Policy Recommendation Report on

CDM DNA Establishment and CDM Policy in the Republic of Vanuatu

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For more information about the project, please visit: http://www.acp-cd4cdm.org

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ABBREVIATIONS

ACP	African, Caribbean and Pacific countries
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CO_2e	Carbon Dioxide equivalent
CPA	CDM Programme Activity
DNA	Designated National Authority
EB	CDM Executive Board
EC	European Commission
ER	Emission Reduction
GDP	Gross Domestic Product
GHG	Greenhouse Gas
LDC	Least Developed Country
LOA	Letter of Approval
LON	Letter of No-objection
MEAs	Multilateral Environmental Agreements
MW	Megawatt
NACCC	National Climate Change Coordination Committee
NAPA	National Action Plan for Adaptation
PDD	CDM Project Design Document
PEA	Preliminary Environmental Assessment
PIC	Pacific Island Countries
PNG	Papua New Guinea
PoA	CDM Programme of Activities
SIDS	Small Island Developing State
UNELCO	Union Electrique du Vanuatu Limited
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
URC	UNEP Risø Centre

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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 have been also invited to the regional workshops.

Under the project, a series of capacity building activities are being carried out to support participating countries in 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.

1.2 The Aim of this Report

This report is being developed with the aim of introducing relevance of establishing Designated National Authority (DNA) and associated policy framework under CDM to stakeholders in Vanuatu. The objective of the report is to provide a guidance to stakeholders for decision making on establishing the host country DNA including associated institutional and policy framework. This in turn is believed to be benefiting the host country as a whole through carbon revenues and associated sustainable development benefits.

1.3 CDM and the National CDM DNA

The Clean Development Mechanism (CDM) allows emission-reduction (or emission removal) projects in developing countries to earn Certified Emission Reduction (CER) credits, each equivalent to one tonne of CO_2. These CERs can be traded and sold, and used by Annex I (Developed) countries to meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions in the host country, while giving Annex I countries some flexibility in how they meet their emission reduction targets.

The projects must qualify through a rigorous and public registration and issuance process designed to ensure real, measurable and verifiable emission reductions that are additional to what would have occurred without the project. The mechanism is overseen by the CDM Executive Board (EB), answerable ultimately to the countries that have ratified the Kyoto Protocol. In order to be considered for registration, a project must first be approved by the Designated National Authorities (DNA).

Information on general and specific rules and procedures to be followed in order to obtain international registration by the Executive Board of the CDM (EB CDM) for CDM projects, monitoring of achieved reductions of carbon emissions and issuance of CERs can be found on the website of the United Nations Framework Convention for Climate Change[1].

1.4 Key Issues Regarding CDM DNA Establishment and Operationalisation

A Designated National Authority (DNA) is the body granted responsibility by a Host Party to authorise and approve participation in CDM projects. Establishment of a DNA is one of the requirements for participation by a Host Party in the CDM. The main task of the DNA is to assess potential CDM projects to determine whether they will assist the host country in achieving its sustainable development goals and to provide a letter of approval to project participants in CDM projects. This letter of approval must confirm that the project activity contributes to sustainable development in the country. It is then submitted to CDM Executive Board to support the registration of the project.

A country that wishes to participate as a host country in the CDM of KP of the UNFCCC is required to:

1. Ratify the Kyoto Protocol
2. Designate a DNA
3. Inform the Executive Board of the Clean Development Mechanism of the designation of the DNA
4. Issue a non-conditional Letter of Approval (LoA) for each proposed CDM project certifying that:
    - The country has ratified the Kyoto Protocol,
    - The said project is entered into voluntarily by the project proponent, and that
    - The project contributes to the sustainable development of the host country.

Generally, the host country wishing to establish the DNA needs to follow the below steps:

- Clarify mission, objectives and structure of DNA including roles & responsibilities
- Obtain official status (e.g. through legislature, presidential or ministerial decision/decree)
- Enhance national legal framework for DNA decisions and regulating carbon trade
- Align national CDM strategy with sustainable development priorities (criteria, other policy)

[1] www.unfccc.int or http://cdm.unfccc.int/index.html

- Obtain financial and non-financial resources
- Deploy appropriate human resources with an identified capacity development programme

It is clear expectation that the DNA will act as a focal point for the CDM project approval process. The activities that the DNA undertakes are likely to differ from country to country, but in general DNAs are likely to function as “one stop shops” for project developers and others interested in developing CDM projects within a Host Country. The core functions of DNA are: (i) issuing Host Country Letters of Approval; (ii) authorizing private and public entities to participate in the CDM;

DNAs could also assume the role of; (iii) ensuring all stakeholders have a clear point of contact that is familiar with national policies and procedures relating to the CDM; (iv) developing rules and procedures for approval of CDM projects, including national sustainable development criteria or principles; and (v) reporting on national CDM programmes and providing recommendations on changes or additions that should be made to CDM procedures.

2. The Context - Vanuatu as a Potential Host Country for CDM projects

Vanuatu is a Least Developed Country (LDC) as well as a Small Island Developing State (SIDS)[2]. Climate change is likely to impact on all sectors in Vanuatu. As a LDC, the country would be severely constrained financially and in terms of human and institutional capacity, to meet the challenges of the additional stress of climate change. For the local people in Vanuatu, their livelihood and social structure are inextricably linked to the natural environment and natural resource base. Any perturbations to the availability of natural resources would have a direct bearing on the poverty levels and the very survival of the people. Changes to the traditional social system, coupled with decrease in food security and water availability, could lead to deterioration of social systems and damages to law and order.

Vanuatu is one of the most vulnerable island countries in the Pacific that is subjected to extreme climate events such as cyclones, floods and droughts almost annually. In particular, cyclones are a major threat averaging 2 to 3 events per season. For the past decade, the major cyclones that have hit Vanuatu include; Betsy in 1992, Prema in 1993, Dani in 1999, Sosé in 2001 and Ivy in 2004. If more cyclones follow the path that Ivy took in February 2004, then the livelihood of the people of Vanuatu as well as the overall economic development of the country might be rendered to a halt because the majority of government's efforts will be solicited towards disaster recovery rather than development.

Increase in sea level could cause salt-water intrusion into the shallow ground water in the coastal areas. This would impact on both the agriculture sector in these areas as well as the availability of potable water. This effect would be most pronounced in small low-lying islands that are dependent on shallow ground water aquifers. Sea level rise and other elements of climate change would also affect the physical, biological and the chemical composition of the coastal zone. Coastal fisheries might also disappear.

Vanuatu is classified as a non-Annex I country under the United Nations Framework Convention on Climate Change (UNFCCC). The country has ratified the Kyoto Protocol in 2001. Under the Initial National Communications (INC) to UNFCCC and several other studies and assessments carried out, the government of Vanuatu has identified the potential climate change mitigation sectors in the country, which include energy, drainage and sanitation, solid waste management, as well as forestry and agriculture and livestock. The government is aware that establishing a CDM DNA is one of the pre-conditions under UNFCCC for development of CDM projects in the country. The government also appreciates that implementation of CDM projects in Vanuatu can lead to the reduction of greenhouse gas emissions regulated by the Kyoto Protocol and benefit the host country as a whole through carbon revenues and associated sustainable development benefits.

Vanuatu, as one of the focal countries under the ACP MEA project in the Pacific has been actively involved and participating in the CDM capacity building activities under the initiative. Participants from Vanuatu attended and contributed towards the five regional capacity building workshops held under the initiative during 2009-2012. The host country in coordination with

[2] http://www.un.org/special-rep/ohrlls/ohrlls/allcountries-regions.pdf

URC and International consultants successfully organised three national level CDM capacity building workshops during 2012. These workshops aimed to strengthen the stakeholder capacity on CDM and to identify and promote potential CDM projects in Vanuatu.

In addition, the Asian Development Bank (ADB) under the ADB Regional- Capacity Development Technical Assistance (R-CDTA) (7394) on Strengthening the Capacity of Pacific Developing Member Countries to Respond to Climate Change (Phase 1) assisted in capacity building for CDM including hands-on training and knowledge transfer to all relevant stakeholders and DNA staff and preparation of the first Nationally Appropriate Mitigation Actions (NAMA) concept papers;

The proposed institutional structure for establishment of DNA including the CDM project approval process and criteria for approval discussed in later sections of the report has been endorsed by the NACCC and was approved by the Prime Minister's Office during September 2012. The DNA is established in the Vanuatu Meteorological & Geo Hazards Department, with the National Advisory Committee on Climate Change (NACCC), an interdepartmental committee made up of senior officers from across government and mandated by the Council of Ministers, Government of Vanuatu as overseeing body to issue binding recommendations for the DNA when answering requests for issuing of Letters of No Objection (LoN) or Letter of Approval (LoA).

Under the ACP MEA initiative six potential CDM project activities were identified and Project Idea Notes (PINs) were developed. These include:

- 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; meeting the criteria of Mirco Scale Project, therefore it is automatically additional.
- 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; meeting the criteria of Mirco Scale Project, therefore it is automatically additional.
- 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; meeting the criteria of Mirco Scale Project, therefore it is automatically additional.
- 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; meeting the criteria of Mirco Scale Project, therefore it is automatically additional.
- Disseminating solar lamps in Pacific Island Countries – Multi country PoA, aims to replace kerosene lamps with portable solar lightning systems. ER- 3,200 tCO2e during the crediting period. Meets criteria's of Programme of Activities (PoA).
- Disseminating Efficient Cook Stoves in Pacific Island Countries – Multi country PoA, aims to replace inefficient open fire cooking system with efficient cook stoves.

Estimated CER generation: 34,315 tCO2e during the crediting period. This PoA can generate high sustainable development benefits in the form of reducing indoor air pollution, protecting local forest, and improving the living conditions of poor residents

- 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; meeting the criteria of Mirco Scale Project, therefore it is automatically additional

The Efate Geothermal Power Project Phase 1 and Brenwe River hydropower Project were selected for development of Project Design Documents (PDD) taking into consideration: the Project Proponents and stakeholder feedback; the current status of project; feasibility studies; viability of the project; CDM benefits including fulfilling CDM modalities and requirements and credibility of project proponent

3. Identification of Potential Alternatives for DNA Establishment

During the process of analysis for identifying the potential alternatives for establishing the DNA in Vanuatu the following key issues were considered:

- Identification of model that fits best within the legal and administrative culture and structure of Host Country
- Potential and expected number of CDM projects in the Host Country
- How much human resource the DNA requires: one person, a couple of people, or a larger group
- Availability and potential sources of funding

Two different and distinct steps were also considered for establishment of DNA: 1) decision on the institutional structure; and 2) adoption of guidelines & operational procedures for the approval process.

The legal and administrative structure and practice in a country, availability of funding, and the potential of CDM projects are all influencing factors for DNA setup. Although there is no set model on DNA setup, the following potential options could be considered for Vanuatu.

3.1 Alternatives for DNA institutional Setup

3.1.1 Option 1: DNA under the Ministry of Infrastructure and Public Utilities

The Department of Meteorology and Geo-hazards, under the Ministry of Infrastructure and Public Utilities, houses the Climate Change Unit in Vanuatu. This unit coordinates and implements and is responsible for all climate change related activities in the country. The Director for Meteorology is also the UNFCCC focal point for Vanuatu. The Climate Change unit also consults with various departments when performing its functions.

Establishing the DNA under the Climate Change Unit, Ministry of Infrastructure and Public Utilities could be one of the potential options to consider and this structure requires the least additional administrative costs for DNA establishment as it draws upon pre-existing expertise within the government.

3.1.2 Option 2: Interdepartmental DNA involving several Ministries and Departments

The National Climate Change Coordination Committee (NACCC), an interdepartmental committee made up of senior officers from different ministries and mandated by the Council of Ministers is the key decision making body on climate change related issues in Vanuatu. The NACCC oversees the implementation of the UNFCCC, the Kyoto Protocol and any related plans of action on the climate change front in Vanuatu. The NACCC consists of the following members:

- UNFCCC Focal Point ()
- Chair of the NACCC
- Director of Meteorology, Ministry of Infrastructure and Public Utilities
- The Director of Civil Aviation Authority, Ministry of Infrastructure and Public Utilities
- The Director of Quarantine & Inspection Services, Ministry of Agriculture
- The Director of Forestry, Ministry of Agriculture
- The UN Desk Officer, Foreign Affairs, Ministry of Foreign Affairs
- The Food Security Officer, Agricultural Department, Ministry of Agriculture
- The Director General, Ministry of Lands, Ministry of Lands and Natural Resources
- The Director of Environment Unit, Ministry of Lands and Natural Resources
- The Director of Disaster Management Office, Ministry of Infrastructure and Public Utilities
- The Director of Health, Ministry of Health
- The Director of Correctional Services, Ministry of Internal Affairs
- The Head of Hydrology, Geology, Mines and Water Supplies, Ministry of Lands and Natural Resources

The DNA can also be established involving NACCC as an interdepartmental committee representing different ministries. The NACCC could meet regularly to review and approve projects.

3.1.3 Option 3: Establishing a New and Discrete DNA Office in Vanuatu

Under this model, a DNA could be created as a new, discrete, and independent public office or authority. The Government of Vanuatu could demonstrate the DNA transparency through publishing of the structure, mandate and authority of the office when the DNA is created. It also needs to be considered that if staff members of the DNA Office need to be taken from other departments, the extra administrative costs related to the DNA office should not outweigh the benefits expected from the CDM.

3.1.4 The Advantages and Disadvantages of Different Options under the National Context of Vanuatu

The key advantages of incorporating DNA in an existing structure are efficient operation and transparency given the already available expertise and resources. This model could also draw upon pre-existing expertise & structure and benefit in terms of minimising the administrative costs. On the other hand, some of the disadvantages could be issues with inter-departmental rivalry and consensus among the ministries to use the existing structure.

In contrast, the interdepartmental DNA model involving several ministries and departments would institutionalise the cooperation between different ministries and would guarantee exchange of information and broad support for approved projects. However, the requirement of a consensus decision could also create delays in cases of interdepartmental rivalry in the approval process.

The main advantage of having a new and discrete DNA office is that it allows concentration of expertise within the one department, which may increase efficiency. On the other hand, it might requires greater capacity to establish than other models and more expensive as it needs new budget creation.

3.2 CDM Project Approval procedures – Different Alternatives

3.2.1 Option 1: Project Approval by an Individual Entity

Under this option, the individual entity responsible for project approval would be the DNA under the Climate Change Unit, Ministry of Infrastructure and Public Utilities. The CDM project proponent would submit a request for issuance of LON/LOA to the DNA andthe Climate Change Mitigation Officer under the Unit would assess the request based on the host country approval criteria and regulations. The recommendation in terms of issuance or non-issuance of LON/LOA with supporting justification is forwarded to the DNA for consideration and approval.

3.2.2 Option 2: Project Approval through an Advisory Board or Committee

In this case, the NACCC, an interdepartmental committee made up of senior officers from across government and mandated by the Council of Ministers, Government of Vanuatu would act as an advisory board to the DNA. Since the NACCC comprise of representatives from various stakeholder line ministries, the members would already have reviewed within their ministries/departments on the project activity compliance with the host country requirements such as environmental impact assessment, investment regulations etc. The board would be the decision making body on any request for issuance of LON/LOA from the CDM project proponents based on the host country approval criteria. The recommendations from the NACCC meeting on approval of the CDM project activity would be submitted to the DNA for consideration and approval.

3.2.3 Option 3: Approval based on Type of Request (LoN or LoA)

Under this option, the project approval procedures would depend on the type of request by the project proponent i.e, whether it is request for LoN or a LoA. In case of request for a LoN the approval procedures could be less stringent as it does not serve any operational purpose in the UNFCC CDM registration procedures. However, it can be a very operational document when it comes to attracting an international buyer of the CERs, which is the main purpose of implementing the project as a CDM project. On the other hand, issuance of LoA could have more rigorous procedures such as cabinet approval along with the host country regulations for CDM project approval.

3.2.4 The Advantages and Disadvantages of Different Options under the National Context of Vanuatu

The key benefit of considering the option of direct project approval by an individual entity i.e., the DNA is the quick turnaround time in terms of responding to the project proponents request for LON/LOA. This option could also benefit from reduced bureaucratic procedures faced by project proponents within the government set up in obtaining the approval. The main drawback is the issue of conflict of interest as the approval procedure under the option is not very transparent and open.

The option of project approval through an advisory board or committee such as NACCC is could be advantageous as the members would have done the screening of the projects within their ministries/departments during the normal project approval process as per the host country regulations. This could result in faster processing and also help in terms of maintaining the transparency on decision making as the inter departmental committee deliberates on the project proponents request for LON/LOA and decides based on the host country approval criteria and regulations.

The main disadvantage could be the uncertainties associated with the set-up such as time taken for the committee to meet and assess the request which in turn could affect the CDM project activity.

In case of the project approval depending on the type of request (LoN or LoA) by the project proponent, the main benefit would be in terms of avoiding unnecessary time delays and bureaucratic procedures in case of a request for LoN. The key disadvantage could be the potential fees or administrative levy that the DNA office might want to charge the project proponents for issuance of LOA as it could involve elaborate assessment and approval procedures.

3.3 CDM Project Approval Criteria – Different Options and their Advantages and Disadvantages

3.3.1 Option 1: SouthSouthNorth (SSN) Sustainable Development Tool Approach

The SSN tool provides assessment approach for evaluating the sustainable development benefits for CDM projects including eligibility assessment for CDM projects. The framework consists of 24 indicators including 2 eligibility screens, 4 additionality filters, 10 feasibility indicators and 8 sustainable development indicators. The tool has been used to assess 27 renewable energy projects across four countries.

Criteria	Indicator	Measurement
Environmental Criteria		
Climate Change	Contribution to reduce global climate change	Rating avoided CO_2 emissions Where:

		• 0 = no change in GHGs compared to baseline • +3 = Total avoidance
Local environment	Contribution to local environmental sustainability	Rating the change (%) in the most significant local pollutants • 0 = No change in the level of 'X' pollutant • +3 = total avoidance of local pollutants • -3 = Doubling of local pollutants
Natural resources	Contribution to sustainable use of natural resources	Measuring the projects contribution to sustainable use of natural resources: • 0 = No change in fossil fuel usage • +3 = avoidance of all fossil fuels • -3 = Doubling of pollutant 'X'
Social criteria		
Employment generation	Contribution to net employment generation	Measuring number of additional jobs created by the project: • 0 = No change in employment level compared to baseline • +3 = double number of jobs • -3 = elimination of all jobs predicted in baseline
Economic criteria		
Balance of payments	Contribution to balance of payments	Measuring the net foreign currency savings: • 0 = No change in foreign currency expenditure compared to baseline • +3 = total avoidance of foreign currency expenditure • -3 = doubled net foreign currency expenditure
Macro-economic sustainability	Contribution to macro-economic sustainability	Changing the level of public investment: • 0 = No change in public investment • +3 = total avoidance of public investment expenditure • -3 = doubled public investment
Cost effectiveness	Cost reductions implied by the project	Measuring the contribution to increase local micro-economic sustainability • 0 = No change compared to baseline • +3 = total avoidance of costs expenditure • -3 = doubled costs
Technological criteria		
Self-reliance	Contribution to technological self-reliance	Measuring the reduction of foreign expenditure • 0 = No change in foreign currency expenditure as compared to baseline • +3 = total avoidance of foreign currency expenditure • -3 = doubled foreign currency expenditure

Table 1: SSN Sustainable Development Tool

The SSN tool has been applied in Brazil, Bangladesh, Indonesia and South Africa. It allowed the selection of 10 out of 27 potential CDM activities. The assessment considered both small and large-scale energy projects.

3.3.2 Option 2: CDM –SUSAC Approach

The CDM-SUSAC approach was developed as a part of the EU funded project to develop and promote CDM project development activities in the energy sectors in Senegal, Zambia and Uganda.

The key steps involved in the approach to assess the sustainable development aspects of a CDM project include:

Step 1: Development of a project checklist under sustainable development indicators

The CDM-SUSAC approach suggests that experts on the project type should create a list of sustainable development indicators. A comprehensive link between the checklist criteria and the sustainable development indicators is deemed essential.

Step 2: Formulating checklists

The CDM-SUSAC work proposes using scoring methods to formulate the checklist. Answers to the checklist questions could be provided as a precise number or a range, which could be restricted or continuous. Alternatively, YES/NO answers could be applied only if institutional capacity is not available to deal with the ranking methods, recognising that this can compromise the accuracy and validity of the CDM project assessment.

Step 3: Evaluating checklists

The CDM-SUSAC approach then proposes weighting each question of the checklist using expert opinion. It recognises that relying on expert opinion is not always transparent because objectivity and repeatability can be questionable. Answers to CDM project questions are scored and then weighted to reflect the significance of each question. The project with the highest weighted scores using the approach should qualify as CDM.

3.3.2 Option 3: Gold Standard Approach

The Gold Standard was developed by a coalition of more than 30 NGOs. It is a methodology that demonstrates additional renewable and energy efficiency projects with the aim of designing premium-quality CDM projects. Under this approach any project seeking to achieve the Gold Standard should demonstrate clear benefits in terms of sustainable development.

Criteria	Indicator	Parameter
Local/regional/global environmental sustainability	Water quality and quantity	Quality and quantity
	Air quality	Other emissions than GHGs
	Other pollutants	Including toxicity, radioactivity

	Soil condition	Quality and quantity
	Biodiversity	Species and habitat conservation
Social sustainability and development	Employment	Quality
	Livelihoods of poor	Including poverty alleviation, distributional equity and access to essential services
	Access to energy services	-
	Human and institutional capacity	Including empowerment, education, involvement and gender
Economic and technological development	Employment (Job creation)	-
	Impact on balance of payments	-
	Technological self-reliance	Including project replicability, hard currency, liability, skills development, institutional capacity and technology transfer

Table 2: Gold Standard SD Assessment Approach

The Gold Standard procedure establishes that the performance of the projects must be assessed against the indicators. They are rated from –2 to +2 where -2 represents major negative impacts, -1 very minor negative impacts, 0, negligible impacts, +1 minor positive impacts, +2 major positive impacts. The rates are related to a baseline situation. A CDM project would not be awarded the Gold Standard when a single sustainable development criterion rates negative. In fact, all the sustainable development criteria must be positive, the total score must also be positive and there should not be any single –2 scores.

3.3.4 Option 4: Sustainability Assessment Model (SAM) Approach

This approach was developed as part of a Department for International Development DfID funded project focussing on identifying and supporting CDM projects in the energy sector which can alleviate poverty. The approach applies Multi-Criteria Decision Analysis (MCDA) to assess sustainable development benefits of small-scale projects under a set of criteria based on the Sustainable Livelihood tool. The approach has been applied to assess 13 energy sector projects in Kenya, Tanzania and Ghana.

The approach consists of four steps, which include identifying a set of criteria, constructing a value tree, scoring each criterion and weighting the criteria. The CDM project assessment, on its strengths and weakness, are identified based on the key assessment steps.

The SAM approach essentially uses a set of 24 criteria covering five sustainable livelihood aspects, which are natural, social, human, financial and physical. A value tree, based on the

set of criteria identified (and grouped in terms of the major trade-offs) is developed. The main objective of the approach is to maximise sustainable well-being, which is expressed in terms of two main trade-offs: minimising effects on the natural resource base and maximising personal well-being.

Criteria	**Indicator**	**Measurement**
Natural criteria		
Food	Effect of the project on ability of the community to produce food/crops	In terms of volumes changed or qualitatively
Habitats	Effect of the project on flora and fauna	What are the activities and their effects
Forests	Effect of the project on forests as wood and natural products resources	Kg wood conserved Amount of natural products conserved
Land use change	Effect of the project on quality and quantity of land used for project	Amounts of land changed Qualitative evaluation
Air pollution	Effect on air quality	Quantitative analysis
GHG reduction	Effect in terms of GHG reduction as compared to baseline	Kg CO_2/cap/year
Water supply	Effect of the project on water (quality), washing, drinking and cooking	Amount in L/day; quality and contaminant sources
Social criteria		
Marginal groups	Effect of the project on women or marginalised groups	Qualitative evaluation
Wider base	Effect in the new network to information on other projects	Qualitative evaluation
Security	Effect on crime prevention	-
Social networks	Effect on social networks of institutions and families in the community	Number of social institutions created
Human Criteria		
Jobs	Effect on the number/diversity of jobs	-
Freed time	Effect on freeing time from drudgery	-
Health	Effect on human health	-
Education	Effect on improvement in literacy	-
Skills	Effect on building more or new skills in the community	-
Physical criteria		
Energy	Effect on energy services, contribution to	-

	local energy needs	
Infrastructure	Effect on transport, water, sanitation and health units	Number and type of new services
Resource depletion	Effect on scarce resources in operating or manufacturing	-
Dwelling	Effect on shelter	Evaluating the number of new houses or improvement in quality of housing
Financial criteria		
Local manufactured equipment	Effect on stimulating local facilities/services for manufacturing	Amount of manufactured equipment versus imported
Local supply chain	Effect on stimulating local facilities/services for spares, services etc.	-
Affordability	Cost to the community of the services provided by the project	-
Income generation	Effect on generating income or trade activities	Number and diversity of jobs

Table 3: Sustainable Assessment Model Approach

3.3.5 The Advantages and Disadvantages of Different Options under the National Context of Vanuatu

With the limited modularity and reliability, the SSN approach methodology seems to be very transparent and simple. The potential CDM projects from Vanuatu are mainly small-scale ones and the SSN approach may need major modifications as it is generally targeted at assessing the feasibility and sustainability of large scale CDM projects. Some of the indicators used (balance of payments, macro-economic indicators and so on) are more appropriate for assessing large-scale projects rather than small scale projects.

The CDM SUSAC approach could be comprehensive but lacks clarity in the application of the approach to Least Developed Countries such as Vanuatu given the nature of potential projects and the capacity to carry out the assessments.

The approach seems to be very complex to be adopted for Vanuatu situation as it consists of checklist development and ranking evaluation for the decision-making process to assess the sustainability of CDM projects. The use of expert opinion during the validation of the checklist is considered as non-transparent.

There are some successful CDM project examples which have adopted the Gold Standard approach, including some small-scale CDM projects. The approach also includes some of the most important sustainable development indicators such as empowerment, gender and technological self-reliance and also indicators such as balance of payments which is not relevant to small-scale CDM projects. However, in case of Vanuatu this might be relevant in terms of contributing towards the host country economy through reduced import of fossil fuel. The rating of the Gold Standard sustainability matrix is very stringent, as projects with negative indicators would not be certified. The approach is considered to be a bit lengthy and cumbersome in terms of practicality of the approach for evaluating sustainable development benefits for small-scale CDM projects. However, it is envisaged that some of the key and appropriate indicators could be used by Vanuatu to develop and elaborate a framework of sustainable development indicators.

Although SAM provides a simplified approach to carrying out a comprehensive decision-making analysis, the methodology involves a lengthy four step approach. Considerable training and capacity building of the stakeholders would be required to apply this approach in Vanuatu. The approach proposes a comprehensive set of 24 criteria covering the broad issue of sustainable development with respect to energy projects. These criteria can be adopted or modified appropriately and re-assessed for application in Vanuatu.

4 Stakeholder Consultations

Several meetings and consultations with relevant stakeholders and authorities in Vanuatu have been carried out as part of the consultation process to arrive at the recommendation on proposed DNA structure and process including potential policy options for CDM development. The first capacity building workshop conducted on 6th and 7th March 2012 introduced the concept of DNA including roles & responsibilities; examples from other host countries; beneficial procedures to the stakeholders and beneficial policy interventions for CDM promotion. The workshop involved stakeholders with the most relevance to the CDM project activities in Vanuatu, and participants included representatives from relevant government ministries, NGO's, power utility companies and private sector and facilitators.

A consultation meeting specifically with members of NACCC was also held on 9th March 2012 to explain the DNA capacity building related activities under the project and to organise a brainstorming session on the potential options for establishment of DNA in Vanuatu and improving the CDM related policy regime.

During 18th to 22nd June 2012, bi-lateral meetings were held with the below officials to provide an update on the project activities and to seek inputs on potential institutional structure and approval procedures for DNA in Vanuatu and policy interventions.

- Mr. Jotham Napat, UNFCCC Focal Point & Director of Meteorology, Ministry of Infrastructure and Public Utilities
- Mr. Leo Moli, Director for Energy, Mines and Natural Resources
- Mr. Brian Philips, Head, Climate Change Unit, Department of Meteorology and Geo-hazards
- Mr. Peter J. Allen, General Manager, Vanuatu Utilities and Infrastructure (VUI) Limited
- Ms. Anna Bule, Environment Officer, Department of Environment
- Mr. Ioan Viji, Senior Officer, Department of Forests
- Mr. Trinison Tari, Department of Environmental Protection and Conservation (DEPC)
- Dr. Dickie Napinmal, Associate Professor, University of South Pacific, Vanuatu
- Mr. John Avock Mahit, Vanuatu Investment Promotion Authority
- Mr. David Stein, Director, VANREPA (NGO)

5 The Recommendations on DNA Establishment and Operationalisation in Vanuatu

5.1 Recommended Structure of Designated National Authority (DNA)

5.1.1 Choice by the Stakeholders and the relevant considerations

The various options on DNA structure, CDM project approval procedure and criteria as discussed in previous sections were shared during the discussions and meetings with relevant authorities and stakeholders. The stakeholders were keen in terms of pushing for earliest establishment of DNA in Vanuatu given the potential for development of projects as standalone and under CDM PoA.

The stakeholders choice on the structure of CDM DNA in Vanuatu included a combination of option 1 (Direct Project Approval by DNA under Ministry of Infrastructure and Public Utilities) and option 2 (Project Approval through NACCC**)** as discussed in section 3 of the report.

As per the stakeholders, the key consideration for the above choice of DNA structure was the advantage of using an existing set up and faster processing of requests meanwhile maintaining the transparency on decision making.

5.1.2 Policy recommendation based on the Stakeholders' Choice

The recommended institutional structure for DNA in Vanuatu based on stakeholders choice is provided below.

The Climate Change unit under Vanuatu Meteorological & Geo Hazards Department will host the DNA supported by the NACCC, which is an interdepartmental committee made up of senior officers from across government and mandated by the Council of Ministers, Government of Vanuatu. The organizational structure of the DNA consists of the following:

- UNFCCC Focal Point will be the DNA for Vanuatu
- The DNA Secretariat will be hosted by the Climate Change Unit, Vanuatu Meteorological & Geo Hazards Department and
- The National Advisory Committee on Climate Change (NACCC), an interdepartmental committee made up of senior officers from stakeholder ministries will provide support and direction to the DNA.

UNFCCC Focal Point as Designated National Authority

The UNFCCC Focal Point for Vanuatu has been appointed as the DNA for Vanuatu by authorization from the NACCC as mandated by the Council of Ministers. The DNA is the person authorized by Vanuatu to sign Letter of Approvals (LOAs). The letter of authorization

relates to an individual and will have to be renewed in case of appointment of another person for the post as DNA.

National Advisory Committee on Climate Change (NACCC)

According to the authorization by the NACCC and as mandated by the Council of Ministers, the NACCC is provided with the authority to issue binding recommendations to the DNA to issue LoA and Letter of No Objection (LoN) upon request from project developers. The NACCC is envisaged to meet regularly or on a case by case schedule, depending on the amounts of requests received by the Climate Change Unit, Vanuatu Meteorological & Geo Hazards Department. The meetings of the NACCC will follow the existing meeting procedure and will also accommodate the procedures for issuing LoA and LoN.

5.2 Recommended CDM Project Approval Procedure in Vanuatu

5.2.1 Choice by the Stakeholders and the relevant considerations

The stakeholders were of the opinion that the CDM project approval procedure need to adopt the “Keep it Simple and Straight Forward” approach. Bearing this in mind the set-up of approval procedures for CDM projects in Vanuatu could seek to make full use of the possibility to establish easily administered procedures for issuing of LoA/LoN, with an emphasis on the opportunity to make sure that the proposed CDM project constitutes a genuine contribution to sustainable development in the host country.

The stakeholders also emphasised that the issuance of LoA need to be endorsed by the council of ministers whilst the LON issuance could be handled directly by the DNA.

5.2.2 CDM Project Approval Procedure based on the Stakeholders' Choice

The NACCC is envisaged to meet regularly or on a case by case schedule, depending on the amounts of requests received by the DNA Secretariat. The NACCC meeting decision for a recommendation is logged in the Protocol of the NACCC and brought in to the DNA Secretariat for drafting of minutes of meeting to be posted to all NACCC members for signing before issuing a response to the request for LoA/LoN.

In accordance with DNA Secretariat administrative procedures, the DNA may during or after the NACCC meeting sign the LoA/LoN or refusal to issue such document in accordance with the binding recommendation stated by the NACCC.

In case of LoN, based on the recommendation of the NACCC, the DNA Secretariat dispatches the signed LON to the project proponent. In case of LoA, based on the recommendation of the NACCC, the DNA Secretariat submits the signed LoA to the Council of Ministers for Cabinet endorsement. Upon endorsement by the Council of Ministers, the DNA Secretariat will then dispatch the LoA to the Project Proponent.

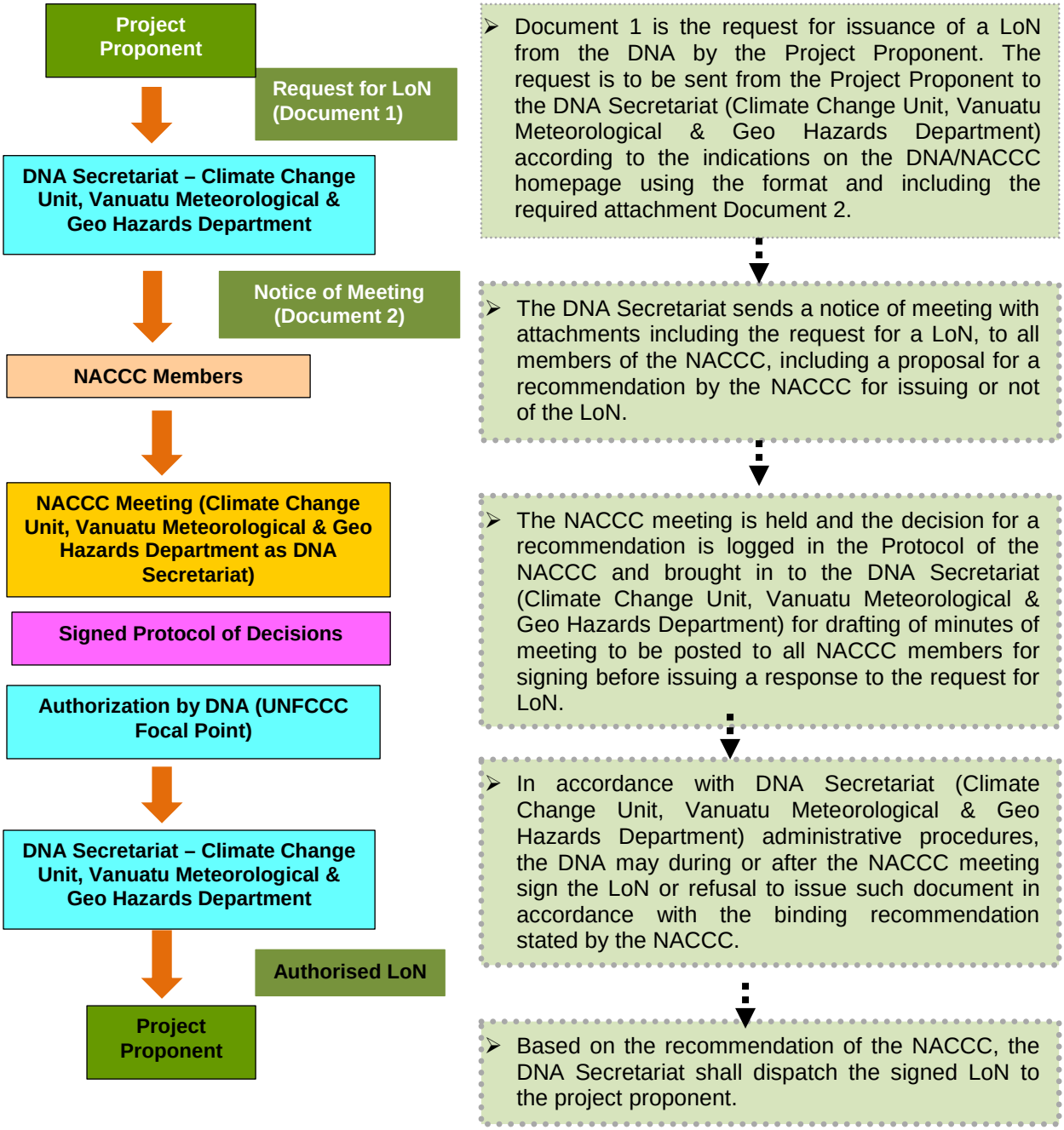

Figure 1: LoN Approval Process

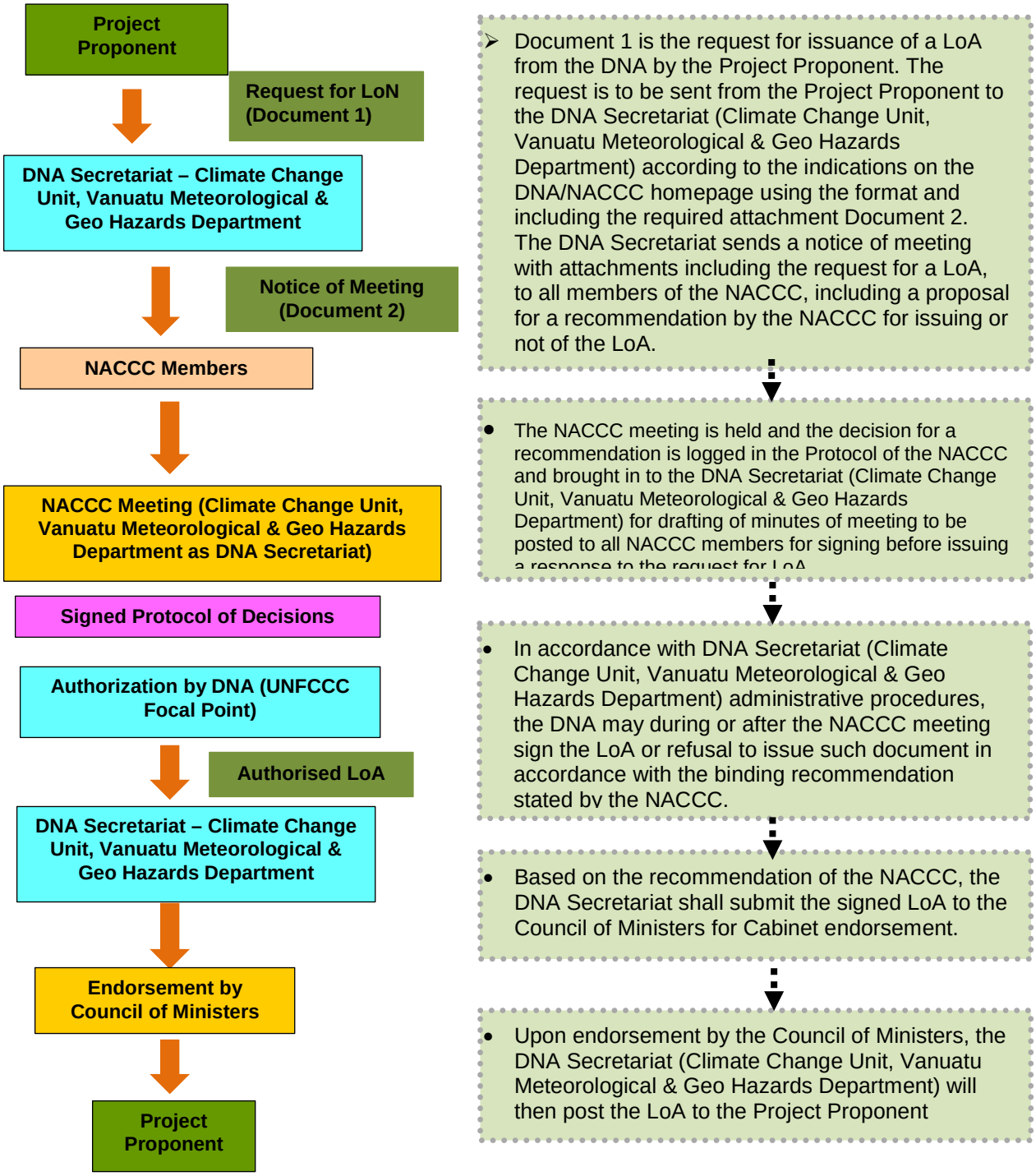

Figure 2: LoA Approval Process

5.3 Recommended Sustainable Development Criteria for Assessment of CDM Projects in Vanuatu

5.3.1 Choice by the Stakeholders and the relevant considerations

Based on the approaches and methodologies for sustainable development assessment as discussed in section 3 of this report and also assessing the indicators and criteria adopted by other developing countries as well as SIDS and LDC's around the world, the stakeholders are of the opinion that the sustainable development criteria for Vanuatu should broadly include the following:

a) Economic Sustainability - deliver a net contribution to economic development (including the transfer of more efficient and environmentally friendly technologies, improved employment, decreased dependence on energy imports, positive financial flows), or at least not result in net economic loss;
b) Environmental Sustainability - provide a net environmental benefit to Vanuatu or the local community in which it is located (reduced GHG emissions, air quality, waste reductions), or at least not result in a net adverse environmental impact;
c) Social and Cultural Sustainability - contribute to an improvement in social conditions and host country cultural aspects (poverty alleviation, more equitable distribution of benefits), or at least not result in a net adverse social impact.

The stakeholders have also indicated that the sustainable development criteria for assessment of CDM projects in Vanuatu need to follow the indicators & criteria that are being guided by the Priorities and Action Agenda 2006-15, Planning Long Acting Short 2009-12, Vanuatu National Assessment Report, Vanuatu Energy Road Map.

5.3.2 Policy recommendation based on the stakeholders' choice

Based on the stakeholder recommendation, the below table provides the sustainable development indicators and criteria for assessment of CDM projects:

Indicator	**Criteria**
Basic Services and Social Development	➢ Improve the health status of the people; ➢ Improve access to basic services ➢ Improve the quality of basic services delivered ➢ Make more effective use of local resources.
Education and Human Resource Development	➢ Improve access to education and ensure gender balance; ➢ Raise the quality and relevance of education; ➢ Improve planning, fiscal and financial management in the project sector.
Employment Creation	Project Impacts on job creation including:

	➢ Improved employment opportunities ➢ Improved job prospects for young unemployed and women ➢ Improved skilled employment opportunities
Economic stability and Equitable Growth	➢ Promoting equitable and sustainable economic growth to improve basic services, infrastructure and the environment. ➢ Improvement in the socio-economic prospects within the community and region
Access to Energy	➢ Improved access to energy/electricity for the local community/region ➢ share of electricity generated by the project supplied to the local community ➢ subsidised electricity to community
Environmental Management	➢ Promote sound and sustainable environmental management practices ➢ Ensure sustainable management and conservation of Vanuatu's biodiversity

5.4 Recommended Policy and Project Initiatives across various sectors in Vanuatu

The stakeholders strongly envisage that setting up a DNA in Vanuatu would facilitate the participation of the host country in the CDM thereby attracting international financing for projects that reduce the emissions of greenhouse gases, thereby contributing to the sustainable development of the country.

It is envisaged by the stakeholders that projects within the energy, infrastructure, waste management, agriculture, and forestry sectors would have good potential in terms of reduction of emissions of greenhouse gases and contributing towards sustainable development of the host country. The targets under Vanuatu Energy Road Map, Rural Electrification Master Plan, Infrastructure Development Plan and the Nationally Appropriate Mitigation Actions (NAMA) concept paper under development are also considered to benefit the host country emission reduction and sustainable development priorities.

5.4.1 The consultant's expert considerations and recommendations based on stakeholders choices

Cross-sector Initiatives

- Development of baseline and mitigation scenarios based on the results from the GHG Inventory and future development plans particularly in the energy and land use change and forestry sectors for climate change mitigation.
- Identifying, formulating and prioritising programmes containing measures to mitigate climate change within the framework of sustainable development.

- Carrying out GHG mitigation analysis using appropriate tools and compiling appropriate background information to carry out the cost-benefit analysis of the different measures including developing a series of mitigation scenarios to abate the increase of GHG emissions.
- Formulating a national action plan to abate the GHG Emissions including information cost analysis, assessment of technology options for different mitigation options in various sectors, institutional capacity-building needs to sustain mitigation work, and related legal and institutional frameworks.

Energy Sector Initiatives

- Development of programmes and projects in energy sector which are in line with the government's energy sector priorities and Vanuatu Energy Road Map under development.
- Provision of electricity supply into the rural areas through implementation of Vanuatu Electricity for Rural Development Programme.
- Identify and develop activities to improving the institutional capacity within the energy sector including energy department through efficient planning, co-ordination and management amongst government agencies, the private sector and non-state actors.
- Development and implementation of renewable energy based electricity generation projects such as solar PV, hydro, wind, biomass and geothermal.
- Development of policy, fiscal and financial measures to increase use of bio-fuels in both the electricity and transport sectors.
- Actions on energy efficiency measures and initiatives in residential, public, commercial and transportation sectors.
- Capacity building and information dissemination actions and activities in the energy sector for development and implementation of environmentally benign energy projects.
- Review of the existing legislations and their mechanisms to be consistent with the energy policy framework and/or host country priorities in energy sector.

Environment and Climate Change Sector Initiatives

- Main-streaming and integration of current national climate change activities into the national policies and priorities.
- To institute a continuous, reliable and timely data collection system that would ensure sustainable, effective and timely reporting of future GHG emissions and sinks to the Conference of the Parties and for national policy.
- To identify and develop national strategies to pursue sustainable development and to explore and utilize the opportunities under the UNFCCC and the Kyoto Protocol including, but not limited to, the Clean Development Mechanism of the Kyoto Protocol, for the purposes of pursuing sustainable development.
- Capacity building and training to increase knowledge and understanding of the impacts of climate change and variability on biophysical systems, and including socio-economic aspects, and addressing the vulnerability of each sector, for the purposes of enhancing the national mitigation and adaptive capacity.

- Mainstreaming environmental considerations, biodiversity conservation and sustainable development aspects as a cross-cutting initiative across government programmes and policies.
- To promote and facilitate national, local authorities, schools and community level training, education and awareness, through appropriate means of communication, with a view of enhancing national, local authority and community level responses to climate change.

Sanitation & Waste Management Sector Initiatives

- Implementation of activities identified in the Vanuatu National Waste Management Strategy and Action Plans 2011 – 2016 which includes a wide-ranging strategy and extensive action plan aimed at improving capacity in solid waste management.
- Development of action plan to reduce the amount of waste generated and landfilled.
- Identify techniques to dispose of waste that cannot be avoided, reused, recycled or composted, in an environmentally sound manner.
- Up-gradation of waste collection systems to ensure well-managed, efficient and self-sustaining system.
- Capacity building, awareness raising, knowledge transfer to stakeholders on good and sound waste management practices.
- Action plan to identify and implement sustainable financing and resourcing systems for waste management.

6 Conclusions

The international procedures under the CDM involves strict administrative and documentary requirements set up by the parties of the Kyoto Protocol in the rules of CDM, i.e. Modalities and Procedures of the CDM and which are to be met by the project proponents.

Bearing this in mind the set-up of approval procedures for CDM projects in Vanuatu could seek to make full use of the possibility to establish easily administered procedures for issuing of LOA, with an emphasis on the opportunity to make sure that the proposed CDM project constitutes a genuine contribution to sustainable development in the host country.

It is envisaged that the initial number of CDM projects to be presented for the DNA for approval for issuing of a LoA will not be significant and therefore it is considered important that no unnecessary administrative or economic barriers are created that will discourage project proponents from seeking much needed additional funding, if the project could qualify under the CDM.

The establishment of the DNA will also contribute to participation by Vanuatu in international cooperation activities on climate change – "putting Vanuatu on the map", including appearance on the list of DNAs in the UNFCCC homepage.

The report has identified and elaborated on the stakeholders opinion and recommendations on the DNA set up in the host country as well as CDM project approval procedures and criteria including supporting policies, potential regulations, capacity building needs etc. In order to develop successful CDM projects it is crucial, that all relevant stakeholders are involved from an early stage in the planning process. The Vanuatu DNA is considering of conducting a stakeholder consultation during 2013 to discuss the recommended policy and project interventions to come up with an action plan towards development of framework for implementation. Development of a sound implementation framework for the identified interventions can benefit in terms of fast tracking international climate change mitigation finance.

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