly industrialized countries like India, China or Brazil.

Nevertheless, the CDM holds a large potential for attracting investment to the host countries of projects, thereby contributing to economic growth and development. To prepare the grounds for appropriate action, GTZ REAP-EA tenders a series of studies in the East African countries, focusing on the field of energy. The objective is to support the efforts of energy-related CDM project developers and to assist the National Authorities and policymakers in putting in place the appropriate legal, institutional and operational framework for the formulation, approval, promotion, and monitoring of CDM projects, to the end of making the CDM a successful tool for sustainable development of the energy sector.

### **2. Specific tasks**

The consultant is contracted to conduct research on the following areas. In order to allow for cross country comparison, **the research will be based on a template** to be provided in a separate document. Constructive deviations from the template are welcome, but must be coordinated with GTZ.

1. **Status quo of the CDM sector in COUNTRY:** A comprehensive description of the legislative and institutional frameworks for CDM in COUNTRY;
2. **Information about and attitudes towards the CDM:** What is the level of information about the CDM among the actors from energy-related sectors in COUNTRY? What are the attitudes of key actors (policymakers, DNA and private sectors representatives) towards the CDM?
3. **Recommendations:** What needs to be done in order to make the CDM a successful tool for sustainable development of energy-related sectors (tasks for host countries, tasks for external actors, e.g. the CDM Executive Board at the UNFCCC secretariat).

This research will be conducted through but shall not be limited to the following **methodologies**:

1. The analysis of relevant sources, such as media reports, press releases, public statements, as well as government publications, including laws, programs and declarations of intent;
2. The conduct of interviews with key actors, e.g. policymakers, representatives from the Designated National Authorities, members of the energy related business community etc.

Five work days prior to the deadline as specified below, an early draft of the finding is to be submitted to GTZ for review and coordination.

The research process and outcome shall be compiled into a **final report**, to be used internally and to be published as GTZ sees fit, featuring

1. a cohesive **mandatory report structure** of
  - introduction: research objective, methods, sources;
  - main body: sound and comprehensive analysis of the research areas, **strictly based on the template**;

- summary, conclusions and recommendations: recommendations for action, based on a precise summary of research methodology and outcomes;
2. format requirements: a **report size** of max. 40 pages, text body font size 12, line spacing 1.5, stringent formatting;
  3. compliance with scientific methods (complete and traceable **documentation** of all sources, avoidance of plagiarism, accuracy in form and content, etc.).

The report shall give special attention and effort to relate the discussions to the experiences in the energy sector and respective capacity building exercises.

### 3. Timeframe

The consultant will be operating under a very tight timeframe, with a final deadline for the delivery of the report of **April 20th, 2007**.

### 4. Contract details

Further details such as consultancy fees and payment methods are subject to a separate contract.

### 5. Minimum eligibility criteria

The consultant is required to fulfill the following minimum eligibility criteria:

1. A strong professional or academic background in policy and/or business analysis and consultancy, preferably in a field relevant to climate and energy policy or economics;
2. The demonstrated ability to conduct research and publish the findings as described above;
3. The provision of statements (template will be provided by GTZ) regarding the exclusion of conflicts of interest and full transparency of private or professional linkages of the consultant to relevant actors;
4. Confirmation of the Designated National Authority of **COUNTRY**.

## Annex II : Research template

### A. Status quo of the CDM-sector in COUNTRY

To allow for cross-country comparison, the following questions shall guide the analysis (desk study) of the CDM-related framework. The findings are to be compiled into a subsection of the final report in a traceable way, i.e. by heading the subsections accordingly. If this is not possible, please give reasons. The sources should primarily comprise any accessible and appropriate documents. If appropriate, the following questions can be used as a guideline for structured interviews with informed key persons. Further instructions regarding the conduct of interviews are provided ahead of section B. of the template. In any case, sources need to be documented.

#### 1 Legislative Framework

- 1.1 Are there specific CDM-related policies in COUNTRY?
- 1.2 To which extent is the CDM incorporated into sector policies, e.g. energy, manufacturing, natural resources, foreign direct investment or environmental conservation? Are there specific policies facilitating CDM-relevant energy issues, e.g. renewable energy or energy efficiency?
- 1.3 What is the role of the CDM in national energy programmes?
- 1.4 Are there any planned activities by the legislature or executive regarding the legislative framework, e.g. to create new or amend existing laws?

#### 2 Institutional framework

- 2.1 Does the DNA build upon existing experiences in the field of sustainable development (institutional, personal)? If yes, please specify
- 2.2 What is the structure of the DNA? Choose from types below, specify functions and names of bodies/agencies
  - 2.2.1 *Single government model*: one department of a ministry undertakes all DNA activities
  - 2.2.2 *Two-unit model*: Activities of DNA are split into two parts (regulation/promotion); one of the parts a CDM-board?
  - 2.2.3 *Inter-ministerial model*: all relevant government departments are integrated into a DNA as permanent members
  - 2.2.4 *Integrated-FDI-model*: institutional framework for foreign-direct-investment performs as DNA
  - 2.2.5 *Outsourcing model*: DNA services are outsourced to an independent agency, which reports to a government agency
- 2.3 What is the budget of the DNA?
- 2.4 What are the funding sources?
- 2.5 What is the amount of permanent and part-time staff?
- 2.6 Are there any other public sector agencies or individuals engaged in the CDM sector? Please specify type and function!
- 2.7 Apart from the regulatory functions, does the DNA engage in promotional functions? If applicable, specify according to the following functions:
  - 2.7.1 *Information database*: project portfolio, technical data, ...

- 2.7.2 *Information dissemination and training*: website, newsletter, workshops, seminars, ...
- 2.7.3 *Policy-development support*: regional networking, policy documents, policy advice? ...
- 2.7.4 *Project development support*: project design documents, methodologies, baseline data,...
- 2.7.5 *Operational entity support* (if applicable): support to domestic Designated Operational Entities?
- 2.7.6 *Support in financial services*: assistance with contracts, negotiation capacity building, ...
- 2.7.7 *Marketing*: website hosting, road shows, participation in carbon fairs, memoranda of understanding with investor countries, ...

### **3 DNA Approval process**

- 3.1 Which approval process does the DNA follow (e.g. a 2-step approval process with an initial screening and then final approval, or just a final approval)?
- 3.2 Is this process standardized? Is the same process applied to all projects or not?
- 3.3 Are the procedures transparent, i.e. published? If applicable, how can they be accessed by relevant actors?
- 3.4 Are sustainability criteria in place? If applicable, provide summary and source documents.
- 3.5 Are methods for testing projects against the sustainability criteria specified? If applicable, provide summary and source documents.

### **4 CDM projects**

- 4.1 How many projects are registered? (Specify type, amount of Certified Emission Rights (CER) and give overview on project details)
- 4.2 How many projects have been validated and are in the process of EB review? (Specify type, amount of CER and give overview on project details)
- 4.3 How many projects have government approval and are in the process of validation? (Specify type, amount of CER and give overview on project details)
- 4.4 How many projects have developed a PDD and are waiting for government approval? (Specify type, amount of CER and give overview on project details)
- 4.5 How many projects are in the stage of developing a PDD? (Specify type, amount of CER and give overview on project details)
- 4.6 How many projects have been initiated in total since the start of the CDM? (Specify type, amount of CER and give overview on project details)
- 4.7 How many projects have been rejected? (Specify type, amount of CER and give overview on project details as well as reasons for the rejection)
- 4.8 Have domestic actors been engaged in the development of baseline methodologies? If applicable, was the methodology accepted or rejected by the CDM Executive board?
- 4.9 Have Memoranda of Understanding been signed with investor countries?
- 4.10 What is the share of energy project in relation to the total projects? Please comment!

## **5 Donor activities**

- 5.1 Have there been previous donor activities to support the energy-related sectors in COUNTRY? Please specify
- 5.2 Are there any specific lessons learnt from capacity-building efforts in these sectors?

## **B. Information about and attitudes towards the CDM**

In order to allow for cross-country comparison, the following questions shall structure the analysis of the level of information on the CDM among key actors in the energy-related sectors as well as their attitudes towards the CDM. The findings are to be compiled into a subsection of the final report. Constructive modifications are welcome, but need to be coordinated with GTZ.

The questions should primarily assist in structuring interviews with informed key persons from the energy sector. In this case, quality takes precedence before quantity: For the purposes of GTZ, it is preferable to have a few interviews with knowledgeable insiders as opposed to handing out numerous questionnaires. However, the number of interviewed key persons should be as high as possible. If a question cannot be processed, an explanation shall be provided. If applicable, the questions may also provide guidelines for the analysis of appropriate source documents, e.g. newspaper articles, press releases or research papers.

If interviews are conducted, the total number of persons interviewed as well as their position (policymaker, representative of DNA, private energy sector) must be indicated clearly. The persons to be interviewed from the private sector should include project developers, consultants, financial intermediaries and other private sector representatives who have been involved in CDM projects in COUNTRY. The survey should not only focus on large scale actors (energy producers as well as consumers, e.g. sugar mills, cement factories or geothermal projects) but also take small scale project developers into consideration (e.g. biofuel, household energy, rural electrification projects in the East African countries). Interview transcripts must be copied handed over with the final report.

Ahead of each interview, please inform the person to be interviewed about the reasons for this research, as provided in the TOR.

## **1 Information about CDM (only non-DNA representatives from energy related sectors)**

- 1.1 What do you know about the CDM?
- 1.2 How would you assess the level of information about the CDM in the private sector? Please give reasons!
- 1.3 How did you obtain this information?
- 1.4 What is the DNA of COUNTRY?
- 1.5 What are the functions of the DNA?
- 1.6 How did you obtain this information?

## **2 Attitudes on CDM in general (all actors)**

- 2.1 To which extent would you agree to this statement: "The CDM is an instrument to mitigate climate change"?
- 2.2 If the answer was positive, is the CDM successful in this regard? If it is not successful, why?
- 2.3 To which extent would you agree to this statement: "The CDM is an instrument to direct foreign aid to this country"?
- 2.4 If the answer was positive, is the CDM successful in this regard? If it is not successful, why?
- 2.5 To which extent would you agree to the statement: "The CDM is an instrument to direct foreign direct investment to this country?"
- 2.6 If the answer was positive, is the CDM successful in this regard? If it is not successful, why?
- 2.7 To which extent would you agree to the statement: "The CDM is an instrument to trigger domestic investment?"
- 2.8 If the answer was positive, is the CDM successful in this regard? If it is not successful, why?
- 2.9 To which extent would you say that the CDM contributes to development in Tanzania?

## **3 Assessment of legal framework and of DNA (only private sector)**

- 3.1 How would you assess the legislative framework for the CDM in COUNTRY?
- 3.2 How would you assess the performance of the DNA in general? Please specify positive and negative aspects, if applicable.
- 3.3 How would you assess the process of approval of a project by the DNA?
- 3.4 To which extent are the rules and procedures of project approval transparent and available to the public?
- 3.5 How would you assess the performance of the DNA with regard to promotion activities, e.g. website development, project support, marketing, provision of information etc.?
- 3.6 How would you assess the availability of necessary information for CDM projects, such as an emission inventory, baseline or project partner data?

## **4 Financial aspects (all actors)**

- 4.1 How would you rate the availability of capital for CDM-projects in COUNTRY?
- 4.2 How would you assess the availability of financial services for the CDM, e.g. banking services or insurance?
- 4.3 How high would you estimate the CDM-related costs (transaction costs) during preparation, registration and implementation of a CDM project (USD)?

## **5 Way forward (all actors)**

- 5.1 What are obstacles towards maximizing a positive role of the CDM in energy-related sectors in COUNTRY? Emphasize what is most important!
- 5.2 What needs to be done to overcome this obstacle? Emphasize what is most critical!
- 5.3 What could be done to improve the performance of the DNA? Emphasize what is most critical!
- 5.4 What could be done to improve this situation? Emphasize what is most critical!
- 5.5 What needs to be done to improve the legislative framework? Emphasize what is most critical!

## **6 This interview (all actors)**

- 6.1 Do you feel important aspects have not been covered in this interview? (please specify)
- 6.2 Do you have any comments regarding the interview?

## **C. Recommendations**

Based on the findings of parts A and B as well as on the consultants' professional experience, the following questions shall structure the recommendations, which are to be compiled into a subsection of the final report.

### **1 Recommendations for domestic actors**

- 1.1 Are there any gaps in national legislation relevant to CDM?
- 1.2 What are recommendations for the DNA? What should the DNA do?
- 1.3 What are recommendations for policymakers? What should policymakers do?
- 1.4 What are recommendations for the private sector? What should the private sector do?

### **2 Recommendations for foreign actors**

- 2.1 What should foreign actors do to strengthen the role of the CDM as a tool for sustainable development and climate change mitigation?

### **3 Recommendations specifically for energy related sectors**

- 3.1 What are specific obstacles towards the CDM in energy-related sectors?
- 3.2 What specific measures, other than the general ones suggested above, could be undertaken to overcome these obstacles?





Deutsche Gesellschaft für  
Technische Zusammenarbeit (GTZ) GmbH

German Technical Cooperation

GTZ – Regional Energy Advisory Platform (East Africa)  
PO Box 41607  
00100 – Nairobi, Kenya

T +254 20 273 1834  
F +254 20 273 1836  
E [info@gtz-reap.org](mailto:info@gtz-reap.org)  
I [www.gtz.de](http://www.gtz.de)

