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CHALLENGES TO CDM IMPLEMENTATION IN UGANDA: A CRITICAL ANALYSIS OF LEGAL AND POLICY BARRIERS

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This paper examines the legal and policy barriers to the Clean Development Mechanism (CDM) implementation in Uganda. Although CDM has been perceived as an opportunity through which developing countries can achieve sustainable development while at the same time helping to mitigate climate change, it remains unclear as to whether CDM will in fact deliver the much anticipated sustainable development benefits in light of the current global trends in CDM investments. By February 2007, only approximately 1.5% of the total registered projects were in Africa and one project was in Uganda. The main study methodology has been library research.

Keywords: CDM legal; Policy barriers; Uganda

INTRODUCTION

CDM is defined under Article 12 of the Kyoto Protocol and it is intended to bring about cooperation in emissions reduction between industrialized and developing countries. Under the Kyoto Protocol, industrialized countries are subject to specific greenhouse gas emissions reductions while developing countries are not subject to any emissions reductions. CDM is intended to assist developing countries to achieve sustainable development and at the same time to assist industrialized countries to achieve their emission reduction commitments under the Kyoto Protocol. Accordingly, one of the important benefits of CDM to developing countries such as Uganda is sustainable development.

It is necessary to set out statistical climate data relevant to the climate change situation in Uganda. According to the National Census of 2002, Uganda's population is 24.6 million people. By the year 2000, Uganda's population living below the absolute poverty line was estimated at 35%.¹ Some of the climate change studies that have been carried out in Uganda so far include: inventory of greenhouse gases, vulnerability and adaptation assessments, and policy implications of implementing the UNFCCC and Clean Development Mechanism studies.² Uganda's transport sector is the major consumer of fossil fuels and it accounts for about 75% of the fossil fuel import bill and it is estimated

¹See Ministry of Water, Lands and Environment, 2002, *Uganda's Initial National Communication to the United Nations Framework Convention on Climate Change*, Kampala: Uganda Government Printer page (vi).

²*Ibid* page (viii).

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that there are approximately 200,000 vehicles, (as per 2000/2001 financial year). The estimated average growth rate is 10,000 vehicles per year. According to the National Greenhouse Gas Inventory Report,³ the main source of GHGs is biomass burned for energy, agricultural waste burning, savannah burning and grassland conversion. The forestry sector is considered to be the major mitigation option for climate change since forests act as sinks for carbon dioxide.

R.S. Odingo (2001) has observed that available scientific data indicates that CDM projects in developing countries are possible in the energy, agricultural/forestry, transport, and industrial sectors. With respect to the energy sector, priority areas of CDM importance in developing countries include, end-use efficiency improvements in house hold, industrial and service sector energy; power transmission systems; fuel substitution and renewable energy technologies such as solar energy.

In order for the CDM to be successfully implemented in Uganda, there must be, amongst other enabling environment factors, a supportive framework through which such implementation is to be done. Since participation in CDM projects is voluntary⁴, it is up to individual countries to put in place such frameworks depending on whether they consider such CDM projects to be beneficial to them (see Matsuo, 1998). In this paper, a review of the legal and policy framework with regard to the implementation of the CDM has been undertaken with the major focus being the adequacy of such a framework to support CDM implementation.

ANALYSIS OF THE LEGAL BARRIERS TO CDM INVESTMENT

Overview

While Uganda has ratified both the Kyoto Protocol and the United Nations Framework Convention on Climate Change, no domestic legislation has been passed by Parliament to domesticate the two international legal instruments. There are a number of Ugandan laws that impact on CDM investments which will be critically analyzed in this section (see UNEP and Baker & McKenzie, 2004).

National Environment Act (Cap. 153)

The principal legislation governing the environment in Uganda is the National Environment Act.⁵ The Act provides for a comprehensive framework in relation to environment management in Uganda. Although climate change related issues such as CDM are not given any special consideration, some of the sectors that are critical to climate change—in particular, the CDM—are covered. Thus, in relation to forests, which are considered critical to the CDM because of their ability to act as carbon sinks, Section 45 of the National Environment Act generally provides that the National Environment Management Authority (NEMA) will issue guidelines and prescribe measures for the management of all forests and that all forests shall be managed in accordance with the

³See Ministry of Natural Resources of the Republic of Uganda and the Department of Meteorology, 1994, *Final Report on Sources and Sinks of Greenhouse Gases in Uganda*; A UNEP/GEF Sponsored Project, Kampala, Uganda Government Printer.

⁴See Participation Requirements set out in Decision 15/CP.7; Principles, Nature and Scope of the Mechanisms Pursuant to Articles 6, 12 and 17 of the Kyoto Protocol.

⁵See Laws of Uganda, 2000, Volume 7, Chapter 153, *National Environment Act*, Kampala.

principle of sustainable development. Section 39(1) of the National Environment Act mandates the District Environment Committees to identify areas to be targeted for afforestation and reforestation. This, however, is restricted to hilly and mountainous areas and does not adequately address deliberate massive human induced afforestation and reforestation initiatives as envisaged by Article 3(3) of the Kyoto Protocol. Uganda's environmental laws require environmental impact assessment studies to be undertaken on CDM projects. While environmental impact assessment studies are good for the protection of the country's environment, due to institutional weaknesses, the manner of their application might discourage CDM investments. It is observed that under the National Environment Act, climate change issues are not given any special treatment as opposed, for instance, to the protection of the Ozone layer that is specifically covered by Section 50 of the National Environment Act.

The National Forestry and Tree Planting Act, 2003 ("Forestry Act")

Uganda has recently introduced a new law to regulate the forestry industry.⁶ The National Forestry and Tree Planting Act⁷ came into effect on the 8th August 2003. The Act is a fundamental departure from the old Forest Act (which has been repealed) in as far as it provides for a modern regulatory framework for the sustainable management of forests and also addresses some key issues relevant to CDM. The following key features of the Act are worth pointing out:

- (i) It provides for the establishment of private forest plantations and declares that all forest produce on such a private plantation forest belongs to the owner of the plantation and that the owner is free to use the forest produce in any manner he may determine;⁸
- (ii) It provides that any person may enter into a contractual or other arrangement with the owner of an interest in a private forest for the right to harvest, purchase, sell all or any part of the forest produce in the private forest, and also provides for the registration of such a contractual interest;⁹
- (iii) It provides for the intervention of the Government to extend technical services to persons involved in the development of private forests and forestry activities in general. Such assistance to be extended includes, the provision of information, training and advice on the management of forests, the establishment and maintenance of nurseries and other facilities necessary for seeds and plants; materials, financial assistance; and cooperation and liaising with other lead agencies in the management of forests and forest produce;¹⁰ and
- (iv) It provides for the preparation of a National Forest Plan by the Government of Uganda which shall be the framework for the implementation of the forestry policy, other programmes by the Government and stakeholders in the forest sector.¹¹

⁶Under Decision 15/CP.7; *op cit* (note 1), Afforestation and Reforestation Projects are eligible CDM Projects.

⁷See Laws of Uganda, 2003, Act No 8, *The National Forestry and Tree Planting Act*, Kampala.

⁸*Ibid* see Section 22.

⁹*Ibid* see Section 23.

¹⁰*Ibid* see Section 26.

¹¹*Ibid* see Section 49.

In view of the fact that CDM is market based and encourages the participation of private entities and organizations, the provisions in the new Forestry Act¹² for the commercial private exploitation and development of forests is important. This private element in the forestry industry will promote the development of CDM since with reduced government involvement comes reduced bureaucratic tendencies, thus leading to quick conclusion of CDM deals, with profit being the main motivation.

It should be noted that while the new Forestry Act is in itself a good innovation, it is not self sufficient. There are other complimentary laws such as the Land Act and the Registration of Titles Act that need to be harmonized with the Forestry Act in order to give effect to its innovative provisions. Under Ugandan land law, any thing that is fixed onto the land is deemed to be part of the land. Following this law, one can successfully argue that the trees on the land form part of the land. Although there is an attempt by the Forestry Act to make a distinction between the owner of a plantation forest and the owner of land, it can still be successfully argued that the trees form part of the land on which they are grown. One is therefore left with puzzling questions. What happens when the owner of the land is different from the owner of the trees? Who has ownership of Greenhouse Gas (GHG) credits generated from such a CDM forestry project? Supposing the land owner decides to transfer ownership of the land during the life of a CDM project? The above questions do not seem to have answers under the current Ugandan legal framework. In addition, Ugandan land law that prohibits ownership of land by foreigners. This is likely to impact negatively on CDM investments since foreign nationals will be participating in these projects.

The Water Act (Cap. 152)

The Water Act¹³ is the principal legislation governing the use, protection and management of water resources and supply. A review of the Water Act is relevant because some of the potential CDM projects will involve the use of water resources. This is particularly true with respect to hydro-electricity projects which have a lot of room for technological improvements for the reduction of consumption of fossil fuels. Section 18(1) of the Water Act prohibits the construction or operation of works on water resources unless authority to do so has been given by the Director of Water Development. Since the Water Act restricts the construction of water works on water resources, it may be argued that amongst the conditions for the grant of a water permit set out in Section 18 (5) of the Water Act, there should be included conditions relating to the CDM potential of those water projects, particularly those to be commenced in the electricity sector. An amendment of the Water Act may be necessary in order to encourage investment in CDM projects in the water sector.

Electricity Act (Cap.145)

The Electricity Act¹⁴ generally provides for the generation, transmission, distribution, sale and use of electricity and for the control and licensing of activities in the electricity sector. It is necessary to analyze the Electricity Act because electricity from

¹²*Ibid.*

¹³See Laws of Uganda, 2000, Volume 7, Chapter 152, *The Water Act*, Kampala.

¹⁴See Laws of Uganda, 2000, Volume 7, Chapter 145, *The Electricity Act*, Kampala.

diesel powered generators is listed as one of the sources of GHGs in Uganda.¹⁵ Under the Electricity Act, the Electricity Regulatory Authority (ERA) is vested with the function of issuing licenses for the generation, transmission, distribution and sale of electricity. ERA is also vested with the function of developing and enforcing performance standards for the generation transmission, and distribution of electricity.¹⁶ In the process of review of applications for the issue of licenses for the generation, transmission, and sale of electricity, the ERA, amongst others, takes into consideration the need to protect the environment and to conserve the natural resources.¹⁷ The above general provisions in the Electricity Act on the conservation of the environment may be used by the ERA to promote CDM investments.

It is nevertheless observed that the Electricity Act lacks an adequate and effective framework for the facilitation of CDM project activities. Such an adequate and effective framework would entail specific provisions in the Electricity Act that require, firstly, that the ERA, while reviewing applications for the issue of licenses, take into consideration the capacity of a given generation project to address climate change concerns. Secondly, an incentive regime under the Electricity Act can be set up with the sole purpose of encouraging electricity generation projects that are specifically designed to address climate change concerns. Such compliant generation projects could be eligible to derive some form of financial benefit from, for instance, a fund similar to the Rural Electrification Fund established under the Electricity Act.¹⁸ This would lend encouragement to projects such as Uganda West Nile Electrification Project under which the Prototype Carbon Fund (PCF), a private-public partnership operated by the World Bank, will be purchasing carbon dioxide emission reductions for up to US \$3.9 million over 15 to 20 years. The Uganda West Nile Electrification Project will result in the replacement of GHGs emissions from highly inefficient diesel and petrol-fueled generators and engines in the districts of Arua and Nebbi in North Western Uganda. It is accordingly contended that the Electricity Act should be amended to incorporate provisions specifically aimed at promoting CDM implementation.

Income Tax Act (Cap. 340)

The Income Tax Act¹⁹ is the principal legislation governing the taxation of income. The Act provides for a number of deductible expenses from income earned in order that such expenses do not form part of the chargeable income of the person. These deductions are applicable with respect, for instance, to the establishment of industrial buildings, scientific research expenditure, farming, and mineral exploration expenditures.²⁰ This is a specific measure aimed at promoting investment in the above named sectors. While it is true that some of the expenditures in CDM investments may already qualify as deductible expenses, it is nevertheless contended that CDM eligible projects are not given any special treatment. In order to encourage investments in CDM projects, it is suggested that the Income Tax Act be amended to specifically provide for the deduction of

¹⁵See *Final Report on Sources and Sinks of Greenhouse Gases in Uganda; op cit* (note 4).

¹⁶For a complete list of the Functions of the Electricity Regulatory Authority, See Section 11 of the Electricity Act, *op cit* (note 19).

¹⁷See Section 38 of the Electricity Act, *op cit* (note 19).

¹⁸See Section 65 of the Electricity Act, *op cit* (note 19).

¹⁹See Laws of Uganda, 2000, Volume 13, *Income Tax Act, Kampala*.

²⁰See Sections 29,32,35 and 36 of the Income Tax Act, *Ibid*.

expenditures that may be incurred in a given CDM investment project. For instance, in relation to electricity generation projects that encourage the use of diesel and petrol engines that emit less GHGs, it may be provided that expenses on the acquisition of such a category of engines should qualify as deductible expenses under the Income Tax Act.

The Investment Code (Cap. 92)

The Investment Code Act²¹ was initially meant to promote investment through incentives. In considering applications for an investment license under the Act, the Uganda Investment Authority is mandated to carry out an appraisal of the capacity of the proposed business enterprise to contribute to the following:²²

- (i) The generation of new earnings or savings of foreign exchange through exports, resource based import substitution or service activities;
- (ii) The utilization of local materials, supplies, and services;
- (iii) The creation of employment opportunities in Uganda;
- (iv) The introduction of advanced technology or upgrading of indigenous technology; and
- (v) The contribution to locally or regionally balanced socio-economic development.

In light of the fact that one of the prerequisites of a given CDM project to qualify as one is its ability to contribute to sustainable development, potential CDM projects in Uganda should be vigorously subjected to the above pre-conditions set out in the Investment Code as a project's satisfaction of the said pre-conditions would ensure its ability to contribute towards Uganda's sustainable development. In relation to CDM, the above pre-conditions set out in the Investment Code Act should be modified and in some instances supplementary pre-conditions should be included on the list as follows:

- (i) The pre-condition relating to "the introduction of advanced technology or upgrading of indigenous technology" should be modified to provide for the introduction of climate friendly technology;
- (ii) The ability of a given CDM project to contribute towards capacity building and information development should be included on the list; and,
- (iii) Improved accessibility by Uganda to financial resources should be included on the list.

There exists a mechanism under the Investment Code Act under which enterprises (investors) may qualify for specified incentives upon satisfaction of the laid out conditions. One way of qualifying for these incentives is to satisfy three or more of the pre-conditions set out in the Investment Code Act.²³ It is suggested that in relation to CDM projects, a list of core indicators for sustainable development should be identified and grouped together, such that upon the investor satisfying these conditions, he would qualify for such incentives. It is important to note that holders of certificates of incentives were previously entitled to benefit from common incentives under the Investment Code,

²¹See Laws of Uganda, 2000, Volume 4, Chapter 92 *Investment Code Act*, Kampala.

²²See Section 13 of the Investment Code Act, *ibid*.

²³*Ibid*.

which included exemptions from corporation tax, withholding tax and tax on dividends. However, this provision in the Investment Code has since been repealed by the Income Tax Act.²⁴ A similar incentive regime could be set in place to promote CDM investments.

ANALYSIS OF THE POLICY BARRIERS TO CDM INVESTMENTS

Overview

Policy instruments that are relevant to CDM implementation in Uganda include the Environment Policy, Forestry Policy, Energy Policy, Population Policy, Health Policy, Wetlands Policy, Water Policy and the Disaster Management and Preparedness Policy. A review of the above policy framework has been undertaken against the background of Uganda's strategic development plans (Biagini, 2000) which include Vision 2025, the Poverty Eradication Action Plan (PEAP), and the Plan for Modernization of Agriculture (PMA). Vision 2025 constitutes a strategic framework for Uganda's national development in the long-term. PEAP is Uganda's comprehensive development framework. The PMA is part of the broader policy of the government's strategy for the eradication of poverty. The PMA is aimed at contributing to the increasing incomes of the poor, raising farm productivity; increasing the share of the agricultural output that is marketed through modernizing farm management, reducing post-harvest losses, increasing added value, and creating farm and off-farm employment opportunities. This section critically analyses the existing policy framework with respect to bottlenecks, impediments and enhancement of CDM implementation.

The Environment Policy

The overall policy goal of the Ugandan Environment Policy²⁵ is sustainable social and economic development that maintains or enhances environmental quality and resource productivity on a long-term basis and meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The specific policy objectives of the Environment Policy²⁶ are:

- (i) To enhance the health and quality of life of all people in Uganda and promote long-term sustainable socio-economic development through sound environmental and natural resource management and use;
- (ii) To integrate environmental concerns in all development policies, planning and activities at national, district and local levels with full participation of the people;
- (iii) To conserve, preserve and restore ecosystems and maintain ecological processes and life support systems, especially conservation of national biological diversity;
- (iv) To optimize resource use and achieve a sustainable level of resource consumption;
- (v) To raise public awareness to understand and appreciate linkages between the environment and development; and

²⁴Common incentives were initially provided for by Section 25 of the Investment Code 1991 and they applied to holders of certificates of incentives. However, the above section was repealed by Section 166 of the Income Tax Act (op cit note 24).

²⁵See Ministry of Natural Resources of the Republic of Uganda, 1994, *The National Environment Management Policy for Uganda*, Kampala.

²⁶*Ibid.*

- (vi) To ensure individual and community participation in environmental improvement activities.

Specifically in relation to climate change, the Environment Policy²⁷ underpins the importance of climate as a vital natural resource, necessary for socio-economic development. Climate's importance to agricultural production is underlined and the policy instrument notes that there is no comprehensive mechanism/strategy to contain climate change effects. However, the Environment Policy sets out the following objective in relation to climate change: "To monitor the climate and atmosphere of the country in order to better guide land use and economic development decisions, and better manage air pollution and greenhouse gas emissions".²⁸

The Environment Policy sets out the following guiding principles to contain the climate change problem:²⁹

- (i) That climate is a vital natural resource which should be properly harnessed (or effects, mitigated) for socio-economic development;
- (ii) That the utilization of the climatic and atmospheric information is critical in agriculture and the efficient management of the environment;
- (iii) That resource users (particularly farmers) should be involved in the monitoring and dissemination of climatic information;
- (iv) That the promotion of international cooperation for smooth exchange of climatic information and control of trans-boundary atmospheric air pollution is important in the management of the resource; and,
- (v) That access to climatic data/information should be guaranteed on terms determined by the relevant authority.

In light of the above Environment Policy framework in relation to climate change, it is observed that the Government of Uganda has an adequate and comprehensive framework to guide the implementation of climate change projects including CDM. Specifically with regard to CDM implementation, it is worth noting that the overall policy goal of the Environment Policy recognizes the significance of the concept of sustainable development, which is a key component/feature of CDM. Accordingly, it is noted that the existing environment policy framework is sufficient to provide for CDM implementation.

The Forestry Policy

The Forestry Policy is critical to CDM investments because land use, land-use change and forestry (LULUCF) activities (also known as carbon sinks) can provide a relatively cost-effective way of combating climate change, either by increasing the removal of GHGs from the atmosphere (for instance by planting trees or managing forests), or by reducing emissions (for instance by curbing deforestation).³⁰ The eligibility of LULUCF activities under the CDM is limited to afforestation and reforestation

²⁷*Ibid.*

²⁸*Ibid.*

²⁹*Ibid.*

³⁰See Article 3 of the Kyoto Protocol.

(see Brown, et al, 1997).³¹ Consequently, the review of the Forestry Policy will aim at determining whether there exists an adequate policy framework for the implementation of CDM projects related to afforestation and reforestation initiatives in Uganda. The overall goal of the Ugandan Forestry Policy³² is to develop an integrated forest sector that achieves sustainable increases in the economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable. The guiding principles of the Forestry Policy include, *inter alia* consistency with the national objectives and directive principles guiding sustainable development set out in the Constitution of the Republic of Uganda;³³ management of Uganda's forests in order to meet the needs of the present generation without compromising the needs and rights of future generations; and that legislation should be developed to support the implementation of current and future international commitments that affect the forest sector. Policy Statement No.3 of the Forestry Policy is relevant to CDM implementation in so far as it provides for commercial forest plantations. The statement notes that the private sector will play the major role in developing and managing commercial forest plantations which will either be through large-scale industrial plantations on government or private land or through small-scale plantations on farms. The role of government will be to support and regulate this development.

The government will put in place a regulatory framework, that will create a positive investment climate to encourage private sector investment in commercial forest plantations. The government will, amongst other tasks, set out priority areas for the development of carbon storage plantations in different areas of Uganda.

The Uganda Forestry Policy notes that government will pursue, amongst others, the following strategies to facilitate the development of commercial forest plantations:

- (i) Strengthen legal agreements between government and private investors for use of forest reserves, review forest and tree tenure rules, to encourage the development of commercial forest plantations;
- (ii) To promote innovative financing mechanisms such as the forestry fund, and fiscal incentives in order to encourage investment and ensure sustainable sources of operational and investment funds;
- (iii) To review the Investment Code to better accommodate large industrial forest plantation developments;
- (iv) To encourage small to medium-scale commercial plantation development to foster local economic benefits;
- (v) To strengthen private sector organizations to improve communications, access to market information and technical collaboration in the plantation industry;
- (vi) To progressively divest the management of the existing commercial plantations on forest reserves to the private sector;
- (vii) To make the administrative procedures and allocation of permits more transparent and minimize interference by government in the market processes;

³¹See Decision 17/CP. 7 on Modalities and Procedures for a Clean Development Mechanism as defined in Article 12 of the Kyoto Protocol.

³²See Ministry of Water, Lands and Environment of the Republic of Uganda, 2001 *The Uganda Forestry Policy*, Kampala.

³³See Article XIII and Article XXVII of the Laws of Uganda, 2000, Volume 1 National Objectives of the Constitution of the Republic of Uganda, regarding the protection of Natural Resources and the Environment.

- (viii) To develop standards of best practice for commercial plantations and disseminate these to the private sector;
- (ix) To develop improved seed services and planting sources and planting stock, and to promote their commercial production, and;
- (x) To pursue options to increase wood yields through research and technological innovation.

The Forestry Policy sets out key elements of support for the implementation of its objectives which amongst others include the following:

Sector – planning. Under this component, a National Forest Plan (NFP) will be developed to provide strategic framework for the development of the forest sector. The NFP will be a framework for turning the forestry policy into actions with short, medium and long-term goals and programmes for sub-sectors and regions.

Sector investment. Under this component, the government will develop a favorable investment climate for private and public investment in the sector. A positive investment climate will be created for the private sector. This will include new financial incentives, the removal of market distributions, review of the Investment Code, review of legislation on land leases, the creation of a Forestry Fund, and the development of more transparent and accountable systems of administration and regulation. It is anticipated that this new climate, coupled with active investment promotion, will encourage a range of private investments in commercial forestry. The government will also pursue further sources of funding for sector development including carbon credits and international funds to support biodiversity conservation.

Sector co-ordination. Under this component, the government will develop a forest sector co-ordination structure to provide a forum for sector-wide planning and co-ordination. This will require representation from the central government ministries involved in the forest sector, local governments, the private sector and civil society. This kind of approval will aim at reducing the role of government in the forest sector while promoting the role of the private sector and the civil society.

Institutional reform. Under this component, the government will promote institutional reform and strengthen the existing institutional framework. This will mainly involve the reform of the central and local government's roles and responsibilities; increased role for the private sector and non-government organizations in the service delivery; improved regulation of the sector; new approaches to the development and strengthening of civil society through local community institutions and associations; re-defined relationships between organizations in the sector; and the establishment of a better legal basis for these through contractual or service agreements, tendering, and partnership agreements between the state and civil organizations.

International and regional co-operation. Under this component, the government will participate fully in the development and implementation of international obligations and cross-border co-operations agreements. One of the international agreements ear-marked by the Forestry Policy is the UN FCCC. It is our opinion that the existing Forestry Policy provides an adequate and sufficient framework for the pursuit of massive human-induced afforestation and reforestation programmes relevant to CDM implementation. The new Forestry Policy is a fundamental departure from the old Forestry Policy that was inclined in favour of forests in protected areas; in which the public sector/government exercised a command, control and exclusionary style of management; in which the contribution of the forest reserve especially in the energy sector

was undervalued and the management of forestry was scattered over several un-coordinated government agencies and ministries; and in which farm forestry, commercial forest plantations and forests outside protected areas received little attention beyond the rhetoric in government pronouncements.³⁴ In order to pursue the harmonization of the forestry sector with other sectors that impact its effective development, the elements in the forestry policy that provide for sector coordination need to be emphasized by the Ugandan Government.

The Energy Policy

A review of the Energy Policy³⁵ is necessary because the energy sector has been identified to have a great CDM potential especially with regard to priority areas such as: end-use efficiency improvements in household, industrial, and service sector energy; power transmission systems; fuel substitution; decentralized renewable energy technologies; supply technologies; efficiency improvements for motor vehicles; switching to fuel systems with lower GHG emissions; and improved transport system efficiency.³⁶

The development of Uganda's Energy Policy is in line with Article XXVII of the Directive Principles and National Objectives of the Constitution of the Republic of Uganda. The overall policy goal of the Energy Policy is to meet the energy needs of the Ugandan population for social and economic development in an environmentally sustainable manner. The broad objectives of the Energy Policy are:

- (i) To establish the availability, potential and demand of the various energy resources in the country;
- (ii) To increase access to modern, affordable and reliable energy services as a contribution to poverty eradication;
- (iii) To improve energy governance and administration;
- (iv) To stimulate economic development; and
- (v) To manage energy related environmental impacts.

The Energy Policy recognizes the necessity to establish an energy efficiency law and its main focus amongst others is:- to integrate the objective of environmental sustainability into all energy initiatives; development of an energy resource base and dissemination of key information; promotion of private participation and the development of competitive markets in energy technology and services; and the development of positive linkages between the energy sector, poverty alleviation and economic growth. Amongst others, the energy policy identifies the management of energy related environmental impact as one of its priority policy actions; and its strategic intervention is to negotiate for benefits accruing out of the Kyoto Protocol. Although information obtained from the Ministry of Energy and Mineral Development indicates that most of the energy projects under the supervision of the Ministry have an element of compliance with the Kyoto

³⁴See Ministry of Agriculture, Animal Industry and Fisheries and the Ministry of Finance, Planning and Economic Development of the Republic of Uganda, 2000, *Plan for Modernization of Agriculture: Government Strategy and Operational Framework*, Kampala.

³⁵See Ministry of Energy and Mineral Development, 2002; *The Energy Policy for Uganda*, Kampala.

³⁶See Odingo, R.S, 2001, *The Clean Development Mechanism in Africa: Framework for the Design of Sustainable Development Projects*, Climate Network Africa, Nairobi, Kenya at pages 69 to 82.

³⁷See The Energy Policy; *op cit* (note 40) at page 59.

Protocol,³⁷ it is our view that apart from the Uganda West Nile Electrification Project,³⁸ a pilot project of the World Bank, the CDM potential of most of other electricity generation projects has not been given adequate attention. The Energy Policy should pursue a more proactive and aggressive role to ensure that most of the electricity generation projects and other energy projects should aim at achieving emission reductions that can be sold in return for financial benefits to entities such as the Prototype Carbon Fund (PCF).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The study finds that considering that the major objective of CDM is to assist developed countries (Annex I countries) to meet their GHG emissions reduction commitments, and to assist developing countries to achieve sustainable development, the CDM could be an avenue through which Uganda can be assisted to achieve its development goals set out in the PEAP, the PMA, and Vision 2025. According to P. Brown, (2000) CDM has a significant potential to attract investment opportunities to the territories of developing countries such as Uganda, thus leading to sustainable development as well as GHG emission reductions. In view of the fact that CDM is market based, the dynamics of tapping development benefits emanating from the CDM will largely depend on the ability of the country to put in place a conducive legal, regulatory, and policy environment to attract CDM investments. It is the view of this study that Uganda does not have a comprehensive and complete legal, regulatory and policy framework for the attraction of massive CDM investments into the country. The available relevant policy is scattered over various policy instruments and does not comprehensively address the most critical relevant climate change issues. It is the view of this paper that Uganda needs to put in place a defined and specific legislation to support the implementation of CDM investments. Such a law would also provide for the domestication of the United Nations Convention on Climate Change and the Kyoto Protocol. It is also the view of this paper that policy reform is needed to promote CDM investments. The author is aware that legal and policy reform alone will not necessarily attract CDM investments into the country. A range of other reforms including enhancing the capacity of the Designated National Authority (DNA), institutional reforms and proactive government marketing of CDM projects will be critical in attracting CDM investments into Uganda.

Recommendations

In order to eliminate legal and policy impediments to CDM implementation in Uganda, the following recommendations are suggested:

- (i) The Ugandan Government should seriously consider the introduction of specific legislation aimed at CDM implementation and the climate change problem.
- (ii) The Ugandan Government should consider a review of laws such as the Income Tax Act, the Land Act, Capital Markets Act, the Registration of Titles Act and other relevant laws in order to harmonize them with CDM investments

³⁷See The Energy Policy; *op cit* (note 40) at page 59.

³⁸See Website, www.worldbank.org, Accessed on March 10, 2007.

- (iii) The Ugandan Government should consider the introduction of a comprehensive policy instrument specifically aimed at the climate change problem and CDM investments. Currently, the existing policy framework is scattered over various policy instruments. It is the author's opinion that a concrete policy instrument specifically targeting CDM investments and climate change should be formulated.

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