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The Clean development mechanism

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ABSTRACT: The Clean development mechanism (CDM) is a new tool for promoting sustainable development in developing countries. It was established by the Kyoto Protocol under the United Nations Framework Convention on Climate Change (UNFCCC). It promises developed countries certified emission reductions (CERs) if they comply with their quantified emission targets and developing countries sustainable development benefits if they participate and invest in clean renewable technologies. Energy development through investments in clean technology transfer can contribute to sustainable development. However, sustainable development will only be achieved if current barriers and gaps facing CDM project implementation in Kenya are mitigated or removed altogether paving way for the development of more CDM projects in Kenya.

It is realistic that Africa can expect and attract CDM projects, but only those countries that offer favorable investment environments will reap maximum benefits. Of the total 2944 projects in pipeline, Asia- Pacific has the highest number of CDM projects numbering 2137 which accounts for 74% of global CDM projects. Latin America is second with (635) projects accounting for 22%, North Africa and Middle-East with (43) projects accounting for 1.5% and Sub –Saharan Africa with (38) projects accounting for 1.3% of global CDM projects. Out of the 38 CDM projects in pipeline, South Africa has 23 projects, Egypt 7 projects, Morocco 5 projects, Kenya 4 projects, Tanzania 2 projects, while Uganda and Botswana have one each. Kenya lags behind in the implementation of CDM Projects with only 4 projects developed so far reaching the validation stage. A review and analysis of documentation on these projects reveals that it is not a coincidence but that the level of preparedness and deliberate removal of prior-existing barriers has played a critical role in increasing the number of CDM projects developed per region. The objective of this study was to identify barriers and gaps impeding effective CDM implementation in Kenya and propose a road-map towards effective harnessing of sustainable development potential inherent in the CDM process in Kenya. This investigative process included establishing and reviewing current status of CDM project implementation in Kenya, identifying institutional, policy and other barriers impeding CDM projects in Kenya and ultimately proposing interventions that may accelerate development of CDM projects. The sample population was 30 respondents. Data analysis of categories, themes and patterns matched the majority of views of respondents. 65% percent of respondents identified various barriers facing CDM projects in Kenya. 80%, 40% and 70% of respondents observed presence of institutional, policy and project financing barriers respectively. 60% of respondents in the public sector pointed out that lack of willingness by private sector to embrace CDM as a key impediment. It was identified that policy and legislative gaps in the energy policy, forestry policy, and related acts have played a role in slowing the uptake of CDM. A poor profile of Kenya as a host country has made project financing a challenge for CDM investors and project developers. This is mainly attributed to the high CDM-specific risks, investment risks and regulatory risks. Overall, Kenya has a high potential to accelerate development of CDM projects. However, there is need to move away from the status quo if Kenya is to benefit more from clean development mechanism (CDM).

Keywords: Project financing; clean development mechanism; institutional and policy barriers;

INTRODUCTION

Now that many of the details of the Kyoto Protocol are agreed upon, international attention is turning to the question of what to do next. Of particular interest to Africa is the CDM defined under Article 12 of the Protocol—that presents opportunity for sustainable development through the transfer of technology and finances. The Seventh Conference of the Parties (COP 7) to the United Nations Framework Convention on Climate Change (UNFCCC) meeting in Marrakech, Morocco, set the modalities and procedures for a clean development mechanism (Kituyi, 2002).

Systems have already fallen in place for Africa to start reaping the benefits of CDM. Clean technology transfer through the CDM can contribute to developmental objectives in African countries. However, sustainable development will only be achieved if current barriers and gaps facing CDM project implementation in Kenya are mitigated or removed altogether paving way for the development of more CDM projects in Kenya. However, sustainable development will not be achieved if opportunities presented by processes such as the Kyoto Protocol through the CDM are ignored by those responsible for policy making in Kenya. It is critical that they understand the CDM and its role in development and environmental protection in order for them to ensure its uptake as a key item on national development agenda. It is realistic that Africa can expect and attract CDM projects, but only those countries that offer favorable investment environments will reap maximum benefits. Of the total 2944 projects in pipeline, Asia- Pacific has the highest number of CDM projects numbering 2137 which accounts for 74% of global CDM projects. Latin America is second with (635) projects accounting for 22%, North Africa and Middle-East with (43) projects accounting for 1.5% and Sub –Saharan Africa with (38) projects accounting for 1.3% of global CDM projects (Fenhann, 2008 b). Out of the 38 CDM projects in pipeline, South Africa has 23 projects, Egypt 7 projects, Morocco 5 projects, Kenya 4 projects, Tanzania 2 projects, while Uganda and Botswana have one each. Kenya lags behind in the implementation of CDM Projects with only 4 projects developed so far reaching the validation stage. The purpose of this document is to investigate and bring to the attention of Kenyan policymakers the inherent barriers and gaps impeding CDM project implementation in Kenya in an effort to increase the number of CDM projects developed.

Statement of the Problem

Despite the exponential growth of the CDM in the past few years, Africa continues to lag behind in the carbon market, with a paltry 1.3% of global CDM projects (Fenhann, 2008). Currently, Asia-Pacific region has the biggest share of CDM projects in the pipeline accounting for 74% followed by Latin America with 22% of global CDM projects (Fenhann, 2008). Africa continues to be by passed by the CDM with only 38 CDM projects in pipeline. South Africa has 23 projects, Egypt 7 projects, Morocco 5 projects, Kenya 4 projects, Tanzania 2 projects, while Uganda and Botswana have one each. (Fenhann, 2008 b).

Kenya lags behind in the implementation of CDM Projects with only 4 projects developed so far reaching the validation stage. Earlier projects failed to reach the validation stage namely: The Solar Technology for Electricity Provision in Kenya and Vanilla Jatropha CDM projects failed (IISD, 2006). Despite the presence of institutional, policy, legislative and project financing barriers, Kenya has a high potential of developing more CDM projects. However, without elucidation of key barriers and gaps impeding CDM implementation in Kenya, the status quo will prevail. There is therefore need to identify key barriers and gaps facing CDM projects in Kenya and in the process come up with mitigating solutions for this problem.

Objectives

General Objective

The objective of the study was to identify barriers and gaps impeding effective CDM implementation in Kenya and propose a road-map towards effective harnessing of sustainable development potential inherent in the CDM process in Kenya.

Specific Objectives

1. To establish and account for the current status of CDM project implementation in Kenya.
2. To identify institutional, policy and other barriers impeding CDM projects in Kenya
3. To propose interventions that may accelerate the development of CDM projects.

Significance of Study

The clean development mechanism (CDM) is a new tool that could potentially promote sustainable development in Kenya. The results, discussions and recommendations in this study will go a long way to strengthen and define CDM as a key sustainable development tool that needs inclusion and

recognition in the below identified policies, bills, acts, session papers and poverty reduction papers (PRPs).

- Republic of Kenya (RoK). 1999. Environmental Management and Coordination Act (EMCA) of 1999.
- Republic of Kenya (RoK). 2004. Sessional Paper No. 4 of 2004 on Energy.
- Republic of Kenya (RoK). 2005. Sessional Paper No. 9 of 2005 on Forest Policy.
- Republic of Kenya (RoK). 1999. Sessional Paper No.6 of 1999 on Environment and Development.
- Republic of Kenya (RoK). 1999. Sessional Paper No. 1 of 1999 on National Policy on Water Resources Management and Development.
- Republic of Kenya (RoK). 1996. Sessional Paper No. 2 of 1996 on Industrial Transformation to 2020.
- Republic of Kenya (RoK). 2006. Finance and Microfinance Bill of 2006 on development of micro and small enterprises for wealth and employment creation.
- Republic of Kenya (RoK). (2003-2007). Economic Recovery Strategy for Wealth and Employment Creation.
- Republic of Kenya (RoK). 2007. Vision 2030 Blueprint for a competitive and prosperous Nation.

Rationale and Justification

This study will generate and increase knowledge on CDM and the emerging carbon market. It will come up with plausible solutions and recommendations on how to remove current CDM barriers and hence increase the number of CDM projects. Currently, there is little knowledge available on CDM implementation and carbon markets in our universities and institutions. It aims to bridge the gap in CDM implementation in Kenya and also help local scholars, researchers, scientists understand and relate to the concept of CDM and carbon market. It will also help project developers, NGOs and CDM investors understand the Kenyan CDM framework better in light of its barriers, risks and high potential. In the long run, this study will help Kenya position itself better in the post-2012 regime and thus play a more prominent role in pushing for greater participation of Africa in the climate change revolution. By implementing CDM projects, Kenya is bound to benefit tremendously from technology transfer, payments for carbon credits, improved environmental conservation, reduced soil erosion, increased foreign direct investment and reduced indoor and outdoor pollution. Kenya will jump start the use of clean and renewable technologies and benefit from the now rapidly growing carbon market. It is now time for Kenya to tap enormously the benefits of CDM as a tool for promoting sustainable development.

METHODOLOGY

Key Tasks in Methodology

Three specific tasks were carried out in tandem with the objectives of this study. The first task was to make an integrative review and analysis of Kenya's CDM project activities. The second task was to identify key barriers in current CDM activity performance. The third task was to propose policy recommendations and create synergies that can facilitate the increased implementation of CDM projects in Kenya.

Data Sources

The literature review data came from up-to-date information from scientific journals, research project reports, publications, Project Design Document (PDD), conference papers and presentations, as well as updated information from relevant website i.e. United Nations Framework Convention on Climate Change (UNFCCC) website. Most statistical data came from authoritative publications. Formal interviews (personally or via E-mail) were undertaken after the problem questions had been formulated. Annex E outlines the protocol used for interviewing the respondents. Respondents were given enough time to give feedback. Interviews were done through questionnaires and face to face conversation. Annex D outlines the structure of the sample questionnaire used to gather information. The questionnaire document was well structured to facilitate easy and short answering of questions

by the respondent. Face to face interviews were recorded in a note book so as to retrieve this information later for analysis. A comparative approach was used in the study as well. A review of top CDM host countries in the world i.e. China, India and Brazil was used as a reference to Kenya's status quo. This helped to elucidate and bring out clearly the key barriers and gaps facing CDM projects in Kenya.

Sample and Sampling Design

The sample area was Kenya and the sampling frame was based on Kenya's CDM priority areas as per the first national communication (UNFCCC, National Communications). CDM priority areas are Energy, Agriculture and Solid Waste management sectors. The first list source was obtained from the Kenya Association of Manufacturers. Stratified random probability sampling was employed for the first and consecutive draws. Random Samples were drawn from a list of Energy, Agriculture and Solid Waste Industries respectively. The sample studied was approximately (30) potential CDM projects. There were 6 samples drawn from each stratum. The second part of the sample design employed a non-probability sampling design. A second list source was created from specific NGO's, Government bodies, Institutions, Banks and Consultants working on CDM/Climate change in Kenya.

Data Collection and Analysis

Primary data collected by using semi-structured questionnaires administered on a face to face basis with the selected respondents. The semi-structured questionnaires for the case studies were designed to allow flexibility, and generate responses for further probing and clarification. The respondents were expected to possess the requisite knowledge of the subject matter. Responses were recorded on a field note book during the interviews. Personal interviews were supplemented by secondary data. Observations and other information obtained from personal and informal communication during the fieldwork were also recorded on the fieldwork notebook.

Data for this study was stored in a computer in Microsoft office software. Specific segments of the information were identified which were then labeled to create categories and establish patterns. The sample population was 30 respondents. Data analysis of categories, themes and patterns matched the majority of views of respondents. Overall, 65% percent of respondents identified various barriers facing CDM projects in Kenya thereafter giving recommendations on how to remove these barriers and gaps.

Secondary data collection entailed the reviewing and content analysis of both theoretical and empirical literature. This was done by citing references on the key issues and themes of the study. Official climate change websites were greatly used for obtaining up to date information on CDM, carbon market and climate change.

RESULTS AND DISCUSSION

Percentage Composition of the Various Barriers and Gaps

According to raw data outlining percentage composition of barriers and gaps by respondents, project financing barriers and gaps was highlighted as the most significant obstacle to the development of CDM projects in Kenya among 80% of respondents interviewed. This was followed by institutional barriers and gaps which had 70% of interviewed respondents acknowledging it as another key impediment while 60% of respondents interviewed saw policy barriers and gaps as other impediments slowing CDM projects development in Kenya.

Sectorial Distribution of Barriers and Gaps

According to table 3 and figure 5 below, 90%, 53% and 60% of respondents mainly drawn from the private sector, public sector and civil society organizations respectively acknowledged the presence of barriers and gaps that were key impediments to CDM project development in Kenya.

	Respondents by Sector					
Type of Barrier/Gap	Public		Private		Others (NGO)	
	No.	%	No.	%	No.	%
Policy Barriers & Gaps	5	17	3	10	8	27

Project Financing Barrier & Gaps	4	13	12	40	5	17
Institutional Barrier & Gaps	7	23	12	40	5	17
Percentage (%) Sectorial distribution	16	53%	27	90%	18	60%

Table 4: Sectorial distribution of barriers and gaps

Across the three sectors, key barriers constituted policy, institutional and project financing accounting for 10%, 40% and 40% respectively. The Clean Development Mechanism (CDM) can play a major role as a tool for promoting sustainable development alongside implementing our national GHG reduction strategies. However, for CDM to promote sustainable development in a broad sectorial manner, mainstreaming CDM into national sectorial policies and legislation is key to implementing CDM successfully in Kenya.

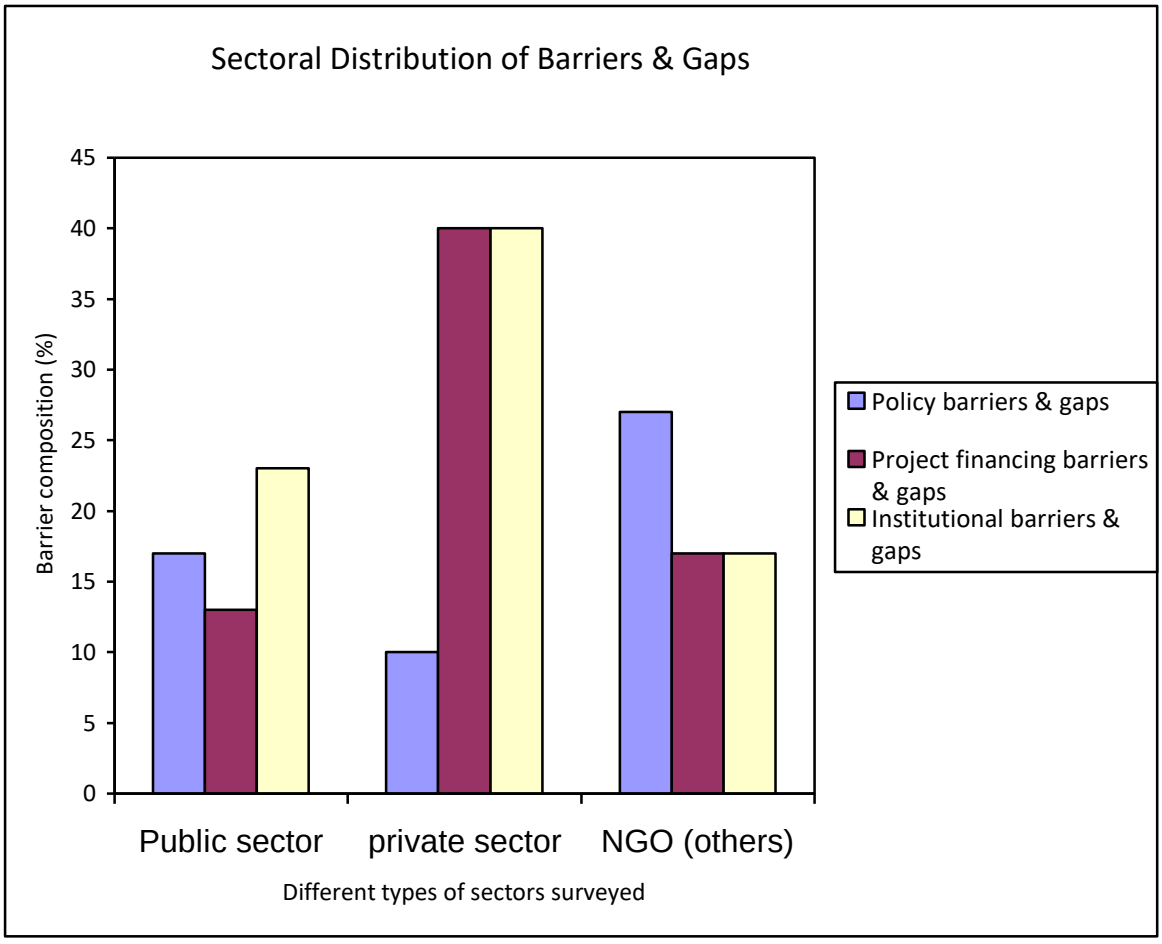

Figure 5: Graphical representation of sectoral distribution of barriers

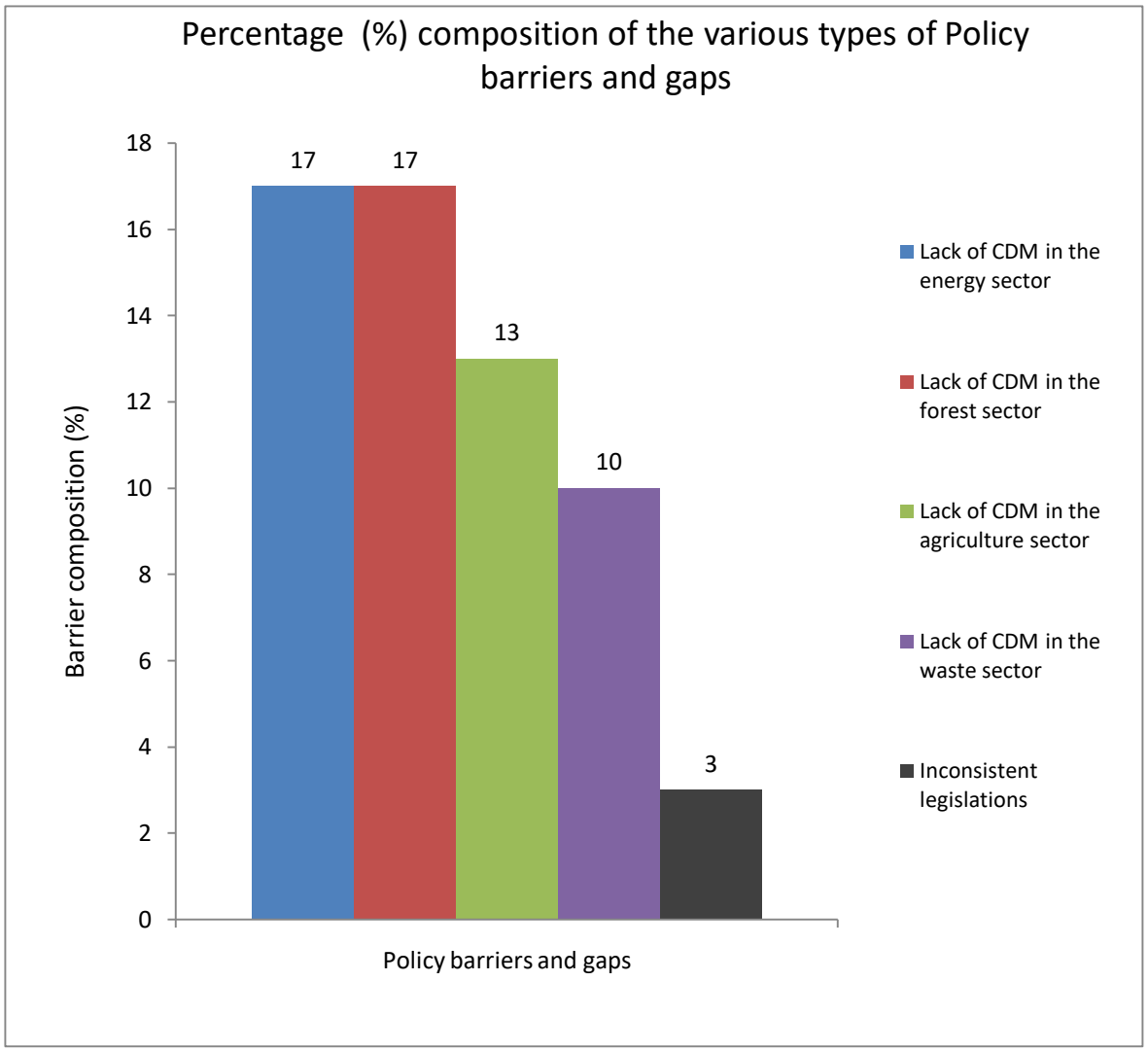

Figure 6: Percentage (%) composition of the various types of policy barriers

Policy Barriers and Gaps

According to figure 6 above, 17% of respondents cited lack of mainstreaming of CDM implementation in the energy and forestry sectors as key policy barriers impeding CDM project development in Kenya. This was followed by 13% of respondents acknowledging that a weak CDM framework in Agriculture sector was another key impediment facing CDM project development. 10% and 3% of respondents agree that poor mainstreaming of CDM in waste sector and inconsistent legislations are key policy barriers and gaps impeding CDM projects.

Mainstreaming CDM in Energy Sector

According to figure 6 above, 17% of respondents cited lack of mainstreaming of CDM in the energy sector as a key barrier impeding CDM project development in Kenya. A number of gaps in the energy sector were identified through an *ex-ante* review of the energy policy. First, the policy does not recognize CDM as a key tool in its objective to alleviate poverty and promote gender equality through the acceleration of rural electrification. Secondly, CDM contribution to increased uptake of biomass energy technologies in the country has been neglected coupled by little mention of biomass energy in Kenya's national energy mix. This is a substantial economic mismatch as data on energy usage in Kenya points out that over 70 per cent of the country's total energy consumption is derived from biomass (UNEP, 2006).

Secondly, renewable energy is given little coverage in the energy policy and the status quo is maintained with no emphasis on removal of barriers that impede renewable energy technology

adoption in Kenya. The energy policy mentions blending of diesel with power alcohol as one strategy for reducing over reliance on fossil fuels. However, it does not say how this policy will be implemented. A plan to reintroduce power alcohol as a motor fuel is in the pipeline. The high cost of electricity in Kenya is another barrier facing the energy sector in Kenya.

Mainstreaming CDM in Forestry Sector

Similarly, according to figure 6 above, 17% of respondents cited lack of mainstreaming of CDM in the forestry sector as a key barrier impeding CDM project development in Kenya. A number of barriers and gaps were identified in the Forestry sector. The existing forest policy does not address the role of forests and communities in socio-economic development of forest adjacent communities' *vis-à-vis* benefiting of carbon sequestration services. By developing carbon sequestration land use, land use change forestry (LULUCF) CDM projects, Kenya could kill two birds with one stone by addressing the issue of poverty alleviation, socio-economic and rural development in an integrated manner. CDM forestry projects could offer much needed financial resources needed in implementing planned afforestation and reforestation programmes nationwide. The first national training need assessment report (TNAR) points out lack of resources for tree planting programmes as a key challenge facing afforestation and reforestation programme (TNAR, 2003). Other side benefits derived from forestry CDM projects include development of secure land tenure systems that recognize right of forest communities to own forests and their 'carbon'.

Mainstreaming CDM in Agriculture Sector

According to figure 6 above, 13% of respondents acknowledge the presence of a weak CDM framework in Agriculture sector as another significant impediment. A number of barriers and gaps were identified in the adoption of carbon mitigation activities in agriculture. It was identified that the agriculture sector lacked quality research data and information that can support development of appropriate CDM project baselines. These baselines are important in calculating GHG net emissions of an agriculture CDM project. It is to be noted that emissions from Agriculture account for a substantial size of national net GHG emissions portfolio with enteric fermentation and paddy rice cultivation being the largest sources of methane and nitrous oxide respectively (TNAR, 2003).

Mainstreaming CDM in Waste Sector

According to figure 6 above, 10% of respondents cited lack of mainstreaming of CDM in the waste sector as a key barrier impeding CDM project development in Kenya. A number of barriers and gaps were identified in the waste sector. The current energy policy does not identify landfill gas (LFG) derived from methane as a supplementary source of energy that can be produced by IPPs and supplied to the national grid system. This can be attributed to local reluctance from the main electrical utility (KenGen) to include small power producers in the national energy supply mix. Secondly, solid waste sector in Kenya lacks appropriate policies that offer incentives to LFG and methane capture technologies. Low level of public awareness and refusal to adopt new waste technologies is also hindering uptake of CDM projects in the waste sector.

Institutional Barriers and Gaps

According to figure 7 below, 30% of respondents pointed out bureaucracy and corruption as the leading issue. This was followed by 20% of respondents acknowledging a weak Designated National Authority (NEMA), was a key institutional barrier. Lack of knowledge, inconsistent synergies and lack of enough capacity building accounted for 13%, 20% and 10% of the respondents' views respectively.

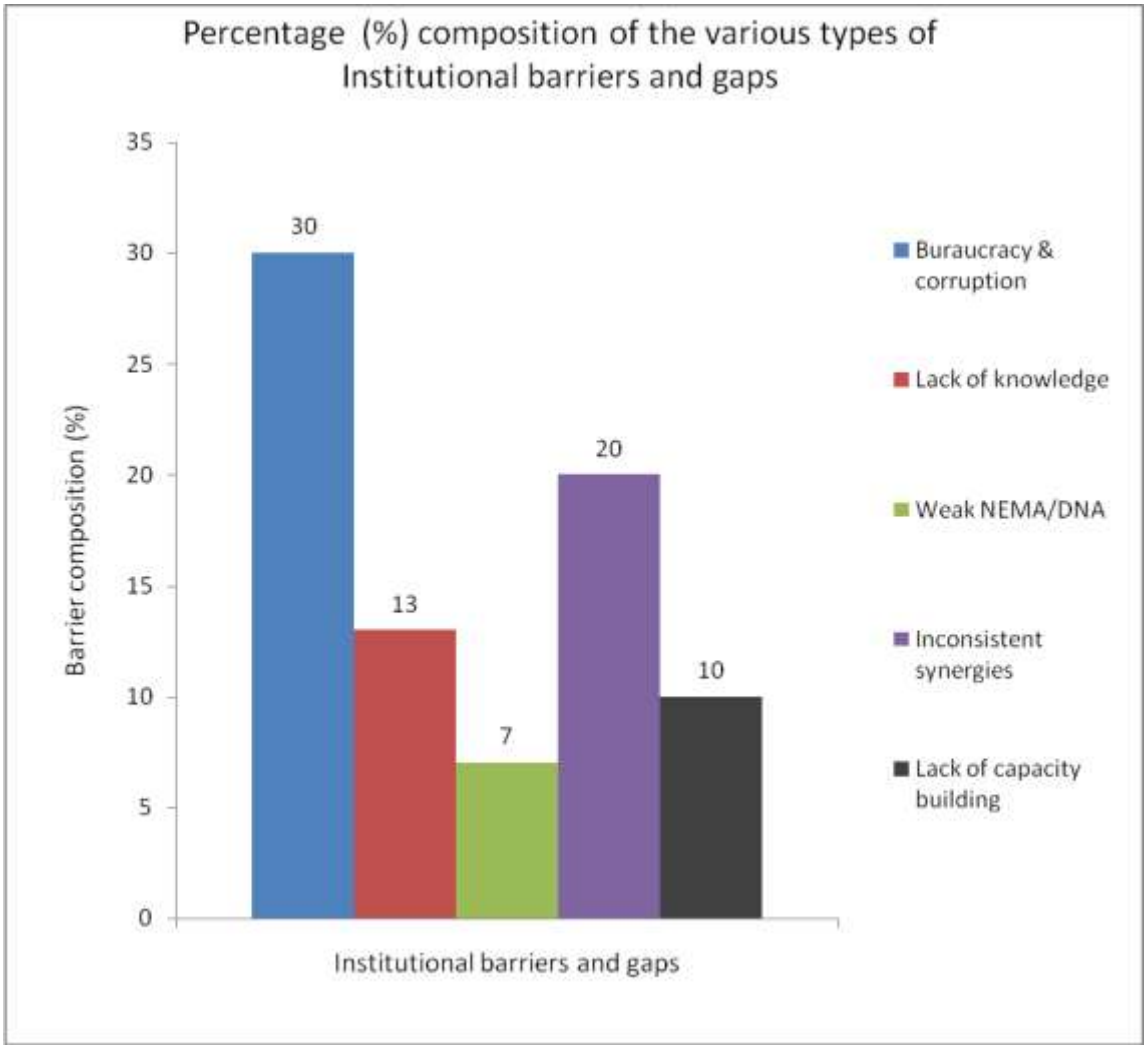

Figure 7: Percentage (%) composition of the various types of institutional barriers

Bureaucracy and Corruption

As shown in figure 7 above, 30% of respondents cited bureaucracy and corruption as the leading institutional barrier impeding CDM project investments into the country. It was noted that investors spent a lot of time and resources running up and down in a bid to secure a plethora of authorizations, permits and/or assessments that would otherwise be made in one central national office. It takes an average of 12 documents and 51.5 days are needed to import goods into Sub-Saharan Africa compared to e.g. 8 documents and 12 days in Korea (OECD, 2007). Mumias Sugar Company (MSC), a proponent of the first cogeneration CDM project in the country, attributes delaying of equipment and spare parts by Kenya Ports Authority (KPA) and Kenya Revenue Authority (KRA) as a hindrance to CDM investors.

Another barrier identified is increased high risk of doing business in Kenya brought about by a non-conducive business environment. CDM investors are forced to wade through several levels of government to approve a proposed project. This creates a fertile ground for corruption. The ERS paper on Wealth and Employment Creation cited corruption as key impediment to development in Kenya (UNEP, 2006). The World Bank's "doing business" database also indicates that majority of firms expect to pay bribes "to get things done" and that more than 90% of firms expect to pay such bribes in India, Bangladesh and Sub-Saharan Africa (OECD, 2007).

Inconsistent Policy Synergies for CDM

As shown in figure 7 above, 20% of respondents cited inconsistent policy synergies as a key barrier facing institutional mainstreaming of CDM. In order to send a consistent message to potential project

developers and investors, it is important that within a particular country, there is a clear and consistent policy towards CDM projects of a given type. Developing a consistent policy will require good communication between the different actors and the various levels of government. CDM development and promotion in Kenya has been left to project developers, the DNA, United Nations and few interested individuals hence lacking a clear and consistent policy.

The private sector is lethargic in CDM participation. Thirdly, there is need to de-link the CDM activities budget from the other climate change component budgets i.e. adaptation. In one of the interviews, with a key personnel of the National Climate Change office, inadequate financial budget allocated to the DNA by the Kenyan government was cited as a hindrance to more project approvals and stronger CDM promotional campaigns. The DNA in Kenya is faced with staffing shortages, lack of expertise in approving PINs, laxity and delay in approving CDM projects. It is overwhelmed by the overall number of proposed CDM projects and to sudden increases in workloads.

CDM Information and Knowledge

As shown in figure 7 above, 13% of respondents cited lack of knowledge and information on CDM as a hindrance to capacity building. Lack of information and knowledge on CDM is a key barrier impeding transfer of technology and knowledge. Ultimately, there exists correlation between lack of knowledge in CDM and a low degree of awareness to identify and remove current barriers facing CDM in Kenya.

Restructuring the Designated National Authority (DNA)

As shown in figure 7 above, 7% of all respondents agreed that NEMAs Climate Change Focal designated national authority (DNA) needed strengthening. A key barrier identified is that the DNA shares one website with the National Environment Management Authority (NEMA). This has limited dissemination of important CDM information i.e. ongoing CDM project activities that would be beneficial to stakeholders and CDM investors. In comparison, Morocco, Egypt, Philippines, and Brazil are examples of some countries with established DNA web sites as tools for promoting CDM investments (OECD, 2007). The availability of a web-based information platform has so far proven to be effective in promoting a host country as a CDM project destination (OECD, 2007).

Project Financing Barriers and Gaps

According to figure 7 below, 20% of respondents attributed the Quality and Quantity of CERs as a key impediment to CDM project development in Kenya. A number of project financing barriers and gaps were identified. 13% and 17% of respondents pointed fluctuating tariff rates and project sizes and preferences respectively as other key impediments. Lack of seed financing for local project developers in the initial stages of feasibility study, PIN and PDD development was drying up the supply of bankable CDM projects. A fact supported by a recent publication by the International Institute for Sustainable Development (IISD) citing financing as a key barrier inhibiting CDM project development in developing countries (OECD, 2007).

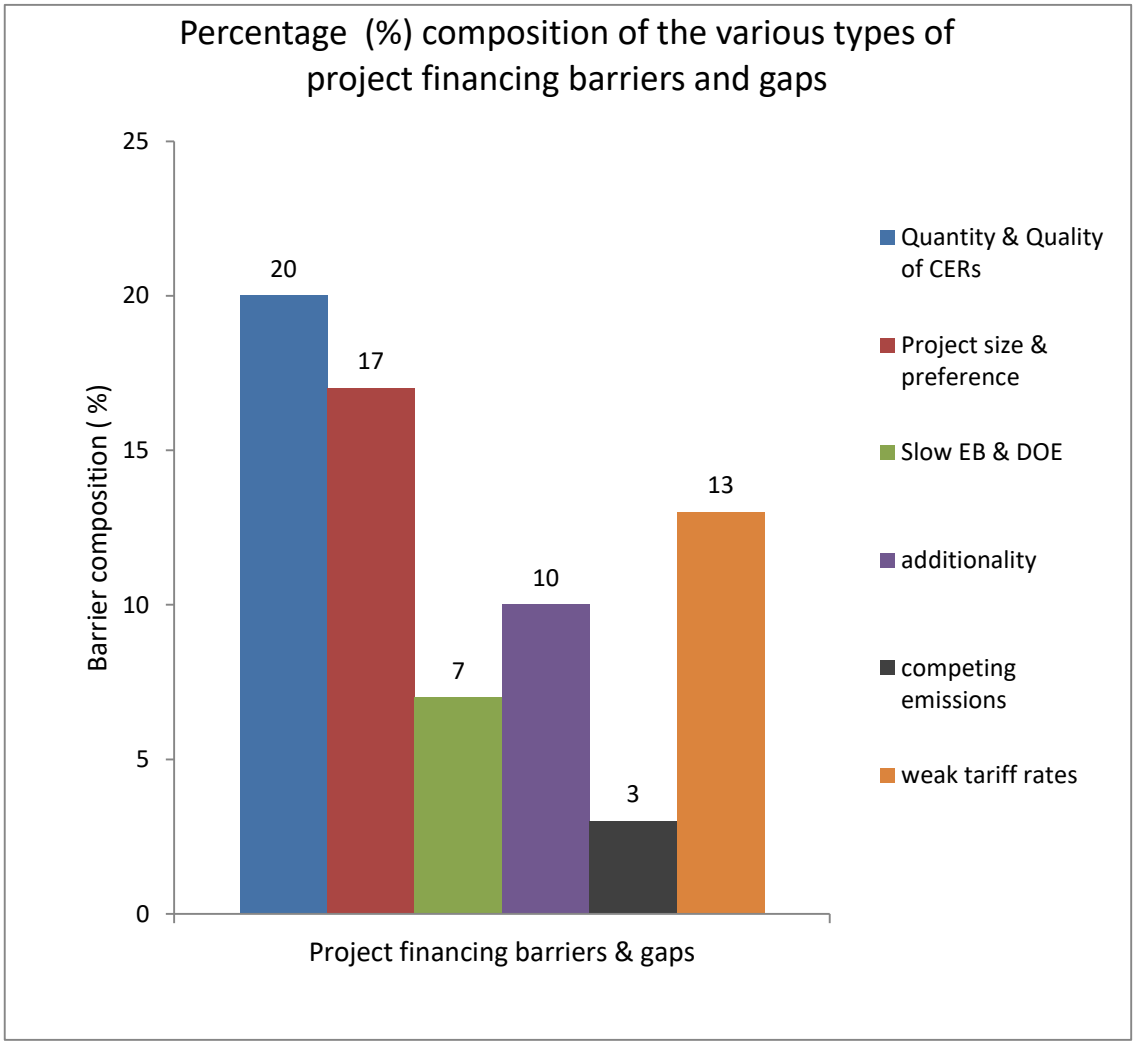

Figure 8: Percentage (%) composition of the various types of project financing barriers

Another financing barrier identified is little knowledge by development banks and multilateral institutions (MIs) to use carbon finance in structuring potential clean energy projects. For example, Quality Tonnes was able to push forward a CDM landfill energy project that would otherwise not have happened due to its low return on investment (ROI). The carbon finance option helped leverage the project and subsequently linking it to an existing World Bank urban sanitation project being implemented in the country (OECD, 2007). Most developing countries have high political risks. Kenya's political risk has increased since the 2007/2008 post-election conflict and is bound to have a negative effect on overall credit ratings and lending requirements in the short term. Banking skills and experience required to obtain financing is lacking among MBA graduates. Skills in calculating and analyzing financial ratios like NPV, IRR, ROI, debt servicing ratio and overall cash flow balance are lacking among bankers and project developers. This lack of expertise has negatively impacted on our local project developers abilities to identify and secure the best markets for our CDM projects.

Quality and Quantity of CER credits

According to figure 8 above, 20 % of respondents felt that issues around quality and quantity of CERs were one barrier impeding CDM project development in Kenya. 3% of respondents pointed out the antagonistic nature of other competing emission systems as a hindrance to realizing the full potential of CDM. Complexity and slow pace of project approval processes was also highlighted as other barriers.

CDM Project Size and Preferences

According to figure 8 above, 17% of respondents concur that issue of CDM project size and preferences is another unnecessary impediment facing CDM projects in Kenya. Some funds stipulate minimum project sizes. For example, the KfW Carbon Fund stipulates that a project should generate more than 50 thousand credits a year (OECD, 2007). This situation precludes many of the currently-proposed small-scale CDM projects in Sub—Saharan Africa. This means that with these preferences at play, Africa's role in CDM is disadvantaged as most of its potential CDM projects are small-scale by nature.

Slow pace of EB and DOEs

According to figure 8 above, 7% of respondents acknowledged slow pace of executive board (EB) and designated operational entity (DOE) in registering CDM projects as a key barrier to the early issuance of CERs and growth of the carbon market. The EB has been criticized for being slow, too expensive, and unpredictable and employing double standards (BEA International, 2007). This has greatly affected CDM development in certain regions and sectors. Secondly, DOEs are facing capacity constraints, given the rapid growth of CDM. This has led to delays in submitting proposed CDM projects. The number of Designated Operational Entities (DOEs) is small, although growing. There were 17 accredited DOEs by April 2007, up from 13 a year previously (OECD, 2007).

Proving Additionality

According to figure 8 above, 10% mentioned the principle of at 'proving additionality' as a contentious and complex issue. Additionality has consistently been a contentious issue in CDM. However, this difficulty has been eased through the development of EB-approved "additionality tools". Nevertheless, it still remains a sticking point for some proposed CDM projects that are rejected for failing to satisfy the additionality threshold. 2 out of the 4 project developers interviewed concurred additionality requirements were complex and lengthy to prove. Additionality has been the reason for EB-rejection of 9 CDM projects in 2007 (UNEP risoe centre, 2008)

CONCLUSION

The three objectives of the study were met. Past work on CDM was reviewed and barriers and gaps identified. It was followed by a search for solution(s) to the status quo problems in implementing CDM in Kenya. A road map for the successful implementation of CDM projects has been proposed as recommendations. Kenya has a high potential to implement CDM projects. Currently four CDM projects are already in the pipeline while others are in the development stages. However, present barriers in the institutional, policy and project financing framework have impeded CDM implementation. Present barriers include lack of requisite CDM experts, lack of pro-CDM taxation regimes, a weak DNA focal point, poor supporting policies and rigid regulatory frameworks. Formulation of new policies, enactment and amendment of relevant acts, increased capacity building and improved CDM financing options are measures that will accelerate the development of CDM projects in Kenya. There is need for the executive board to clarify what role current CDM projects and respective CERs generated will play in the post-2012 regime. Continued uncertainty on the role of CDM in post-2012 regime is slowly drying up demand for CDM projects.

RECOMMENDATIONS

Mitigating Institutional Barriers and Gaps

Short-term Options

- National Environment Management Authority (NEMA) - The DNA needs to simplify the approval procedure for CDM projects by creating a blacklist and a white list for approving CDM projects.
- National Environment Management Authority (NEMA)- Promote increased capacity building and in-country expertise in CDM project development for both

project developers and related stakeholders while establishing a simple, timely, transparent and inclusive CDM project approval process.

- National Environment Management Authority (NEMA) - Kenya needs to identify a private firm or entity that will undertake the role of CDM promotion.

Medium-term Options

- Private sector- Build CDM capacity in the banking and insurance industry in Kenya.
- Parliament- The government through the investment board should ensure laws and policies are responsive and enforced to the latter.
- Parliament- The investment board through an act of parliament to provide appropriate tax incentive and tax breaks to attract CDM investors.

Long-term Options

- CDM Executive Board- Develop and approve methodologies for non-renewable biomass CDM projects i.e. efficient charcoal kilns, liquid biofuel.
- CDM Executive Board- Mainstream CDM into existing sectorial and policy reforms targeting development agencies and other technical assistance programmes i.e. rural electrification.
- Executive board should simplify A/R rules and regulations.
- Executive board should simplify additionality requirements for LULUCF projects.
- The executive board should include avoided deforestation as a CDM LULUCF project.

Mitigating Policy and Legislative Barriers and Gaps

Short-term Options

- Ministry for Energy- Increase capacity building and awareness, technology transfer, R & D on renewable technologies.
- Kenya Anti-corruption Commission (KACC) - Elimination of corruption at all levels of government.
- Parliament- Enactment of a renewable energy bill culminating to the formation of an act of parliament recognizing and supporting renewable energy.

Medium-term Options

- Ministry of Environment and Mineral Resources- The forestry policy needs to recognize and support LULUCF CDM projects.
- Ministry of Environment and Mineral Resources- Establish clear land tenure systems and landownership rights.
- Ministry of Environment and Mineral Resources- Adopt programmatic CDM as a better mitigation option in transport and EE sectors.
- Ministry of Environment and Mineral Resources- Develop a biomass policy and a mining policy to fast track biomass technologies, geothermal and coal energy projects respectively.

Long-term Options

- Parliament and Senate- Develop policies and enact by-laws that encourage municipalities to co-own and run energy projects from landfills and sewerage facilities.

- Parliament- Amend the current Forest act to incorporate 'Payment for environmental services' as a key component of forest conservation i.e. sustainable monies from carbon credits.
- Ministry of Environment and Mineral Resources- Harmonise the Forest Act, state corporation act, Chief's authority Act, Trust land Act and registered land Act to avoid current overlapping of jurisdiction and mandate.

Mitigating Project Financing Barriers

Short-term Options

- Private sector- Increased capacity building of CDM in banking and insurance sectors.
- National Environment Management Authority (NEMA)- Develop a CDM 'one-stop-shop' for the various CDM stakeholders to network.
- Private sector- Demystify the financing process to better understand risks and leveraging.

Medium-term Options

- Project developers- Kenya needs to develop CDM projects with high sustainable development dividends.
- Strengthen role of rural and community development banks in CDM host countries.

Long-term Options

- The executive board should reduce CDM transaction costs.
- Parliament- Need to link together the role of Ministry of National Planning and Development, Ministry of Finance and the Kenya Investment Board.
- Parliament- Enactment of an Act of parliament that recognizes and supports micro-finance institutions in Kenya.

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