



Briefing Report on

Meetings with Financial Institutions to Explore Financial Options for CDM Project Development in Vanuatu

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ABBREVIATIONS

| | |
|-------------------|---|
| ADB | Asian Development Bank |
| ACP | African, Caribbean and Pacific countries |
| ANZ | Australia and New Zealand |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction |
| CO ₂ e | Carbon Dioxide equivalent |
| CMP | Carbon Market Programme |
| CPA | CDM Programme Activity |
| DNA | Designated National Authority |
| DOE | Designated Operational Entity |
| EB | CDM Executive Board |
| EC | European Commission |
| EE | Energy Efficiency |
| ER | Emission Reduction |
| ERPA | Emission Reduction Purchase Agreement |
| FCF | Future Carbon Fund |
| GHG | Greenhouse Gas |
| LDC | Least Developed Country |
| MEAs | Multilateral Environmental Agreements |
| PDD | CDM Project Design Document |
| PEA | Preliminary Environmental Assessment |
| PIC | Pacific Island Countries |
| PoA | CDM Programme of Activities |
| RE | Renewable Energy |
| SIDS | Small Island Developing State |
| TSF | Technical Support Facility |
| UNEP | United Nations Environment Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| URC | UNEP Risoe Centre |
| VADB | Vanuatu Agriculture Development Bank |
| VIPA | Vanuatu Investment Promotion Authority |
| VNPF | Vanuatu National Provident Fund |

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1. Introduction

1.1 About the CDM Component of the ACP MEA project

Since 2009, the UNEP Risø Centre (URC) has been implementing the Clean Development Mechanism (CDM) component of an umbrella EU- funded UNEP four-year project on "Capacity Building related to Multilateral Environmental Agreements (MEA) in African, Caribbean and Pacific (ACP) Countries". The purpose of the CDM Component of the ACP MEA project is to develop capacity for CDM project development in the ACP countries.

In the Pacific, based on discussions at the inception workshop held in May 2009, the CDM component has been designed as a regional program with Fiji and Vanuatu as focal countries. It also includes some DNA capacity building support in Samoa and Tonga and Solomon Islands and PNG representatives are also invited to the regional workshops.

Under the project, a series of capacity building activities are being carried out to support participating countries establishing and operationalizing their DNAs (Designated National Authority), creating business-friendly environment for the development of CDM projects, and developing a portfolio of CDM projects. As part of the project activities, four CDM capacity building workshops have been organized. Under the project 5 potential stand-alone CDM and 1 PoA was identified in Vanuatu. List of potential CDM projects identified under the project is provided in Annex 2 of this report.

1.2 Background to this Report

One of the challenges facing CDM projects in Vanuatu as well as in other Pacific Island Countries is their limited ability to secure financing for the underlying greenhouse gas emission reduction activities. Among the key reasons for this is the fact that most financial intermediaries in these countries have limited or no knowledge of the CDM Modalities and Procedures. Consequently, financial institutions in the Pacific are unable to assess the opportunities associated with investing or lending to developers undertaking CDM projects; therefore they have by-and-large distanced away from financing these projects.

In addition, some potential project proponents of small scale CDM projects lack experience in structuring arrangements for financing a project. This is being addressed under the EU ACP MEA programme through facilitating targeted, practical CDM workshops and meetings with relevant institutions/stakeholders in the participating countries with a focus on the development of exemplifying the process through development of pilot CDM projects.

In order to facilitate development and implementation of CDM projects in Vanuatu, support from financial institutions is needed. The support will come in when these financial institutions realize CER revenue as an important component of the project and start supporting the projects which otherwise don't appear so attractive financially.

In light of the above, meetings were held during 18th – 19th July and 3rd – 7th September 2012 with several financing institutions, donor agencies and multilateral institutions in order to explore the financing options to support development of CDM projects in Vanuatu. The lists of stakeholders met are provided in Annex 1 to this report.

2. Financing CDM Projects

CDM projects produce both conventional project output and GHG emission reduction benefits (CERs). The value of carbon benefits and its impact on project viability are influenced by several factors, including the amount of CERs generated by the project, the price of CERs, and the transaction costs involved in securing CERs.

2.1 Quantity of CERs

The amount of CERs generated by the project depends on the type of GHGs whose emissions are reduced by the project and the crediting period selected. Renewable energy and energy efficiency projects displace carbon intensive fuel for electricity and/or heat generation, hence reducing the emissions of CO₂. Grid-based or off-grid projects that displace more carbon intensive coal and diesel fuels generate more CERs than those that displace natural gas. Projects that capture methane and GHGs other than CO₂ produce more CERs since the global warming potential (GWP) of methane and other gases are much higher than that of carbon dioxide. The Marrakech accord stipulates two crediting period options: 7 years with twice the option of renewal (totaling 21 years) or, 10 years without renewal.

2.2 Price of CERs

The price of CERs is determined in the carbon market. There are three main markets where carbon credits are traded: project based or "baseline and credit" system; allowance market or "cap and trade" system, and voluntary market. The pricing of CER depends on multiple factors. The key determinants include:

- Risk allocation (registration risk; delivery risk)
- Creditability and experience of project sponsor
- Viability of underlying project
- Contract structure (e.g. upfront payments incur discount, penalties for non-delivery, ability to pay penalties)
- Emission reduction vintage

- Host country support & willingness to cooperate
- Additional Environmental and Social Benefits

2.3 CDM Project Viability – Impact of CER Revenue

The table below helps understand the impact of CER revenue on the financial viability of projects in certain sectors. As can be observed the CER revenue has significantly improved the financial viability of the projects. It is generally observed that the CDM revenue has a very high impact on projects which reduces emission of non-CO₂ gases like methane. This is due to the high GWPs of GHGs like methane, SF₆, etc. which yield into higher CER volume in the CDM project.

| Ref. No | Project | IRR pre CDM | IRR post CDM | CER Price | Annual CER's |
|---------|---|-------------|--------------|-----------|--------------|
| 3539 | Huadian Kulun 201MW Wind Farm Project (China) | 6.08% | 12.62% | €12.5 | 471,803 |
| 3127 | Culiacan Northern Landfill Gas Project (Mexico) | 2.3% | 16.2% | \$15 | 42,746 |
| 3083 | 20 MW biomass based power project in Maharashtra, India | 8.62% | 16.29% | €12 | 71,369 |
| 1227 | Yuyao Electricity Generation Project using Natural Gas | 6.69% | 10.24% | €7 | 804,794 |

Figure 1: Impact of CER revenue on the Financial Viability of Projects

2.4 Transaction Costs

The CDM process is not free and each step has costs associated. The information below provides some indicative transaction costs for CDM projects, prevailing as of today, till CER issuance.

PDD Development Cost

The PDD development cost reflects the fees charged/cost incurred by the CDM Consultant/Project Developer for managing the CDM process till registration (This does not include the fees charged by a CDM expert for assisting in Verification and Issuance).

Validation Cost

The Designated Operational Entity (DOE) costs for validation may vary depending on the project scale and complexity. In case a methodology for the project type is not available, there will be an additional cost charged by the DOE to put forward the proposed methodology developed by the Project Owner and the CDM Expert.

Registration Cost

It is important to note that registration fees are adjusted with the Share of Proceeds (UNFCCC administration cost) that needs to be paid during the issuance of CERs. As per EB 54, Annex 29 the registration fee is:

- a) USD 0.10 per certified emission reduction issued for the first 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given year.
- (b) USD 0.20 per certified emission reduction issued for any amount in excess of 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given year.

The maximum registration fee payable based on the above calculation is USD 350,000. No registration fee needs to be paid for projects with expected average annual emission reductions over the crediting period below 15,000 tCO₂e (1 tCO₂e = 1 CER).

The transaction cost (and hence project viability) will vary from project to project mainly due to factors like – complexity of CDM project, availability of methodology and average emission reduction per year.

No registration fee is applicable to CDM projects developed in Least Developed Countries. As per the current guidelines (EB54, Annex 29)¹ :

- No registration fee must be paid for proposed project activities hosted in least developed countries
- No registration fee must be paid until after the date of the first issuance of certified emissions reductions in countries with fewer than 10 registered CDM project activities. (Note all the PICs have less than 10 registered CDM project activities)

Verification Fees

¹ http://cdm.unfccc.int/Reference/Guidclarif/reg/reg_guid07.pdf

The DOE costs for verification may vary depending on the project scale and complexity. In a situation where it is found during verification that there is a deviation from the monitoring plan the DOE will charge additional fees to get the deviation approved from the UNFCCC CDM.

UNFCCC Fees

Apart from the Share of Proceeds the UNFCCC CDM also charges a 2% Adaptation Fund levy for CERs issued during the crediting period. This 2% levy is deducted every time the CERs are issued to Project Developer.

CDM project activities (and also Programmes of Activities (PoAs)) taking place in least developed country Parties are exempt from paying the Adaptation Share of Proceeds. As per COP 17/CP.7, paragraph 15(b), confirmed at 3/CMP.1, paragraph 1:

“Clean development mechanism project activities in least developed country Parties shall be exempt from the share of proceeds to assist with the costs of adaptation”.

2.5 CER Generation and Trading

- Governments and private companies from non-Annex 1 Parties are the main buyers of CERs. CERs are developed and exchanged under three main different models:
- Unilateral model – the host country develops and invests in a project, and sells or banks CERs. The project developer bears all risks and benefits related to the preparation and sale of CERs.
- Bilateral model – this involves partnership between a project developer and Annex 1 country. The objective of the partnership is for the Annex 1 country to receive the CERs realized from the project through emission reduction purchase agreement (ERPA) or as a result of some other financial consideration.
- Multi-lateral model – this is considered as a variant of the bilateral model. CERs are sold to a fund, which manages a portfolio of projects. The fund spreads the risk of investment while the investors spread their risks by investing in several different funds.

2.6 Sources of Project Funds

CDM projects require upfront investments that are normally obtained from different sources such as loans, equity, grants, and upfront payments for emission reductions.

- Loans or debts refer to funds lent to CDM project owners by financiers. Debt can be obtained through public markets (bonds) or private placements (bank loans and institutional debt).
- Equity refers to funds funnelled to the CDM project by shareholders. Equity may be sourced from internal sources (sponsors) or external investors (public or private markets). The return on equity is obtained either from dividends or from sale of shares.
- Grants are funds provided by institutions and governments to CDM project owners and developers who contribute to donors' objectives. Grants need not be repaid and oftentimes, cover only a percentage of project costs.
- Upfront payment for CER purchase. The carbon purchase agreement often stipulates payment on agreed price upon delivery of CERs, but CER buyers sometimes provide upfront payment upon purchase.

Like conventional projects, financing CDM projects can be arranged either through corporate or project financing. These are described as follows:

- In project financing, a project company is formed and investments are viewed as assets of the company. Investment funds are sourced either from equity or debt. Assets and cash flow secure debts. Creditors do not have recourse to the other resources of sponsors.
- Under corporate financing, new projects are undertaken as extension of assets of the existing company. Capital investments and borrowing are not placed under the project account. Loans are considered as company debts and lenders have full recourse to all the assets and revenues of the company over and above those generated in the new project.

Additional project revenues (i.e. CER sales revenue) could be used to service debts and leverage debt financing. The carbon revenues could help increase debt leverage of project by increasing the debt service coverage ratio (DSCR) levels of the project. In addition to improving debt capacity, there are other options to debt service through the carbon cash flow. These include: pre-paying debt based on Forward Emission Reduction Purchase Agreements (ERPAs); depositing carbon cash flow directly with banks for credit against debt service thereby lowering liability on electricity cash flow; and using ERPAs and/or forward carbon sales as collateral for loans.

The existence of CER has important implications for stakeholders. For project sponsors and partners, it implies improved project profitability and in cases that upfront CER payment is obtained, less equity and debt requirements. Those involved in the risk transfer process such as contractors and suppliers, will have to bear increased risks. While for agencies that provide risk mitigation, this offers an opportunity to expand services to emission reduction components. For project lenders, this entails additional analysis on the quality of the financial flow from CER value. For CER buyers, this requires assessment of the overall project since project performance is correlated with CER delivery.

3. Exploring Financing Options for CDM Projects

3.1 Meeting with Asian Development Bank (ADB)

The Asian Development Bank (ADB) is implementing the Carbon Market Programme (CMP) through its Regional and Sustainable Development Department (RSDD) since the beginning of 2007. CMP has three components: (i) the Future Carbon Fund (FCF) for providing upfront carbon financing for post 2012 CERs; (ii) the Technical Support Facility (TSF) for providing technical CDM support; and (iii) the Credit Marketing Facility (CMF) for providing carbon credit marketing support to the developing member countries.

During the "Third Workshop on Enhancing the Regional Distribution of Clean Development Mechanism (CDM) Projects in Asia and the Pacific" held at ADB Headquarters, Manila, the Philippines, 18-20 July 2012, as a part of the workshop, Technical Support Facility of ADB in association with Future Carbon Fund conducted one-on-one CDM project consultation with the participants. DNA representatives from Vanuatu participated in the consultation on behalf of CDM project developers in Vanuatu. Projects identified under the ACP MEA initiative which are at various stages of development (PINS & PDDs) were discussed with the ADB personnel for financial, technical and administrative supports. The ADB loan officers and FCF team provided some advices on project financing and carbon financing services they can provide for potential CDM projects in Vanuatu.

As an ADB managed trust fund, the FCF buys post-2012 CERs for its six fund participants. All of them are buying CERs through FCF for compliance use in their relevant jurisdictions. One of the broader objectives of the fund besides purchasing CERs from high quality projects (renewable energy, energy efficiency) is to contribute to regional diversification of CDM and support first of its kind project including from the Pacific region and in particular in LDCs.

FCF currently has two CERPAs in PICs (one in PNG and one in Fiji) and is keen to explore further transaction opportunities in the region.

During the meeting several project ideas were discussed and opportunities to work together were outlined. FCF specifically expressed interest in the Efate 5 MW geothermal project and suggested to have a site visit and meeting with the project proponent upon completion of the PDD.

3.2 Meeting with Vanuatu Agriculture Development Bank

The Vanuatu Agriculture Development Bank (VADB) is considered a leader in Vanuatu in terms of financing rural projects with high sustainable development benefits, including small energy sector projects. The Bank is set up in accordance with the Vanuatu Agriculture Development Bank Act No. 20 of 2006 and was launched on 18 April 2008. Its Head Quarters is based in Port Vila, Efate, Shefa Province. It is established principally to develop the natural resources of Vanuatu giving special regard to Agriculture, Forestry, Fishery, Tourism and Manufacturing.

The Bank provides development loans that contribute to the development of the national resources of Vanuatu through existing well-managed intermediaries such as Non-Government Organisations (NGOs), Faith Based Organisations (FBOs) and Self Help Groups (SHGs).

The project team (international consultants, national consultants and DNA officials) briefed the bank on the ACP MEA project activities in the Pacific in general and elaborated on the activities being pursued in Vanuatu under the CDM capacity building component of the ACP MEA programme. Details of potential CDM projects identified in Vanuatu, including the current status (PINs & PDD development), were explained in detail to the bank officials. The team requested the bank to provide information on its lending or financing priorities for clean energy (emission off-setting) project activities, including their interests and future plans.

The bank welcomed the project initiative and informed the team that one of the objectives of the bank is to help rural areas to get access to cheap and reliable sources of energy. To meet this objective, the VADB has recently devised a product called Clean Renewable Energy Scheme (CRES). The CRES helps people to buy renewable energy products of their choice. Till date 70% of the portfolio consists of Solar Home Systems and 30% covers other renewable energy technologies. The VADB is also cooperating with the Pacific Development Association to develop loan products for energy efficiency, including developing energy efficiency standards. The bank informed the team that it is open to consider supporting any potential renewable energy and energy efficiency project initiatives through priority lending and debt financing. The bank also emphasised on its lack of awareness in terms of financing CDM projects and indicated its interest to be part of any future capacity building initiative for financial institutions.

3.3 Meeting with Vanuatu Investment Promotion Authority (VIPA)

The Vanuatu Investment Promotion Authority (VIPA) is a corporate body established under the Ministry of Trade, Industry and Commerce. Since 1998 (when the authority became operational by an Act of parliament), the VIPA has been working expeditiously to facilitate, promote and foster foreign investment in Vanuatu and to generate greater economic prosperity for the people of Vanuatu. This is reflected in the revenue generated through FDI which accounts for over 70% of the government's total collection and employment opportunities for Ni-Vanuatu and has maintained a steady increase up until now.

The Government of Vanuatu through VIPA welcomes private sector investment in all sectors of the economy, with the exception of a short list of prohibited activities closed to all investors to protect public health and safety. The list is provided at Part 1, Schedule 1 of the Vanuatu Foreign Investment Promotion Act (VFIP Act).

The Government believes that the areas of greatest comparative advantage for Vanuatu lie in the tourism, agriculture and services sectors. While highlighting these sectors, however, investment is welcome in all other sectors. No specific incentives or inducements are provided by the Government to encourage investment in any sector, however, other than some exemptions on import duties.

The project team met with with VIPA officials to understand the role of the authority in attracting and promoting foreign investment in renewable energy and energy efficiency, including CDM projects. The project team briefed the bank on the ACP MEA project activities in the Pacific in general and elaborated on the activities being pursued in Vanuatu under the ACP MEA project. Details of potential CDM projects identified in Vanuatu including the current status (PINs & PDD development) were explained in detail to the bank officials. In addition, the team requested VIPA to provide information on any policies in place to promote investment in RE, EE or greenhouse gas reducing projects.

The VIPA informed the team that it has currently no specific policy in place to promote investment in renewable energy, energy efficiency or GHG emission reduction projects. TheVIPA realises that investment in renewable energy could play an important role in improving the power situation in the country as only 25% of the population in Vanuatu has access to power and the country is highly dependent on expensive imported diesel for power generation. The VIPA also agreed that there is a need to initiate development of conducive policies for promoting such kind of projects which aligns with the country's Energy Road Map and government policies to promote renewable energy.

It was discussed that how Vanuatu, a Least Developed Country, could attract foreign investment and/or enabling technology partnership through CDM project development and promotion. The concept was fully supported by the VIPA who admitted that it is very important for them to be aware of such new international mechanisms which can help them develop appropriate investment policy framework.

3.4 Meeting with the Vanuatu National Provident Fund

The Vanuatu National Provident Fund (VNPF) is a financial institution established in 1987 under an Act of Parliament of the Republic of Vanuatu. The purpose of this Fund is to provide retirement benefits to members through the management of their savings in an efficient and reliable manner.

The contributions from the members are invested in a number of approved financial instruments to generate income. These instruments include government bonds and loans, term deposits with commercial banks, offshore investments managed by the approved Fund Manager and Property.

The project team met with VNPF officials to get an overview of the investment policies and priorities of VNPF and to explore its interest in diversifying investment portfolios looking at possible investment in renewable energy, energy efficiency, including CDM projects. Similar to meetings with other financial institutions, the project team briefed the bank on the ACP MEA project activities in the Pacific in general and elaborated on the activities being pursued in Vanuatu under the initiative. Details of potential CDM projects identified in Vanuatu including the current status (PINs & PDD development) were explained in detail to the bank officials.

The VNPF informed the project team that currently most of the VNPF investments are being made under Fixed Income Deposits and around 23% of the investment in properties. The fund normally provides equity in the range of 2 to 3%. The lending portfolio under the fund is currently very minimal with lending rates of 10 to 12%. The fund informed the project team that even though VNPF current has no policies to invest or lend to renewable energy, energy efficiency, or GHG emission reduction projects, these aspects could be considered under the fund's revised investment policy which is currently under review. The fund expressed interest in providing long term equity participation with capital security for developmental projects.

3.5 Meeting with BRED (Vanuatu)

BRED (Vanuatu) Limited is part of the second largest banking group in France, 'Banque Populaire', which has operations in many Pacific Island Countries, including Vanuatu. Similar to other commercial banks, BRED (Vanuatu) has a range of business and investment services as well as lending products designed to help promoting business in Vanuatu.

The project team met with BRED (Vanuatu) to discuss and obtain information on its lending or financing priorities for clean energy (emission off-setting) project activities, including their

interests and future plans. An overview of activities being pursued under ACP MEA project in Vanuatu was also provided to the bank officials.

The bank informed the project team that the talk show on CDM on the local radio as part of raising national awareness on CDM under the project was quite interesting and provided comprehensive information on CDM and its relevance to a country like Vanuatu. The project team were informed that currently the bank lends to small renewable energy projects such as Solar Home Systems on a case by case basis. The bank does not have any limit on lending to such kind of projects as long as the project proponents can justify the project income, credit worthiness and commitment to service the loan. In certain cases, the bank could also seek appropriate guarantees by the project proponents depending on type and amount of lending. Similar to some other financial institutions, BRED (Vanuatu) also agreed on the lack of awareness in terms of financing CDM projects and indicated its interest to be part of any future capacity building initiative for financial institutions.

3.6 Meeting with Australia New Zealand (ANZ) Bank

The Australia and New Zealand (ANZ) Banking Group Limited, commonly called ANZ, is the fourth largest bank in Australia, in addition to operations throughout New Zealand, ANZ also extends to twenty-five other nations. Since starting operations in Vanuatu in 1971, ANZ (Vanuatu) has been assisting both local and foreign customers with a wide range of personal and commercial banking and investment requirements. As well as providing a range of financial services, ANZ also provides advice on market conditions, handle trade inquiries and assists in introductions on behalf of customers interested in doing business in Vanuatu.

The project team provided an overview of activities being pursued under ACP MEA project in Vanuatu was also provided to the bank officials. It was informed that the main objective of the meeting was to get information on bank's priority lending sectors including its interests in lending or financing clean energy (emission off-setting) project activities including their interests and future plans.

The bank representatives informed the project team that ANZ's Australian and New Zealand operations do aim to implement financial products and services to assist customers in transitioning toward a low carbon economy, and to increase the proportion of project finance lending to the renewable energy and gas sectors. Operations in these countries also focus on providing a provision of risk management products for carbon markets. The bank also indicated that similar kind of initiatives might be considered in near future in other countries wherein ANZ has a presence.

4. Conclusions

Based on the meetings and consultations with financial institutions in Vanuatu as discussed earlier in the report, it could be concluded that implementation of CDM projects in Vanuatu will require the development of strong capacity among the financial institutions as well as project developers to deal with the financial and risks issues that are associated with the CDM. There is an inherent need to strengthen the capacity of the financial sector to finance CDM projects and to help facilitate the smooth development of projects across the country.

The financial and risk insurance sectors in Vanuatu do not have an understanding of the CDM project cycle, which represents a significant barrier to project development. It is observed that financial institutions are not ready to include CDM revenues in the financial due diligence of a project. This is mainly due to a lack of awareness and understanding of the CDM.

Majority of the financial institutions consulted during the meetings have expressed interest in exploring potential options to get involved in financing CDM projects including clean energy (emission off-setting) project activities. However, most of them have called for increased awareness among financial sector stakeholders about CDM and clean energy financing which could result in accelerated uptake and implementation of CDM projects.

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Annex 1– List of Persons Met

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Annex 2 –List of Potential CDM Projects identified in Vanuatu

Potential CDM Projects Identified in Vanuatu

- 1) **Port Vila Biogas Project** - aims at providing safer sanitation services to all the residents of greater Port Vila; estimated 138,000 m³/year of biogas; estimated generation of 275 MWh/year; Estimated emission reduction (ER) of 4200 tCO₂e/year; Meets criteria's of additionally for Micro Scale project activity.
Status: PIN developed.
- 2) **Brenwei River Mini Hydropower Project** – aims at providing electricity in Malekula to promote local industry and stimulate economic development; capacity- 1200kW; ER- 4,241 tCO₂e/year; Meets criteria's of additionally for Micro Scale project activity.
Status: PDD developed
- 3) **Wampu Hydropower Project** – aims at supplying electricity to Luganville town, Santo; Generating capacity-4MW; Energy production 18.35 GWh/year; ER-11,569 tCO₂e/year; Meets criteria's of additionally for Micro Scale project activity.
Status: PIN developed
- 4) **Efate Geothermal Power Project (Phase 1)** – aims at boosting Vanuatu's economy through the provision of reliable and affordable electricity; Generating capacity – 5MW; ER –19,237 tCO₂e/year; Meets criteria's of additionally for Micro Scale project activity.
Status: PIN and PDD developed
- 5) **Efate Geothermal Power Project (Phase 2)** – aims at boosting Vanuatu's economy through the provision of reliable and affordable electricity; Generating capacity – 5MW; ER - 19,237 tCO₂e/year; Meets criteria's of additionally for Micro Scale project activity.
Status: PIN developed.

Potential PoA Identified in Vanuatu

- 1) **Disseminating Solar lamps and Efficient Cook Stoves in Pacific Island Countries** – Multi country PoA, aims to replace kerosene lamps with portable solar lighting systems and replace inefficient open fire cooking system with efficient cook stoves.. ER- 3,200 tCO₂e during the crediting period for the first CPA of the efficient lighting component and ER- 34,315 tCO₂e for the efficient cook stove component. Meets criteria's of Programme of Activities (PoA).