1215215-1Clean Development Mechanism sub-component – Capacity Building related to Multilateral Environmental Agreements (MEA) in African, Caribbean and Pacific (ACP) Countries

Consultancy for capacity development for CDM project development in Botswana

FINAL REPORT

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ABBREVIATIONS AND ACRONYMS

ACM	Approved Consolidated Methodology
ACP	Africa Caribbean and Pacific
AM	Approved Methodology
AMS	Approved Methodology small scale
BDC	Botswana Development Corporation
BOCCIM	Botswana Chamber of Commerce, Industry and Manpower
BPC	Botswana Power Corporation
CDM	Clean Development Mechanism
CEDA	Citizen Empowerment Development Agency
CEO	Chief Executive Officer
CERS	Certified Emission Reductions
CSP	Concentrated Solar Power
DBSA	Development Bank of Southern Africa
DMS	Department of Meteorological Services
DNA	Designated National Authority
EE	Energy Efficiency
EECG	Energy Environment Computer and Geophysical applications
EIA	Environmental Impact Assessment
ERPA	Emission Reductions Purchase Agreement
EU	European Union
GEF	Grid Emission Factor
IDC	Industrial Development Corporation
MEA	Multilateral Environment Agreements
MW	Mega Watt
NGO	Non-Governmental Organization
PDD	Project Design Document
PIN	Project Identification Note
POA-DD	Programme of Activities- Design Document
PP	Project Proponent
PPA	Power Purchase Agreement
RE	Renewable Energy
SADC	Southern African Development Community
SATH	Southern African Trade Hub
URC	UNEP Risoe Centre
USAID	United States Aid for International Development.

1 INTRODUCTION

1.1 Background

This final report presents the achievements, outcomes and lessons for the project that was part of the European Commission Programme for Capacity Building related to Multilateral Environmental Agreements (MEAs) in African, Caribbean and Pacific (ACP) countries. The CDM sub-component was implemented in seven African countries: Angola, Botswana, Ivory Coast, Malawi, Nigeria, Rwanda and São Tomé and Príncipe, three Caribbean Island States: Belize, Cuba, Trinidad and Tobago and the following Pacific countries: Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu and Timor Leste. The UNEP Risøe Centre (URC), based in Denmark, was the project implementing agency for the Clean Development Mechanism (CDM) sub-component and the Botswana project was implemented with the Department of Meteorological Services, as the Designated National Authority.

The project had two tracks, the Institutional Capacity Building track and the project development track. The institutional Capacity building track was implemented by the DMS and the URC and DMS commissioned EECG Consultants (Pty) Ltd of Botswana to support the CDM project development track of this project for Botswana. The expected results of the EU-ACP-MEA programme are summarized in Box 1. This final report is only focussing on the project development track of the EU-ACP-MEA project for Botswana, which was implemented between 1 February 2011 and 31 December 2013[1].

Box 1 Expected program results are as follows:

Result 1:	*An operational DNA capable of approving projects consistent with the host country's sustainable development priorities.*
Result 2:	*Technical capacity of national experts and consultants in CDM project identification, design, and implementation built.*
Result 3:	*An improved CDM regulatory and investment environment through awareness raising and policy advisory activities for government*
Result 4:	*CDM project appraisal skills and capacity of local financial institutions built*
Result 5:	*Host country promoted as a CDM destination through producing a national portfolio of potential CDM projects.*
Result 6:	*Pilot CDM project opportunities have been identified and promoted among companies from Kyoto Protocol Annex I countries interested in investing in CDM projects in ACP countries and / or purchase of CERs from these projects.*
Result 7:	*A free, web-based Knowledge Management Platform established to share CDM experiences and knowledge among ACP countries.*

[1] Initial Implementation period was 1 February 2010 to 31st January 2013, but the commissioning of project in Botswana delayed by a year.

1.2 Objectives

The CDM project aimed to enable the targeted ACP countries to fully participate in the global carbon market and for host countries to be able to identify, design, approve, finance, implement and monitor CDM projects that both address its sustainable development priorities as well as offer a cost-effective option for carbon credit buyers to comply with their obligations under the Kyoto Protocol. The proposed activities under the project development track gave special emphasis on the development of a national CDM portfolio of projects that could be marketed in international carbon events such as the Carbon Expo as well as posted on each country's websites.

1.3 Scope of coverage

The project activities that were defined for the project development track for Botswana are summarized in Table 1 indicating expected period of implementation.

Table 1: Terms of Reference for Project Development Track

Result	Activities
Expected Result 4	Activity 4.1 Hold meetings with local NGOs and communities representing people potentially affected by CDM projects
	Activity 4.2 Two PDDs to be selected and developed among the best PINs
CDM project appraisal skills and capacity of local financial institutions has been built by the CDM Capacity Building Component	Activity 4.3 Explore financing options by facilitating meetings among financial sector, private investors and government representatives
	Activity 4.4 Advise DNA / investment promotion authority on format and contents of their participation in Carbon Expo to promote CDM portfolio and institutional preparedness
Expected Result 5 & 6	Activity 5.1 Identification/selection of two high-potential sectors for CDM project development
	Activity 5.2 National approval of project concepts
	Activity 5.3 At least three PINs to be developed in each priority sector, i.e.6 PINs in total
	Activity 6.1 Select a country representative to participate in Carbon Expo to present and promote portfolio of PINs and PDDs

There was a variation in the scope of Activity 4.2. instead of preparing PDDs for 2 projects, two PoA-DDs and related generic CPAs and CPA-001 for each of the selected projects were developed.

1.4 Methodology

The project methodology consisted mainly of direct consultations with the relevant stakeholders. Regular meetings were held with the Department of Meteorological Services to discuss the project approach and progress at each stage. The other key official government stakeholders consulted were the Energy Affairs Division, Department of Waste Management and Pollution Control and the Department of Forestry and Rangeland Resources. These key stakeholders also assisted the identification of sectors to concentrate on and the projects to provide support.

Meetings were arranged with the project proponents to discuss their project ideas and preparation of PINs. The PINs were completed with the assistance of EECG and close participation of the project developers.

EECG also carried out consultations with stakeholders in the Financial sector to assess options for financing carbon projects from commercial institutions in Botswana and region. Other consultations were also made with NGOs on awareness of carbon projects.

1.5 Methodological Constraints

The major draw backs has been the paucity of information to assist the project proponents to concretise their ideas, estimate the ERs and define project boundaries and some of the potential project proponents were not forthcoming in availing themselves for the consultative meetings during development of their PINs.

EECG as far as possible assisted project proponents with obtaining the necessary information, but in some instances information or required financial resources to collect data were not available e.g. unavailability of data on the variation of wind speeds in Botswana with height above 50m.

Not many financial institutions availed themselves for interviews and there are only a few NGOs working on energy and climate change in Botswana.

2 STATUS OF CDM AT START OF EU-ACP-MEA PROJECT

This chapter is intended to provide insight into the situation in the country when the EU-ACP-MEA project started.

2.1 Socio-Economic Linkages to CDM Projects

The following were considered important socio-economic linkages to development of CDM projects in Botswana:

- Large coal endowments that present a high emission baseline particularly in the energy sector. The associated coal bed methane (CBM) can also offer low carbon options where coal and diesel power generation or thermal applications are displaced by CBM.
- Solar energy endowment that presents opportunities for renewable energy applications for both PV, CSP and Solar Water Heating applications.
- Large mining industry that consumes over 60% of national electricity hence offering energy efficiency opportunities
- Being a cattle rich country, Botswana offers opportunities for methane (CH_4) generation for energy and avoidance from feedlots and abattoir facilities
- Municipal solid and liquid waste, which although municipal waste generation is driven by a small population, has opportunities if waste resources are bundled across cities, towns and villages.
- Highly motorized transport sector that can also offer opportunities for CO_2 reductions through a number of measures that include low carbon fuels, non-motorised transport, public transport and urban transport planning.
- A significant commercial and industrial sector that can offer opportunities for energy efficiency in buildings.
- A residential sector that still uses significant amount of fuelwood, a source that is increasingly becoming scarce, calling for energy efficient use of the fuel and also shifting to alternative sources of energy
- Botswana's vast extensive area, although semi-arid to arid, with careful choice of vegetation species, can offer space for afforestation, biofuels production and reduction of emissions from deforestation and forest degradation (REDD)

The potential for carbon market project development in key sectors[2] in the country have been summarized in Table A1 (Annex). Most of the projects in the table are potential projects, which the business community in Botswana could explore for further development for CDM. Figures indicating the potential GHG reductions are general estimates but they are derived from calculations based on previous studies that have been done in the country.

[2] Grouped as energy, waste and forestry

2.2 Policy, Legal, Institutional and Capacity Frameworks

2.2.1 Policy, Legal, Institutional Frameworks

Botswana has a draft Meteorological Bill, which was passed as an ACT of Parliament. The ACT empowers the DMS to implement the Kyoto Protocol. Using the mandate given to it by the ACT, the Designated National Authority[3] (DNA) is now the process of drafting regulations, which will guide its operations. A specific strategy for CDM/carbon financing strategies is however not yet in place.

The DNA was relatively new and had not been challenged to review CDM project documents (PDDs in particular) but had been involved in previous CDM initiatives. Of importance was the support given by the World Bank to the Botswana DNA as from 2007. The World Bank accorded staff of the DNA of Botswana to benchmark how other DNAs were functioning. In addition to that the World Bank had exchange meetings with the DNA and organized workshops where the DNA actively participated. The DNA staff also benefits from the CDM DNA Forum for Africa[4], in form of exchange of experiences.

The DNA had however not officially reviewed PINS or PDDS and no projects in Botswana had reached validation or registration stages in the country yet. In that regard the DNA had thus not prepared any letters of acknowledgement for PINS or Letters of Approval for PDDs. The DNA has however started preparation of rules and procedures that were still in draft form.

The national Department of Energy has been exploring the possibility of making some of its energy Initiatives CDM projects and one of the project ideas supported in the EU-ACP-MEA project was being promoted by the Department.

Department of Waste Management and Pollution Control in charge of waste and sanitation and Department of Forestry and Rangelands Resources were also important institutions that were supporting waste and forestry related projects in the country, although no CDM projects had been developed in those sectors yet.

2.2.2 Capacity for Project development

There were not many locally based consultants or experts to support CDM but the few that existed could provide the necessary support for project development and DNA support. Table A2 (Annex) list organizations that were active in CDM project development in the country. Table A3 also shows the organizations that were providing CDM project development services.

There were already some potentially active project proponents in Botswana that have been introduced to CDM from previous, albeit short term, similar initiatives and some were also supported through the EU-ACP-MEA project.

[3] The DNA is organized under the Ministry of Environment Wild Life and Tourism (MEWT) in the Department of Meteorological Services (DMS).

[4] Established in Addis Ababa in October 2007 First meeting was held in Senegal in September, 2008 with annual meetings in various African countries

Some level of awareness and interest regarding CDM was being displayed as some large, medium and small scale enterprises that were starting to enquire on the potential for CDM project development within their enterprises. However skills for project development and adequate knowledge about the carbon market were still limited in these enterprises.

The importance of strong proponents that could drive CDM project development and implementation with support from initiatives such as this EU-ACP-MEA project was recognised from the early stages of the project. Therefore the CDM Project Development Track was targeted to support proactive potential proponents that were already familiar with CDM but also allowing opportunities for new project proponents with lucrative ideas.

2.2.3 Awareness and capacity for financing organizations

Local financial institutions had not been adequately exposed to the carbon market, although they may have attended one or two workshops where CDM was discussed. There was still lack of knowledge on investment potential in energy and other carbon related projects and financial institutions were not familiar with appraising carbon projects.

Some large banks e.g. Standard Bank in South Africa, had started creating portfolios for supporting implementation of carbon projects and these were lessons that were to be shared with Botswana financial sector towards supporting CDM project development and implementation.

2.2.4 Market opportunities

This aspect considered exposing both project proponents and DNA to various buyers and sellers for show casing their potential carbon projects and investment potential in the country and abroad. The Carbon expo is an example of such fora were PPs and DNA were to be exposed to. There were not many occasions[5] previously where PP had opportunities to market their project ideas to potential investors and buyers.

2.3 Constraints Assessed from previous CDM initiatives

The Table A4 in the annex summarises the list of previous CDM capacity initiatives that were undertaken in Botswana since 2002. By the time the EU-ACP MEA project started the lessons that had been learnt and constraints were as follows:

- There was a misconception amongst project proponents that CDM could raise investment capital for their projects.
- There was lack of adequate support for CDM amongst government and the private sector in general. This resulted in frustration for some project proponents that could not obtain assistance from government departments to move their projects forward.

[5] One PP had a chance to present the BMC Biogas Project to an organized forum of investors and buyers in London in 2003 under the EU CAPPSA Project in which Botswana was involved (refer to Table A1 in Annex).

- Some of the project-proponents found the whole CDM process laborious and too cumbersome and were discouraged before they were able complete the process.
- Lack of capital amongst project proponents for both feasibility and investment seemed to be one of the biggest obstacles hence most projects, in spite of them being prime candidates for CDM never see the light of day.
- Lack of readily available official baseline information (e.g. grid emission factors and baseline forestry data) causing frustration amongst project developers.
- Lack of coordination amongst government departments and the private sector on issues related to CDM that resulted in the country losing on the opportunity to register some potential CDM project that have been or are now being implemented.
- The project proponents were not aware of technical experts within the country that could assist them with project development as the DNA did not have a register of approved experts within the country.

Most CDM project activities that were developed for Botswana were never developed beyond the PIN level. The EU-ACP-MEA project was thus intended to develop CDM PDDs up to registration stage.

3 EU-ACP-MEA PROJECT-ACHIEVEMENTS, OUTCOMES AND LESSONS

This Chapter presents the achievements, outcomes and lessons in accordance with the Terms of Reference for the Project Development Track of the EU-ACP-MEA project (refer to table 1) as provided below.

Activity 5.1 Identification/selection of two high-potential sectors for CDM project development.

This activity was agreed at start of the project between URC, DMS and communicated to EECG. The sectors selected for support on CDM project development are energy sector and waste sector. The last day of the first workshop held February, 2011 was dedicated to meeting and discussing project ideas of proponents developing energy sector projects. These projects largely consisted of energy efficiency, wind, and solar CSP projects. Although some projects combined waste and energy e.g. waste to energy, the latter types of projects were allocated to the waste sector.

Among the energy sector projects that were being developed from start of this CDM project the following have benefited to stage of PIN development.

1. Efficient Cool Buildings Programme in Botswana
2. Botswana Wind Energy Project
3. PoA- Biomass burning energy efficient cooking technologies in households, institutions and small businesses in Botswana.

The waste project developers were supported also from the start of the project but a dedicated workshop was undertaken during the last day of the Second CDM workshop (9th September, 2011). The projects that have benefited from the support are

1. Abattoir based Biogas Project at Botswana Meat Commission for electricity and thermal applications
2. 1 MW power generation from feedlot-based biogas plant
3. A community based biogas plant at Mabesekwa village for cooking and lighting purposes

Other project activities that have been proposed but are still at an early stage of development are landfill gas to energy and the gasification of invasive vegetation species combined with animal waste to biogas for electricity generation in rural Botswana.

Activity 5.3 At least three PINs to be developed in each priority sector, i.e.6 PINs in total.

PINs were developed for the 6 projects identified above and summaries of the project identification notes are provided in table 2 below. The detailed PINs are posted on the EU-ACP-MEA website (http://botswana.acp-cd4cdm.org/cdm-projects-in-botswana.aspx).

The table also includes other project ideas that were presented and supported as part of the EU-ACP-MEA project.

Table 2: Status of PIN Development for project activities supported.

SECTOR	Name of organization	Contact Persons	Project Title	CERs tCO_2/year	applicable methodologies	Status
ENERGY	Botswana Power Corporation / Re Botswana – BPC Lesedi (Pty) Ltd	Contact: Mr Walter Kgabung Tel: 3911299 Fax: 3911300 wmkgabung@bpclesedi.co.bw	**PoA- Biomass burning energy efficient cooking technologies in households, institutions and small businesses in Botswana.**	50000	AMSIIG & AM0094 for cook stoves	A complete PIN on efficient fuelwood cook stoves was developed under another project support but BPC put forward the project activity to be considered for support under the EU-ACP-MEA CDM project. The original PIN was modified to conform to the EU-ACP-MEA PIN format.
	Wind Edge Botswana	Contact: Dr Wayne Edge Tel: Fax: E.mail: wayneaedge@yahoo.com	**Botswana Wind Energy Project:** 50 large wind turbines producing 100 MW of power for Botswana.	228000	ACM0002Consolidated Methodology for Grid-Connected Electricity Generation from Renewable Sources	This project initially attracted attention both of government and other investors and wind measurements were to be carried out to verify wind speeds for design of the project. Full PIN was developed but there was no follow through to attract the needed investment even for feasibility stage.
	Agna Ventures	Contact: Mr Percy Lekoba Tel: 3187914/72240621 Fax: E.mail: percyl@botsnet.bw	**Efficient Cool Buildings Programme in Botswana.** Application of ceratech coating to building roof surfaces	39000 (based on projected surfaces that can be painted	AMSIIE-EE/Fuel switching (FS) in various buildings; AMSIIF on Agric bldgs;AM0091 EE/FS in new buildings	Proponent has used some baseline data to estimate how much surfaces can be painted using a cooling paint CERATECH in the next 10 years of crediting period. The PP is however undertaking active marketing and the surface area is expected to increase. The CERs have been estimated based on the projected baseline data and some energy intensity kWh/m2 that have been determined in Botswana for various institutional and commercial buildings.
WASTE SECTOR	**Bostrich**	Contact: Mr Callie Rapula de Bruyn Tel: 72333155 Fax: E.mail: veridebt@opqnet.net	**1 MW power generation from biogas in Mmamashia, Botswana[6].**	28000	ACM0010;AMSIIID; AMSIIIAO;AM0075	Feasibility study and EIA was supported through Energy Environment Partnership Programme (EEP) supported by Finland, DFID and Austrian Government. Full PIN was completed.

[6] **This changed to an multispecies abattoir site**

	Bio sys	Contact: Mr Simon Mahosi Tel: 72474730 Fax: E.mail: simonmahosi@yahoo.com	**Biosys Biogas Project at Botswana Meat Commission**	78505	ACM0010;AMSIIID; AMSIIIAO;AM0075	Full PIN was developed but PP was not granted permission to use land and animal waste and abattoir waste. Project was to be part of a PoA on biogas.
	EAD-biodigester	Contact: Ms Gina Wright Tel:3914221 mwright@gov.bw	**A biogas plant at Mabesekwa village for cooking and lighting purposes**	600	ACM 0010; AMSIIID; AM0075; AMSIIIAO	Project has passed feasibility stage and was seeking investors promoted by the Government. Full PIN was developed.
OTHER ENERGY	Kalahari Energy	Contact: Mr Julian Scales Tel: 3973386 Fax: E.mail: julian@scales.co.bw	**90MW Diesel generator to CBM**	Not determined	AMS IIIAG; AMS111AH	Full design done, working on acquiring land, PPA with BPC and working on tariff structure Plant constructed currently running on diesel. Raising finance for pipe line and production well. Setting up gasifier factory and acquired gasifier to start manufacture of gasifiers in Botswana PP met once but no PIN developed to date. PP became difficult to find.
	Power Tower (Pty) Ltd	Jack Thipe 3105240/73278548 jackthipe@nbc.co.bw	**Power Tower** 200 MW Up-draught Solar Power Station (Botswana)	788 400	ACM 0002 - Consolidated Methodology for Grid-Connected Electricity Generation from Renewable Sources	The PIN is ready but is being submitted to various potential sponsors. PP has actively participated in the EU-ACP-MEA CDM workshops and is also seeking support from EECG on the way forward with regard to preparation of the PDD. Will require permission of PP to release PIN.
OTHER-WASTE	Department of Forestry and Range Resources / Forestry and Range Management Section	Dr Ralf Zimmerman/Mr Manene	A decentralized power plant powered by biogas and wood chips	not determined	ACM0010;AMSIIID;AMSIIIAO;AM0075;AMSIF for invasive species	PP drafted a project proposal for financing of a project feasibility from the Global Environment Facility to inform whether the project could go ahead or not. EECG provided guidance on how to frame a CDM project activity, but no progress was registered during the time of EU-ACP-MEA project
	Zillion Investments		Landfill gas through Pyrolyisis for electricity generation	not determined	AMS IIIL; ACM0001	PIN not yet developed until a landfill site has been identified and provided for project use. PP was to approach local authorities in Palapye but no progress was registered during the EU-ACP.MEA project

The level of support provided to the Proponents supported by EECG under the MEA-ACP CDM project took the approach of capacitating PPs to know how their PIN is developed and give the PP the first opportunity to develop their Draft PINs. Meetings arranged with PPs were to discuss project ideas, concretize them in terms of scope and location, and also to direct PIN development. The final PINs were developed by EECG taking into consideration all the information provided by the proponents and how they wish to structure their projects.

Activity 4.3 Explore financing options by facilitating meetings among financial sector, private investors and government representatives.

Table 3 below summarizes the financial, private and government stakeholders that were approached with regard to this Activity 4.3. Most Local financial institutions had low awareness of the importance of CDM to their business. This was reflected by failure to secure meetings with most Banks in Botswana. Those that had an idea such as the Citizen Empowerment Development Agency (CEDA), have no internal capacity to support CDM project proponents and have no specific packages tailor-made for CDM projects. Barclays that offered their audience had some interest to know more about CDM but locally do not have an understanding how they can take CDM financing on board. They however can call on their external backing within the Barclays International group. With additional awareness and support they may take carbon projects that are financially viable into consideration.

External financing organizations and mechanisms like the Development Bank of Southern Africa (DBSA), Industrial Development Cooperation (IDC) and Energy Environment Partnership (EEP) are involved in CDM but seem also to give a half-hearted attention to CDM project development. These are institutions with some technical know-how but their mind-set is still not for full support of CDM projects.

Although EECG continued further interaction with a few promising institutions none of the PINs received financial support from these commercial financing institutions. Information on external financing institutions that can support CDM project implementation was also shared with project proponents.

Table 3: Financial Institutions approached and status of their responses.

Proponent	Status
Barclays Bank	A meeting was arranged and the EU-ACP-MEA CDM project presented to Barclays officials in the Marketing Department. Barclays indicated that they financed any project that met their investment criteria. However they did not have a particular package specifically designed for CDM project. Though the Botswana office did not have CDM expertise, they could always tap into international experience from their global network of banks especially from the London Africa Desk.

	Barclays was also invited to the 2nd workshop and representatives from Barclays Bank gave a presentation at the second workshop. Barclays Bank further expressed a desire to know more about the CDM opportunities in Botswana and how they could exploit them. A further presentation was to be made at an opportune time to various Barclays Managers, the presentation never got to happen.
Citizen Empowerment Development Agency (CEDA)	A presentation was made at CEDA at the request of CEDA management to explain CDM and the EU-ACP-MEA CDM Project in particular. EECG made a presentation to CEDA officials covering the both aspects. CEDA mentioned that they support any project that can at least break even. With regards to CDM the institution did not have any portfolios or packages designed specifically for CDM as they did not have in-house expertise to cater for CDM. Furthermore it was resolved that CEDA link EECG with PP that have projects that could qualify as potential CDM projects.
Standard Chartered Bank	Both telephone and email contact was made with the bank. It was assessed that there is a general lack of awareness on CDM in Standard Chartered Bank Botswana. Repeated attempts to set an appointment with the marketing manager were not successful.
FNB	There is a general lack of awareness on CDM in FNB Botswana. Repeated attempts to set an appointment with the marketing manager were not successful.
Stanbic Bank	There is a general lack of awareness on CDM in Stanbic Bank. Repeated attempts to set an appointment with the marketing manager were not successful. EECG contacted Muyi Kazim of Standard Bank Nigeria who has links with Standard Bank South Africa and Stanbic-for assistance in making an appointment at Standard Bank SA[7] and Stanbic Botswana. Muyi recommended that this would be possible after the projects are well developed.
Capital Bank	There was no response on email contact from Capital Bank to meet and introduce the project.
Botswana Development Corporation (BDC)	The appointment with BDC was cancelled at the last minute by BDC who promised to set another meeting in due course, which never materialised.
Botswana Chamber of Commerce, Industry and Manpower (BOCCIM)	The BOCCIM CEO had to cancel the meeting at the last minute due to ill health. They were also invited by the DNA to the second workshop (7-9th September, 2011) to give the key note address but did not turn up.
Institute of Bankers	No response was gotten from the institute of bankers
Southern African Trade Hub (SATH)	The Hub has changed personnel dealing with energy and it was not possible to set an appointment. The Hub is supported by USAID to promote trade in the SADC region and have previously supported initiatives related to electricity trade, energy regulatory frameworks and capacity building for Renewable Energy Project development.
Development Bank of Southern Africa (DBSA)	The DBSA emphasize on large energy infrastructure projects on generation transmission and distribution. The size of projects that they finance should justify investment and contribute to regional integration through meaningful development e.g. interconnections. DBSA's current projects portfolio is currently 60% RSA and 30% SADC and focuses on

[7] Standard Bank South Africa support CDM project development as part of African Carbon Asset Development Facility (ACAD). Projects supported are under CDM and/or Gold Standard VER or VCS protocols. All project types/methodologies *except carbon sink, afforestation & reforestation are* eligible.

	Investment banking, capacity building, Project development facility, Monitoring and Evaluation. Empowering of Independent Power Producers and provide equity investment e.g. hydro in Zambia. DBSA was also managing EEP funding which support renewable projects in 8 Southern and East African countries. Botswana project developers can benefit from this funding for prefeasibility, feasibility, pilot and demonstration of RE/EE projects. EECG engaged with DBSA on their potential support for RE/EE projects in the SADC region and they can have a window for investment if convinced of the merit.
Energy and Environment Partnership Programme (EEP)	The Energy and Environment Partnership (EEP) is a programme which promotes renewable energy (RE), energy efficiency (EE), and clean technology investments in Botswana that is being managed by the DBSA and financed by the Finnish and Austrian Governments. The project is already financing 3 projects in Botswana. One of the projects selected for PDD development, Bostrich Products International, benefited from the EEP support to undertake feasibility study.
Industrial Development Corporation (IDC) of South Africa	The IDC finances industrial development project mostly in South Africa but partly also in the rest of Southern Africa. The organisation has committed R25 billion to Green projects in the next 5 years of which R22.4 billion is for RE/EE projects e.g. waste to energy, biofuels/bio-ethanol. IDC has an opportunity to support project implementation through a credit line provided by the KFW for carbon projects.

As part of the resolutions in the second national workshop, DMS indicated to establish a task force to follow up on issues related to establishing an enabling legal and regulatory framework for CDM projects, among them facilitating EIA for CDM projects and also continuing sensitization of financial institutions.

In both the second national workshop and 3rd national workshop, PPs were advised to apply for the CDM loan scheme to cover the costs of validation and registration for the 2 PoAs that were developed.

The PPs are now pursuing the loan application for the tranche with a deadline in March 2014.

Loan scheme? – please explain the consideration to cover validation costs from the UNFCCC Loan Scheme.

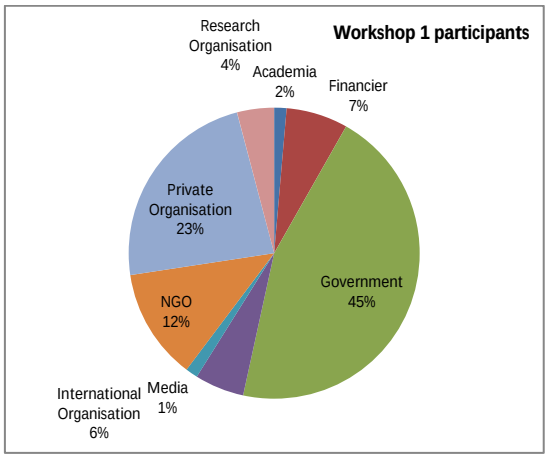
Activity 4.1 Hold meetings with local NGOs and communities representing people potentially affected by CDM projects

The meetings in the first, second and third National workshops partly catered for awareness creation to all types of stakeholders in the country. Figure 1 shows the wide range of stakeholders that were represented at these national CDM workshops (workshop objectives provided in Box 2 to Box 4). The workshops deliberated on important aspects of CDM that

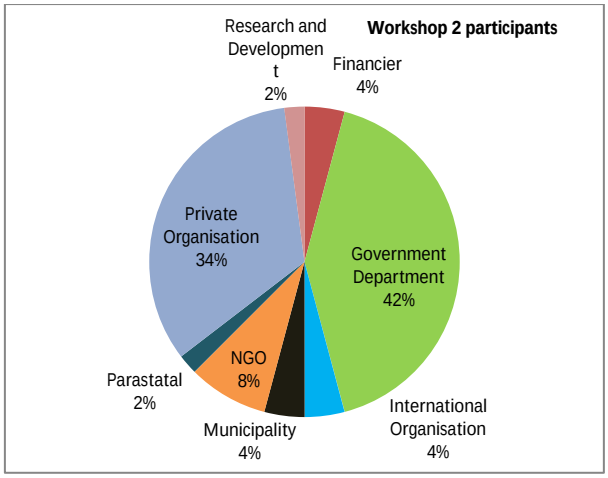
include sustainable development, carbon markets, financing options for CDM, legal and regulatory frameworks at national and global level. The issues discussed at the workshops were enough to give a stakeholder perspective of what is expected and what projects will be good for development in Botswana.

Specific to the NGO community, 12%, 8% and 3% of the first second and third workshop participants respectively were NGOs and this is also due to the fact that there very few NGOs working on energy and climate change. It is worth noting that the most important groups for CDM promotion and development i.e. of government and private sector were dominant in all the workshops. Targeted interaction with communities and key government and NGO stakeholders were held as part of the EIA exercise for the two projects that were developed to PoA-DD stages.

Box 2. First Workshop objective was aimed at improving the capacity of project developers from the public, private and civil sectors to identify potential CDM projects and develop Project Idea Notes (PINs) and Project Design Documents (PDDs).



Box 3. The objective of the 2nd workshop was to improve the capacity of project developers from public, private and civil sectors in areas of validation and verification of CDM projects. It was also intended to assist project developers to be able to negotiate an emission reduction purchase agreements (ERPA) and be familiar with legal framework requirements in Botswana. The workshop covered the following topics: validation and verification standards (VVS), carbon contracts and national legal framework issues.



Box 4: The 3rd workshop objective was to present and discuss PDDs and PINs developed by national and international experts under the project, and expose the CDM project portfolio to local bankers, equity investors and other stakeholders in Botswana.

Also, Botswana's CDM Investor's Guide was presented and discussed in the context of new opportunities to attract climate finance for Nationally Appropriate Mitigation Actions (NAMAS), development of New Market Mechanisms (NMM) and a Framework for Various Approaches (FVA). The workshop was organized by the Designated National Authority (DNA) of Botswana, Department of Meteorology Services (DMS), and Ministry of Environment, Wildlife and Tourism (MEWT), with support from the UNEP Risoe Centre (URC) as part of the African, Caribbean and Pacific Multilateral Environmental Agreements (ACP-MEAs) project.

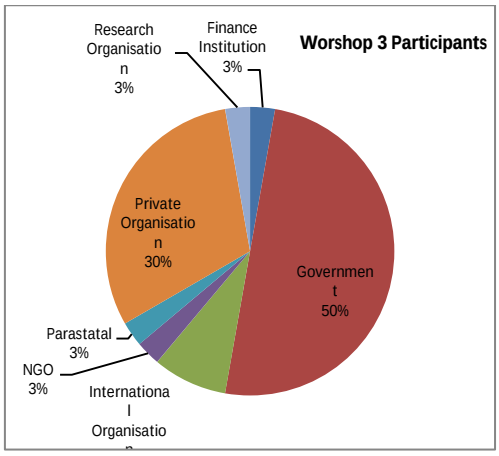


Figure 1:. Composition of stakeholders in the national workshops

A specific interview was also carried with Somarelang Tikologo which is an NGO working in the energy sector. The NGO is in support of CDM activities and has also been developing a project activity seeking support from the EEP for a project titled "Removal of barriers to

adoption and use of renewable energy technology, energy efficiency and conservation in households in Bontleng[8]" but were not successful.

Activity 4.2 Two PDDs to be selected and developed among the best PINs

The activity was varied to migrate to development of 2 PoA-DD instead two PDDs. EECG, DNA and URC agreed on a criteria to select the two most promising project activities for PoA-DD development support under the EU-ACP-MEA project and this is summarised below.

PROPOSED CRITERIA FOR SELECTIOPN OF PROJECTS TO BE SUPPORTED TO PoA-DD STAGE

1. Sizeable CERs above or equal to >15kt/year
2. Approved CDM methodology available
3. Feasibility studies done or to be done in good time
4. Project development and implementation under control of PP e.g. with regard to land and raw material/resource ownership
5. Clear sources of financing or negotiated ERPA
6. Technology maturity and feasibility
7. Strong project proponent with some technical knowledge about their project , passion and some resources for start-up activities
8. Prospects to be registered before 2012
9. Prospects of being implemented-considering capital layouts, technical know-how required, market for product etc.
10. Variety of project types (maybe similar e.g. biogas combines as PoA to share transaction costs

The two projects selected were:

1. An installation of 1 MW power generation from feedlot based-biogas plant at Mmamashia, in Gaborone, Botswana. The PP had received consent from the Owner of the feedlot to use the manure for biogas generated, but eventually could not proceed as the cattle under feeding would not respond well if they are to be disturbed often during collection of dung. The project was later moved to a Multispecies abattoir /slaughter house also in Gaborone, Botswana to use abattoir waste
2. Application of Ceramic Insulating Roof Coatings on Building Roofs, as an energy efficiency measure, to combat heat build-up in buildings and lower temperatures to comfort levels avoiding use of electricity driven air conditioning equipment.

EECG supported the development of the PoA-DD employing acceptable approved CDM methodologies and design document requirements. PPs were however responsible for providing certain technical information specific to their projects and also to undertake EIA. The PPs made specific choice of the technology to use in their projects with EECG advising on technical information on performance of technologies required to derive CERs. EECG also assisted with investment analysis, in addition to selection and use of appropriate CDM methodologies and determining CERs.

[8] A low income urban settlement in Gaborone, Botswana.

The PoA-DD and related CPAs were widely reviewed by financiers e.g. AfDB and also potential buyers before finalization. The PoA-DDs and related CPAs for these two projects have been annexed to this report. The CDM PoA-DD were however NOT validated and registered because the project proponents could not secure financial support for validation.

Activity 4.4 Advise DNA / investment promotion authority on format and contents of their participation in Carbon Expo to promote CDM portfolio and institutional preparedness.

Support for projects started too close to the time of Carbon Expo in 2011, so EECG advised against showcasing projects that were still in the early stages of development and hence no PPs were supported to showcase their projects are Carbon Expo 2011. The DNA was however invited to present Botswana's involvement in the EU-ACP-MEA project. The two PPs whose projects were developed into PoA-DDs were sponsored to show case their projects at the Carbon Expo 2012.

Other Related Activities

EECG attended the first and second workshops and made presentations at those workshops

For 1st workshop EECG made presentations on:

1. Overview of potential CDM projects in Botswana
2. PDD – key components and template

For 2nd workshop EECG made the following presentations:

1. Grid Emission Factor(s) (GEF) for the South African Power Pool including Botswana. The GEF was developed with support from URC/UNEP. EECG was also involved in the team that developed the GEF.
2. EECG also presented the status of projects being supported under the EU-ACP-MEA CDM project.

3rd and final workshop.

EECG made a presentation on *CDM project development in Botswana – achievements and challenges on the 1st day of the two-day workshop.* On the 2nd day EECG facilitated a session on *Overview of ACP MEAS project objectives, activities, work plan and expected outcomes; Outcomes and impacts of project implementation – lessons learned.* This was a review of what the EU-ACP-MEA project achieved for Botswana to be active in the global carbon market.

EECG facilitated at the Energy Sector workshop in February, 2011 and at the waste sector workshop in September, 2011.

EECG held many ad-hoc meetings with DNA to brief the DNA on progress of the Botswana national CDM project of the EU-ACP-MEA CDM project.

EECG prepared unsolicited Scoping Report that provided sights on the CDM opportunities in the country and the promising CDM project activities for the EU-ACP-MEA project.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

The main objectives of the CDM Project Development Track to develop six project ideas to PIN level and select best two to produce two project documents were fully accomplished. The achievements included two Programme of Activity Design Documents (PoA-DDs) and their CDM Project Activities (CPAs) but the PoA-DDs/CPAs are still awaiting validation. The CDM programme of activities were not registered during the tenure of the EU-ACP-MEA project because the PPs could not afford validation costs. The EU-ACP-MEA had limited resources which could not cover validation and further assistance needed by proponents to apply for loans.

A further requirement was to raise awareness among financial institutions to explore CDM project financing options in Botswana. Some level of awareness was achieved as at least one commercial bank, Barclays got interested to know more about creating CDM project portfolio, although this will need further support to the bank to actually support CDM projects.

Key challenges encountered during project implementation include obtaining an EIA as a prerequisite of obtaining a letter of approval from the DNA. Where projects are not exempted, the process was said to be costly and taking almost a year. Possible solutions highlighted were for project developers to start the EIA project early and for the DNA to further collaborate with Department of Environmental Affairs to facilitate EIA process.

The other major challenge underscored was financial constraints for developed CDM projects to progress for validation and registration.

The hindrance to local financing of CDM project could be that there is general low understanding of climate change and its mitigation especially among financial institutions. Hence DMS and collaborative partners should continue to sensitize stakeholders particularly financial institutions on business opportunity offered by CDM and possibly new market mechanisms.

4.2 Recommendations

DMS should continue dialogue with Department of Environmental Affairs (DEA) to facilitate the process of obtaining EIA for project developers within the CDM project cycle. A request to exempt all CDM projects from an EIA could turn out risky as some CDM projects might have other negative environmental impacts while still reducing or avoiding greenhouse gas emissions. Since the EIA process is costly and takes long, project developers are urged to start the EIA exercise during the initial stages of the project design document development.

The two project documents developed should be supported further for validation by applying for an interest free UNFCCC loan scheme or be updated to be taken up as Nationally Appropriated Mitigation Actions seeking support. The project developers will still require technical support during the validation of their projects. This could be covered by loan schemes if they succeed to secure the loans. In future projects such as EU-ACP-MEA should endeavour to cover all costs of promising CDM projects all the way to registration in countries that have not yet registered CDM project activities/Programme of Activities.

At country level, Botswana needs to fast track development of its climate change policy and strategy so as to create a conducive environment for carbon project development. Apart from CDM procedures and sustainability criteria a legal and national regulatory framework for CDM also needs to be in place. Other facilitating policies such as Renewable Energy Feed-In-Tariffs (REFIT) are required to promote development of renewable energy projects.

Institutionally, a champion is required to push for projects that can qualify for carbon project development e.g. renewable energy. Projects developers with interest in this energy subsector are proposing to form a Renewable Energy Forum to advocate for renewable energy issues. This may also need seed funding to start-up the forum.

5 ANNEX

5.1 Status of CDM at start of EU-ACP-MEA Project

5.1.1 Table A1. Potential CDM Projects and associated methodologies in Botswana

SECTOR	Sub-Sector and Activity		Project activity or programme	Expected GHG potential if known or can be estimated	For CDM or VER	Appropriate methodologies
ENERGY	RENEWABLE ENERGY	Small scale renewables (grid and off-grid),	Solar PV home systems-PoA Solar water heaters-PoA	It's estimated that 47,000 households connected to the grid use electric boilers for water Estimated to have total potential savings of 119,000kt/CO_2 equivalent	BPC Lesedi Considering VER	AMS-I.A. ACM0002
		Transportation fuels and efficiency. (EAD)	5% ethanol and 10% biodiesel substitution in transport sector	20million litres ethanol by 2017 56million litres biodiesel by 2017	CDM/VER	ACM0017 AMS-III.B. AMS-III.T.
	WASTE TO ENERGY	Landfill gas-fired power- to electricity Biomass Energy Strategy for Botswana 2009 (BEST)	7GWh/year for coal generated electricity	3900kt/CO_2 equivalent	CDM/VER	ACM0001 ACM0002 AMS-III.G.
		Biomass power and cogeneration (residues and dedicated plantations)- Refer to BEST.	· Manure-1.1GWh/year of coal equivalent electricity · Municipal liquid waste biogas 876,000m^3/year	617kt[9]/CO_2 equivalent 200kt/CO_2 equivalent	CDM/VER	AM0036 AM0073-manure AM0075 &0080 Biogas AM0085
	ENERG	Industrial	Reducing power	Potential still to	CDM/VE	AM0060

[9] **All projects displacing electricity from grid use a published emission factor for Botswana. See Zhou et al, 2009.**

SECTOR	Sub-Sector and Activity		Project activity or programme	Expected GHG potential if known or can be estimated	For CDM or VER	Appropriate methodologies
	Y EFFICIENCY	Energy Efficiency (See DANIDA BEE Incentives project Report)	losses within a company's supply system through a process of network waste reduction. Savings of between 5% to 34% retrofitting of lighting and motors has a potential of saving between 2% to 22%. Start-up schedules, peak demand control, operating hours management and switching off loads Fuels switch and energy efficiency in brick manufacture	be estimated	R	AMS-II.C. AMS-II.J. AMS-III.Z. AM0046
		Energy Efficiency in the Mining Sector (e.g. BCL, Orapa, Jwaneng, Bot Ash, Tati Nickel, Mopani Gold)- See DANIDA BEE Incentives project Report	Efficient Motors	20% improvement in Energy efficiency will has potential for reduction in GHG equivalent to:- 170,000kt/CO_2 equivalent	CDM/VER	AM0018 AM0044 AM0054
		Commercial and residential energy efficiency. See DANIDA BEE Incentives project Report	Building energy audits and efficiency programs-PoA	Energy Efficiency in Residential Sector GHG reduction:- 234,000kt/CO_2 equivalent Energy Efficiency in Commercial sector GHG reduction potential:- 150,000kt/CO_2	CDM/VER	AMS-II.J.

SECTOR	Sub-Sector and Activity	Project activity or programme	Expected GHG potential if known or can be estimated	For CDM or VER	Appropriate methodologies
			equivalent		
	Grid loss reductions,		Not known-low losses anywhere <7%	CDM/VER	
	Domestic Energy Efficiency. BPC Lesedi and See DANIDA BEE Incentives project Report	Improved Cook stoves and appliance labelling			
LOW CARBON OPTIONS	Waste heat recovery BCL, BMC, Breweries	Energy Integration and Steam for cogeneration	Qty not known	CDM/VER	AM0017 & 0024 ACM0012-steam
	Coal Bed Methane -fired power (Kalahari Energy)	>600MW based on coal bed methane	700kt/CO_2 equivalent	CDM/VER	ACM0008
	fossil fuel switching, (Kalahari Energy)	Coal Bed Methane in industry Coal Bed Methane use to substitute 9.5million litres per year of light oil at Morupule Power Station	Not known	CDM/VER	AM0056 ACM0008 ACM0009 ACM0011
	public transport development (Gaborone City Council)	Non Motorized transport Introduction of low emission vehicles to fleet	Not known	CDM/VER	AMS-III.C. AMS-III.S. AMS-III.AA.
FORESTRY	REDD	Community forestry projects	Not known	CDM/VER	AR-AM0002 AR-AM0004
	Biomass power and cogeneration (residues and dedicated	· Gasification of invasive species and MSW- 5GWh of coal	5840kt/CO_2 equivalent	CDM/VER	residues ACM0006-residues ACM001

SECTOR	Sub-Sector and Activity	Project activity or programme	Expected GHG potential if known or can be estimated	For CDM or VER	Appropriate methodologies
		plantations)- Refer to BEST.	equivalent		0 manure ACM0002- grid connection

5.1.2 Table A2: List of Project Proponents and Contact details

Name of organization	Area of project activities	Contact Details
Botswana Power Corporation / Re Botswana – BPC Lesedi (Pty) Ltd	Solar home systems, solar water heaters and cook-stoves	Contact: Mr Walter Kgabung Tel: 3911299 Fax: 3911300 E.mail: wmkgabung@bpclesedi.co.bw
EAD	· Biodiesel · Solar power plant · Biogas project · Energy Efficiency	Contact: Ms Gina Wright Tel:3914221 Fax: E.mail: mwright@gov.bw
Skip Hire	· Landfill gas capturing for gas flaring or electricity generation	Contact: Mr Chris Simon Tel: 3971707/71657020 Fax: E.mail: chris@skiphire.co.bw
Agna Ventures	· Energy efficiency in buildings	Contact: Mr Percy Lekoba Tel: 3187914/72240621 Fax: E.mail: percyl@botsnet.bw
Kalahari Energy	· 50MW PV in Mashoro · 90MW Diesel generator to CBM · 180MW electricity generator upgradeable to 1000MW in Mashoro · Manufacture of small scale gasifiers for production of electricity from grass, dug, carbonetious, combustible organic matter · Fuel substitution.	Contact: Mr Julian Scales Tel: 3973386 Fax: E.mail: julian@scales.co.bw

Bio Energy Association Of Botswana	· Power generation using biogas	Contact: Mr Callie Rapula de Bruyn Tel: 72333155 Fax: E.mail: veridebt@opqnet.net
Bio sys	· Bio fuel station at BMC	Contact: Mr Simon Mahosi Tel: 72474730 Fax: E.mail: simonmahosi@yahoo.com
Wind Edge Botswana	· Wind Power	Contact: Dr Wayne Edge Tel: Fax: E.mail: wayneaedge@yahoo.com
Debswana	· Energy efficiency · Power generation methane for coal	Contact: Mr Bernard Busani Tel: Fax: E.mail: bbusani@debswana.bw
Power Tower (Pty) Ltd	Solar Tower for power generation	Contact: Mr Jack Thipe Tel: 3105240/73278548 Fax: E.mail: jackthipe@nbc.co.bw
Botswana Meat Commission (BMC	Methane from abattoir waste	
G4 Consulting Engineer	Landfill gas-waste gas to energy-power generation	Contact: Botsile Gubago Tel: 71301771 Fax: E.mail: botsilegobago@g4.co.bw
Future Fuels	Biogas for power generation	Contac: Mr Peter Kettle Tel: Fax: E.mail: peterkettle@brobemail.co.bw
Solarpower	Solar Thermal power generation	Contact: Mr Abekenari Tel: Fax: E.mail:
BCL	Energy efficiency	
Gae	· Energy efficiency in vehicles	Contact: Igobe Pie/Philani Mazibuko Tel: 390 1756 Fax: E.mail: itp@info.bw philani@info.bw

5.1.3 Table A3: List of organizations with skills to support CDM i.e. Consultants/experts with CDM experience

Name of organization/expert	Core competence	Contact Details
EECG Consultants (Pty) Ltd	DNA support (preparation of rules and procedures; preparation of resource materials that PP can use e.g. grid emission factors, forestry baseline data) Project/programme identification and development (PIN, PDD, methodologies development and reviews for validation and registration). Seeking financiers for PDD development and carbon buyers.	Dr Peter P. Zhou Tel +267-3910127 Mobile: +267-71693104 pzhou@global.bw; pzhou@eecg.co.bw
African Carbon Exchange	Support for biodiversity/REDD projects development advice on Carbon markets	Mr David Lesolle Mobile +267-72857121
StenStenbeck Consultancy and Training	Advising, training and capacity building on CDM & VER Find carbon merchants and investors. Assist in the development of Project Design Documents (PDD) Support Registration of CDM/VER projects	Sten Stenbeck Cell ph (Botswana): +267 744 35 159 Ph (Sweden): +46 (0)8 559 255 31 Skype: sten.stenbeck
Afrivestment(Pty)Ltd c/o P.O.Box 5347 Main mall Gaborone	Project development up to PDD Policy advice Institutional support	Matlhogonolo Victor Sebate msebate@yahoo.com (267)71203480

5.1.4 Table A4: Previous CDM capacity building programmes

Period	Project Title	Project partners or organizations involved and Roles	Sector focus Size of project Private or public	Reports produced and where located
2010-2013	Capacity Building for the Clean Development Mechanism (CDM): A component of the UNEP-European Union Partnership on "Capacity Building related to Multilateral Environmental Agreements in African, Caribbean and Pacific Countries"	UNEP and EC	Institutional and project development support	On going
2009	Workshop promoting Climate Technology and Carbon Market Partnerships	Botswana Innovation Hub; Lund University; SIDA; Export Radet; Sten Stenbeck; Karl-Erik Grevendahl; Development	The objective was to share knowledge and facilitate business and partnership opportunities. The organisers' ambition was to create opportunities for an increase in climate technology investments and carbon market activities, which could contribute to Botswana's climate change mitigation, sustainable development and economic growth.	www.bih.co.bw
2005 - 2008	Energy Efficiency in the Building Sector in Botswana	DANIDA, EAD	Focused on the Energy Efficiency in the building sector in Botswana and conducted energy audit in selected government buildings, the Air Botswana Building and a building at the	Building Guidelines, Incentives for Energy Efficiency in Botswana and Energy Efficiency Strategy, at EAD.

Period	Project Title	Project partners or organizations involved and Roles	Sector focus Size of project Private or public	Reports produced and where located
			UB. Initiative rceated business opportunities such as those for Agna Investments.	
2007	CCS- AFRICA PROJECT ECN 3004436- Sharing knowledge and experiences on CDM and CCS	ECN, EECG and ENDA with support from Norwegian Government, STATOIL, SHELL, Department for Business Enterprise and Regulatory Reforms of UK.	Large and small CDM project development approaches, and CCS in general and as a potential CDM project activity	Workshop report http://www.ecn.nl/docs/library/report/2007/e07079.pdf
2007	Formulation of CDM Projects the Carbon Finance Assist Programme of the World Bank.	World Bank Government of Botswana	DNA and all sectors- all project sizes	Internal reports
2003-2004	CDM for Sustainable Africa Capacity Building for Clean Development Mechanism in Sub-Saharan African Countries Niger (Sahelian Countries), Botswana, Mozambique, South Africa, and Zambia	**European Partners:** - IST - Instituto Superior Técnico of the Technical University of Lisbon, the project Co-ordinator, established in Lisbon, Portugal. - CINAR Ltd. - United Kingdom. - TNO Environment, Energy and Process Innovation – Netherlands. - ITC - Instituto Tecnologico de Canaria, S.A – Spain. - COGEN Europe - The European Association for the Promotion of Cogeneration –Belgium. WBP - Wissenschaftliche Betreuung von Forschungsprojekten - Germany. - CIRPS - Inter-University Research Centre on Sustainable Development, University of Rome, La Sapienza – Italy.	Seminars targeted at Governments and potential project proponents Involved project development mostly to PIN level for all sectors	EU Energy Synergy **Contract nº. 7.623/D/02-001**

Period	Project Title	Project partners or organizations involved and Roles	Sector focus Size of project Private or public	Reports produced and where located
		Sub-Saharan African partners: - ARC - AGRHYMET Regional Centre – Niger. - CSIR – Council for Scientific and Industrial Research - South Africa. - CEEEZ - Centre for Energy, Environment and Engineering Zambia Ltd – Zambia. - EECG Consultants (PTY) Ltd. - Energy, Environment, Computer and Geophysical Applications – Botswana. - CEISA - Center for Studies in Industrial, Safety and Environment Issues – Mozambique.		
2002-2003	CDM Capacity Building Amongst the Private Sector in Southern Africa (CDM CAPSSA)	**EC CONTRACT NUMBER:** 4.1041/D/01-006-SI2.327940 Synergy **PROGRAMME** DG Energy and Transport, European Commission IER Stuttgart (Germany), June 26 2002 in collaboration with: Baker & McKenzie (UK), ECON (Paris), ESD (UK), CEEEZ (Zambia), EECG (Botswana), ERI (S. Africa), MNRE (Swaziland) SCEE (Zimbabwe) SAD-Elec-South Africa.	Targeted at Private sector for project development, institutional and financial support Awareness raising on CDM Project activities spanned all sectors and all project sizes but more for energy	**EU-Energy Synergy CONTRACT NUMBER:** 4.1041/D/01-006-SI2.327940 Synergy **PROGRAMME** DG Energy and Transport, European Commission

5.2 Project PINs -Available on http://botswana.acp-cd4cdm.org/cdm-projects-in-botswana.aspx.

5.3 PoA-DD and CPA documents (Provided separately)

5.3.1 AGNA Ventures

Provided Separately

5.3.2 Bostritch Biogas Plant

Provided Separately