

Readiness Preparation Proposal (R-PP)

Vanuatu

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Forest Carbon Partnership Facility (FCPF)

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General Information

Name	Mr. Ioan Viji
Title	Vanuatu REDD+ Coordinator
Organization	Department of Forestry
Address	PMB 9064, Port Vila, Vanuatu
Telephone	(+678) 5333460
Fax	+678 25051
Email	vutilolo03@gmail.com

R-PP Development Team

Name	Organization
Ioan Viji	Department of Forestry
Jotham Napat	Vanuatu Meteorology and Geo-hazards Department
Brian Phillips	Vanuatu Meteorology and Geo-hazards Department
Anjali Nelson	Live and Learn Vanuatu
Björn Hecht	GIZ
Dr. Jochen Statz	UNIQUE forestry and land use GmbH, Germany
Sophia Carodenuto	UNIQUE forestry and land use GmbH, Germany
Jörg Seifert-Granzin	mesa consult
Dr. Sean Weaver	Carbon Partnership Ltd., New Zealand

Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	October 2011 – February 2013
Expected duration of R-PP implementation (month/year to month/year):	January 2014 – to December 2018
Total budget estimate:	US\$ 7,186,080

Anticipated sources of funding:	from FCPF: US\$ 3.6 million other sources (not yet specified): US\$ 3,586,080
Expected government signer of R-PP grant request (name, title, affiliation):	Maki Simelum Minister Ministry of Finance and Economic Management
Expected key results from the R-PP implementation process:	Outcome 1) REDD+ Scheme developed through broad stakeholder engagement, with demonstration activities influencing future developments Outcome 2) Efficient and inclusive communication and feedback mechanisms established Outcome 3) SESA completed and ESMF under development Outcome 4) REDD+ investments reaching Ni-Vanuatu to influence land use decisions

Executive Summary

Vanuatu is a Melanesian archipelagic nation of about 83 islands in the South Pacific Ocean, with a small population estimated at 230,000. Ni-Vanuatu, or indigenous people from Vanuatu, makes up the majority of the population. Rural and traditional economies characterized by very low monetary incomes and subsistence land use are dominant in the country; around three-fourths of Ni-Vanuatu live in rural areas. Produce such as root crops and seasonal fruits as well as fishing and cattle raising form the base of many livelihoods. Given its low per-capita income, Vanuatu belongs to the group of Least Developed Countries. However, Vanuatu has repeatedly expressed its desire to develop economically, through investments in infrastructure, an internationally competitive tourism industry, and agriculture and forestry, including agro-industrial production and processing. The success of REDD+ in Vanuatu is contingent on its ability to comprehensively integrate sustainable land use activities that reduce pressure on forests into the development and implementation of these development policies.

Land is deeply important to the Ni-Vanuatu. Customary law has been a significant influence on Vanuatu's legal system and the vast majority of land in Vanuatu is owned by Ni-Vanuatu communities or individuals. The 1980 Constitution vests all land to Ni-Vanuatu in perpetuity. In order to develop land, i.e. implement any commercial activity, a conditioned lease has to be registered, including the demarcation of the land, registration of ownership, and specific conditions as to which activity can be implemented under the lease agreement. Vanuatu land law requires customary owners to be consulted and have to consent to all matters relating to the use of the land and its resources. However, the land tenure system is vulnerable to illegal practices that lead to land grabbing and to conflicts over the ownership as soon as financial gains are expected. Thus, participation and support of community representatives will be a cornerstone of REDD+ strategy building during R-PP implementation.

REDD+ Scheme is the fully functional design and implementation of REDD+ in Vanuatu. The term *Scheme* is used in order to distinguish REDD+ from time-bound programs or projects. REDD+ Scheme is the overarching term which encompasses REDD+ projects and programs.

For the purposes of REDD+, the forest definition is broad to include mangroves, palms and agroforestry systems that meet the minimum area, height and canopy cover requirements. Although commercial logging led to significant forest degradation in the 80s and 90s, land use trends most affecting the forests have shifted to small-scale subsistence activities. In the future, infrastructure, tourism and agro-industry development may prove to be the most important drivers, also land speculations might contribute to land use change. Due to high social and ecological diversity between the islands, the REDD+ Scheme must incorporate a variety of approaches, both in addressing different drivers as well as how it reaches out to stakeholders through the different communication structures prevalent at the village level.

Taking all of this into account, Vanuatu is planning to implement an innovative approach, its national REDD+ Scheme, in which, once functional, the government will use the carbon money to invest into sustainable land use activities in different sectors and thereby lower the rate of deforestation and forest degradation, hence the GHG emissions. The main benefit for the Ni-Vanuatu will be the enhancement of sustainable economic activities and the increase of income with the national investment program covering the up-front investments. Vanuatu will pursue demonstration activities using financing instruments currently available to support such activities.

In parallel to the investment program, the Government of Vanuatu is in the process of developing a well-articulated and widely accepted land use policy, emphasizing balance and trade-offs among different land-use options, and enabling close collaboration and coordination

among the different Government authorities responsible for land, agriculture, livestock, forestry, climate change adaptation, Provincial governments, customary chiefs and communities. Integrating REDD+ objectives into land use planning at the Provincial level is seen as the most promising approach to ensuring REDD+ activities come from bottom-up demand, as opposed to being imposed from the top-down.

The reader will notice that the budget for the implementation of most chapters is not yet secured. Ongoing activities by other donors that can be used as REDD+ contributions and in-kind contributions of the government of Vanuatu are not quantifiable. The potential contributions are listed in the budget of chapter 5, without amount, and described in the relevant text passages.

Summary of R-PP:

1. National Management Arrangements :
 - a. The Vanuatu Meteorology and Geo-Hazards Department under the Ministry of Civil Aviation, Meteorology and Postal Services is the REDD+ Focal Point and the Department of Forests is the implementing agency.
 - b. A multi-stakeholder Technical Committee (TC) has been created, which will report to the Program Management Unit at the NAB.
 - c. Ad-hoc Working Groups under the TC will be created for specific issues as required.
2. Communication, consultation and participation
 - a. Stakeholder mapping identified REDD+ relevant stakeholders at the national level and the relationships between them.
 - b. Early dialogues in the Provinces resulted in a communication strategy for widespread awareness-raising which will be up-scaled following R-PP acceptance.
 - c. The majority of land is owned by Ni-Vanuatu or citizens of Vanuatu, making stakeholder engagement the core of REDD+ in Vanuatu. The regional NGO Live & Learn has launched an early REDD+ dialogue in three Provinces during which it has developed the REDD+ Consultation and Participation Plan.
3. REDD+ strategy options and implementation framework
 - a. Existing analysis on drivers of deforestation and forest degradation has influenced the R-PP. More detailed assessments will be carried out during R-PP implementation.
 - b. Vanuatu is considering a national REDD+ Scheme which enhances investments for sustainable land use activities, with the national Government creating the institutional framework for REDD+ and implementation taking place at the Provincial level. Due to differences in island size, deforestation and degradation dynamics, it is proposed that the subnational design follow island topography. The technical modalities will be further defined during R-PP implementation, which will include field testing on the island of Espiritu Santo (Santo).
 - c. A Jurisdictional REDD+ program in Vanuatu would mean baselines, crediting, safeguards management and an internal allocation program would be developed at the national level, with the Provincial governments administering the main REDD+ activities
 - d. A Strategic Social and Environmental Assessment will allow for a better understanding of the costs/benefit trade-offs between the strategic options as well as allow for a broader range of stakeholder to influence strategic REDD+ decisions.
4. Measurement, reporting and verification of forest carbon and non-carbon benefits

- a. Vanuatu is aiming at an activity-based subnational approach to be aggregated to a national reference level. Each jurisdiction or defined subnational domain would require its own activity-specific reference (emission) level.
 - b. A forest governance assessment and streamline a Safeguards Information System within the PMU are priorities for monitoring multiple benefits.
5. Budget and timeline of work plan and activities, including milestones.
6. Monitoring of R-PP implementation and continuous improvement of program approach by incorporating stakeholder feedback.

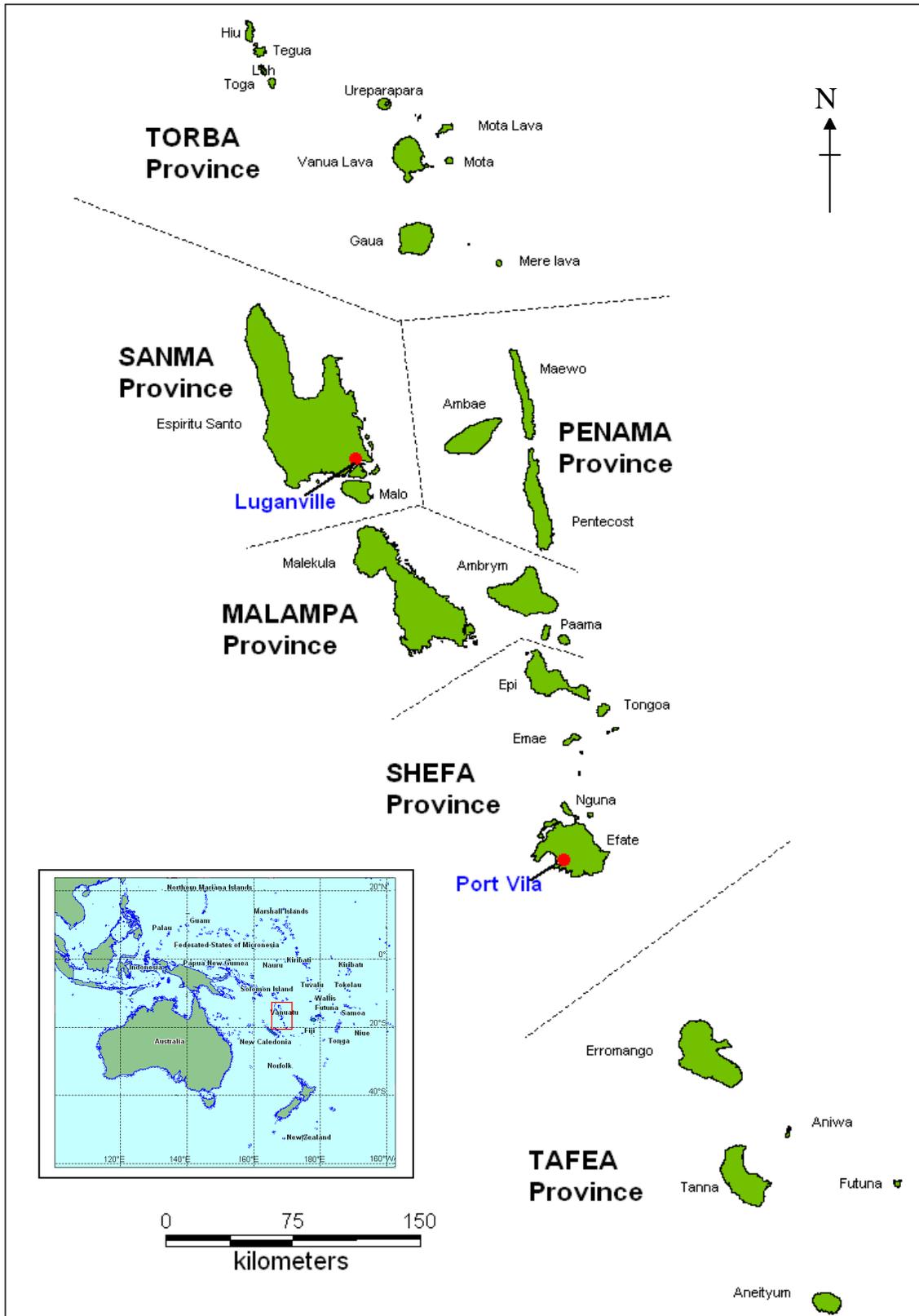
Acronyms

A/R	Afforestation and reforestation
AWG	Ad-hoc Working Group (within REDD+ Technical Committee)
BAU	Business as usual scenario
BMU	German Federal Ministry for the Environment
CC	Climate Change
CCBA	Climate, Community and Biodiversity Alliance
CCBS	Climate, Community and Biodiversity Standards
CCCPIR	Coping with Climate Change in the Pacific Island Programme
CDM	Clean Development Mechanism
COP	Conference of the Parties
DARD	Department of Agriculture and Rural Development
DEPC	Department of Environmental Protection and Conservation
DoF	Department of Forests
DoL	Department of Lands
DRR	Disaster Risk Reduction
EFCS	Enhancement of Forest Carbon Stocks
EO	Earth Observation
ESMF	Environmental and Social Management Framework
FCPC	Forest Carbon Partnership Facility
FGRM	Feedback and Grievance Redress Mechanism
FPIC	Free, prior, and informed consent
FRA	Forest Resources Assessment
FRRTHG Act	Forestry Rights Registration and Timber Harvest Guarantee Act
FSP	Foundation for the People of the South Pacific
GHG	Greenhouse gases
GOFC-GOLD	Global Observation of Forest and Land Cover Dynamics
IPCC	Intergovernmental Panel on Climate Change
ITTO	The International Tropical Timber Organization
IUCN	International Union for the Conservation of Nature
JNRI	Jurisdictional and Nested REDD Initiative
LULUCF	Land Use, Land-Use Change, and Forestry
MAQFF	Ministry of Agriculture, Quarantine, Forestry and Fisheries
MAR-SFM	Monitoring, Assessment and Reporting for Sustainable Forest Management

MMU	Minimum mapping unit
MRV	Measurement, Reporting and Verification System
NAB	National Advisory Body on Climate Change and Disaster Risk Reduction (formerly NACCC)
NACCC	National Advisory Committee on Climate Change (now NAB)
NAMA	National Appropriate Mitigation Action
NDMO	National Disaster Management Office
NTFPs	Non-timber forest products
ORI	Orthorectified radar image
REDD+	Reducing emissions from deforestation, forest degradation, conservation, sustainable management of forests and enhancement of carbon stocks
REL	Reference Emission Level
RIL	Reduced Impact Logging
RL	Reference Level
RMU	Resources Management Units
R-PIN	Readiness Plan Idea Note
R-PP	Readiness Preparation Proposal
RS	Remote sensing
SAR	Synthetic Aperture Radar
SBSTA	Subsidiary Body on Scientific and Technological Advice
SESA	Strategic Environmental and Social Assessment.
SOPAC	Applied Geoscience and Technology Division of the Secretariat of the Pacific Community
SPC	Secretariat of the Pacific Community
ToR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	UN-REDD Programme
USP	University of the South Pacific
VANGO	Vanuatu Association of Non-Governmental Associations
VANRIS	Vanuatu Resource Information System
VCC	Vanuatu Council of Churches
VCCI	Vanuatu Chamber of Commerce and Industry
VCCP	Vanuatu Carbon Credits Project
VCS	Verified Carbon Standard
VIPA	Vanuatu Investment Promotion Authority

VMGD	Vanuatu Meteorological and Geohazards Department
VNPF	Vanuatu National Provident Fund
VNSO	Vanuatu National Statistics Office

Map of Vanuatu



Component 1: Organize and Consult

1a. National Readiness Management Arrangements

**Standard 1a the R-PP text needs to meet for this component:
National Readiness Management Arrangements:**

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD-plus, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD-plus readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

1. Introduction

Climate change activities are coordinated by the [National Advisory Board on Climate Change and Disaster Risk Reduction](#) (NAB), the body that has been formally mandated by the Council of Ministers to act as Vanuatu's supreme policy making and advisory body for all climate change and disaster risk reduction programs, projects, initiatives and activities. The NAB replaces the National Advisory Committee on Climate Change (NACCC) which was the body overseeing climate change activities for over 20 years. The NAB is comprised of high level (Director or Director General) representatives of key Vanuatu Government (GoV) departments and agencies as well as representatives from civil society. It is co-chaired by the Director of the Vanuatu Meteorological and Geo-hazards Department (VMGD) under the Ministry of Civil Aviation, Meteorology and Postal Services and the Director of the National Disaster Management Office (NDMO) under the Ministry of Internal Affairs. The NAB reports to the Council of Ministers through the Minister of Civil Aviation, Meteorology and Postal Services. NAB secretariat services are provided by a newly established Climate Change and Disaster Risk Reduction Program Management Unit (PMU) in the VMGD. The PMU:

- is responsible for aligning the REDD+ strategy with low-carbon development (climate) plans (e.g., NAMAs) or other development strategies for the country, including the annual and medium-term government budgets;
- will facilitate the necessary policy processes to define REDD+ related activities in non-forest sectors;
- assigns clear sectoral responsibilities within the national strategy;
- assumes the overall responsibility for maintaining the government ownership of REDD+;
- ensures REDD+ activities meet their timelines; and
- ensures the overall process meets public participation and stakeholder validation requirements.

NAB capacities are low and their awareness of the issues surrounding REDD+ are lacking. In order to support this body in effectively coordinating REDD+ activities, an administrative (financial) specialist will be hired. The administrative specialist will support the Vanuatu Government in handling FCPF funds, including contracting and hiring services, e.g. by drafting a hiring template for the studies and enquiries required during R-PP implementation. Due to

limited government capacity and lacking transportation and communication infrastructure throughout the archipelago, the functional relationship between the government and the legitimate authority at the village level is not well-established and works more based on informal individual relationships.

2. Policy and Legislative Development and REDD+ Policy Integration

Under NAB oversight, the Government of Vanuatu is also developing a new National Climate Change (CC) and Disaster Risk Reduction (DRR) Policy and Action Plan. The policy will consolidate, update and clarify CC and DRR priorities and establish a medium to long-term strategic direction for CC and DRR in Vanuatu. The national REDD+ policy will be created as a complete section of the National Climate Change and Disaster Risk Reduction Policy and Action Plan and REDD+. This R-PP along with the recently endorsed forest policy will serve as the base document for this new policy and action plan. The Government of Vanuatu's institutional arrangements for joint governance of CC and DRR will be underpinned by the new Meteorological and Geological Hazards and Climate Change legislation currently under review.

2.1 Climate Change Adaptation and Disaster Risk Management

Vanuatu has a UN Least Developed Country (LDC) status - despite a per capita GDP above the LDC threshold - and ranks as one of the countries with the highest exposure to multiple hazards, according to the World Bank's Natural Disaster Hotspot study. Vanuatu is geographically located in the "ring of fire" and the "cyclone belt" of the Pacific. Almost 81% of its land mass and 76% of its population is vulnerable to two or more hazards, including volcanic eruptions, cyclones, earthquakes, droughts, tsunamis, storm surge, flooding and landslides. In the past decades, the number of tropical cyclones in Vanuatu has increased significantly. Given this predisposed vulnerability to increasing climate changes and natural disasters, adaptation is a main policy priority. One of REDD+'s co-benefits in Vanuatu is increased resilience to climate change, e.g. through improved food security through more efficient agroforestry.

In accordance with the UNFCCC and the Kyoto Protocol, the Government sources much of the national adaptation costs on assistance from the Convention process and from bilateral and multilateral assistance of developed countries and major gas emitters. Vanuatu's National Adaptation Programs of Action (NAPA) identifies four priority sector areas: agriculture and food security; sustainable tourism development; community based marine resource management; and the sustainable management of forest. The EU announced in mid-2008 that the Vanuatu NAPA qualified for funding under its Global Climate Change Alliance, with co-financing by the World Bank. SPC/GIZ is also contributing financially and technically to sustainable agroforestry management as a means of building resilience to climate change at the regional level.

A Disaster Risk Management Framework and arrangements flow chart was adopted by the Government in early 2007 as the basis for developing new legislation, a new disaster management plan and new Government organizational arrangements. The framework was also part of the commitment made to streamlining and cooperation when the NAB was first designed, and as a result, the Vanuatu Meteorological and Geohazards Department (VMGD) and NDMO are now housed together in a new complex, fully funded by the Vanuatu Government.

2.2 Land Planning and Tenure Governance

Vanuatu is in the process of drafting a National Land Use Planning and Zoning policy, which will include land use zoning maps and vulnerable area mapping, addressing both DRR and CCA. The lack of understanding of climate change and variability issues and DRR in the higher echelons of governance is still a major constraint leading to the lack of a coordinated approach to addressing climate-related risks. Financial and human constraints are a major concern to line departments, such as both Meteorology and Environment, which currently depend largely on donor assistance to fund on-going activities at the national and community level.

Given the importance of integrating customary land owners into the REDD+ process, land tenure governance initiatives such as the World Bank's *Jastis Blong Evriwan* (JBE) or Justice for the Poor (translation from Bislama) program as well as national initiatives such as the implementation of the 2006 National Land Summit Resolutions or the National Land Summit Interim Transitional Strategy will be built upon during REDD+ development. REDD+ in Vanuatu will benefit from numerous studies dealing with the complexities of land governance, some of which directly address the issue of dispute resolution. *Jastis Blong Evriwan* promotes equitable land and natural resource exploitation by researching community decision-making and dispute resolution processes and facilitating policy dialogues surrounding customary and formal systems of land governance in Vanuatu. There is also the Vanuatu Land Governance Committee (VLGC) that oversees the implementation of the Vanuatu Land Sector Framework (2009-2012). It has a thematic working group on Land Use Planning. This issue of land ownership registration is very sensitive and REDD+ seeks to support a continuous dialogue at the national level. However, the government and land owners may not be ready to fully integrate land ownership registration into REDD+, which is why it is proposed that area-based activities are not included in the national REDD+ strategy for the time being. Such REDD+ activities may be possible now or in the future in certain areas where the specific land ownership and forest carbon certainty requirements are met. These could be stand-alone forest carbon projects nested into a broader REDD+ Scheme.

2.3 Vanuatu Priorities Action Agenda

The Government's medium-term strategy for development is outlined in the Priorities Action Agenda (PAA) 2005-2016. The PAA recognizes Vanuatu's vulnerability to disasters and states that "the emphasis in disaster management has been on making communities aware of the need for preparedness and promoting the renewal of traditional knowledge of mitigation and preparedness." The priorities include primary sector development, covering natural resources and the environment as well as better linking policy and planning across sectors and government agencies. The Government used the priority areas in the PAA as a starting point for the development of a four-year strategy 'Planning Long, Acting Short: Action Agenda for 2009-2012'.

At the national level, disaster risk management is integrated in the PAA. In 2006, Vanuatu was the first Pacific Island Country (PIC) to begin the integration of disaster risk management as a part of national planning. A key priority and strategy is to prepare a Port Vila development plan, which mainstreams climate change and DRR measures. At the more local level, a key priority and strategy in the PAA is developing and implementing risk reduction programs in communities.

2.4 Forest Policy

Vanuatu's recently endorsed forest policy (2011-2020) seeks to integrate climate change adaptation and mitigation through reforestation and forest conservation as well as improve the

participation of Ni-Vanuatu in the development and management of the forest sector. This policy also defines the roles and responsibilities of the various actors involved in the forest sector. The forest policy is the result of numerous national and Provincial consultations, including over 180 individuals from 30 institutions. REDD+ will build upon the experience and knowledge gained during this broad consultation process, which will be integrated into the Consultation and Participation Plan elaborated in Component 1c.

3. REDD+ Institutional Management Arrangements

The national readiness management arrangements for the Vanuatu REDD+ Program are in active development, based on a governance and management structure presented in the structure diagram below.

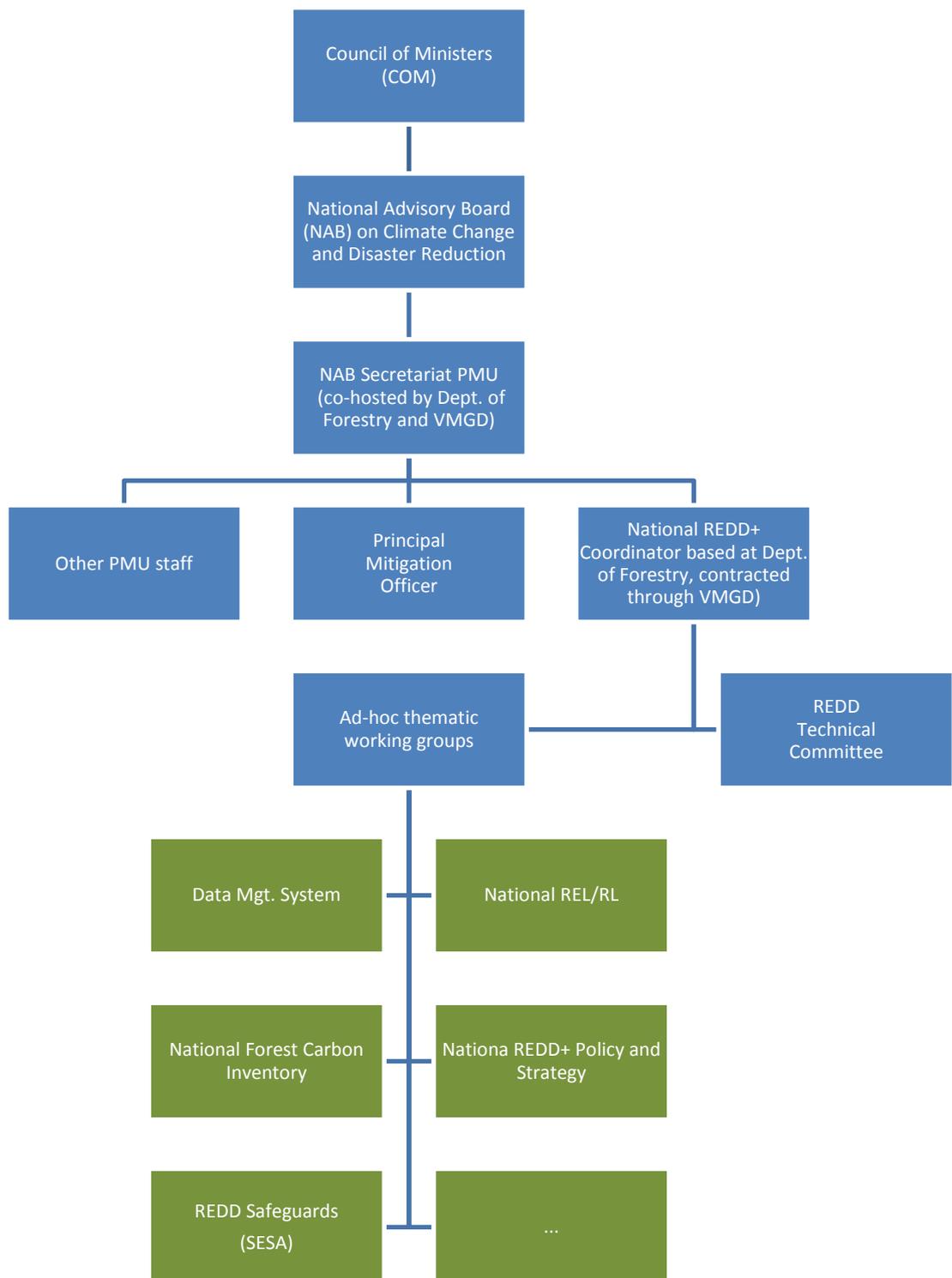


Figure 1: REDD+ National Institutional Framework

3.1 REDD+ Technical Committee

The NAB is the governing body responsible for the overall coordination of REDD+ activities and of donor efforts supporting REDD+ or land use activities. It can be considered the ‘Steering Committee’ for the National REDD+ Program. The NAB will formally execute the National REDD+ Technical Committee (TC). The TC and its location in government structure were established during a multi-stakeholder REDD+ workshop in September 2012 (see Annex for list of participants and other issues raised during the workshop). This structure was agreed upon by all workshop participants and has been accepted by Vanuatu’s Council of Ministers.

The role of the REDD+ Technical Committee will be to make recommendations to the NAB for decisions on the National REDD+ Program, and to provide strategic oversight to the National REDD+ Program. The TC will be responsible for the development of a framework for the integration of environmental and social safeguards into the National REDD+ Scheme. Although the TC has held three meetings since its inception, the NAB must establish a mandate for the TC to provide direct oversight of the National REDD+ Program. Once this has happened, a more detailed ToR and the division of responsibilities across members can take place.

It is proposed that the minutes of TC meetings be uploaded to the [Vanuatu Climate Change Portal](#) (managed by NAB), which will support transparency in the decisions and updates regarding REDD+. Stakeholders will be informed where they can find these minutes and a process for receiving and integrating feedback from stakeholders is further developed in components 1b and c.

The TC is comprised of representatives from the following agencies: Forestry (REDD+ Coordinator, Co-Chair), Environment, Agriculture, Project Management Unit (VMGD) (Co-Chair), Lands, Foreign Affairs, four Civil Society Organizations (CSOs), and Trade & Industry, such as the Chamber of Commerce. As described in more detail in component 2c, responsibilities for REDD+ will be streamlined into the work of governmental staff during the R-PP implementation process. The integration of responsibilities regarding REDD+ is expected to take place at the DoF, but also with other agencies and ministries, especially those with a role in the TC, as described below.

Table 1: REDD+ Technical Committee Representatives and Roles	
Committee Member	Role
Department of Forestry (Co-chair)	REDD+ Coordinator, Chair, forest management, technical support, forest policy governance & law
Project Management Unit (VMGD) (Co-chair)	Coordination of REDD+ programme with broader climate change mitigation strategies and programmes, NAB liaison, UNFCCC focal point & coordinator of international REDD+ policy with other agencies
Department of Environment	Environmental safeguards and community conservation areas
Department of Agriculture	Addressing drivers of deforestation & strategic relationship between forestry and agricultural lands and land management
Department of Lands	Representing landowner and land issues, databases, mapping
CSOs (n=4) LIVE & LEARN, VCC, Transparency Vanuatu, VANGO	Social & environmental safeguards, extension & outreach, on the ground experience, grievance process, independent advice
Department of Trade	Commercial elements of REDD+ & carbon trading activities, consistency with

	trade policy, benefit distribution & marketing
State Law Office	Give legal advice on taxation issues
Chamber of Commerce	Links private sector with government work

Efforts will be made to better integrate the private sector into REDD+ planning and activities. Commercial agriculture along with forestry enterprises, both large and small, have been reached out to and already have a history of being involved with strategic policy planning, such as through forest policy development. Associations of small forestry enterprises are being supported by the DoF and these will be integrated into the REDD+ process during R-PP implementation.

The main civil society organization involved with REDD+ in Vanuatu is Live & Learn Vanuatu. Other national NGOs remain limited in their capacity to participate in REDD+ due to lacking awareness and resources. Awareness material is being developed specifically for civil society organizations, such as World Vision, TVET, Red Cross, etc., and their increased participation in REDD+ will be a main priority of R-PP implementation.

The ToRs for the TC will be developed during R-PP implementation, which will then be approved by the NAB. However, the DoF will streamline responsibilities for REDD+ among its staff during the R-PP implementation process as is expected of other agencies and ministries relevant to REDD+.

3.2 Ad-hoc technical working groups

Ad-hoc working groups (AWG) will be set-up when required to, advise the National REDD+ coordinator and the TC on specific issues. These groups will be formed as the need arises in order to prepare technically well-informed decisions for the NAB. Five potential AWGs are listed above in the organogram, including for instance the future data management system and the SESA. The TC and the national REDD+ Coordinator decide on the appropriate compilation of the working groups. This can and will involve people outside the TC as well as consultants if required.

3.3 National REDD+ Coordinator

The REDD+ Coordinator will be guided by, and report to the REDD+ TC. The National REDD+ Coordinator is located in the Department of Forest (DoF), which is the core implementing agency for the Program. Implementation activities will also be carried out by agencies other than the DoF, but only with TC approval and under the oversight of the National REDD+ Coordinator, in cooperation with DoF. The DoF has the administrative responsibility to manage forests (see 2a for the proposed definition of forests in the context of REDD+ in Vanuatu) and forest operations (Forestry Act 2001). As outlined in the national forest policy, the DoF promotes the integral and sustainable management of all forest resources for the supply of products and services. It collects information about forest resources, conducts forest research and facilitates the development of commercial plantations and agroforestry systems.

The DoF is limited in its capacities and for the purposes of R-PP implementation, a technical specialist will be hired to support the DoF, and from there also other government sectors. The technical specialist will help to identify the studies to be commissioned for the R-PP; prepare the terms of references (ToRs) for these studies; help select the technical expertise for these studies; provide thematic supervision of these consultancies; provide continuous support to the REDD+

Coordinator on technical matters; approve reports and technical studies; and follow up on uptake. With the help of the technical specialist, the REDD+ Coordinator will support the process of developing and refining the national REDD+ strategy, including a causal analysis of deforestation and forest degradation and identification of necessary policy reforms.

3.4 Extension & Outreach Manager

An Extension & Outreach (E&O) manager will be hired to further support the DoF in identifying stakeholder groups and conducting consultations with regional/local governments, the private sector, civil society, NGOs, traditional land rights holders, indigenous people, parliamentarians and other relevant stakeholders. The E&O manager will organize the interactions with stakeholders and work closely with those involved with the social and environmental impact assessment (as described further in 2d SESA) and consultations surrounding R-PP implementation and REDD+ development.

The E&O manager will also help the DoF effectively communicate with the Provincial Governments (PG) regarding REDD+. There are no Provincial forest departments. The DoF is centralized with extension officers at the Provincial level. These officers are not necessarily able to reach the entire Provincial population, and instead remain limited to their island. As the main providers of extension services to resource users, the PGs will play an important role in developing and implementing REDD+.

Landowners, or Ni-Vanuatu,¹ decide how their forest resources are managed. Given the proximity of PGs to these mostly rural resource users, the PG's mandate includes administrating and organizing Provincial land use plans in collaboration with officers at the national agency level. For example, the establishment of conservation areas is done at the national level and the management at the local level, facilitated by PGs. However, PGs are faced with significant capacity constraints and are unable to fully exercise their mandate. The DoF, in collaboration with the E&O, will identify the main constraints of the PGs and develop strategies to meet their needs and overcome their operational barriers.

3.4 Provincial REDD+ Stakeholder Committees

Provincial REDD+ Stakeholder Committees will be created in order to facilitate REDD+ implementation. The only mapped and undisputed boundaries in Vanuatu are the shores of the islands. The carbon emission reduction performance can therefore easily be broken down to Provincial performance. In order to broadly distribute REDD+ investments and reach rural Ni-Vanuatu, these Provincial REDD+ Stakeholder Committees will play an important role, as further described in Component 2c.

On Provincial level, committees will be formed that gather to discuss and decide on the priority areas for government investments in sustainable land use and carbon reduction activities. Two sets of criteria will have to be developed to be included in the ToR of these committees:

1. The composition of the committees. Chaired by the Provincial administration, the group has to include representatives of the local communities, NGOs, CSOs, national government extension officers, women groups, and other relevant stakeholders. A

¹ The term landowners is often used in this document to describe the Ni-Vanautu people who have customary rights to the land in Vanuatu. However, the term 'landholders' instead of 'landowners' more appropriately echoes the customary principle of group ownership, where those considered land owners are not individual owners but holders of the land for a broader group.

stakeholder identification exercise has to be done in advance to the institutionalization of the committee.

2. The criteria for investment priorities have to be determined by the TC before the Provincial committees are created. It is important that the investments support activities that contribute to carbon emission reductions from forestry, efficiently address the main drivers of deforestation and forest degradation, and offer economic development options to the resource users.

4. Conflict prevention, conflict resolution and management of potential disagreement – feedback and grievance redress mechanism (FGRM)

With the assistance of civil society organizations and the State Law Office, the TC will look to establish a grievance mechanism that is accepting of customary approaches to conflict resolution while ensuring transparency of Government responses. The CSO and Department of Lands representatives on the TC will be responsible for developing a feedback & grievance mechanism. An outline of the different options available for the FGRM including potential issues arising with REDD+ that will require an effective FGRM can be found in Annex 1c.

5. Capacity Assessment and Capacity Development

Capacity building is a main priority of the R-PP and a capacity assessment will take place early on during R-PP implementation in order to develop a capacity building plan. The successful implementation of this plan will be fundamental to the future functioning of REDD+ in the country. Capacity building is a cross-cutting issue that is not defined in one component's budget, but instead is integrated throughout the rest of the components. The complete budget required for the capacity building plan will be detailed following the capacity assessment.

Capacity development will help to ensure national ownership of REDD+ in Vanuatu. The capacity gaps to be filled will include representatives of civil society, private sector associations (especially for small forestry and agroforestry enterprises), and national and provincial government officials. Alongside capacity building (or training on the job), education and transparent communication structures will allow for stakeholder participation in REDD+ to continuously improve.

A national capacity development plan will also ensure that trainings and other measures are coherent in content and wording, even if they are conducted by different trainers.

6. Government ownership of the R-PP

The NAB has already made a decision to endorse the development of the R-PP and appoint the National REDD+ Coordinator position. This has followed the endorsement of a National REDD+ Programme by the Development Committee of Officials, and the Council of Ministers (late 2006), the first national REDD+ Roadmap workshop (February 2008), the endorsement of the Vanuatu R-PIN by the NACCC (predecessor of the NAB) (2008), and the National REDD+ Planning Workshop (July 2011). When the R-PP has been approved and subsequently, when the REDD+ strategy is ready for endorsement, the NAB will decide on its approval during its monthly meeting.

Component 1a: Summary of National Readiness Management Arrangements Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Institutional strengthening of NAB Secretariat / PMU	Hire administrative advisor	60	60	60	60	240
Institutional strengthening of DoF	Hire technical specialist	80	80	80	80	320
	Hire Extension & Outreach manager	120	120	120	120	480
REDD+ Technical Committee and Ad-hoc Working Groups	Record meetings and decisions TC	10	10	10	10	40
	Dissemination of findings	15	15	25	30	85
	Travel	30	30	30	30	120
Capacity assessment	Study					
	Develop capacity building plan	40	-	-	-	40
Provincial REDD+ Committees (6 Provinces)	ToR development	10	-	-	-	10
	Stakeholder identification in each Province	50	-	-	30	80
	Meeting costs (travel, preparation, facilitation, documentation)	40	-	-	40	80
Mainstreaming of REDD+ throughout sectors	Identification of relevant positions	40	20	-	-	60
	Integrating REDD+ into job descriptions	-	-	20	20	40
REDD+ assistance	Communication and logistics	30	30	30	30	120
Total		525	365	375	450	1,715
FCPF		455	315	345	420	1,535

Other development partner (not yet specified)	70	50	30	30	180
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1b. Information Sharing and Early Dialogue with Key Stakeholder Groups

**Standard 1b the R-PP text needs to meet for this component:
Information Sharing and Early Dialogue with Key Stakeholder Groups:**

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at the national and sub-national level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

1. Stakeholder Mapping

The GIZ SPC Program funded the first national-level multi-stakeholder REDD+ workshop in February 2008. The key outcome of this workshop was the generation of a multi-stakeholder mandate for the preparation of the Vanuatu R-PIN.

In June 2011, a REDD+ stakeholder analysis was undertaken during the National Planning Meeting for the SPC/GIZ project entitled: "Climate protection through forest conservation in Pacific Island countries." During this multi-stakeholder meeting held in Port Vila, three different approaches were used in a stakeholder mapping exercise in order to highlight different aspects of stakeholders' interests and relationships. Approach 1: Stakeholder Relations; Approach 2: Stakeholder Interests; Approach 3: Stakeholder Management. The outcome of these approaches is outlined below and provides a better understanding of the REDD+ relevant stakeholders in Vanuatu as well as the current working relationships between these stakeholders.

Approach 1: Stakeholder Relations Approach

The Stakeholder Relations approach categorized stakeholders according to the following definitions:

- **Key stakeholders:** Those who have skills, knowledge or power to significantly contribute to the success of the Vanuatu REDD+ Program.
- **Primary stakeholders:** Those who are directly affected by REDD+, i.e. who stand to gain or lose.
- **Secondary stakeholders:** Those who are indirectly or temporarily involved but can influence implementation and outcome to a degree that requires action from the Vanuatu REDD+ Program.

This exercise resulted in the generation of a stakeholder map as illustrated in the photo on the right and presented as a diagram below.

Vanuatu REDD+ Stakeholder Map

The group clearly defined the Department of Forests (DoF), the Department of Environmental Protection and Conservation (DEPC) and the National Advisory Committee on Climate Change (NACCC), which is now called National Advisory Body on Climate Change and Disaster Risk Reduction (NAB), as key stakeholders while land owners and commercial plantations were sitting on the fence between key and primary ‘stakeholdership.’ Other primary stakeholders included the Department of Meteorology, Department of Agriculture, Lands Department, investors, carbon credit markets, Live & Learn as well as VANGO (Vanuatu Association of Non-Governmental Organizations). All other players were categorized as secondary stakeholders.

It was interesting to see that the perception is of good and trustful collaboration between most stakeholders while no conflicts were identified. NACCC/NAB was seen as being able to exert power over the other key players except for the land owners.



Approach 2: Stakeholder Interests Approach

The Stakeholder Interests approach focused on stakeholders’ interests and tried to identify which interests concerning REDD+ are shared between groups of stakeholders. Stakeholders were again categorized between three groups: Government Sector including international agencies, Civil Society (including land owners) and the Business Sector. A graph with three intersecting circles allowed identifying interests exclusively held by one group as well as those held between two groups or all three of them. The results of this exercise is outlined in Figure 2 below. Note that NACCC is now NAB.

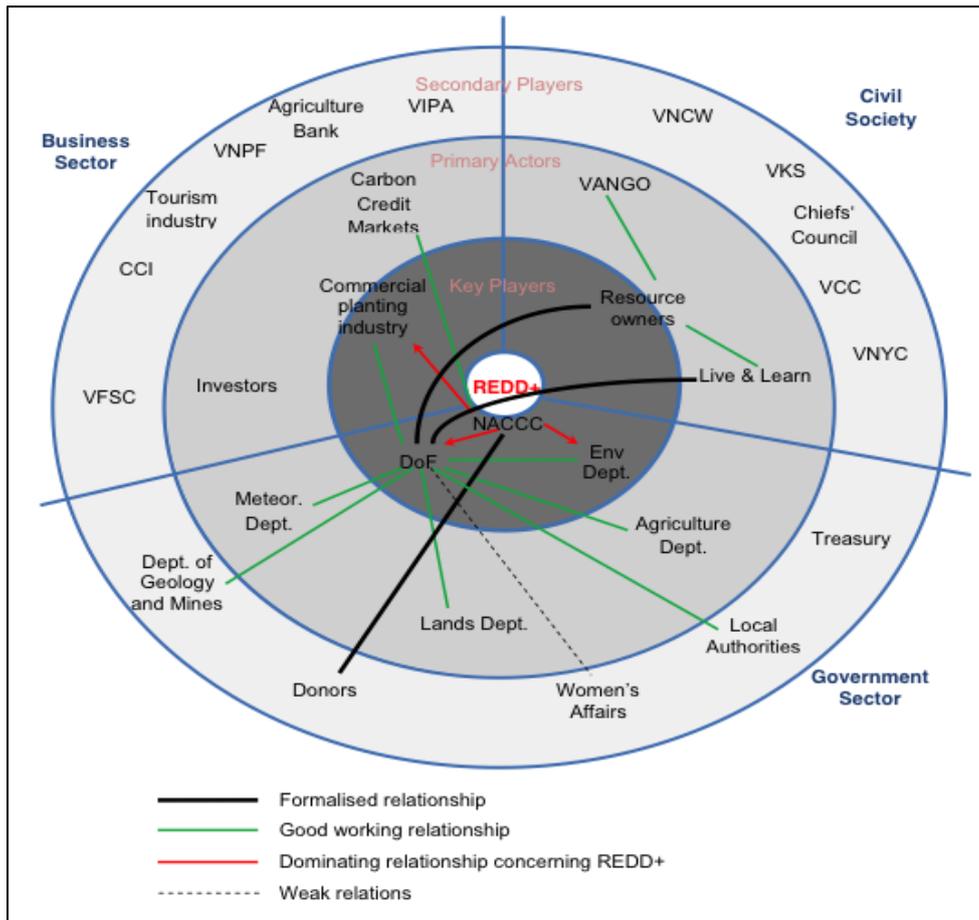


Figure 2: Stakeholder Analysis

Exclusively held interests were identified as follows:

- **Government:** Increase tax revenue, national REDD+ steering process, attract investment;
- **Business Sector:** make profits, low certification standards, purchasing carbon rights, plantation forestry, finding co-financing and loans (capital for investment);
- **Civil Society:** full informed and prior consent from land owners, community based organizations, implementation of safeguards, maintain biodiversity, environmental and sustainable forest management principles, secure project funding;
- **Shared by Government/Business:** develop forest industry;
- **Shared by Civil Society/Business:** Investment, benefit sharing mechanism;
- **Shared by Government/Civil Society:** Fully enabled communities that participate (community commitment, governance structure, full participation from community for



REDD+ to be successful, build community capacity), enabling environment and framework conditions, high certification standards;

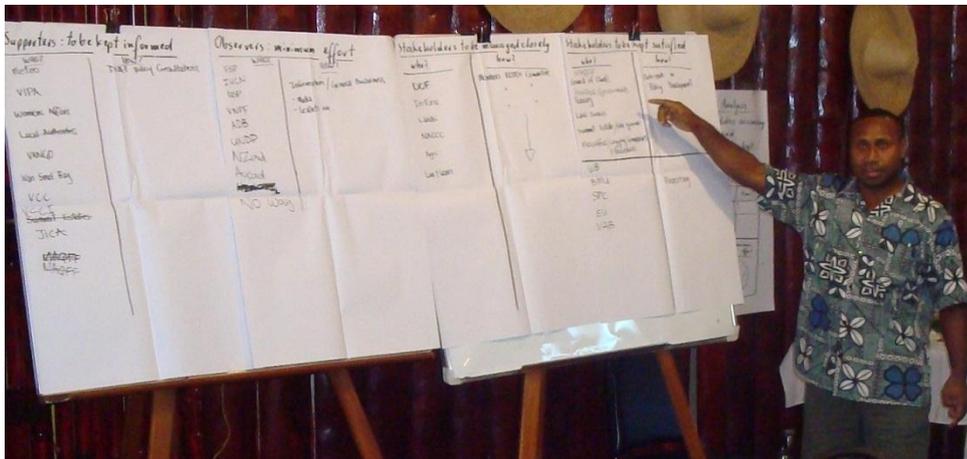
- **Shared by all groups:** Clear legal arrangements (credits for voluntary markets, existence of a clear national REDD+ policy, and existence of a national forest policy), technical capacities (community forestry development, carbon sequestration assessment capability, national forest inventory).

Approach 3: Stakeholder Management

The third method focused on how different stakeholders need to be managed appropriately as seen from the perspective of the key stakeholders, those who “run the show” (DoF, Department of the Environment, NAB).

Four options were made available:

1. Stakeholders who are essential to the entire operation and that need to be managed very closely: Lands Department, Department of Agriculture and Live & Learn. These stakeholders are now part of the TC described in Component 1a.
2. Those who are important but not as directly influential as the first group and that need to be kept satisfied: Ministry of Agriculture, Fisheries and Forests, Council of Chiefs, Provincial Governments, Treasury, land owners as well as big commercial interests (e.g. Summit Estate – tree growing, Melcoffee – logging and processing, etc.). These should be directly and intensively involved in the policy development process. A second group of influential stakeholders are multilateral organizations and donors with on-going programs. These will receive full reports on all steps of the process and participate according to their interests in the policy process.



3. Supporters who can influence outcomes but have a fairly weak direct involvement: These will receive regular reports on progress: all donors having shown interest but not yet committed to any projects, Department of Meteorology, Women’s Affairs, Vanuatu Investment Promotion Authority (VIPA), Chamber of Commerce (CCI), Vanuatu Association of Non-Governmental Associations (VANGO), Council of Churches (VCC), Won Smolbag theatre group.

4. Observers who cannot make much of a difference and where only a minimal effort is required on behalf of the REDD+ key players: Foundation for the People of the South Pacific (FSP), International Union for the Conservation of Nature (IUCN), University of the South Pacific (USP), Vanuatu National Provident Fund (VNPF).

2. REDD+ information sharing and awareness raising

Similar to other initiatives that seek to build demand for better governance, active participation in REDD+ requires access to information. Social accountability, a concept popularized by the World Bank, includes a range of approaches initiated by civil society or the state in order to build more “accountable, transparent and responsive government.”² It refers to the “range of actions and mechanisms (beyond voting) that citizens, communities, civil society organizations (CSOs) and independent media can use to hold public officials and servants accountable.”³ In order to hold governments accountable, people need to understand the role of elected officials, how governments are meant to operate, and the law and how it relates to them. They need to understand their rights and entitlements and also their responsibilities and they need to have access to the media and information about government performance. In addition to knowledge of entitlement, they also need a “credible grievance and redress mechanism and empowerment to access them.”⁴ Bottom-up demand for good governance is central to the success of REDD+, but the ability of citizens to collectively demand governance reforms depends on their level of awareness and understanding.

2.1 Civil Society engaged in REDD+

Social accountability remains limited in Vanuatu, in part due to insufficient information sharing structures. The challenges facing REDD+ information sharing in Vanuatu include low literacy, scattered rural communities and the lack of a vibrant civil society, especially compared to other countries engaged in REDD+.⁵ Poor education and lack of access to information inhibits the development of a healthy, active and questioning civil society.⁶ Although civil society organizations exist, the most prominent NGO involved in REDD+ has been Live & Learn, an environmental organization in Vanuatu that participates in a range of activities and contributes to policy development and review and consultation processes and routinely fulfills the role of public awareness and education within or complementary to government projects.

Live & Learn is currently implementing a [pilot project](#) that tests a community-owned model of REDD+. This project will allow forest owners to financially benefit from reforestation of degraded land and forest conservation as well as be provided with various co-benefits for project participation. The project includes local awareness-raising and educational activities in the pilot site as well as a broader communication strategy that seeks to foster collaboration between government departments, development organizations, conservation organizations and research institutions on development of REDD+ policy mechanisms and support systems.

² Arroyo, D & K Sirker (2005), *Stocktaking of Social Accountability Initiatives in the Asia and Pacific Region*, Washington DC, World Bank.

³ Malena, C with R Forster & J Singh (2004), *Social Accountability: an Introduction to the Concept and Emerging Practice*, Washington DC, World Bank.

⁴ Oxfam Australia (2006), *Submission to Human Rights Sub-Committee of the Joint Standing Committee on Foreign Affairs, Defence and Trade Inquiry into Australia's aid program in the Pacific*.

⁵ Saldanha, C (2005), *Pacific 2020 Background Paper: Political Governance*, Canberra, Commonwealth of Australia.

⁶ Haley, Nicole. Strengthening Civil Society to Build Demand for Better Governance in the Pacific: Literature Review and Analysis of Good Practice and Lessons Learned. Australian National University Research School of Pacific and Asian Studies: State Society and Governance in Melanesia: Discussion Paper 2008/7.

Live & Learn has also developed the film “Ready for REDD?” which helps enable indigenous and local communities to understand REDD+ at a level where their participation is genuine and effective. The film is a useful tool for project developers, educators, planners, extension officers and community development practitioners. The animation is the second of a two-part DVD, the first also an animation providing education on climate change and the role of forests in mitigation. Both films have been produced in four languages being English, Fijian, Bislama and Solomon Islands Pidgin.

Live & Learn has also developed a short animation “Climate Change and Community-based REDD+ Education Manual,” which seeks to assist policy makers and project developers in explaining REDD+ to Ni-Vanuatu and other indigenous or local communities in the Pacific Islands. The manual begins with a self-assessment tool for measuring existing knowledge and gaps in understanding at the community level.⁷ The manual is an important step in explaining a community’s right to give or withhold their free, prior and informed consent (FPIC) for developments on their land, including REDD+.

2.2 Managing expectations

Due to the dangers of raising expectations regarding future flows of money from forest carbon finance, awareness-raising regarding REDD+ in Vanuatu must take place with caution. Live & Learn has already received inquiries regarding the payments that can be received from forest carbon. A fuller awareness raising campaign will take place during R-PP implementation but it is important that a communication strategy for how REDD+ will be explained and the benefits it can generate for Ni-Vanuatu must first be fully developed. Especially for how REDD+ will be explained at the village level, where a full understanding of the technical issues surrounding carbon accounting and monitoring may be impossible to achieve and mention of carbon finance may only be misleading and lead to conflicts.

3. Early Dialogues

In November and December 2012, information sharing and early dialogue was carried out by the DoF, GIZ and PMU in the Provinces of Tafea, Sanma and Malampa. These three islands were chosen for their relatively larger size and thus strategic role in REDD+, especially as regards the future pilot project sites. A diversity of stakeholders attended, including farmers, private sector representatives and Provincial government officials. The three workshops lasted one- two days and covered the following issues:

1. Basics of REDD+, emphasizing the nature of activities, benefits and interest of government;
2. Discussion on the motivation of landowners to introduce REDD+ and related activities and describing the background of sustainable land management practices;
3. Collection of information on how the landowners expect the governance setup to function.

After a brief introduction on the basics of REDD+, participants were invited to share their thoughts regarding REDD+ in general as well as more specific issues and specifically how a REDD+ strategy could be shaped in the future. It was during these early dialogues that the first

⁷ Henderson, R. Climate Change and community-based REDD+ education manual / R. Henderson, A. Nelson, S. Kiessling. – Suva, Fiji : Live and Learn Environmental Education, 2012.

ideas regarding a national investment program for sustainable land use activities were generated. Most dialogue participants agreed that forests are highly valued in Vanuatu, especially because the majority of rural livelihoods directly depend on them. In general, Ni-Vanuatu landowners showed an interest in future support through REDD+, such as through extension services for more sustainable agroforestry methods or agricultural methods that allow for higher productivity and less deforestation.

During January 2013, Live & Learn Vanuatu (Live & Learn) conducted further early dialogues for the specific purpose of developing the Consultation and Participation Plan, further described in Component 1c. These early dialogues occurred in three of Vanuatu's six Provinces: Sanma, Tafea and Shefa.

Live & Learn facilitated focus group discussions and interviews with government and non-government stakeholders and conducted community consultations with rural Ni-Vanuatu communities on the major islands of Efate, Santo and Tanna. These consultations sought to obtain information from stakeholders on their experiences of government consultation on land use issues and their advice for effective consultation in the future. Live & Learn engaged 273 stakeholders during this round of consultations. A list of these stakeholders can be found in Annex 1b of the R-PP.

During early dialogues, two points were repeatedly made by all stakeholders regarding effective consultation and participation. Firstly, effective consultation in Vanuatu comes with many unmet challenges leaving communities and stakeholders with a feeling of disconnection from policies and activities outside of their communities. Secondly, existing structures for communication, despite being highly localized and in some cases weak, must be respected and strengthened.

4. Communication

The [Vanuatu Climate Change Portal](#) and the SPREP Regional [Pacific Climate Change Portal](#) are national and regional internet-based platforms that converges REDD+ related info in Vanuatu and the region respectively. Although some people may not have internet access, it can be seen as an increasingly important medium in the upcoming years.

Talk Back Shows on radio are very popular and although they only reach urban and semi-urban populations, they are a good way to get general feedback from the public or to spread a message. A radio play specific to REDD+ has been developed in *Bislama* and this will be broadcast following R-PP approval. JBE recognized that theater is an effective way for communicating sensitive research findings regarding land leasing conflicts and other issues and risks associated with land tenure arrangements.⁸ Such channels will be further explored during R-PP implementation.

The Vanuatu Daily Post was invited to attend and report on the national stakeholder meetings that validated the R-PP. At these TC meeting, the ways for REDD+ to become more engaged with this newspaper in the future will be explored.

Challenges experienced by Organisations in ensuring effective participation with rural communities

Interviews with government and non-government stakeholders that were done as part of the information sharing and early dialogue highlighted the challenges they will face in ensuring

⁸ United Nations Development Program (UNDP). Assess to Justice Assessments in the Asia Pacific: A Review of Experiences and Tools from the Region. February 2012, pp.37-41.

effective participation. Reaching Vanuatu's rural communities, comprising 75% of the total population⁹, can be seen as the central challenge of effective consultation. These key stakeholders are generally not reached by radio, newspaper or standard communications. Travel out of main urban centres in Efate, Santo and Tanna is very expensive and slow. Many communities are unreachable by mobile phone or road.

Further, challenges for effective engagement of communities, who in the Vanuatu context can be seen as rurally-based resource users, are listed below.

- Literacy is very low in Vanuatu (assessed at 27% in 2011) but minimal telecommunications infrastructure means using this tool for communication remains limited.
- With 75% of the population living rurally, Provincial governments are central communication points for reaching these key stakeholders; However, Provincial governments have limited resources. A Plan for Consultation and Participation relying too much on the Provincial government may place too much pressure on already weakened structures and processes. The plan would be 'easy' but in fact inadequate
- Consultations made by government with the rural population have traditionally requested representatives from communities to travel to a central place to undertake the consultation process. This form of consultation has proven to be a poor way to engage. Separation from the communities does not assist in ensuring all views are provided and the content of the workshop is not often well disseminated back to the community.

5. Identification of Environmental and Social Risks

According to the concerns of land owners expressed during the early dialogue in the Provinces, land registration through the form of a lease is not wanted by customary land owners. Currently, it seems as though area-based REDD+ projects in Vanuatu will require land to be leased or at least demarcated. Customary land owners perceive the risk of unjust demarcation of land and of loss of land under current power relations and are thus hesitant to allow for official land registration. Land owners do not have confidence in lease arrangements or courts.

Some of the main challenges highlighted by stakeholders regarding effective Government engagement and other risks identified during the early dialogues include:

- Reaching Vanuatu's rural communities, comprising 75% of the total population, is a challenge. These key stakeholders are generally unreachable by radio, newspaper or standard communications. Travel out of main urban centres in Efate, Santo and Tanna is very expensive and slow.
- Literacy is very low in Vanuatu (assessed at 74% in 2008¹⁰) requiring effective oral and visual means of communication. Both the translation of REDD+ terminology into Bislama and the accessibility of technical concepts for the illiterate population is a challenge.
- Provincial Governments and Government Departments are financially stretched and putting too much pressure on already weakened structures and processes may provide an easy but in fact inadequate plan for consultation and communication.

⁹ Malvatumauri National Council of Chiefs and Vanuatu National Statistics Office., 2012, *Alternative Indicators of Well-being for Melanesia, Vanuatu Pilot Study Report*; Executive Summary p.X

¹⁰ <http://www.unesco.org/uil/litbase/?menu=14&programme=34>

Certain key points, in relation to the implementation of REDD+ in Vanuatu, have been made by stakeholders during consultations.

- Any process that requires leasing of customary land in Vanuatu should be avoided and will provide too great a challenge for REDD+ in Vanuatu unless dramatic reform occurs within the next 5-10 years.
- Credit volumes and in-country capacity are too small for a highly complex REDD+ policy requiring a large amount of resources. The implementation of the R-PP must attempt to simplify the process where possible.

Resource users engaged in early discussions raised the following concerns in relation to REDD+:

- Political decisions often have huge impacts on land-use decisions and often interfere with land owners plans.
- Corruption at all levels is a concern for the effectiveness of the program.
- Resource users and communities need to see benefits to livelihoods through increased income to be interested in any REDD+ program
- Projects and programs tend to fail due to a lack of ongoing engagement and monitoring in communities.

6. Incorporation of gender into information sharing and dialogue and REDD+ Readiness

The Vanuatu REDD+ Programme will adopt an approach that is consistent with the recommendations of the National Plan of Action for Women 2007-2011. The Extension & Outreach program will also pay particular attention to gender, both in terms of the staffing of Extension & Outreach and the approach to Extension & Outreach activities.

Given the small number of women present during the early dialogues, there is the risk that women will not be well represented or fully incorporated into REDD+ development in Vanuatu. The challenges have been highlighted regarding adequate gender representation in the RPP implementation process include:

- Rural women are the main decision-makers regarding agriculture on custom land. They undertake most agricultural activities including the sale of agricultural produce and ensuring the nutritional needs of their family. Despite this, most communities are patrilineal and any decisions regarding the leasing of land generally do not involve women. Women are also often excluded from consultations relating to land-use management.
- Women's traditional roles within the community, surrounding their comfort with speaking of their views to an audience and their lack of free time make it difficult to engage them in standard workshops or presentations.
- While youth are often engaged during consultations, ensuring that female youth are included is a challenge for the same reasons as outlined above for women in general.
- There are very few women, youth or people with disabilities in high-level positions in Government. Ensuring adequate representation needs to also address the composition of the Technical Committee and key REDD+ decision makers.

7. National Ownership of REDD+

In September 2012, National REDD+ Policy Workshop for REDD+/R-PP information sharing took place in Port Vila. This multi-stakeholder workshop involved training and awareness raising for participants (days 1 and 2) followed by an R-PP drafting session (day 3). This session involved multi-stakeholder dialogue resulting in core elements for input into Components 1 and 2 of this R-PP. The participants (see Annex 1a for list) who attended the National REDD+ Policy Workshop and who contributed to the drafting of this R-PP will all receive a copy of the draft R-PP with track changes prior to its finalisation. Several participants to this workshop formed the Vanuatu R-PP Drafting Committee, who met in December 2012- January 2013 to review and approve the R-PP prior to submission to the FCPF. In the process of finding the appropriate structures, the TC will from now on take over this task. Detailed issues will be dealt with in the TWG.

A 3-page summary of the R-PP was provided to the TC for broader distribution amongst government agencies and other stakeholders or institutions the TC members represent. This highly condensed version of the R-PP allows stakeholders to better understand Vanuatu's proposed REDD+ strategy and provide their ideas and suggestions for how it can be improved.

REDD+ remains a very new concept for many stakeholders and currently ownership sits with the Department of Forestry and to some degree the NAB PMU. As the national REDD-plus strategy develops further many sectors will be offered a more tangible explanation of how they may impact and/or be impacted by REDD+. Efforts for a cross-sector response to climate change and disaster risk reduction is generating an understanding of the need for transdisciplinary action and this is helpful for broadening the sense of ownership across various Government departments and national stakeholders. Further funding and staffing towards REDD-plus will also help the REDD+ move from being viewed as a forestry project to that of a national program of significance for many sectors.

During one-to-one meetings held in January 2013 as part of Live & Learn's early dialogue work, the Department of Foreign Affairs, the Department of Agriculture and the State Law Office offered their support to the R-PP process. This support is hugely important and will be key to providing the Department of Forestry and the Project Management Unit under the NAB (NAB PMU) with the support needed in R-PP implementation.

Challenges experienced by government in engaging other government and non-government stakeholders in policy and action

Government also mentioned challenges found in engaging other government and non-government stakeholders in government policy and action.

- Given the size of Vanuatu there is a relatively small pool of active civil society and government stakeholders with whom to engage. Often those with high capacity to put towards engagement on cross cutting issues such as REDD-plus are in high demand. The significant pressure on their time means that although a commitment is made, other staff are often sent with little background to the REDD-plus program. A constant turnover of stakeholders means a constant requirement to provide REDD-plus training during key consultation meetings. This has already been experienced for REDD-plus consultations during the R-PP development phase.
- Meetings with government and non-government stakeholders are often viewed as opportunities for capacity development rather than opportunities to provide input and advice. This leads to a lack of preparation before meetings and low participation should

the purpose of the meeting not be clearly articulated prior and effective engagement strategies adopted.

- Seating allowances are common and often used to ensure that key people attend meetings. Should seating allowances be provided this may attract a more senior participant but not necessarily the one who needs to be engaged on REDD+.
- Vanuatu has a strong communitarian culture where speaking as an individual is not common. Consultations expecting those with a view or opinion to voluntarily offer this to the group often fail to capture adequate information. Other alternatives to obtaining information need to be sought.
- Email or telephone invitations for consultations are rarely effective. Face to face invitation with follow-up contact via email, letter or phone is required despite being time consuming and costly.

Component 1b: Summary of Information Sharing and Early Dialogue with Key Stakeholder Groups						
Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Continuation of Information Sharing and Early Dialogue	Development of Plan for Continued Information Sharing and Early Dialogue	15	-	-	-	15
	Implementation of Information Sharing and Early Dialogue	-	50	30	-	80
	Review/Evaluation of Information Sharing and Early Dialogue process	-	-	-	25	25
	National level awareness raising campaign for REDD+	-	30	-	-	30
	Hire local PR consultancy	20	50	50	50	170
Consultation and empowerment at local community level	Workshop logistics and travel	80	60	40	-	180
Capacity building and dissemination of the REDD+ strategy	Multi stakeholder REDD+ strategy events	10	5	5	-	20
	Logistics and travel	20	10	10	-	40
	Dissemination	30	20	10	-	60
Total		175	225	145	75	620
FCPF		115	190	120	50	475
Other Development Partner (not yet specified)		60	35	25	25	145

1c. Consultation and Participation Process

**Standard 1c the R-PP text needs to meet for this component:
Consultation and Participation Process:**

Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP (i) the consultation and participation process for R-PP development thus far (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase (iv) concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP; (v) and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

1. Stakeholder validation

Live & Learn Vanuatu (Live & Learn) has been subcontracted to develop a draft Consultation and Participation (C&P) Plan. The development of this included stakeholder meetings at the national, Provincial and local level as described in component 1b. Following the completion of the C&P Plan and budget, the DoF and Meteo, co-chairs of the TC, organized a national level multi-stakeholder workshop to validate both the activities proposed in the C&P Plan and the general aspects of the R-PP. During R-PP implementation, continuous validation of REDD+ will be sought and fed back into the process. The C&P Plan itself remains flexible and can be adopted by incorporating the feedback arising through TC meetings and outreach to the Provinces where consultations with key stakeholders and vulnerable groups will help to make REDD+ more inclusive. Much effort has been given to make the C&P Plan culturally sensitive, incorporating traditional knowledge to the extent possible.

As explained in Component 1b, consultations should be premised on transparency and timely access to information. Information dissemination at all levels and in a culturally appropriate manner is a pre-requisite to meaningful consultations. Stakeholders should have prior access to information on the proposed consultation activities. Sufficient time is needed to fully understand and incorporate concerns and recommendations of local communities in the design of consultation processes. REDD+ in Vanuatu is at very early stages and it is now that public awareness and information, education and communication campaigns are important vehicles for ensuring that stakeholders understand the objectives of REDD+, the related risks and opportunities and their potential role in the process, and can – if they decide to do so – make informed and substantive contributions to the formulation of REDD+ strategies and policies. Information sharing among stakeholders will be significantly scaled up upon receipt of the next Readiness fund from the FCPF.

2. Consultation and Participation Plan Preparation

The national multi-stakeholder consultation and participation process for REDD+ has been hampered by a lack of funds to support a consultation process. Travel to rural communities is the most appropriate way to engage the largest amount of stakeholders in a meaningful way, but it is very expensive to travel and time-consuming to travel between islands. This has been remedied

to some extent by the FCPF R-PP grant, and accordingly, a multi-stakeholder consultation and participation process was developed. In addition, Vanuatu has been part of an international REDD-plus consultation process through the SPC/GIZ regional project entitled: “Climate Protection through Forest Conservation in Pacific Island Countries,” which has further funded three early dialogues in different Provinces. Furthermore, at the national level, there has been participation at regional REDD+ technical and policy workshops from 2009 – 2012.

2.1 Lessons learned from Early Dialogues for Consultation & Participation Plan

During the information sharing and early dialogue process undertaken by Live & Learn, all stakeholders, including those consulted in communities, offered helpful advice in relation to effective consultation and participation to be incorporated where possible into the C&P Plan:

- While newspaper is limited to the urban population, radio and mobile phone communication provides the greatest avenue for the spread of information other than effective use of word of mouth.
- The large majority of cooperatives in Vanuatu are managed by women. Further to this, the Department of Cooperatives conducts face-to-face contact with every small business or cooperative in Vanuatu at least once a year. The Department could therefore be a good stakeholder to assist in reaching women, in harnessing participation regarding income generation and benefits sharing for REDD+ and also in information dissemination of REDD+ programs.
- There are organizations in Vanuatu who can provide strong facilitation for workshops and focus groups. They can also train staff to improve facilitation skills. Some of these groups are TVET, Voices for Change, Transparency Vanuatu and Live & Learn Vanuatu.
- Talk Back Shows on radio are very popular and although they only reach urban and semi-urban populations, they are a good way to get general feedback from the public or to spread a message.
- DVDs and visual information materials, such as power point presentations, are highly effective if developed in the national language (*Bislama*).
- There are many formal and informal CSOs and government departments with staff working in remote areas that could assist with information dissemination.
- Community-based organizations and/or community-based committees are a good avenue through which to send information to communities even though they do not often fall within formal communication structures (such as the Provincial structure linking Area Council Secretaries with Chiefs).
- While mobile phone carriers cannot send isolated group texts, they can send nation-wide or potentially Province-wide text messages.
- The *Jastis Blong Evriwan* program run by the World Bank has undertaken a participatory process for the development of its pilot program. This model could be used by the Plan to enhance engagement in the TC and AWGs.

- To ensure a clear and cohesive message from government, all materials used in communication with communities can be first endorsed by the Information, Education and Communication Working Group under the NAB.
- The Vanuatu Government has a new online portal for climate change and disaster risk reduction (the NAB Portal). It is possible to upload events, announcements, project information and resource materials onto the site.
- The Vanuatu Government has a regular bulletin that is circulated to all Government staff.

2.2 Utilizing and strengthening existing communication structures

During consultations, different communication structures were described by stakeholders and are represented in the flow charts below (Figures 3 –6). Vanuatu is highly decentralized and diverse with communication structures changing from Province to Province. This diversity needs to be addressed through a C&P Plan that seeks to reach and communicate through different structures. Furthermore, the need to respect and strengthen existing communication structures was stressed by stakeholders. In the situation where these existing structures are weak, the C&P Plan must provide greater support. It is important that these existing structures are not ignored.

During a focus group discussion with government, non-government and community stakeholders in Santo in January 2013, the following diagram (Figure 3) was drawn to explain how stakeholders can be engaged on issues to do with government programs and policies. The Vanuatu Government, through this structure, engages Provincial government, municipal councils (two exist in Vanuatu) and government departments. These three entities are then responsible for passing information through to stakeholders working at the local level, namely Area Secretaries and Extension Officers. Information then flows back to Government in a reverse order.

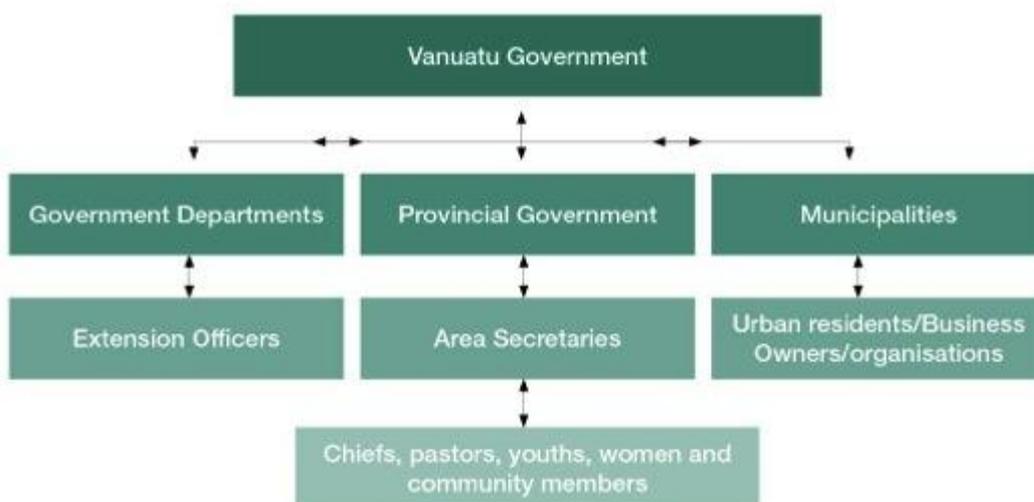


Figure 3: Communication Structure described during the focus group discussion in Santo

The Department of Environmental Conservation and Protection (DECP), in an interview, outlined a structure they commonly use to communicate with communities. This structure focuses on associations as representatives of communities. (Figure 4.5).



Figure 4: Communication structure used by DECP

The Secretary General for Shefa Province explained, in an interview, that the following structure (Figure 5) should be used for communication transfer between the Vanuatu Government and Provinces.



Figure 5: Standard communication structure between National and Provincial Government

The structure below (Figure 6) was suggested in consultations undertaken by the Department of Forestry and Secretariat for the Pacific Community (SPC) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Tanna in November 2012. People who attended the consultation confirmed that this structure could be used in the National REDD+ Scheme.

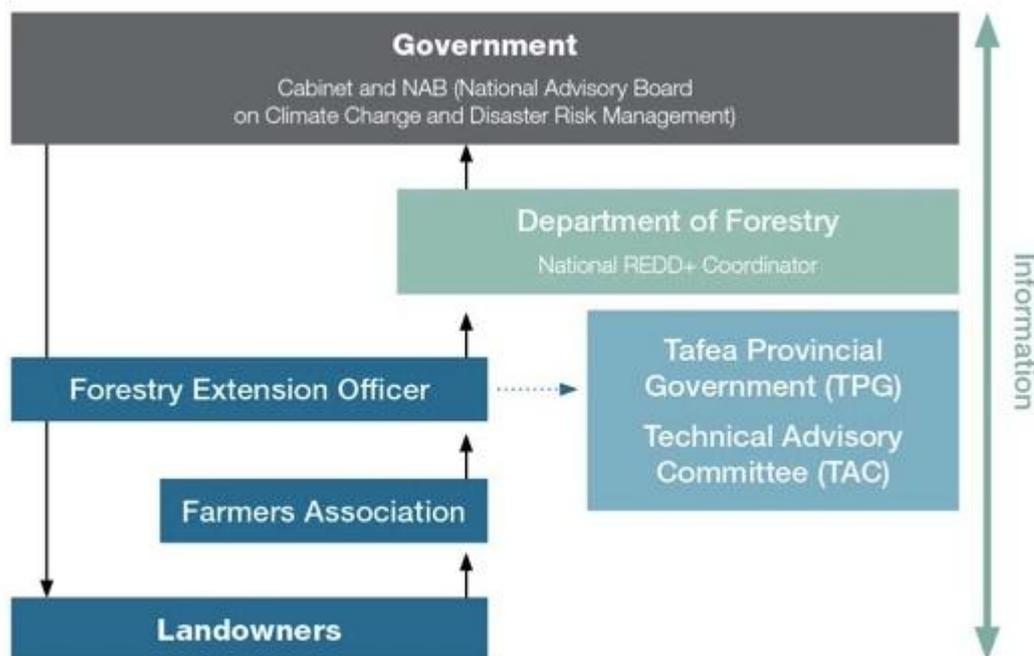


Figure 6: Communication strategy determined during Tanna consultations

3. Consultation and Participation Plan

The Guidelines for Effective Consultation and Participation and their pertinence to Vanuatu’s context can be found in Annex 1c. Consultation & Participation Plan is divided into two sections:

- Section 3.1: The Consultation and Participation Process
- Section 3.2: Groups Listing

3.1 The Consultation and Participation Process Plan

The Consultation and Participation Process will move through different phases. As the diagram below shows, the early dialogue period already undertaken during R-PP development can be seen as a time of providing information to stakeholders with minimal feedback. As we move into the design and planning phase of R-PP implementation, there will be a large amount of initial one-way information flow in order to ‘start the conversation’. Once discussions of drivers of deforestation and the design of a national REDD+ program begin there will be an intensive period of two-way communication requiring feedback from stakeholders. Once the ongoing management phase is initiated (i.e. The REDD+ Scheme Implementation Phase) communication should change again to be constant but unplanned. A communication structure should operate with minimal management and there should be a two-way flow between government and stakeholders engaged in the Scheme.

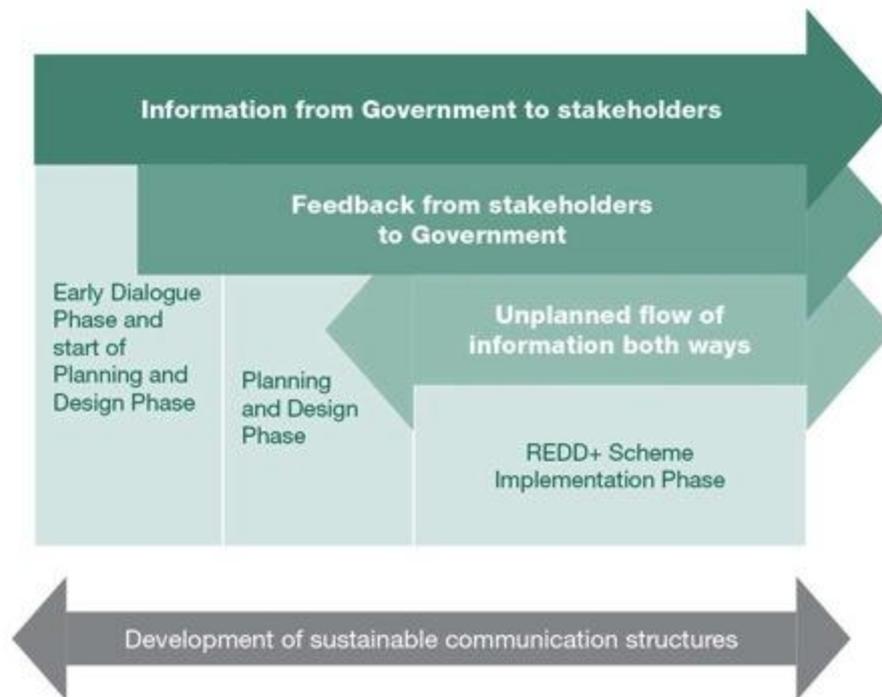


Figure 7: Communication Flow

A central element of the Consultation and Participation Plan is the Extension & Outreach Team (Extension & Outreach Team). This team will consist of an Extension & Outreach Manager responsive to the National REDD+ Coordinator and REDD+ Technical Committee. This Extension & Outreach Manager will lead the Provincially-based Extension & Outreach Teams who manage the on-the-ground consultation with Vanuatu's rural population.

Given the challenges of undertaking consultation with Vanuatu's majority rural population, an Extension & Outreach Team that utilises field staff living in the Provinces is recommended. Each Provincial team will be responsible for reaching as many landowners as possible within the budget. They will ensure continued engagement and support to stakeholders and landowners during the R-PP implementation phase (divided into the Planning and Design Phase and the REDD+ Program Implementation Phase).

Given the very high costs of travel in Vanuatu it is recommended that a team be formed consisting of a team leader and 3 or more team members based in each Province. Many organisations and government departments have field staff who are working remotely and could undertake this work providing they are reimbursed for their costs. Team leaders, however, will need to be partially funded.

Team Leaders will need to have a proven track record of strong community engagement. Potential field team members could come from:

- Departmental Extension Officers from sectors such as Forestry, Agriculture, Livestock, Fisheries and Environment
- Provincial Government Employees
- Area Council Secretaries
- NGOs with officers in every Province such as Transparency Vanuatu, World Vision, Red Cross (to be confirmed)

The National REDD+ Technical Committee would need to provide support to the Extension & Outreach team by way of training in REDD+ and in effective facilitation. There are various stakeholders who could provide support in this training such as TVET and Live & Learn. Quality training is of great importance to ensure that expectations of stakeholders, especially rural resource users are managed by the Extension & Outreach team appropriately as to reduce the opportunity for misinformation to lead to conflict.

Different tools are described in the following sections which will be used appropriately to inform the relevant people for any activity and receive feedback to inform the national REDD+ implementation. According to the regulations laid out in the tables below, the involved government departments are responsible for the planning and implementation of capacity building for the provincial government, extension officers, representatives of the communities, and the community members. The inclusion of civil organizations in these trainings is requested in this chapter. For trainings on provincial level, the Provincial Working Groups are responsible for identifying all relevant stakeholders.

Since as of now there are very low capacities within the government, Vanuatu depends on the support by NGOs, donors and their consultants. It is crucial that the trainings are all in line with the National REDD+ Scheme. Therefore, a training concept has to be developed which ensures coherence among the trainers. This is provided for in the budget under section 1a of the R-PP.

The Extension & Outreach Team will communicate through the Extension & Outreach Stakeholders for their Province. These stakeholders will include chiefs, businesses, church groups, associations and area council secretaries not engaged directly as team members but as vital communication links with resource users. In this way the Extension & Outreach Team can address and work through a variety of diverse communication structures as desired by stakeholders.

It is envisaged that the Extension & Outreach Team will be required during the R-PP implementation phase but that they also establish strong communication channels to remote areas so that the National REDD+ Technical Committee and/or Department of Forestry can communicate quickly and effectively to landowners after the R-PP implementation period.

It is acknowledged that the establishment of an Extension & Outreach Team will require significant funds and investment of time however it is seen as the most effective option for consultation due to the following factors:

- Travel in Vanuatu is very expensive and slow. Sending facilitators throughout the whole of Vanuatu each time a consultation is planned would be more expensive than dispersing local staff to undertake the consultations.
- Many areas are impossible to reach by phone or email and require on-the-ground staff for logistics coordination.
- During consultations communities complained of frustrations with ‘one time only’ quick and uninformative consultation. Having local staff that can provide continuous support and information will improve upon past consultations.
- Provincially-based staff can support the existing diverse and decentralized communication structures. This would be too complex a task to perform from Port Vila.

Engagement Process - Table A – One way – Information Only

This is a process guide for the Extension & Outreach Team to use when involved in one-way consultation.

A. One way: Information Sharing only			
	Audiences		
	Resource Users	Government Stakeholders	Non-government Stakeholders (organizational)
Processes	<p>For example - Meeting invitation or information on policy decisions</p> <p>Contact Extension & Outreach Team (Extension & Outreach Team) leaders to advise of message.</p> <p>Send message for distribution by Extension & Outreach Team</p> <p>Extension & Outreach Team Leaders to send message to Extension & Outreach Stakeholders</p> <p>Send message to Provincial Governments via Department of Local Authorities</p> <p>Consider use of multimedia resources (if message of high importance)</p> <p>Consider use of mobile phone texts (if of very high importance)</p>	<p>For example - Meeting invitation, information on policy decisions or information about Extension & Outreach activities</p> <p>Post message in Government Bulletin</p> <p>Circulate message to stakeholders via email listing (see Group Listing)</p> <p>If large meeting invitation, hand deliver letters, send emails and make follow up phone calls.</p> <p>If request for attendance at a meeting for the first time, conduct face-to-face meeting with Director.</p>	<p>For example - Meeting invitation, information on policy decisions or information about Extension & Outreach activities</p> <p>Post message on NAB Portal</p> <p>Circulate message via email listing (see Group Listing)</p> <p>If large meeting invitation, hand deliver letters, send emails and make follow up phone calls.</p> <p>If request for attendance at a meeting for the first time, conduct face-to-face meeting with head of organisation.</p>

Success indicators	Message picked up independently in media (newspaper, radio)	Response or queries to message received by Technical Committee	Response or queries to message received by Technical Committee
	Number of communities to receive message from Extension & Outreach Team recorded	Good attendance at meetings	Good attendance at meetings

Engagement Process - Table B – Two-way feedback required

This is a process guide for the Extension & Outreach Team to use when involved in two-way consultation and participation.

B. Two feedback required		
	Audience	
	Resource Users	Organisational Stakeholders (Government and Non-Government)
Processes	<p>For Example - Could be workshop, meeting, survey, informal consultation.</p> <p>Allow at least 2 months for preparation of outreach work for every intervention.</p> <p>Contact Extension & Outreach Team (Extension & Outreach Team) leaders to initiate planning.</p> <p>Undertake initial communication at least one week prior to consultation (this may mean travel to communities to provide information as per FPIC requirements). Use this message to explain what will be requested from participants and how.</p> <p>Undertake consultations in all target areas (ideally every Province) using Extension & Outreach team</p> <p>Use Guidelines for Effective Engagement</p>	<p>For Example - Could be Focus Group, Thematic Working Group Meeting, Interview, Participation in a Study</p> <p>Identify interested parties using stakeholder analysis (see Component 1b of R-PP and Group Listing)</p> <p>Allow at least 2 weeks between the invitation and the event</p> <p>Provide invitees with explanation of event and tasks they will be asked to undertake at least one week prior to the event.</p> <p>Use Engagement Process Table A in for invitations</p> <p>Seek high-level support for meeting (a champion to host meeting)</p> <p>Use Guidelines for Effective Engagement</p>
Success indicators	<p>Receipts of attendance from community members</p> <p>Number of landowners engaged</p> <p>Feedback noted and report prepared and presented to REDD+ Technical Committee.</p> <p>Independent review by civil society organisation to confirm that feedback has been taken into account.</p>	<p>Feedback noted and minutes or report prepared and presented to REDD+ Technical Committee.</p> <p>Good attendance at meetings</p> <p>Independent review by civil society organisation to confirm that feedback has been taken into account.</p>

Key communication points in R-PP implementation

Consultants will be engaged to undertake studies and work throughout R-PP implementation. All consultants will engage closely with the Extension & Outreach team whenever they need to engage stakeholders in their work.

C. Planning and design phase			
Key Communication Point	Mode	Who Manages	Target Recipients
General Education on Forest Resource/ Management and its importance for Vanuatu	Two way	Extension & Outreach Team	Resource users
Drivers of Deforestation	Two way	Extension & Outreach Team	Resource users, Landuse planning group
Design of National REDD+ program, national Scheme, benefits sharing, carbon rights, governance, project scale activities, eligible activities	Two way	Extension & Outreach Team, Technical Committee, Consultant for drafting	Resource users, all groups
ESMF	Two way	Consultant, Extension & Outreach Team	Resource users, transparency safeguards group
Grievance mechanism	Two way	National Coordinator (potential support from local consultant)	Resource users, transparency safeguards group
National Registry Design	One way	Consultant design, consultation run by Technical Committee	Landuse planning group
Program Monitoring & Evaluation Framework	One way	Consultant design, consultation run by Technical Committee	Transparency & Safeguards, Law & Policy
Regulations for project-scale REDD+	Two way	Consultant design, consultation run by Technical Committee	Financing, Law & Policy, Transparency & Safeguards

Monitoring Systems and Data Management	Two way	Consultant design, consultation run by Technical Committee	Mapping & MRV, resource owners
REDD+ Scheme Implementation Phase			
Compliance and monitoring with ESMF	Two way	Consultant, Extension & Outreach	Resource users, Transparency and Safeguards Group
Awareness of Grievance mechanism	One way	Extension & Outreach	Resource users, Transparency and Safeguards Group
Compliance, Enforcement with Regulations for project-scale REDD+	One Way	Extension & Outreach, Technical Committee	Resource users, Transparency and Safeguards Group
Management of Registry	Two way	Extension & Outreach, Technical Committee	Landuse Planning, Landowners
Program Monitoring & Evaluation Framework	Two way	Consultant, Extension & Outreach	Transparency & Safeguards, Law & Policy

3.2 Groups Listing

The lists below complement the Stakeholder Analysis for REDD+ in Vanuatu undertaken in 2009. This seeks to group key stakeholders who can be consulted on specific topics. The lists are by no way exhaustive and will need to be developed further as the implementation process begins.

a) General Stakeholder Send out

Government Bulletin – Bulletin to all Government of Vanuatu staff

NAB Portal – Announcement posted on internet site used as central point of communication between Government and Non-Government stakeholders working in climate change and disaster risk reduction.

Department of Local Authorities (Port Vila) – Central message point. Information goes to all Provinces through Secretary Generals and Town Clerks then to Area Councils.

Physical Planning Unit – Principal Physical Planner distributes information to Government stakeholders engaged in landuse planning.

Vanuatu Climate Action Network (VCAN) - Coordinator distributes to all major NGOs

Vanuatu Association of Non-Government Organisations (VANGO) – distributes to all NGOs and CSOs in the country

Vanuatu Christian Council – Information distributed throughout Church network of different denominations. Some Churches across Vanuatu are very active in community forestry and acting through the central point of the VCC can be an effective way to spread information.

b) Extension Stakeholders in Provinces

Torba

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Sanma

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Live & Learn Vanuatu, Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Penama

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Malampa

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Shefa

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Live & Learn Vanuatu, Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Tafea

Provincial Government

Government Extension Office (Forestry, Cooperatives, Agriculture, Environment)

Live & Learn Vanuatu, Transparency Vanuatu, World Vision, Red Cross, Customary Land Tribunal Unit

Transparency, Safeguards

Live & Learn Vanuatu, Transparency Vanuatu, Department of Women’s Affairs, Department of Foreign Affairs, Vanuatu Kultural Senta (VKS), Jastis Blong Evriwan Program, VANWOODS, VANGO, Vanuatu Christian Council (VCC)

Land Use Planning

Department of Forestry, Department of Agriculture, Department of Environment, Conservation and Protection, Physical Planning Unit, Department of Lands, Malvatumari Council of Chiefs, Live & Learn Vanuatu, Department of Geology and Mines, Department of Tourism, VRDTKA, FSA

Land Legislation And Customary Land Based Issues

Customary Lands Tribunal Unit, State Law Office, Jastis Blong Evriwan Program, University of the South Pacific (Law Department), VKS

Law And Policy

Department of Strategic Planning, Policy Office (State Law Office), NAB PMU, University of the South Pacific (Law Department), Law Commission

Communication And Participation

VANGO, Extension & Outreach Stakeholders, VKS, NAB PMU, Vanuatu Christian Council (VCC)

Mapping And MRV

Department of Lands, Physical Planning Unit, NAB PMU, Department of Forestry, Department of Agriculture, SOPAC, SPC/GIZ, Department of Geology and Mines

Financing

Department of Trade, Treasury, Department of Foreign Affairs, Department of Tourism, Agriculture Bank of Vanuatu

4. Free Prior and Informed Consent

Free Prior and Informed Consent (FPIC) is rather part of a conflict resolution strategy, not an inclusive planning process. During R-PP implementation, when the REDD+ strategy becomes more concrete and specific activities in specific areas are identified, the need for an FPIC process may arise. The development of a Strategic Environmental and Social Assessment (SESA) will assist in identifying where and when FPIC will be needed. FPIC will be considered where REDD+ related decisions and actions are likely to impact Ni-Vanuatu resource users in a way that may potentially foster conflicts. An expert analysis regarding whether and in what cases this is necessary will be part of R-PP implementation. The following description of FPIC has been taken from Annex B of the latest R-PP template:¹¹

This rights-based principle of FPIC applies to REDD+ discussions regarding potential changes in resource uses that could impact the livelihoods of indigenous peoples. Under these circumstances, consistent with international human rights instruments and other treaty obligations, potentially impacted peoples have the right to participate in and consent to or withhold consent from a proposed action. This principle holds that communities should have the right to withhold consent at key decision-making points occurring both prior to and during a proposed activity. FPIC applies to proposed actions (decisions, activities, projects, etc.) that have the potential to impact the lands, territories,

¹¹ *Readiness Preparation Proposal (R-PP)*, Version 6 Working Draft, Forest Carbon Partnership Facility (FCPF)

and resources upon which indigenous peoples depend for their cultural, spiritual and physical sustenance, well-being, and survival.

Given the fact that 95% of land in Vanuatu is owned by Ni-Vanuatu people and is subject to customary law, any decision about land use in relation to REDD+ is likely to trigger FPIC. The C&P Plan will provide a helpful backdrop for an FPIC process to be undertaken in the future once the program design is complete.

Mechanisms for addressing grievances regarding consultation and participation in the REDD+ process, and for conflict resolution and redress of grievances.

An appropriate dispute resolution mechanism will need to be developed for RPP implementation and the subsequent National REDD+ Program. Vanuatu does not currently have a suitable mechanism for addressing grievances, conflict resolution and redress of grievances outside of conflict relating to land ownership. With the assistance of civil society organisations and the State Law Office, the National REDD+ Technical Committee will look to establish a grievance mechanism that is accepting of customary approaches to conflict resolution while ensuring transparency of Government responses. An existing mechanism for REDD+ would be ideal, but has not yet been found to use. An analysis of current mechanisms is in Annex 1A.

The Consultation & Participation Plan has been validated at a meeting with Government officials on 20 February 2013. Grievances relating specifically to the consultation & participation process will need to be addressed when the grievance mechanism is developed.

Component 1c: Summary of Consultation and Participation Activities and Budget						
Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Extension and Outreach Officer	Management of Extension & Outreach	70	70	70	70	280
	Consultation & Participation Implementation	70	70	70	70	280
Grievance Mechanism	Design and planning	50				50
	Setup and trainings	30	60	25	20	135
	Ongoing	-	5	5	5	15
Consultation and empowerment at local level	Logistics and travel	60	40	20	-	120
Total		280	245	190	170	880
FCPF		280	245	190	170	880

Component 2: Prepare the REDD-plus Strategy

2a. Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance

**Standard 2a the R-PP text needs to meet for this component:
Assessment of Land Use, Land Use Change Drivers,
Forest Law, Policy and Governance:**

A completed assessment is presented that: identifies major land use trends; assesses direct and indirect deforestation and degradation drivers in the most relevant sectors in the context of REDD-plus; recognizes major land tenure and natural resource rights and relevant governance issues and shortcomings; documents past successes and failures in implementing policies or measures for addressing drivers of deforestation and forest degradation; identifies significant gaps, challenges, and opportunities to address REDD-plus; and sets the stage for development of a national REDD-plus strategy to directly address key land use change drivers.

1. Forests in Vanuatu

1.1 Definition of Forests

According to the FAO (2010),¹² 36.1% or about 440,000 ha of Vanuatu are forested. According to the National Forest Policy,¹³ 74% of the land area (about 900,000 ha) are covered with different types of forests. Different definitions of forests have been used in Vanuatu in the past and it is important to clarify exactly what is considered forests in the context of REDD+ in Vanuatu.

For the purposes of REDD+, Vanuatu proposes a modified version of the FAO's definition of forests, which better corresponds to the country's natural biological circumstances and prevalent land use patterns. This definition results from consultations with the DoF, given there is not an official definition of forests validated by the GoV. The FAO defines forests as:

Land spanning (i) more than 0.5 hectares, (ii) with trees higher than 5 meters, and (iii) a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ.

Contrary to common practice, agricultural production systems with predominance of trees, i.e. agroforestry, fruit plantations and silvopastoral systems, and mangroves are included in this forest definition. Vanuatu's forest definition also includes areas with bamboo and palms provided that height and canopy cover criteria are met; forest roads, fire breaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of scientific, historical, cultural or spiritual interest; windbreaks, shelterbelts and corridors of trees

¹² Food and Agriculture Organization of the United Nations (FAO). 2010. Global Forest Resources Assessment 2010. Country Report: Vanuatu. Rome.

¹³ Department of Forests, Vanuatu Forest Policy (2011-2020): Comprehensive Version. June 2011.

with an area of more than .5 hectares and width of more than 20 meters; plantations primarily used for forestry or protected purposes; such as rubberwood plantations and cork oak stands.

1.2 Forest cover composition

According to the recently revised forest policy, undisturbed primary forests no longer exist except in small amounts such as the cloud forests on high lands. The actual forest cover is mostly secondary growth inter-planted with native fruit and nut tree species. As in the Asia-Pacific region in general, native forests have been under considerable pressure from timber harvesting and subsequent clearing for agriculture and other local development.

2. Deforestation and Forest Degradation

2.1 Major land use trends and underlying causes of deforestation and forest degradation

The current stage of knowledge emphasizes rather low rates of historical forest loss compared to other nations in the region (e.g. Solomon Islands and Papua New Guinea). However, due to the presence of international timber companies in 1980-90, Vanuatu's forests are considered highly degraded and the country is in phase 3 (late transition) of the Forest Transition model. In the order to control this highly intensive selective logging, several regulations were issued, including the Ban on Log Exports (1993); the Forestry Order No. 9 of 1996 on Control of Mobile Sawmills; the Forestry Order no. 3 of 1997 on Control of Sandalwood Export and Trade; the Vanuatu Code of Logging Practice (1998), and in 2003 the National Sandalwood Policy. Today, valuable timber resources have been largely depleted¹⁴ and there are no longer any forestry concessions currently operating in the country.

Since the mid-1990s, land use trends most affecting forests have shifted and most current analysis suggests various forms of agricultural and subsistence activities now place the largest pressure on land and forests. International market forces, such as demand for Vanuatu's high quality beef, continue to play a role in deforestation and forest degradation. Agricultural products make up 73% of Vanuatu's exports and 17% of its gross domestic product.¹⁵ While copra accounts for almost half of total exports in the 90s, kava, coffee, and beef dominate the exports during the last decade. However, some believe there is a potential threat of increasing international pressure on Vanuatu's forests, especially following the future loss of timber resources in the Solomon Islands. Anticipating external demand for timber and agro industrial commodities is key for determining national or sub-national reference (emission) levels and for conducting a sound analysis of drivers.

2.2 Drivers of deforestation and forest degradation

The official perspective of deforestation and forest degradation drivers, according to the national forest policy, is that the largest pressures on the forest stem from small-scale activities by Ni-Vanuatu subsistence farmers. Subsistence farming and cattle ranching provides a living for roughly two thirds of the population, which is currently at a 2.12 % growth rate.¹⁶ National-level analyses carried out for the R-PIN¹⁷ suggest that about 50% of all deforestation is due to

¹⁴ Glencross, Kevin & Viranamanga, Rexon. *Silviculture of Whitewood (Endospermum medullosum) in Vanuatu*. Australian Center for International Agricultural Research (ACIAR) 2012.

¹⁵ Vanuatu National Statistics Office (VNSO) 2008: *Census of Agriculture 2007—Vanuatu*.

¹⁶ [CIA World Factbook](#)

¹⁷ Available at <http://www.forestcarbonpartnership.org/node/83>

subsistence land use, with shifting agriculture and cattle farming as the dominating drivers. On the other hand however, other studies conclude that coconut plantations and permanent pastures represent the main cause of deforestation and the Melanesian shifting cultivation system which incorporates vegeculture and arboriculture does not appear to be a serious threat to the environment.¹⁸

Invasive vines (*Merremia peltata*, *Mikania micrantha*, *Passiflora*) are considered a main degradation driver impeding national forest regrowth. Only limited experience with successful prevention and control mechanisms is available, limiting the options to address this driver.

Other drivers include timber harvesting with the use of portable sawmills in areas close to the main centers, i.e. Port Vila, Luganville and Lakatoro. The rural population of Vanuatu also receives their domestic fuel from forests and trees outside forests. Taking into consideration the population increase during the past decades, Vanuatu's consumption of wood for fuel wood and charcoal is growing. The ITTO (2005) cited a national census which indicated that 80 % of the Vanuatu population was involved in some form of small-scale forestry, and estimated the value of forest products for subsistence use to have reached 14 million USD / annum. Deforestation is also caused by naturally occurring events such as cyclones and active volcanoes, with human-induced forest degradation often amplifying the effects of natural hazards.

There is no full and comprehensive assessment of Vanuatu's deforestation and forest degradation history and related processes and quantitative national-level information on drivers and activities causing deforestation do not exist. Especially the question whether the fraction of deforestation (emissions) is due to a specific driver cannot be answered. Based on existing studies and findings, an initial analysis of the drivers is presented in Table 2, but a more detailed study will take place during R-PP implementation. It is recommended that this study follow the Geist and Lambin (2001,2002) Drivers, Agents and Underlying Causes (DAC) methodology referred to in Component 3 (see *Figure 15* in Annex 2a for an overview of the drivers and underlying causes based initial analysis).

Table 2 below displays the drivers of deforestation and forest degradation. Following a TC discussion, the Table's boxes were shaded according to the intensity of the different drivers in the past, currently as well as projected into the future; the darker the shading, the more important that driver. Where relevant, the underlying drivers are written in the boxes corresponding to the driver.

¹⁸ Siméoni, P., and V. Lebot. 2012. "Spatial Representation of Land Use and Population Density: Integrated Layers of Data Contribute to Environmental Planning in Vanuatu." *Human Ecology*: 1–15.

Table 2: Drivers of Deforestation and forest Degradation: Historical and Future-oriented analysis¹⁹

	Past (1985-2000)	Current (2000-2015)	Future (2015-2030)
Direct Deforestation Drivers²⁰			
Small-scale subsistence resource users	Govt. development programs	Fallow period reduced; soil degradation	Population growth
Permanent pasture for cattle ranching			
Infrastructure Development			
Agroindustry (e.g. coconut plantations, oil palm, cocoa)		Depends on commodity price	
Mining			
Degradation Drivers			
Commercial Timber			
Invasive species	Local Supply Planting- exotic tree plantations replace natural forests		
Small-scale Logging			
Tourism			

Although several detailed sub-national analyses of drivers on specific islands have recently been carried out, there is a lack of a country-wide assessment of the drivers, including a scientifically sound projection of the future land use trends. This is especially important because economic development in the land sectors is expected to increase in the coming years. Vanuatu's growth objectives include infrastructure development and there are plans to pave roads on the major islands and further land-based development is expected to follow improved road access to areas with potential for agriculture. Vanuatu recently acceded to the WTO in order to increase

²⁰ Drivers are interlinked and some cannot easily be categorized into either deforestation or degradation.

international trade, especially in commodity exports such as beef and coffee. This all will be coupled with rising population.²¹ Urban and peri-urban development is expected to continue, which is likely to be associated with some degree of deforestation as was observed with urban development between 2000 and 2005 on Efate (particularly near the capital Port Vila). Although small-scale timber extraction for local markets is currently classified as being a minor issue, this may also grow in line with population growth. The country is also considering expanding into new agro industrial commodities, such as oil palm or rice.

The ToRs for this drivers study must be carefully developed (in collaboration with the future REDD+ technical advisor) in order to meet international standards of accuracy as well as give due consideration to the local impression of drivers. The methodology for this study must also be developed, in order to account for the different islands and different island sizes. It is also proposed that such a detailed study of the drivers take place regularly, i.e. every five years, in order to reassess whether the forest change dynamics and the underlying forces have changed. This study will be carried out by a team that includes both international and national expertise. While the majority of activities surrounding forest change currently seem to be small-scale subsistence activities causing forest degradation, this needs to be more fully assessed during R-PP implementation along with the future land use trends and projected deforestation drivers. A sound understanding of these forest change dynamics, including future development perspectives of Vanuatu's land use sector, is critical for developing a sound REDD+ strategy.

2.3 Sub-national assessments of drivers

Vanuatu is composed of a few big and several small islands. Its spatial constellation shapes an uneven distribution of settlements and population. Existing studies regarding the drivers of deforestation and forest degradation have led to different conclusions. This is influenced by the fact that drivers may differ dramatically between islands and it is difficult to generalize.

Vanuatu has undertaken the first steps for national Forest Area Change Assessment as part of the Vanuatu Carbon Credits Project (VCCP), which demonstrates that there is sufficient data available to conduct a more detailed assessment of drivers. The VCCP project used satellite data to identify the areas experiencing deforestation between 1990 and 2000. This analysis demonstrates that drivers and amount of deforestation and degradation vary for the different islands. Deforestation rates varies substantially from 200 ha/yr on smaller islands up to more than 800ha/yr on the bigger islands.²² Although Vanuatu's deforestation rate appears to be low, especially compared to other pacific island states, some islands have experienced significant deforestation. The highest deforestation rates are found on the islands of Santo, Efate, Tanna and Erromango, which are also the islands with some of the highest total population levels. Forest degradation occurs throughout the Vanuatu island group, but again is more prevalent on the larger islands such as Santo, Malekula, Efate, Pentecost, Erromango, Tanna, and Ambrym.²³

As one of Vanuatu's biggest islands with some of the most dynamic forest sectors, Santo has recently been the target of research of forest carbon stock and deforestation drivers

²¹ according to the Vanuatu Statistics Office 2009 *National Population and Housing Census: Analytical Report*, the country's population is rapidly growing (Siméoni and Lebot 2012).

²² Herold, M., Sambale, J. , Lindner, M., Urban, M. and Weaver, S. 2007: Satellite based monitoring of the national forest resources in the pacific island state of Vanuatu, DGPF Tagungsband 16 / 2007 – Dreiländertagung SGPBF, DGPF und OVG.

²³ The 1990 – 2000 deforestation rates provided by Herold et al. 2007 have to be considered preliminary, as cloud coverage impedes full wall-to-wall detection (cf. figure 1).

assessments.²⁴ Preliminary analysis shows how Santo’s deforestation pattern is shaped by site-specific drivers changing over time. As seen in *Figure 8* below, this pattern seems to follow road development. This is in contrast to Efate Island, where cattle ranching and logging drove past deforestation events.

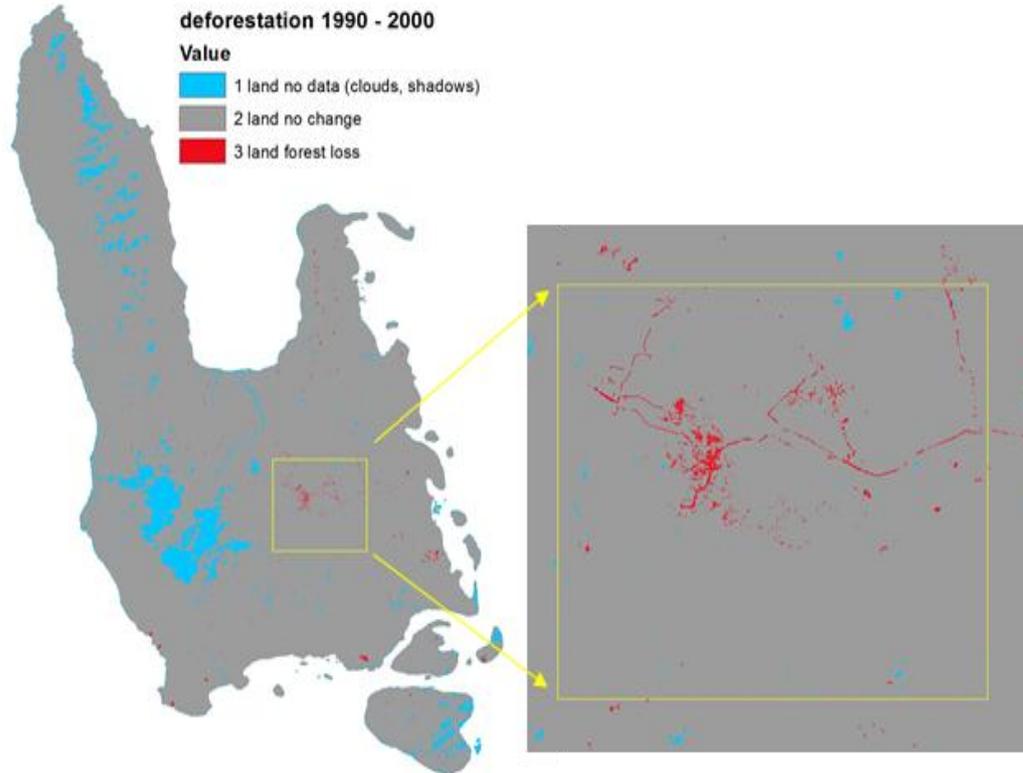


Figure 8: Deforestation 1990 – 2000 on Santo Island²⁵

Moreover, this recent assessment of the drivers of Santo reveals most of the deforestation is driven by small scale activities, as seen in *Figure 9* below. Areas smaller than 1.3 ha contribute to 50.7% of the total deforestation in 2007-2010, while 21 areas larger than 6 ha contribute to 20% of total deforestation.

²⁴ E.g. mesaconsult, 2012. Feasibility Assessment, project description and GHG emissions and removal budget for Penaoru and Petawata, Santo Island, Vanuatu: Concept Note Version 1.0 12. December 2012. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

²⁵ Zeballos, D.M, Seirfert, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

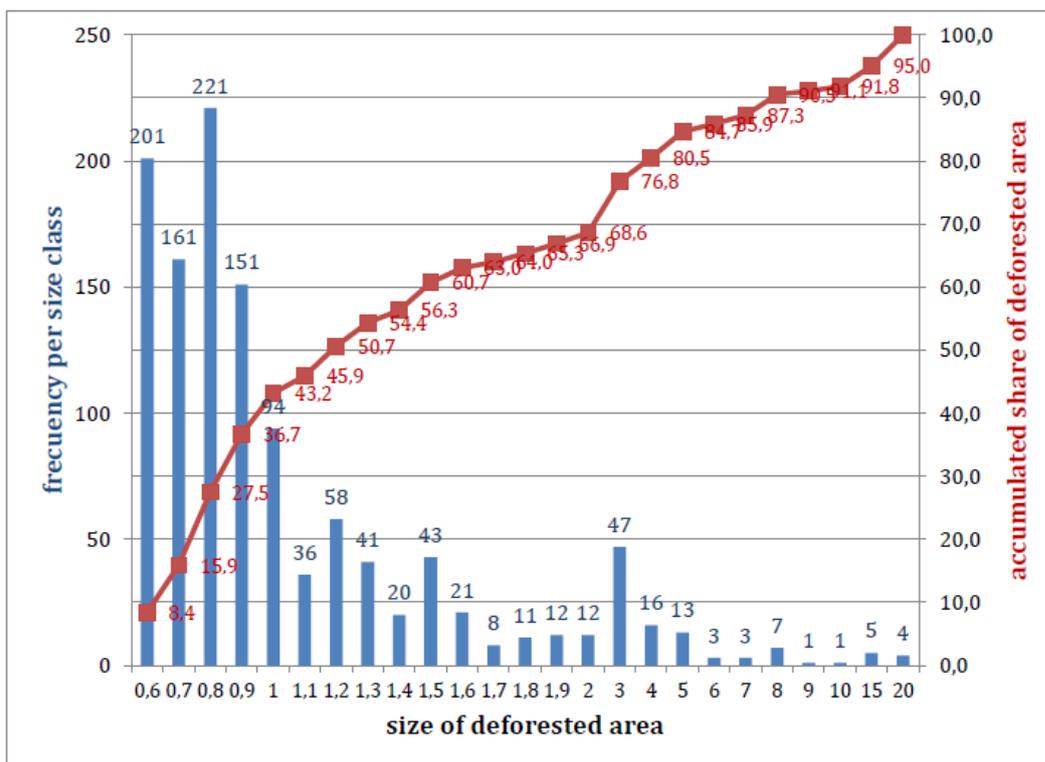


Figure 9: Deforestation Patterns of Espiritu Santo Island²⁶

3. Governance: Challenges and Opportunities for REDD+

Customary land ownership is enshrined in Vanuatu’s constitution and land is of central importance to the cultural identity and economic security of Ni-Vanuatu communities. Some argue the relationship between a man and his land in Vanuatu is the most fundamental and most permanent aspect of Melanesian culture.²⁷ Ownership of land, land rights, and timber is determined in accordance with tradition. Custom law is not a legal system which was set once and for all, but a system of attitudes and values which are differently expressed in different islands at different times.

Traditionally, Ni-Vanuatu view owning the land and using the land as two separate things where individuals and small family groups could have individual usage rights to the land without ‘ownership.’ Land is held individually, but user rights exist for all members of the community. In Vanuatu law today there is no requirement for land to be registered by customary ‘owners.’ As a result, there is no mechanism for knowing who owns which areas of customary land without investigation on the ground. This can lead to problems when preparing to negotiate leases, especially when owners realize the perceived or real value of the land under discussion. Conflicts seem to rise as the value of land increases, i.e. through timber extraction or cultivation. For example, logging agreements in the past were often made without community consultation

²⁶ Zeballos, D.M, Seirfert, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

²⁷ Bonnemaïson, J. (1984) *Social and Cultural Aspects of Land Tenure*, p1, in Larmour, P (ed) *Land Tenure in Vanuatu* University of the South Pacific. In: Holt, Lydia, O’Sullivan, Robert. Weaver, Sean. A Review of Land Forestry law in Vanuatu and Their Implications for Designing Forest Based Emission Trading Activities in Vanuatu. Draft.

because numerous ownership claims and counter-claims made the process too time-consuming.²⁸ Moreover, the individual nature of land holding limits REDD+ strategy options, such as small-scale sustainable forestry through community forest management.

In the context of REDD+, it is important to note that all forest areas in Vanuatu are customarily owned by Ni-Vanatu people. The Government owns around 10% of land, none of which is forested. Ultimately, it is the customary owner, and individual or the community, who decides on land use, while governmental entities can advise or provide incentives for sustainable use of natural resources. This setting increases the transaction costs of implementing land-use Schemes because all decisions regarding the land entails the consent of landowners and implementing land use changes requires the cooperation or coordination of landowners. Although customary land ownership in Vanuatu provides significant opportunities for maximizing certain equity components of REDD+, e.g. community engagement in REDD+ and benefits sharing, it also poses significant challenges. REDD+ activities will need to involve a large number of Ni-Vanatu in decisions about the future management of their land and forest resources in order for landowners to understand the changes required by them.

3.1 Leases

Land can be leased for a period of up to seventy-five years. Leases are administered under the Land Leases act by the government on behalf of customary owners. This allows the government to oversee lease transactions, and government permission is required before land transactions can occur between Ni-Vanatu and non-indigenous citizens. Although the law allows for leasing customarily owned land, the majority of customary land (89.7%) is un-leased, meaning that it is not registered and the boundaries may be disputed.²⁹ Disputes are exacerbated by the rapid transition to market-based land management and the global push for legal certainty that govern land dealings. The World Bank's JBE program has done extensive research,³⁰ outreach and awareness surrounding these issues. This knowledge and experience will be built upon during R-PP implementation and planning for REDD+.

JBE land leasing research shows that the land leasing arrangements are highly opaque and result in poor leasing outcomes for landholders such as low rents, unfavorable conditions, and poor social and economic benefits for the broader group. Elite capture, including at the local level, is problematic because communities are not informed about their rights and the legal details surrounding leasing agreements.

3.2 Land disputes

“Melanesian societies are strongly hierarchical, with variations in rank, power, knowledge and wealth. The arrival of new technology, and associated wealth and knowledge, can upset the traditional structures and

²⁸ Ibid.

²⁹ Corrin, Jennifer. REDD+ and forest carbon rights in Vanuatu: Background Legal Analysis. International Climate Initiative (ICI): BMU Regional Project: Climate Protection through Forest Conservation in Pacific Island Countries. November 2012.

³⁰ Stefanova et al. 2012, “Towards more equitable governance in Vanuatu: Ensuring Fair Land Dealings for Customary Groups in Vanuatu.”

create new tensions. In Vanuatu this is frequently manifested in increases in land disputes, jealousy and intra-community tensions."³¹

Conflict resolution is pursued through multiple forums (from customary forums, to land tribunals and formal courts) over a prolonged period of time and often without final resolution. In order to deal with land disputes, Land Tribunals that follow village traditions and chiefs, may be set up in an ad-hoc manner. However, the agreements reached through these tribunals are not formalized and not necessarily recognized by law. More formal alternatives exist, such as through the Supreme Court, but this entails a long process that may take up to ten years.

Most agree that Vanuatu's small land area is not experiencing significant commercial pressure on their forests, especially compared to other Melanesian countries.³² However, it is highly likely that commercial pressure - both for local and international markets - will increase in the future. Due to the current complexity in land tenure and leasing arrangements, there is a risk of corruption and illegal activities such as land grabbing, especially if the pressure on available land increases. The lack of checks and balances in the lease creation and lease administration process increases the risk of land grabbing, both by local elites and foreign investors.

3.3 Forest Carbon Rights Legislation

Vanuatu is the only country in Melanesia that has a statutory framework for forest carbon rights, although this only applies to leased land.³³ This legislation creates forest carbon property rights, allowing forest carbon to be decoupled from the land or forest. This law, however, has not yet been used in practice and does not seem to have public support. Any future legal changes will need to undergo a more comprehensive public consultation process.

The Forestry Rights Registration and Timber Harvest Guarantee Act (FRRTHG Act) defines a 'forestry right' in relation to land to include 'a carbon sequestration right in respect of the land'. A 'carbon sequestration right' is defined as follows:

'in relation to land, means a right conferred by agreement or otherwise to the legal, commercial or other benefit (whether present or future) of carbon sequestration by any existing or future tree or forest on the land;'³⁴

This means customary owners of the land would be the prima facie owners of any carbon rights and have the ability to assign these rights to third parties unless decided otherwise by the government. Seeing as this may be problematic for a government-owned REDD+ program, continuous emphasis will be placed upon land tenure reform and forest carbon property rights clarification on un-leased land during R-PP implementation. More detailed studies of specific aspects of the issue will be called for and efforts will be made to begin a national dialogue as well as incorporating the knowledge gained by land governance initiatives such as the Jastis Blong Evriwan.

A recent analysis of forest carbon rights in Vanuatu explains that a certain level of legislative change will be required in order to make the un-leased land tenure arrangements compatible with

³¹ Wyatt, S. (1996) *Sustainable Forestry and Sawmills in Vanuatu*, p7, Rural Development Forestry Network Paper 19d Summer 1996 Regent's College, London (available online at www.odifpeg.org.uk).

³² Ogle, Lisa. [REDD+ and Forest Carbon Rights in Melanesia: Synthesis Report of Country Legal Analyses](#). SPC/GIZ Regional Project "Climate Protection through Forest Conservation in Pacific Island Countries." November 2012, p. 5.

³³ Forestry Rights Registration and Timber Harvest Guarantee Act 2000

³⁴ Forestry Rights Registration and Timber Harvest Guarantee Act 2000, s1.

REDD+, such as land registration or recording.³⁵ Therefore, for the purposes of R-PP implementation and the development of REDD+, a legal study will be required in order to assess the legality of the REDD+ strategy and the different options for implementing the strategy into law. Given REDD+ in Vanuatu does not seek to implement land registration, REDD+ will need to be implemented in a context of customary and often unclear land ownership. Therefore, it is proposed that REDD+ be accompanied by a national dialogue (integral to the E&O plan and assisted by the E&O officer) in which Ni-Vanuatu will be able to give their informed and common consent to the REDD+ strategy. Moreover, laws across different sectors will need to be harmonized and a large number of stakeholders consulted, including for example the Ministry of Finance regarding forest carbon taxation issues.

Respect for the traditional understanding of land tenure will be maintained throughout the process in order to ensure REDD+ is implemented in a way that does not conflict with local values and institutions. REDD+ should strengthen the traditional land tenure arrangements, unless these are deemed equitable, as opposed to replacing them. The R-PP's C&P Plan will safeguard Ni-Vanuatu ownership of this process.

3.4 Challenges for REDD+

A main governance condition for REDD+ in Vanuatu will be a clarification and strengthening of tenure and resource rights, in the favor of local forest-dependent communities. While strengthening tenure rights is consistently recognized as a key issue for implementing REDD+, few of the R-PPs or NPDs put forward a clear process with concrete steps and milestones for how tenure issues will be addressed during readiness. Land tenure justice is a core priority of REDD+ and the issue will be further explored during R-PP implementation. However, if REDD+ implementation is contingent on the clarification of all land disputes, time may become a prohibitive factor.

It is often assumed that some degree of formalization of customary land tenure will be required in order to meet the certainty and accountability requirements for REDD+ investments. However, early stakeholder dialogues suggest landowners are not interested in officially registering their land due to fears of unequal power relations influencing the land titling process. Law reform that would introduce the recording (as opposed to registering) of customarily owned land, such as in the case of Solomon Islands, is being considered and may be a promising strategy for introducing REDD+ in Vanuatu. However, the strategic options and implementation framework described in 2 b and c may allow for REDD+ to work in Vanuatu without a full revamping of the land tenure framework. A legal study and public validation by forest carbon rights owners is required during R-PP implementation as well as an assessment of any potential legislative adjustments to accommodate streams of REDD+ money.

Keeping these constraints in mind, Vanuatu offers a promising potential for subnational REDD+ implementation, which will be explored further in the following sections. The small number of inhabitants provides a favorable environment for direct interaction with landowners willing to participate in REDD+ related activities. As people are aware about the importance of forest ecosystems for their livelihoods, REDD+ related incentive Schemes fit into their preferences and customs. And as tourism is one of the main national income sources, there is a strong interest in maintaining the integrity of landscapes and forest ecosystems.

³⁵ Ibid.

4. Key laws, policies, strategies, and programs relevant to REDD+

Seeing as deforestation and forest degradation drivers are cross-sectoral, REDD+ objectives will need to be integrated in many policies. The law reforms required to properly address the drivers of deforestation and forest degradation will be challenging and complex and will need to involve a larger number of stakeholders. Vanuatu has signed numerous international treaties and conventions related to the environment and has benefitted from technical and financial support made available to international and bilateral mechanisms.

4.1 Regional REDD+ Policy

Due to the vulnerability of Pacific Island Countries, climate change policy development is a high priority. The Secretariat of the Pacific Community (SPC) elaborated a regional policy framework for REDD+ in 2012. This document provides the following guiding principles for developing REDD+ in individual Pacific Island countries:

- Accommodate the interests of each country to ensure benefits for both smaller and the larger countries.
- Acknowledge that the global REDD+ sector includes a potential future UNFCCC instrument, and current and future REDD+ mechanisms outside the UNFCCC.
- Support a “no regrets” approach to REDD+ that keeps options open to engage with possible future global instruments currently in development whilst taking advantage of mechanisms currently available.
- Ensure that any Pacific Island regional REDD+ initiatives are compatible with existing regional and national policies, programs and frameworks for action.
- Contribute to poverty alleviation and enhance livelihoods of Pacific Island communities.

The Vanuatu Component of the SPC-GIZ Coping with Climate Change in the Pacific Island Programme (CCCPIR) has been active since 2010. Its key objective of increasing the capacity of SPC and its member states to cope with the negative impacts of climate change through mainstreaming of climate change into national policies, plans and strategies. Version 1 of the Vanuatu Policy Framework for REDD+ modeled on the Pacific Regional Policy Framework is presented in Annex 2a.

4.2 Forest Policy

The Government of Vanuatu released the Vanuatu Forest Policy (2011-2020) in June 2011. The vision statement of this policy states: “Trees and forests of Vanuatu are equitably, sustainably and profitably managed and conserved, contributing to development for the ongoing well-being of all people in Vanuatu in the context of global change.” This is accompanied by the following goal: “The nation’s forest resources are managed in an integrated and sustainable manner and provide wood and non-wood forest products as well as environmental and social services to contribute profitably to income generation, employment opportunities, and social well-being for all people in Vanuatu, and thus to sustainable economic growth.”

During policy implementation, the national forest policy plans to undertake a comprehensive forest resources assessment, including the collection of necessary information for climate change mitigation and adaptation measures. Specifically, the DoF will promote the planting of key tree species like sandalwood, white wood, and Canarium. The Vanuatu Forest Policy also has specific objectives relating to climate change mitigation:

- Integrate climate change mitigation issues into forestry sector planning and activities.
- Develop a national REDD+ initiative (DoF, NAB & NGOs);
- Develop national REDD+ Policies, Strategies and Legislations including governance structures (DNA, NAB);
- Conduct national forest carbon stock assessments in accordance with IPCC guidelines as part of the new forest inventory (DoF, NAB);
- Entrust the "Designated National Authority" (DNA) as the formal entry-point and responsible party for forest carbon projects (NAB);
- Monitor the international negotiation process on forests and climate change (NAB, DNA);
- Establish and manage community and forest conservation areas for carbon storage (DEPC, Communities, Province, NGO, DOF);
- Reduce forest degradation and related emissions from natural forests by applying the principles of SFM (DoF, Forest users, Licensees, Province);
- Undertake socio economic assessments to identify most cost effective REDD+ projects with co-benefit provisions (NAB, DNA);
- Consolidate the assessment of historical carbon emissions from deforestation and forest degradation (land-use change assessment), started under the Vanuatu Carbon Credits Project (VKSP), and establish the national Reference Emission Levels and Reference Levels for REDD+ (NAB);
- Establish a national forest carbon monitoring system for monitoring, reporting and verification of forest carbon stock changes according to the IPCC Good Practice Guidance for Land- Use , Land-Use Change and Forestry (LULUCF-2003) and the Guidelines for National Green- house Gas Inventories for Agriculture, Forestry and other Land Use (AFOLU, 2006) (NAB, DoF);
- Apply REDD+ approaches including incentive Schemes on the ground in pilot projects (Aid Coordination Unit (DESPPAC), NAB, NGOs);
- Formalize procedures for national and international forest projects in Vanuatu under the compliance and voluntary carbon markets (NAB, VIPA, DoF, DNA, NGOs);
- Introduce compliance with the "Voluntary Carbon Standard" as one of the conditions for such projects (NAB, DoF, DNA);
- Prescribe the involvement of respective line departments in scrutinizing forest carbon projects (PSC, NAB, DoF);
- Enable the private sector to investigate carbon storage and carbon emission reducing project opportunities (Gov);
- Strengthen the DNA and build the necessary institutional capacity to deal with REDD+(NAB, Gov);
- Regulate the establishment of forest plantations for the generation of carbon credits (DoF, NAB);

- Prioritize the REDD+ mechanisms and approaches that will be used in Vanuatu, specifically those where additionality can be verified, and economic returns are maximized (DoF NAB).

4.3 Climate Change Adaptation

In Vanuatu, there is the pressing need for climate change adaptation and resilience and REDD+ must help reach these national goals. Vanuatu is currently developing a national climate change (CC) and disaster risk reduction (DRR) policy and action plan. This is supported by the Pacific DRR and Disaster Management Framework for Action 2005-2012 (PIFACC) and the Pacific Islands Framework for Action (2006-2015), which aims to integrate DRR and climate change. National REDD+ mitigation benefits are balanced with climate change adaptation and resilience building through forest protection and enhancement. REDD+ must simultaneously deliver a range of non-carbon beneficial outcomes including climate change adaptation, disaster risk reduction, sustainable land management, water security, flood and drought mitigation and biodiversity conservation. An example of how REDD+ supports these broader climate change adaptation goals is through support for the mapping and monitoring of forest and tree resources, which helps in strategic land use and resource management planning.

4.4 Environmental and Natural Resource Management

A 2010 amendment to the Environmental and Management Act 2002 is intended to provide legislative support to a policy which has not yet been developed. In 2012, an Overarching Productive Sector Policy was developed, which serves as an umbrella policy for (Agriculture, Forestry, Fisheries, and Environment) for a period of 2012-2017. This overarching policy has established a general framework on which the country is able to benchmark its implementation and progress in the Environment Sector. This adherence to this Act and related legislation, including the recent environmental impact regulation, will be strictly adhered to during REDD+ planning and implementation.

4.5 Land Use Planning

A Land Use Planning and Zoning Policy is currently under revision and once promulgated, this policy's implementation will be a cornerstone of REDD+ in Vanuatu. Land use planning is both a tool and a process that can be used to ensure that development happens in the right places and is sustainable. Land use planning is not the same as land ownership, but rather enables owners and users to develop and benefit from their land in line with their needs and in line with the country's development goals. Land use planning processes must accurately reflect the development priorities and values of the country, its communities, its people, including the various *kastom* practices found throughout Vanuatu.

4.6 Priorities and Action Agenda for Vanuatu

Finally, it is important to note the Priorities and Action Agenda (PAA) 2006-2015 the Prime Minister announced in 2002. The priorities are as follows:

1. Improving governance and public service delivery by providing political stability and fiscal sustainability via a strengthened law enforcement and macroeconomic management capacity and a small, efficient and accountable government.

2. Improving the lives of people in rural areas by improving service delivery, expanding market access to rural produce, lowering costs of credit and transportation, and ensuring sustainable use of natural resources;
3. Raising private investment by lowering obstacles to growth of private enterprise, including lowering costs of doing business, facilitating long-term secure access to land, and providing better support services to business;
4. Enabling greater stakeholder participation in policy formulation by institutionalizing the role of chiefs, NGOs, and civil society in decision-making at all levels of government, and
5. Increasing equity in access to income and economic opportunities by all members of the community. Specific areas include: enabling universal access to primary education by school-age children, universal access to basic health services, and including increased employment opportunities for those seeking work.

Component 2a: Summary of Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance Activities and Budget

Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Study with a detailed assessment of drivers of deforestation	Country-wide study	20	-	-	-	20
	Public validation of findings	20	-	-	-	20
	Printing and dissemination of study as a study	7	-	-	-	7
Legal harmonization concerning carbon rights and commercial land use activities	Legal study: overview of contradictory laws and recommendations	50	-	-	-	50
	Legislative adjustments for REDD+	-	40	40	40	120
Total		97	40	40	40	217
FCPF		90	40	40	40	210
Other development partner (not yet specified)		7	-	-	-	7

2b. REDD-plus Strategy Options

Standard 2b the R-PP text needs to meet for this component:

REDD-plus strategy Options

The R-PP should include: an alignment of the proposed REDD-plus strategy with the identified drivers of deforestation and forest degradation, and with existing national and sectoral strategies, and a summary of the emerging REDD-plus strategy to the extent known presently, and/or of proposed analytic work (and, optionally, ToR) for assessment of the various REDD-plus strategy options. This summary should state: how the country proposes to address deforestation and degradation drivers in the design of its REDD-plus strategy; a plan of how to estimate cost and benefits of the emerging REDD-plus strategy, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects; socioeconomic, political and institutional feasibility of the emerging REDD-plus strategy; consideration of environmental and social issues and risks; major potential synergies or inconsistencies of country sector strategies in the forest, agriculture, transport, or other sectors with the envisioned REDD-plus strategy; and a plan of how to assess the risk of domestic leakage of greenhouse benefits. The assessments included in the R-PP eventually should result in an elaboration of a fuller, more complete and adequately vetted REDD-plus strategy over time.

1. Introduction: Vanuatu's REDD+ Scheme

The term 'REDD+ Scheme' is used to describe the implementation and operation of REDD+ in Vanuatu. The Scheme will be further informed and shaped continuously through the activities outlined in the R-PP work plan. This helps in clarifying to stakeholders in Vanuatu that REDD+ is not a time-bound program or project, but something that should be streamlined into the relevant sectors.

To the extent known presently, Vanuatu's REDD+ scheme will take a jurisdictional or nested approach, with both activity- and area-based REDD+ activities possible, depending on the implementation constraints explained in 2c.

Due to generally low deforestation rates, especially compared to other Pacific Island States,³⁶ and the patchy character of the deforestation patterns between the different islands, the options for implementing stand-alone projects as market-based REDD+ projects is limited.³⁷ Feasible sites for a project-based REDD+ approach are rare in Vanuatu, considering the area requirements for offsetting transaction costs, particularly in project-related measurement, reporting, and verification (MRV). Moreover, the majority of land is un-leased with unclear, non-surveyed and often disputed customary ownership rights and there are capacity constraints for landowners, i.e. indigenous groups, to join together as legally recognized entities that can deal with forest carbon rights.³⁸

Therefore, Vanuatu's REDD+ Scheme is considering a national investment program for sustainable land use activities by Ni-Vanuatu, with the national government creating the

³⁶ The 1990 – 2000 deforestation rates provided by Herold et al. 2007 have to be considered preliminary, as cloud coverage impedes full wall-to-wall detection (cf. figure 1).

³⁷ Zeballos, D.M, Seifert-Granzin, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

³⁸ Corrin, Jennifer. REDD+ and forest carbon rights in Vanuatu: Background Legal Analysis. International Climate Initiative (ICI): BMU Regional Project: Climate Protection through Forest Conservation in Pacific Island Countries. November 2012.

institutional and implementation framework for REDD+, and steering in-kind benefits to the Ni-Vanuatu on the provincial level. This investment program would address the drivers of small-scale subsistence land use activities, which is currently understood as being the main driver of deforestation and forest degradation in Vanuatu.

The GoV would distribute REDD+ benefits in-kind by providing extension services and up-front investments for sustainable land use activities, e.g. seedlings or fertilizer for agricultural intensification. This activity-based sub-national approach would mean baselines, crediting schemes, safeguards management and an internal allocation program would be developed at the national level, with the provincial governments administering the main REDD+ activities. Broad communication, education and awareness raising, in part through demonstration activities, will allow for Ni-Vanuatu to request these investment services from the responsible government departments, thus ensuring the approach is demand-driven and developing broad ownership.

Stand-alone projects focusing on voluntary markets require approval by the government. Projects have to comply with REDD+ project guidelines (to be developed during R-PP implementation anticipating VCS JNR Requirements), meet safeguard requirements, and be consistent with the corresponding subnational REL approach.

2. Initial REDD+ Strategy Options

The following initial options have been identified during R-PP development. These options must be more fully assessed during R-PP implementation and the strategy options themselves will be expanded during R-PP implementation in order to align with the more detailed assessment of drivers outlined in Component 2a. The full list of strategy options will then be assessed according to their socioeconomic and environmental costs and benefits, i.e. through the SESA, as well as any technical constraints due to MRV. Some of the key strategy options are further detailed below the Table.

Table 3: REDD+ Strategy Options for Vanuatu

Strategy Option	Driver Addressed	Direct MRV
1. Forestry extension: National enhancement of forest carbon stocks (EFCS)	Small-scale subsistence resource users	x
2. Agricultural extension: Intensification of cattle ranching and copra production	Permanent pasture for cattle ranching and agro industrial expansion	x
3. Development of NTFPs chains (e.g. sandalwood, Canarium) linked to EFCS program	Small-scale subsistence resource users	
4. Conservation agreements	Potential future deforestation and forest degradation	
5. Improved land use planning	Small-scale subsistence resource users, agroindustry and permanent pasture, tourism, mining	
6. Institutional strengthening, capacity building, and	Overarching, not	x

improved forest governance	directly applicable to any driver	
7. Performance-based compensation or national investment scheme	Small-scale subsistence resource users	
8. Disaster Risk Management	Effective DRM reduces damage to people's livelihood and increased use of resources in response.	
9. Mainstream REDD+ into other sector, e.g. by making carbon assessments a requirement of EIAs	Agroindustry, infrastructure development, mining	

Assumptions regarding the links between the options and reducing emissions should be explored. Each option should be profiled; relevant tasks to be financed and implemented during the Readiness process should be flagged and its costs estimated. Options should be prioritized (easy to implement, highest impact in terms of emission reductions). Table 8 exploring some of these links can be found in Annex 2b.

2.1 Forestry extension: National enhancement of forest carbon stocks (EFCS)

With its new National Forest Policy (2011-2020) the Government of Vanuatu is committed to continue and intensify the promotion of afforestation and reforestation focusing on key species such as sandalwood, white wood, and Canarium. The benefits received from timber may likely be more economically more attractive than long-term financial benefits from avoiding deforestation and forest degradation. Thus, the future profits that can be collected from the harvesting of these trees will help to explain the advantages of participating in the REDD+ Scheme. The technical concepts of forest carbon benefits may not prove appealing to the Ni-Vanuatu while the benefits from selling timber are well-known. The awareness and information campaign will openly compare expectable revenues from different land use opportunities, which will likely lead to a demand in support for tree-planting activities.

2.2 Agricultural extension: Intensification of cattle ranching and copra production

Permanent forest conversion for agriculture such as cattle ranching and coconut plantations for the production of copra (raw material for coconut oil or animal feed) have become increasingly prevalent since the 1960s. The land area occupied by these uses is significant. Many of these areas have been established in colonial times and their productivity is now decreasing, due inter alia to soil degradation. The land leases have been signed for 75-99 years, so the lessees will either have to change the land use or find ways to make the land more productive. Government support can help increase productivity, which can then reduce the land area under cultivation or avoid additional land acquisition. Soil improvement techniques can be supported as well as agroforestry schemes and mixed species plantations. While this will also have positive impact on soil carbon, Vanuatu is not yet able to include this in the MRV system.

2.3 Development of NTFPs chains (e.g. sandalwood, *Canarium*) linked to EFCS program

Agroforestry is an area that has great potential to enable the forest sector to shift to a more climate friendly format. This is because agroforestry is an activity that is capable of combining carbon sequestration with food production – particularly when producing nuts from tall canopy tree crops. The Pacific island countries of Papua New Guinea, the Solomon Islands and Vanuatu are well endowed with indigenous tree crop species with food production potential - especially nut species (e.g. ‘Galip’, ‘Ngali’ or ‘Nangae’ nut (*Canarium indicum*); ‘Karuka’ (*Pandanus julianattii*), ‘Okari nut’ (*Terminalia kaernbachii*), ‘Pau’ or ‘Cutnut’ (*Barringtonia procera* and *B. edulis*) and ‘Aila’ (*Inocarpus fagifer*); ‘Finschia nut’ (*Finschia waterhousiana*).

The ACIAR project is actively promoting the use of traditional local NTFPs, as well as timber, in Vanuatu and investigate the market potential. The Department of Agriculture has been trying to promote sustainable agriculture practices for a while, but is lacking the resources to be effective in its extension services.

2.1 Conservation agreements

Due to the land tenure system in Vanuatu, the government has little power to establish protected areas. Communities have to decide themselves if they want to enter into such a process and set aside land for conservation purposes, the so-called Community Conservation Areas (CCA).

Three sectors provide for legislation concerning CCA. One concerns marine protected areas (Dept. of Fisheries) and two administer terrestrial areas. The Forest Act (2001) and the Environmental Management and Conservation Act (2006) provide for terrestrial CCA establishment. De facto, the only legislation implemented is the Environmental Act. DoF provides two conservation officers who work closely with the DoE in the establishment of CCA. The selection of areas is largely limited by human resource constraints in the departments and the funding of the process.

The CCA regulations are an example of a demand-driven mechanism which requires extensive awareness and participation. Progress on the establishment of CCAs will either contribute to current or future avoiding deforestation and forest degradation, the latter securing the resource from exploitation in the event of shifting drivers. Permanence is tied to the individuals in the community, as government has no power to enforce the CCA management. A regional GEF project, implemented by FAO, supports the development of CCA management expertise in the respective communities.

IUCN is implementing the MESCAL project (Mangrove Ecosystems for Climate Change Adaptation and Livelihoods) in Vanuatu. Mangroves play a crucial role for livelihoods in that they provide breeding grounds for fish and other marine organisms and supply durable wood for construction and energy. Mangroves are increasingly being cleared for urban development or tourism purposes, which also releases a large amount of carbon, especially soil carbon, into the air. Mangroves are part of the forest definition and therefore eligible for support under the REDD+ Scheme.

2.5 Improved Land Use Planning

Vanuatu proposes to conduct a full opportunity assessment of different land use options during R-PP implementation. This overarching strategy option goes in line with Vanuatu’s National Forest Policy, which foresees developing and implementing a well-articulated and widely accepted land use policy that will deal with conflicting demands on land, emphasizing balance

and trade-offs among different land-use options, and enabling close collaboration and coordination among the different Government authorities responsible for land, agriculture, livestock, forestry, climate change adaptation, provincial governments, customary chiefs and land owners. One of the National Forest Policy's priorities is to resurvey and zone forests (the latest National Forest Inventory relies on data gathered in 1989-1992) in order to identify the land best suitable for production, protection and conversion.

Strategic land use planning based on a comprehensive analysis of opportunity costs, including long-term socioeconomic and environmental criteria, is required. The role of good forest governance and equitable benefits sharing arrangements as well as consultations with land owners is of utmost importance. Good governance will ensure that environmental and social safeguards are adhered to during planning and implementation. The ESMF described in Component 2d will safeguard against potential land grabbing triggered by REDD+ as well as ensure non-carbon benefits are taken into account when developing and carrying out the REDD+ strategy. This must be accompanied by the development and continuous up-dating of a national database of information regarding land management (component 4b better outlines how this is proposed).

Vanuatu's land has not yet been classified according to functions or land capability classes; neither does Vanuatu have a legally defined permanent forest estate. However, eight policy areas have been identified through the draft Land Use Planning Development Policy that will be the subject of a comprehensive land use planning:

1. Rural areas
2. Urban areas including provincial centres
3. Foreshore and coastal development
4. Risk management
5. Land leases
6. Legislation
7. Related policy areas
8. Institutional arrangements & capacity building

2.6 Overarching strategy options

The options described in 2.1 – 2.5 will be complemented, as described in other chapters of this document, by overarching structural elements:

- Institutional strengthening by capacity building, clear responsibilities and processes, will lead to improved forest governance. This is a necessary underlying instrument for the implementation and administration of the REDD+ Scheme.
- The in-kind distribution of benefits in the REDD+ Scheme will have to reflect the performance on Province level. This will be ensured by the investment area definition process under the provincial stakeholder committees: each Province submits its priority areas for government investments. The submissions of those Provinces with the best performance will be considered as a priority. This way, the most efficient incentives to reduce deforestation and forest degradation will be implemented.
- The government of Vanuatu receives substantial aid support for disaster risk management. Highly vulnerable areas are identified, where the people are exposed to a

multitude of disaster potentials and have the smallest support for prevention and crisis management. The National Disaster Risk Management Office (NDMO) under the VMGD coordinates these efforts. Reinforcing natural ecosystems, i.e. through forest carbon stock enhancement, helps in reducing risk vulnerability.

- Resilience of healthy terrestrial ecosystems also increases the resilience of the people in the event of a disaster, minimizing the damages and supporting a quick restoration of the impact areas. Mangroves, coastal zone vegetation, appropriately adapted species for the local environment and other measures contribute to this resilience and avoid future deforestation in disasters and their aftermath.
- To effectively implement any of the above options, it is crucial to make the implications, chances, benefits, and consequences of REDD+ understood by other relevant stakeholders. Government support will be ineffective if only the departments involved in natural resource management are persuaded to invest resources in REDD+. Mainstreaming is key. The best options to mainstream REDD+ through all departments is to contribute to sector plans and policies (i.e. in 2013: agriculture, environment, climate change), foster the attendance of other sectors in the Technical Committee, and in addition, engaging a consultant company (budget allocated in Component 1b) to prepare a promotion campaign, addressing different sectors by explaining their potential gains from the National REDD+ Scheme.

3. Assessment of Strategy Options

During R-PP implementation, a series of studies will help to determine which strategy options are in the best interest of Vanuatu stakeholders, including the Government, rural communities and private sector.

3.1 Legal Study

The development of the REDD+ scheme and strategy options will need to be accompanied by a legal study in order to determine whether the use of the monetary benefits of forest carbon money that belongs to Ni-Vanuatu landowners can be used to fund a national investment program in sustainable land use activities. This legal study will be accompanied by a national dialogue that will allow Ni-Vanuatu to collectively decide whether the financial benefits resulting from forest carbon should be administered by the GoV. Once the REDD+ strategy is agreed upon, there will also need to be a study of the legal adjustments required in order to accommodate streams of REDD+ money.

3.2 Transaction Costs

Carbon accounting would take place at the national level, with the Provinces (or sub-national jurisdictions) developing sub-national financial benefits distribution systems. Vanuatu has been divided into six autonomous Provinces with elected parliaments (provincial councils) mandated to collect taxes and to make by-laws in local matters.

3.3 SESA

Although the assessment will focus largely on carbon impacts, i.e. carbon stock, sequestration and avoided future emissions, the economic and social trade-offs of different land uses will also be included in this assessment using a bottom-up approach. This is especially important in order to gain a better understanding of the drivers of deforestation and forest degradation. For example, although the national forest policy identify subsistence land use as being the main driver, recent studies suggest these traditional land use customs allowed communities to live

within their environment for millennia still provide adequate sustainability and that the main drivers are forest conversion for coconut plantations and permanent pasture (Siméoni and Lebot 2012). Especially the carbon economics of coconut plantations needs to be assessed more closely; however, in order to avoid negative environmental impacts, e.g. biodiversity loss, natural forest conversion to coconut plantations will not be considered as a possible REDD+ project.

3.4 Stakeholder Participation

One option is to take the existing draft Forest Policy as the point of departure and to establish expert groups to design a specific REDD+ policy and strategy. This option takes into account that the Forest Policy is based on an intensive consultation process that need not be repeated so early afterwards. The validation of the REDD+ policy and strategy would then also involve a decision made by Government.

4. Capacity Building

There will be an AWG created to work through the strategic options that result from the drivers identified. Of fundamental importance to the design of the approach to REDD+ reporting and implementation is the need to fit this approach to the realities of Vanuatu government capacity, both now and into the future. Formulation of guidelines at national level that will give clear orientation and standards on how participatory processes should be run in future pilot projects funded by actors entering the REDD+ sector.

As a guiding principle all activities will be carried out with direct involvement of Vanuatu staff. If consultants are hired to deliver expertise that is unavailable in Vanuatu, the consultant will be required to involve relevant staff in his/her work, to explain in detail how for example calculations were done, why certain choices were made and to train staff in order to enable them to better master the entire REDD+ subject matter even if not always to an extent that they would be capable of doing the work themselves. Where possible, a team of two consultants should work on a task, one of them being Ni-Vanuatu. The terms of reference of such consultancies must include clear requirements concerning this type of capacity enhancement.

5. Demonstration Activities

Currently, there is only one REDD+ demonstration activity in Vanuatu, which is a community project supported by the NGO Live and Learn Vanuatu. It is crucial to dramatically invest in demonstration activities that support the REDD+ implementation on national and provincial level, increasing the experience and knowledge base on

- The participative process to defining the investment areas;
- Capacity building of the relevant departments to implement the measures;
- The outreach approaches described in chapter 1c, which lead to the informed decision by people of Vanuatu to request the offered services – or not;
- Registration of REDD relevant activities;
- Research aiming at defining nationally appropriate default values for a variety of REDD relevant activities;
- Relating ongoing REDD relevant projects and activities throughout Vanuatu, such as ArkTek Tanna and the ACIAR reforestation and timber marketing project, to the national archive and reporting system;

The detailed design of demonstration activities will have to be developed in the implementation of the R-PP, as indicated in the budget. The priority is to demonstrate a full cycle of the National

REDD+ Scheme, including national and provincial government and the communities in a pilot region.

Budget for this component:

Component 2b: Summary of REDD-plus Strategy Options						
Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Creation of ad-hoc working group to develop strategy options	Launch of ad-hoc working group and development of ToR	10	-	-	-	10
Study to explore strategic options for REDD+	Development of strategic options	60				60
	Opportunity cost assessment of alternative land uses	40	-	-	-	40
	Public validation	-	30	-	-	30
Formulation of design options for the REDD+ Implementation Framework	Consultation of government and non-government stakeholders and endorsement of design options	30	-	-	-	30
Development of demonstration activities (funded by donor other than FCPF)	Select pilot provinces and participative activity identification	20	-	20	-	40
	Planning and implementation of demonstration activities	-	60	100	140	300
Total		160	90	120	140	510
FCPF		60	-	-	-	60
Other development partners (not yet specified)		100	90	120	140	450

2c. REDD-plus Implementation Framework

Standard 2c the R-PP text needs to meet for this component: REDD-plus implementation framework

Describes activities (and optionally provides ToR in an annex) and a work plan to further elaborate institutional arrangements and issues relevant to REDD-plus in the country setting. Identifies key issues involved in REDD-plus implementation, and explores potential arrangements to address them; offers a work plan that seems likely to allow their full evaluation and adequate incorporation into the eventual Readiness Package. Key issues are likely to include: assessing land ownership and carbon rights for potential REDD-plus strategy activities and lands; addressing key governance concerns related to REDD-plus; and institutional arrangements needed to engage in and track REDD-plus activities and transactions.

1. REDD+ Scheme Approaches

As in many other countries in Oceania, island geography, culture, economy, and history frame a set of conditions which constrain REDD+ implementation options. Vanuatu is composed of a few big and several small islands. An uneven distribution of settlements and population as well as different processes driving land cover change results in different rates of deforestation and forest degradation between the islands.³⁹ Consequently, REDD strategy options must consider these different processes at work.

Implementing a robust REDD+ Scheme in Vanuatu will require a national architecture or governance structure that facilitates comprehensive actions and delivers carbon mitigation outcomes that are effective, efficient and equitable. The long-term legitimacy of the system also depends on the ability to deliver co-benefits, in particular poverty alleviation and sustainable livelihoods. Different constituencies will look critically at the quality of the procedures involved, such as democratic processes, transparency, accountability, broad participation and respect for national sovereignty.

Due to the land tenure system in Vanuatu, only a small area of the land has been registered (mostly in urban areas). Land ownership is a sensitive issue and conflicts arise whenever commercial interest of external actors and investors is being expressed. In very few cases, all resource users of a potential lease area are informed about development plans or included in the decision process. The legal system doesn't provide for ultimate decisions on these matters. Agreements can be disputed again at any time after finalization. This way, conflicts can go on without ending, which doesn't only burden the communities, but also hinders investments.

At the same time, Vanuatu is faced with a small average land area size. The land area claimed by a clan or community is usually very small and can range from less than 800 ha up to ca. 20,000 ha. Suitable areas for standalone carbon projects have not yet been detected, largely due to this lack of sufficiently large forested areas that have clear and undisputed ownership boundaries. Forest land use is rather unplanned and on small scale, as we can see in the Santo deforestation

³⁹ Herold, M., Sambale, J., Lindner, M., Urban, M. and Weaver, S. 2007: Satellite based monitoring of the national forest resources in the pacific island state of Vanuatu, DGPF Tagungsband 16 / 2007 – Dreiländertagung SGPBF, DGPF und OVG.

assessment⁴⁰: 50 % of the forest land conversion has taken place in areas smaller than 1.3 ha, mostly in the urban area of Luganville.

What these issues add up to is that the transaction and social costs for implementing the conventional REDD+ approach through a number of carbon project activities are too high and become a barrier. A tailor-made innovative approach to REDD+ implementation has been developed for Vanuatu and has to be detailed further in the implementation phase.

1.1 Activity-based approach

The proposed approach to REDD+ for Vanuatu is not area-based, but activity-based. Principally, monetary returns generated through emission reductions in the forestry sector will be channeled through the national government and passed on to the Provinces in-kind, and according to performance. The islands are the only undisputable boundaries in the country. *Figure 10* shows a simplified version of the Scheme:

1. The national government has to invest money into land-use-relevant sectors to strengthen the support that can be given to resource users. Based on the analysis of the drivers of deforestation and forest degradation, priority sectors have to be selected to focus the resources. The relevant departments have to dedicate staff, train the staff, and build up that support in the Provinces.
2. The departments have to inform the people of Vanuatu about the opportunity that is being offered to them through the trained extension officers, public announcements and other ways of communication as identified in the Consultation and Participation Plan.
3. The resource users demand support for activities that fall into the criteria defined in step 1. This can include training, planning, material, equipment, support for maintenance, etc. All activities will be documented by the supporting government agency. For this purpose, data collection forms have to be designed. The data is collated in the data base that is developed for the MRV system. Accompanying research projects⁴¹ will over time lead to specific default values for the carbon impact of promoted activities, which will simplify the carbon accounting.
4. Vanuatu will implement a national MRV system which reports on the carbon stock changes on national level. Due to the geographical structure, the data can easily be associated to the islands or Provinces. Internally, it is therefore clear, which Province contributed how much to the total amount of carbon emission savings.
5. After verification, the compensation payments will be channeled through government and reinvested into enhancing the support of sustainable land use activities.

On Province-level, REDD+ stakeholder committees have to be created. These committees decide on priority areas of sustainable land use that government is asked to invest in.

As an example, forestry can increase free supply of seedlings for commercial timber species to land users, hand out equipment, and conduct trainings on how to plant and manage plantations or planted forests. The activity will (a) reduce the pressure on natural forest, (b) increase the (forest) carbon stock, and (c) supply the individual farmer with higher average income over ten years than the carbon benefit would.

⁴⁰ Zeballos, D.M, Seirfert, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

⁴¹ E.g. Glencross, Kevin & Viranamangga, Rexon. *Silviculture of Whitewood (Endospermum medullosum)* in Vanuatu. Australian Center for International Agricultural Research (ACIAR) 2012.

The maintenance of other goods and services of the remaining forest ecosystems adds significantly to that value.

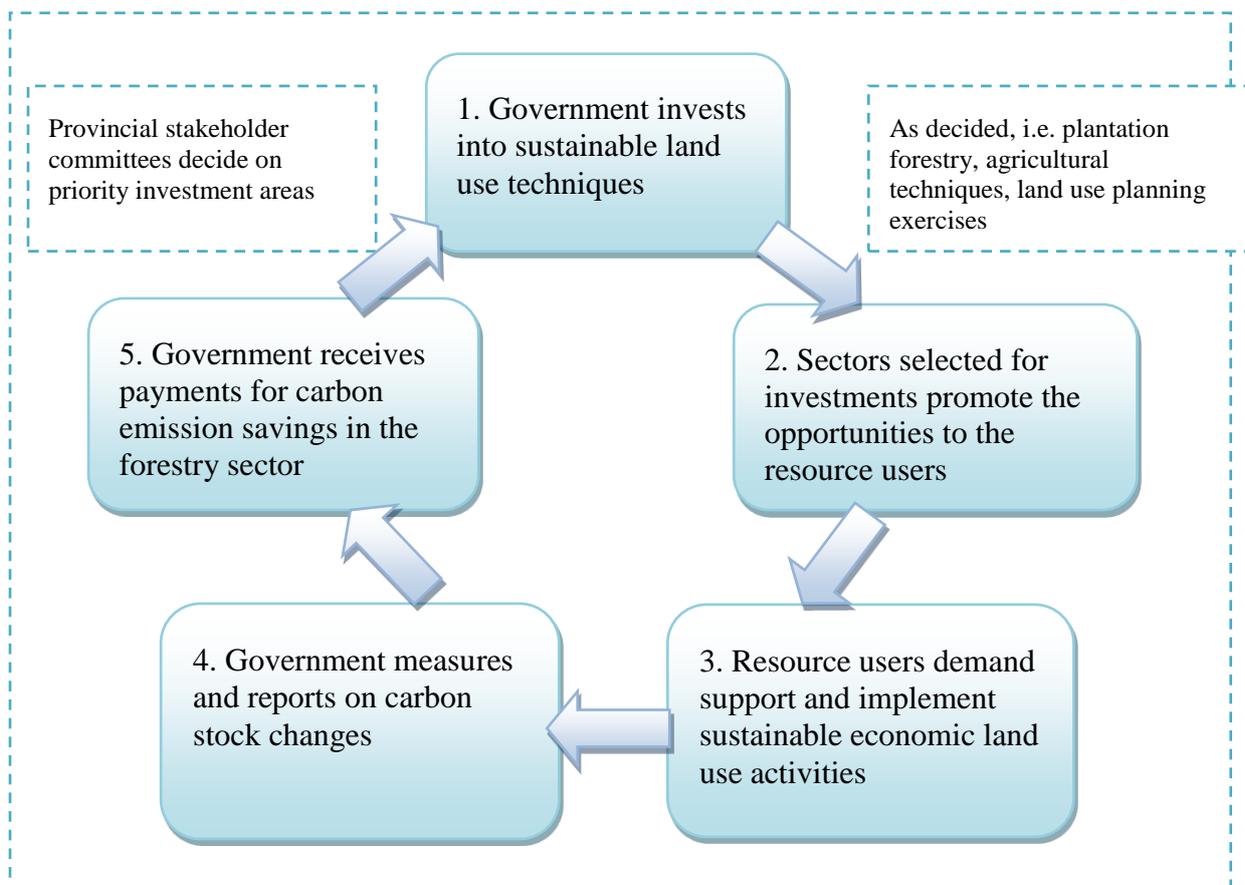


Figure 10: Flow chart of national REDD+ Scheme

This activity-based approach is demand-driven. It is crucial to make resource users aware of the arising opportunities. The way in which REDD+ is explained to Ni-Vanuatu is critical to its success and this must be fully developed during R-PP implementation as a priority of the C&P Plan.

The Provinces receive shares of the REDD+ funds from government according to the Provincial performance. A Provincial committee, as described in chapter 1a, has to identify the most efficient activities for the government investments. Other examples than the aforementioned are agricultural intensification, agroforestry, land use planning, or training on logistics and cautious implementation of construction works.

Due to the land tenure system in Vanuatu, this programmatic activity-based approach cannot just be implemented by the government. The State Law Office will contribute to the design of the mechanism through legal advice, to ensure that the planned way of sharing and distributing the benefits will not breach the laws and constitution of the Republic of Vanuatu. An intensive awareness and feedback process will help the people of Vanuatu to fully understand this Scheme and give their consent to the planned procedures and design. So far, the approach was well received in Provincial consultations with stakeholders and resource users, though there is skepticism towards the fact that the government is receiving the benefits. Worries about transparency and proper use of the funds were expressed. The design of the Vanuatu REDD+ Scheme therefore has to be developed carefully, implementing thorough and multiple control

mechanisms. In general, all stakeholders agreed that the activity-based approach is more realistic to succeed than a project-based approach.

Benefits from carbon will be transformed into in-kind benefits in that the relevant sectors use the funds to improve their support services for sustainable economic land use activities. As an example, forestry can increase free supply of seedlings for commercial timber species to land users, hand out equipment, and conduct trainings on how to plant and manage plantations or planted forests. The activity will (a) reduce the pressure on natural forest, (b) increase the forest carbon stock, and (c) supply the individual farmer with higher average income over ten years than the carbon benefit would.

This approach is demand-driven. The Provinces receive shares of the REDD+ funds from government according to the Provincial performance. A Provincial committee has to identify the most effective and demanded sectors and activities that should be subsidized in this way. Other examples are intensification of agriculture, agroforestry, land use planning, or training on logistics and cautious implementation of construction works.

Increased but sustainable land use by land resource users reduces of deforestation and forest degradation. For sustainable emission reduction over time, the steering of the subsidies towards the demands is critical. A Provincial committee has to identify these demands and periodically review the efficiency of these incentives. It has to be made sure that major stakeholders get involved in the process in order to make the investments as targeted and cost effective as possible.

Due to the land tenure system in Vanuatu, this programmatic activity-based approach cannot just be implemented by the government. The State Law Office will work closely with the TC on the design of the mechanism and give legal advice. A broad awareness and feedback process will help the people of Vanuatu fully understand this Scheme and give their consent. So far, the approach was well received in Provincial consultations with stakeholders and resource users, though there is skepticism towards the fact that the government is receiving the benefits. Worries about transparency and proper use of the funds were expressed. The design of the Vanuatu REDD+ Scheme therefore has to be developed carefully, implementing thorough and multiple control mechanisms. In general, all stakeholders agreed that the activity-based approach is more realistic to succeed than a project-based approach.

1.2 Area-based approach

A first voluntary carbon project in a delineated area is already being implemented in Vanuatu, developed by the NGO “Live and Learn Vanuatu”. The national REDD+ Scheme will recognize forest carbon projects. The areas of forest carbon projects have to be delineated and registered with the national level (Department of Lands), so that the project area can be subtracted from the national carbon emission reduction measurement and reporting of the government. Projects will not receive government support, but have to generate funding on their own for investment and operational costs. The project developer will have to comply with the national REDD+ Project Guidelines (to be developed as a priority) to avoid potential illegal activities and land grabbing.

An AWG will be created to outline the process and criteria that any project seeking carbon market finance will need to meet. It is important to streamline all forest carbon projects to ensure they go through the NAB and comply with the relevant laws and safeguards. For cost efficiency, the projects can request government support for certain activities (e.g. carbon measuring). The project developer will cover the costs of these services. It is expected that such services can decrease investment and operational costs of forest carbon projects, which can attract investors and offer another range of economic development opportunities to eligible communities.

However, it is not expected that there will be a significant number of forest carbon projects for the voluntary market because of the limited availability of undisputed land areas of critical size and under threat of forest conversion. Allowing for a project-based approach will therefore not undermine the national REDD+ Scheme.

2. Institutional preparation for implementation

Instituting REDD+ at the national level will take time. Capacity building, participation and outreach, and demonstration activities have to be emphasized in the early stages to prepare Vanuatu for REDD+ for the national REDD+ Scheme.

Next to assuming the overall responsibility and securing coordination the main tasks to be performed by any national REDD+ architecture are described in the following four sections. They include:

1. Participation and outreach to the resource users,
2. Channeling international funding,
3. Monitoring and reporting, and
4. Verification and safeguards.

2.1 Participation and outreach to the resource users

It is crucial for the success of the planned Vanuatu REDD+ Scheme that the people of Vanuatu understand the framework and its implications, and give their consent. The Scheme has to be demand-driven. People need to know what they can request and from who. This is potentially conflictive because of the benefit distribution through government and therefore needs to be fully understood and agreed upon to avoid future scrutiny of the Scheme. The Communication and Participation Plan (comp. 1c) outlines how the government of Vanuatu plans to reach out to these groups. It has to be emphasized that outreach and broad consent are of the highest priority for the R-PP implementation. The National REDD+ Coordinator has the responsibility to make sure that this priority is being secured.

2.2 Provincial Governments

Vanuatu has been divided into six autonomous Provinces with elected parliaments (Provincial councils) mandated to collect taxes and to make by-laws in local matters. As briefly explained in Component 1a, Provincial Stakeholder Committees will be created in order to assist in implementing REDD+. ToRs for these Provincial Stakeholder Committees will be determined during R-PP implementation, including the process through which the committees are created in order to ensure equity, i.e. self-selection with representation of women and other vulnerable groups.

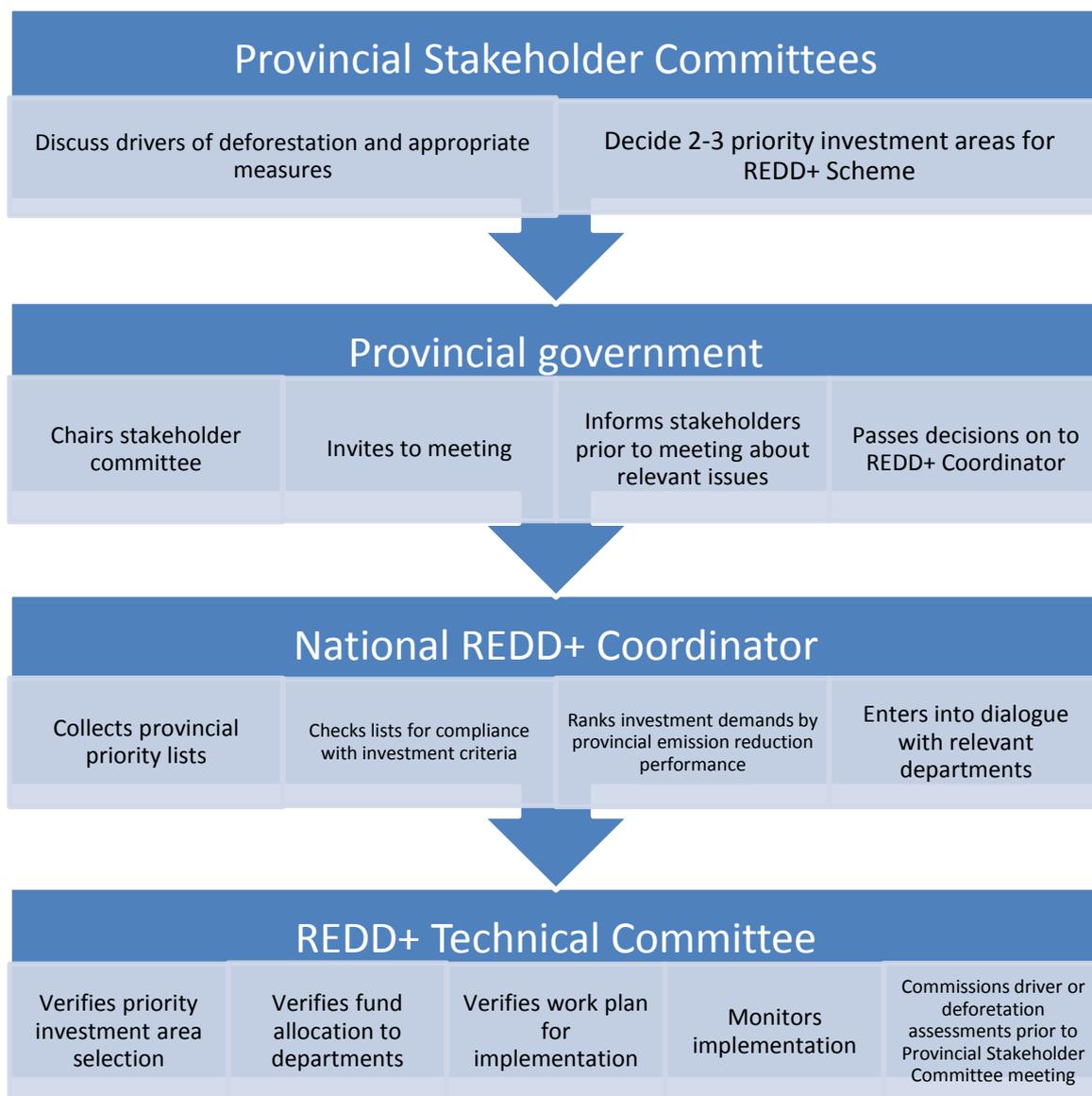


Figure 11: Priority Investment Area Selection

3. Addressing the current land tenure system and social risks involved

As described in previous chapters, esp. 2a, the land tenure situation in Vanuatu is subject to conflicts and mistrust. Different initiatives are working on a clear regulation for land governance, considering official and unofficial (customary) elements. A solution, however, is not in sight for the next years. The national approach to REDD as laid out in section 1 of this chapter suggests that land registration is not necessary to share the benefits of a carbon emission reduction scheme:

- The Government of Vanuatu invests into in-kind support for sustainable land use activities, so there is no cash flow;
- As in other existing programmes in forestry and agriculture, the people can request support for certain activities. The implementation arrangements, i.e. for plantations, management plans or agricultural intensification schemes, have to be decided among the land owners and resource users themselves, as usual;

- The activity generates income and other benefits through economic production of goods. These benefits as well will be generated and shared as commonly done – according to the initial agreement between the stakeholders;
- Should conflicts arise over the sharing of the benefits from economic land use activities, the products cannot be sold. The income is delayed until the conflict is solved. These situations already arise regularly in Vanuatu. In most cases, they are solved within the communities, through the customary systems of conflict resolution.

The Republic of Vanuatu is working closely with the State Law Office to ensure the legality of this approach.

In the meantime, the REDD Scheme will provide valuable inputs into the other ongoing processes of land tenure governance clarification. When those come to a result, according laws and regulations will be incorporated in the National REDD+ Scheme.

4. Monitoring and reporting of sustainable land use activities

The monitoring and reporting of changes in forest carbon stocks (described in detail in Component 4a) is essential to secure the access to international payments and for evaluating progress of the national REDD+ strategy. However, in order to ensure the success of the activity-based investment program, a focus has to be set to the documentation and registration of activities throughout the country. This information must be recorded and documented transparently ensuring that all relevant information is publicly available to the public.

Existing government services, such as support for tree nurseries and plantation, are being documented and their suitability assessed already. These systems have to be expanded and made accessible to the headquarters and extension offices of the responsible departments.

Sampling design for the national forest inventory should include potential development areas that have been supported under the REDD+ Scheme on a temporary basis to determine default values for the carbon impact of these small scale activities. In the future, refining the MRV system to align with the support documented in the registry will help in accounting for carbon stock changes on small scale. The relationship between small-scale economic activities, such as plantation forestry or agroforestry, and the less intensive use of natural forest is of high interest and has to be captured by this registry as well.

Similar to other Components, the capacities in Vanuatu for establishing a national setup for regular monitoring of changes in forest carbon stocks and controlling the implementation of safeguards are still very limited, both financially and in human resources. A strategic partnership with the Secretariat of the Pacific Community (SPC) will reduce the costs of the MRV system for Vanuatu (as outlined in the Regional REDD+ Strategy in Annex 2a).

5. Oversight and Transparency of Financial Flows

International REDD+ payments will be channeled through existing systems in the Department of Finance. Vanuatu commits itself to using these compensation payments under the REDD+ Scheme in the way outlined in Component 2b on benefit distribution.

Existing national structures have yet to be refined to channel funding for the readiness as well as the implementation phase. The establishment of the PMU at the Meteorology and Geo-Hazards Department is almost complete. Within this setup, a Mitigation Officer and a Financial Officer

will support the National REDD+ Coordinator. The Department of Forestry has employed a REDD+ Officer. Capacities to dedicate more staff beyond this to the REDD+ work are strongly limited. While the core staff will have to deal with the administration of the funds and the overall management of the Scheme, technical responsibilities will be integrated into the daily routines of many other positions. The dialogue with the different relevant government sectors and other stakeholders is ongoing; regular meetings of the REDD+ Technical Committee and the Ad-hoc Working Groups will increase the understanding and potentially the uptake of REDD+ by more actors. The government representatives are aware that this process takes time but that it is necessary. Any work plans will be structured accordingly.

The design of the National REDD+ Scheme is very sensitive because of the existing land ownership regime and the strong perception by the Ni-Vanuatu that government might change the current status quo of the traditional land tenure system. The channeling of REDD+ funds and benefit distribution must be transparent in order to receive broad consent. This has also been emphasized in the Provincial stakeholder meetings. The receipt of the payments for carbon emission reductions through REDD+ must be made public instantly. The spending of these carbon benefits on securing and sustaining certain government services and provision of the identified incentives must be agreed upon beforehand in a participatory process. It is suggested that participatory Provincial Committees define priorities for the investments into sustainable land use activities. The funds are then allocated according to the performance of each Province.

Continuity of international funding depends on the results delivered. How funds are spent and reinvested is a matter for national governments to decide, the use of the funds determines the future performance. If funds are deflected from the investment system or if the investment system does not target the right activities, the following emission reduction phase will only deliver poorly and the funds decrease, to a point where the country cannot sustain the Scheme.

6. Institutional arrangements to coordinate Climate Change activities in Vanuatu

Climate change activities are coordinated by the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB), the body that has been formally mandated by the Council of Ministers to act as Vanuatu's supreme policy making and advisory body for all climate change and disaster risk reduction programs, projects, initiatives and activities. The NAB is made up of department heads, including the NDMO Director, and chaired by the Director of the Meteorological Service. The Director of the Meteorological Services is co-chair of the National Task Force for Disaster Risk Reduction and Disaster Risk Management. The Climate Change Unit in the Department of Meteorological Services functions as the Secretariat of the NAB. There is a plan for the NAB to establish a National Group of Experts to do research on environmental change issues affecting the country, particularly on climate change, and periodically report to the NAB on its findings.

5.1 Mainstreaming of Climate Change Adaptation in Vanuatu

Vanuatu's NAPA was adopted by the Government in 2007. This determines eligibility to apply for funding for implementation under the LDC Fund, which is managed by the GEF. Vanuatu has also prepared a discussion paper – Climate Change Policy and Implementation Strategy. Its purpose is to provide a summary of climate change development in Vanuatu, including future areas that the Government and other stakeholders need to address. It also intended to highlight issues that had been identified in the First National Communication that may form the basis for a climate change policy.

The paper proposes a preliminary climate change policy framework for consultation purposes. The policy framework highlights the commitment of Government, through the Environment and Meteorology Departments and other Government ministries, civil society and the private sector to mainstreaming climate change issues at the national and community level.

At the local level the policy framework highlights a commitment to proactively identify vulnerable communities, areas and assets at risk. There is also a commitment to develop adaptation options that are appropriate, cost-effective and culturally sensitive in order to increase resilience. It also states that effective Provincial participation in the climate change process must be ensured, with existing systems being used as the basis for local authority participation.

5.2 Institutional integration of CC related activities

Vanuatu was the first PIC to complete both a NAP for DRM and a National Adaptation Program of Action (NAPA). The National Task Force for DRR and DM is co-chaired by the Director of the Meteorological Service (who has overall responsibility for the Government's climate change activities) and the NDMO Director; a key priority and strategy in the PAA is to prepare a Port Vila development plan which mainstreams climate change and disaster risk reduction measures. Vanuatu is currently in the process of launching a National Land Use Planning and Zoning policy, which will include land use zoning maps and vulnerable area mapping, addressing both DRR and CCA. The lack of understanding of climate change and variability issues and DRR in the higher echelons of governance is still a major constraint leading to the lack of a coordinated approach to addressing climate-related risks. Financial and human constraints are a major concern to line departments, such as both Meteorology and Environment, which currently depend largely on donor assistance to fund on-going activities at the national and community level. There is an initiative to develop a National Implementing Entity within the NAB to be the manager of all climate change-related funds, including both mitigation and adaptation.

5.3 Disaster Risk Management in Vanuatu

Vanuatu ranks as one of the countries with the highest exposure to multiple hazards, according to the World Bank's Natural Disaster Hotspot study. Vanuatu is geographically located in the "ring of fire" and the "cyclone belt" of the Pacific. Almost 81% of its land mass and 76% of its population is vulnerable to two or more hazards, including volcanic eruptions, cyclones, earthquakes, droughts, tsunamis, storm surge, flooding and landslides. Since 1939, a total of 124 tropical cyclones have affected Vanuatu. Over six decades since 1939, the number of tropical cyclones in Vanuatu has increased significantly. Vanuatu has a UN Least Developed Country (LDC) status despite a per capita GDP above the LDC threshold.

In 1997, Vanuatu initiated its Comprehensive Reform Program (CRP), a major development initiative in response to fiscal fragility, political instability, economic stagnation, inefficient public administration and social service. The Government's medium-term strategy for development is outlined in the Priorities Action Agenda (PAA) 2005-2016. The PAA recognises Vanuatu's vulnerability to disasters and states that "the emphasis in disaster management has been on making communities aware of the need for preparedness and promoting the renewal of traditional knowledge of mitigation and preparedness". The priorities and approach it establishes are consistent with those in the CRP, with an overall objective of linking policy and planning. The priorities include primary sector development, covering natural resources and the environment. The Government used the priority areas in the PAA as a starting point for the development of a four-year strategy 'Planning Long, Acting Short: Action Agenda for 2009-

2012'. In 2007, the Governance for Growth (GFG) programme was launched as a response to the need to implement meaningful reform.

A Disaster Risk Management Framework and arrangements flow chart was adopted by the Government in early 2007 as the basis for developing new legislation, a new disaster management plan and new Government organisational arrangements. The framework was also part of the commitment made to streamlining and cooperation when the NAP was first designed, and as a result, the Vanuatu Meteorological and Geohazards Department (VMGD) and NDMO are now housed together in a new complex, fully funded by the Vanuatu Government.

In addition, a National Water Strategy Plan has been prepared, proposing risk assessments and vulnerability mapping. This work has commenced, but there is very little capacity to undertake it. The biggest impediment to the development of risk and vulnerability assessments and maps is a lack of climatic, hydrological and geophysical data.

5.4 Mainstreaming of Disaster Risk Management

At the national level, disaster risk management is integrated in the PAA. In 2006, Vanuatu was the first PIC to begin the integration of disaster risk management as a part of national planning. A key priority and strategy is to prepare a Port Vila development plan, which mainstreams climate change and DRR measures. The National Disaster Act (2000) focuses primarily on preparedness and response arrangements for disasters. While the Act includes a definition of prevention, it is not specific about requirements and powers for addressing prevention measures.

At the more local level, a key priority and strategy in the PAA is developing and implementing risk reduction programmes in communities, Vanuatu is the only Pacific island country recipient of the USD 65.69m Millennium Challenge Corporation funds. The fund focuses on overcoming transport infrastructure constraints to poverty reduction, specifically for rural areas.

7. REDD+ Activities and Planning

The governance of the Vanuatu REDD+ Program will operate by means of national multi-stakeholder workshops, meetings, and consultations under the REDD+ Steering Committee, governance by means of NAB meetings, and an Extension & Outreach program to enable the direct involvement of rural communities in the Provinces. National Workshops and Extension & Outreach activities will be conducted for training and informed consultation. A draft program of activities is presented below alongside the budget below.

Component 2c: Summary of REDD-plus Implementation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Study surrounding land and carbon rights	National Dialogue	50	40	-	-	90
	Legislative changes required	-	40	-	-	40

	for REDD+ Scheme					
Total		50	80	-	-	130
FCPF		50	40	-	-	90
Other Development Partner (not yet specified)		-	40	-	-	40

2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

**Standard 2d the R-PP text needs to meet for this component:
Social and environmental impacts
during readiness preparation and REDD-plus implementation:**

The proposal includes a program of work for due diligence in the form of an assessment of environmental and social risks and impacts as part of the SESA process. It also provides a description of safeguard issues that are relevant to the country's readiness preparation efforts. For FCPF countries, a simple work plan is presented for conducting the SESA process, cross referencing other components of the R-PP as appropriate, and for preparing the ESMF.

1. Introduction

In order to integrate social and environmental considerations into the REDD+ policy-making process, a **Strategic Environmental and Social Assessment (SESA)** will be carried out. The SESA will provide the baseline for the development of the future **Environmental and Social Management Framework (ESMF)**, which aims at minimizing or eliminating negative impacts or – if inevitable – duly compensating their negative consequences, while elaborating on means of creating benefits for people and the environment. The SESA is a one-time assessment while the Safeguards Information System (SIS) developed under the work plan and budget outlined in Component 4b will inform the ESMF on a continuous basis. The forest governance assessment proposed in Component 4b should help in carrying out the SESA and the SESA should seek to inform the Safeguard Information System (SIS) built under Component 4b.

The SESA will assess the different REDD+ strategy options in an iterative and participatory way. This will be accomplished through a national policy dialogue that includes Ni-Vanuatu who represent the daily needs of subsistence land users at the local level. The SESA should value *kastom*⁴² principles and traditional authority. The goal is to induce politically centralized power structures in Port Vila to share policy decision-making with local and traditional actors in the Provinces.

The SESA will provide a cumulative assessment of the potential impacts of REDD+, according to the different strategy options. The identification of negative impacts and formulation of adequate mitigation measures will be integrated in the preparation of other components of the R-PP, as a means of ensuring that the World Bank Safeguards are incorporated from the onset to avoid, limit and/or mitigate harm to people and the environment, and strive to achieve benefits instead. The SESA protocols have to comply with the World Bank safeguard policies as laid out in the FCPF's Common Approach.

Planning for the SESA is an on-going process that is accompanying the R-PP development and its elements can be found throughout the R-PP document, i.e. Component 1a describes how an AWG will be created for coordinating arrangements for the SESA and Component 1c describes how the consultation process for the SESA is integrated into the C&P Plan. The aim of SESA is

⁴² '*Kastom*' is the mixture of values, beliefs, institutions and practices perceived as traditional in Vanuatu.

to assess the likely positive and negative impacts of Vanuatu's REDD+ strategy options (Component 2b) and implementation framework (Component 2c).

2. SESA Objectives and proposed workplan

The specific purpose of the SESA is to identify opportunities that:

- Enable an understanding of the operating environment for REDD+ programs, including stakeholder analysis and the socio-environmental dimensions of the forestry sector in Vanuatu;
- Screen and assess possible social impacts and issues related to REDD+ programs in Vanuatu according to the different strategy options outlined in Component 2c;
- Identify criteria for risk management;
- Develop a multi-stakeholder engagement approach to address these impacts that will be part of the C&P Plan;
- Propose methods and measures to mitigate environmental and socioeconomic risks during REDD+ strategy implementation; and
- Provide leads to improve development activities and the state of the environment through REDD+ as well as any associated measures adopted to counter climate change.

As described below, it is suggested that a team of consultants and local specialists be hired in order to carry out the SESA. This team will more fully develop the work plan for the SESA, and the following is provided as guidance:

Phase 1. SESA Assessment:

- Prioritize drivers of deforestation and forest degradation (resulting from Component 2a studies) by defining the key social and environmental issues related to them.
- Assess proposed REDD+ strategy options (Component 2c) in relation to the previously defined priorities, including regulatory, institutional or capacity gaps related to strategy options.
- Assess environmental and social risks and potential positive and negative impacts associated with strategy options.
- Refine strategy options and/or generate new strategy options.
- Benefit/costs analyses as well as a risk assessment of proposed REDD+ strategy options.

The outcome of abovementioned assessments will lead to the development of mitigation, risk management and capacity building measures, which will be needed for the execution of Phase 2. All assessments will consider the World Bank safeguard policies. The assessments will be conducted by national consultants where necessary, with the support of international consultants, in collaboration with relevant governmental and non-governmental institutions.

Phase 2. ESMF Development:

The outcomes of phase 1 will lead to the implementation of the results of SESA through the formulation of the ESMF. The following activities will be considered:

- On-going capacity and institutional strengthening of existing institutions and systems.
- Development of ToRs for preparing ESMF.
- Adjustment and strengthening of regulatory frameworks.

- Formulation of environmental and social management framework (ESMF) consistent with World Bank safeguard policies.

Abovementioned activities will be conducted through intensive consultation and participation of all relevant organizations and institutions, in a manner that is sensitive to Ni-Vanuatu culture.

A preliminary timeline and milestones of the SESA can be outlined as follows:

- Launching (June 2014)
- Scoping (June 2014-June 2015)
- Assessment (July 2015- December 2016)
- Preparation of ESMF (January 2017- December 2018)

3. SESA ToRs

Before the ToRs for the SESA can be created, an AWG that deals specifically with the SESA must be created in the TC. This AWG will be responsible for SESA oversight and coordination. Thereafter, detailed ToRs SESA will be drafted as a priority during R-PP implementation. The SESA will inform the design of the activities proposed in the strategy options described in Component 2b. Therefore, the SESA must begin as soon as possible in order to provide guidance to stakeholders as the REDD+ strategy options are being developed and especially in order to help guide the decision-making process for the REDD+ Scheme.

The ToRs should consider the possibility of having a consultancy team developed specifically for the purpose of the SESA and ESMF. They should highlight a preference for local and regional consultants. Encouraging this would be a good way for the process to obtain greater ownership by Government whilst supporting capacity gaps.

The ToRs must explain how the SESA will be adopted to the specific context of Vanuatu, building upon relevant experiences or knowledge in the country and most importantly, be formulated through a consultative/participatory stakeholder process, for which time did not allow prior to R-PP submission. The SESA ToRs will include national safeguard policies that apply to REDD+ as well as identify the key social and environmental issues associated with the drivers (which remain to be fully assessed as explained in Component 2a). The SESA workplan will include an analysis of the institutional arrangements for coordinating the integration of environmental and social issues in REDD+ readiness.

The standard guidelines provided by the FCPF will help guide the preparation of the SESA ToRs, but these must be adapted to the specific country context as well as the incorporate the progress made already in designing the REDD+ Scheme. The resulting SESA report will help to draft the ToRs for the Environmental and Social Management Framework (ESMF), thus these can only be drafted at a later stage.

4. Capacity Building

Capacity building must be preceded by a capacity assessment, including a stakeholder gap analysis. This will help to maintain the integrity of the REDD+ during R-PP implementation as well as help to identify the specific stakeholders that are most relevant to the SESA. Moreover, the capacity assessment will identify the priority areas for institutional strengthening that are needed for the realization of the SESA. Whenever possible, the SESA will build upon existing knowledge and institutions that currently carry out similar studies to inform strategic sectoral planning or other relevant impact assessments.

The SESA must assess the capacities of existing institutions to manage key environmental, social and vulnerability issues in order to build upon them during ESMF implementation. This assessment will gain also information on where to focus future capacity building, i.e. through in-depth personnel training or infrastructure improvements.

The consultant team hired to conduct the SESA will work closely with The SESA team will work closely with the REDD+ National Coordinator, the SESA AWG and the Extension and Outreach (E&O) Manager described in Components 1a-c. The E&O Manager will facilitate the outreach, communication and consultative mechanisms and help to organize any multi-stakeholder workshops or provide context-specific consultation and information dissemination tools required. The E&O Manager will also help to identify the relevant stakeholders.

In order for the relevant stakeholders to fully engage with the SESA team, a series of educational or training sessions must first occur. The exact nature and content of these training sessions will be determined via capacity assessment. The training material may be developed in collaboration with Live & Learn, which specializes in environmental education. Moreover, some preliminary work in identifying key environmental and social issues related to the forest and land use sector and REDD+ has been carried out by Live & Learn. This must be developed more fully and be built upon by the SESA.

4.1 Environmental Impact Assessments in Vanuatu

Following Vanuatu's independence, environmental impact assessment (EIA) procedures were often applied only informally on an *ad-hoc* basis.⁴³ In 2003, Vanuatu promulgated the Environmental Management and Conservation Act (EMC Act), covering a range of environmental issues, which contains the relevant legislation on EIA for Vanuatu. As per the EMC Act, criteria for triggering an EIA include biodiversity related issues, such as impacts on protected, rare, threatened or endangered species, its habitat or nesting grounds or the introduction of foreign organisms and species. The EMC Act requires authorities of different levels to conduct a preliminary EIA and links them to the Department of Environment at the national level. As per the EMC Act, all projects or development activities that are likely to cause significant environmental, social and/or custom impacts will require an EIA, namely activities that will affect "important custom resources" or "protected or proposed protected lands" or that will result in the "introduction of foreign organisms and species". Recently, regulations for the implementation of the Act have been endorsed in 2012.⁴⁴

Analysts agree that the Act doesn't give sufficient attention to the link between environmental management, strategic planning and other land/resource use planning and that it has so far failed to effectively improve the quality of strategic environmental planning.⁴⁵ It is also to be noted that access to the relevant laws, rules and regulations is difficult although the Government seeks to make these available to the general public on its [website](#).⁴⁶ Doing a SESA will therefore have the benefit of raising the public's general awareness of this national legislation and promote its application in Vanuatu. Moreover, an important co-benefit of doing a SESA will be the introduction of this comprehensive assessment tool to the country, thus providing a practical

⁴³ IIED: Directory of Impact Assessment Guidelines, 1998: 95

⁴⁴ Environmental Impact Assessment Regulations (Gaz. No. 35, 2011) and Environmental Impact Assessment Regulations (Amendment) Order (Gaz. No. 27, 2012)

⁴⁵ IUCN: Analysis of South Pacific ESIA Legislation, IUCN Environmental Law Centre, 2009

⁴⁶ Laws can also be accessed at [PACLI Databases](#)

example for environmental and social impact assessments of major projects in the land use sector or outside of it (e.g. infrastructure development project).

4.2 Risks associate with land tenure arrangements

The SESA must include an assessment of the risks associated with the REDD+ Scheme as well as any risks associated with the individual REDD+ strategy options. One of the most apparent risks that must be given special attention is the potential for REDD+ to foster conflicts amongst customary land owners. As explained in Component 2a, raising the value of land has led to significant conflicts in the past as any REDD+ activity on un-leased land may give rise to conflicts. The World Bank's JBE program has thorough documentation of the range of risks associated with Vanuatu's land tenure arrangements, such as land leasing disputes, power imbalances, lack of participation of vulnerable groups such as women and youth, and lack of benefits sharing to affected communities.

5. Environmental and Social Management Framework (ESMF)

The SESA will directly inform the design of **Environmental and Social Management Framework (ESMF)**. This ESMF will guide the incorporation of social and environmental safeguards during the full implementation and operationalization of the REDD+ Scheme and is meant to be a product of R-PP implementation. The ESMF will help minimize and mitigate any potential negative impacts of REDD+ as well as ensure its social and environmental integrity. It will also examine the risks and potential impacts associated with projects, activities, or policies/regulations that may occur in the future as part of the implementation of the REDD+ strategy options designed during the readiness preparation phase.

Once the SESA report is available, Vanuatu's REDD+ TC will facilitate a series of workshops that will organize the consultations required to draft the ESMF. The budget below includes the finances required for the SESA and ESMF ToRs development, the realization of the SESA and ESMF, as well as any FPIC requirements potentially identified during the R-PP implementation process.

6. Public dissemination and community validation

The consultant team developing the SESA will need to consider how the draft and final version will be publicly disseminated. Given very low literacy, an inability of stakeholders to be aware of and understand the SESA and future ESMF is a risk in itself.

A challenge for the SESA will be involved Ni-Vanuatu communities in the process. Community participation ensures that the priorities of REDD+ are in line with those of the primary beneficiaries: Ni-Vanuatu subsistence land users. Before community consultation takes place, significant awareness raising and information sharing will need to occur. Therefore, information regarding the SESA must be incorporated early on in the Early Dialogue and Information Sharing that will continue during R-PP implementation as described in Component 1b.

Component 2d: Summary of Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation Activities and Budget

Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Capacity Building	Comprehensive assessment of capacities of existing institutions to manage key environmental, social and vulnerability issues	20	-	-	-	20
	Capacity building for SESA / EIA / ESMF for government staff	-	20	20	20	60
SESA ToRs Development	Stakeholder Consultations and drafting of ToRs	20	-	-	-	20
	Workshops for sharing and approving the ToRs	-	30	-	-	30
SESA Study and Report Dissemination	Hiring of Consultant Team	30	20	-	-	50
	Dissemination of SESA report	-	20	-	-	20
ESMF ToRs Development	Stakeholder Consultations and drafting of ToRs	-	-	20	-	20
	Workshops for sharing and approving the ToRs	-	-	30	-	30
Formulation of SESA / ESMF	Carrying out SESA	-	-	20	70	90
	Formulation of ESMF	-	-	20	-	20

	Piloting of ESMF in three selected Provinces	-	-	-	70	70
FPIC	Technical assistance for identifying potential areas/issues requiring FPIC	-	20	-	-	20
	Carrying out FPIC	-	-	25	25	50
Total		70	110	135	185	500
FCPF		50	70	90	140	350
Other Development Partner (not yet specified)		20	40	45	45	150

Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Standard 3 the R-PP text needs to meet for this component:

Develop a National Forest Reference Emission Level and/or a Forest Reference Level:

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (monitoring system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

1. Rationale

According to the decisions of COP 17 in Durban Forest Reference Emission Levels and Forest Reference Levels (REL/RLs) are considered as benchmarks for assessing a country's performance in reducing total emissions and increasing removals associated with eligible REDD+ activities (see Component 4a and Annex 4 for further details) . Here, Forest Reference Emission Level (REL) refers to the amount of gross emissions from deforestation and degradation, and forest management from a defined geographical area and within an agreed period under an approved business-as-usual (BAU) scenario against which actual emissions are compared. The BAU scenario refers to the development path a system would follow if it were not subject to any external program or policy intervention; that is, it is the scenario in which historical and current practices continue. While the REL includes gross emissions only, the Forest Reference Level includes additionally the removals from sustainable management of forest and enhancement of forest carbon stocks.

2. Vanuatu's REL/RL modalities

The decisions of COP 17 provide certain guidance on how to establish REL/RL. Vanuatu's REDD+ REL/RL will anticipate the following modalities:

Activity specific REL/RL approach: Due to different drivers, agents, underlying causes (cf. Component 2a and figure 15 in Annex 2a) specific REL/RLs approaches and will be developed for each of the 5 eligible REDD+ activities. The choice of the approach depends on data availability, resources requirements, and the technical capacities available. Defining a REL for degradation might require determining and combining different BAUs for illegal logging, charcoal production, and fuelwood collection. Approved methodological elements of the VCS will be screened and tested to assess their potential to be used at different levels.

Subnational accounting on 5 islands and nesting: As the emission and removal dynamics of Vanuatu's bigger islands⁴⁷ depends on specific sets of drivers, agents, and underlying causes, the REL approaches will be fit and calibrated to these specific conditions. Each REL approach will be tested within a given domain. The rest of the national territory will be treated as one region, as the islands show similar deforestation rates and patterns. National activity specific R(E)Ls will be built following VCS's Jurisdictional and Nested REDD+ (JNR) Requirements⁴⁸.

Activity specific temporal boundaries: While Vanuatu's historic deforestation patterns can be reconstructed for the past 30 years to calibrate the BAU scenario; it is difficult to generate similar activity data for historic degradation or enhancement of carbon stock activities. Thus, activity based R(E)Ls will be developed using different temporal boundaries concepts. While a reference year might be selected for the partial RL for enhancement or conservation of forest carbon stocks, the deforestation and degradation RELs will be based on historic periods.

Anticipating national circumstances: The development of future deforestation and degradation patterns will depend on the dynamics drivers, underlying causes, and agents. In case of Vanuatu, the demand for land use change is particularly driven by agricultural production which has to meet the demand driven by demographic change, urbanization, and growth of the tourism sector (cf. Component 2a). The island specific constellation of drivers, underlying causes and agents, as well as approved sector strategies (tourism, agriculture, forestry, transport) will be factored into each subnational REL/RL.

Stepwise development of activity-specific RELs: The development of the deforestation REL will start with a construction and projection of the historic deforestation pattern evolving over the last 30 years. At a second stage, the historic change patterns (activity data and emission factors) and their relation to explanatory parameters representing the dynamics of drivers, causes, and agents will be assessed. Within a third step, alternative sector-specific policy and development scenarios will be tested to analyze corresponding emission and removal pathways.

Modeling: The potential of spatial and non-spatial models for certain activities will be explored and all relevant parameters, assumptions, methods, and procedures will be comprehensively documented. Common scientific standards (sensitivity analysis, verification and validation of models) and good practices will be followed in developing models.

Spatiotemporal integration: A national RL will be constructed by spatially and temporally integrating activity specific RELs and RLs. The national RL will be based on an approved macroeconomic development scenario.

Factoring out non-anthropogenic emissions: According to the Decision of COP 17 in Durban, consistency shall be achieved with anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks as contained in each country's greenhouse gas inventories. This requirement implies that parties have to factor out non-anthropogenic emissions and removals, e.g. caused by natural disturbances. As outlined in Section 4.2 of Component 4a (MRV of environmental impacts), the MRV system will monitor and account for non-anthropogenic impacts, particularly those caused by extreme weather events and geo-hazards.

Piloting on Santo Island: The REL and MRV approach will be tested upfront on Santo Island with financial support from GIZ.

⁴⁷ The regional GIZ-SPC program has selected Efate, Erromango, Malekula, and Santo as pilot islands. Tanna should be included as a particular domain, as it shows one of the highest deforestation rates in the past (Herzog et al. 2007).

⁴⁸ VCS, "Jurisdictional and Nested REDD+ (JNR) Requirements. VCS Version 3 Requirements Document 4 October 2012, V3.0," October 4, 2012.

The following section describes how the modalities are anticipated in developing and integrating subnational RL/RELS.

3. REDD+ REL/RLs development and integration path

Vanuatu is aiming at developing its MRV and REL framework bottom-up. It will develop subnational frameworks for the five bigger islands applying common approaches which will be integrated into a national MRV and REL approach. For each of the 5 pilot islands, the following sequential steps will apply:

1. Assessment of historic deforestation patterns applying the MRV framework (Component 4a);
2. Detection of current land cover and land use applying the MRV framework (Component 4a);
3. Subnational and national drivers/Agents/underlying causes (DAC) assessment (applying the DAC framework (Component 2a);
4. Geodatabase compilation (integrating the DAC geodata and (socio-) economic data to be elaborated resulting from the SESA and ESMF in Component 2d);
5. Development of the island specific REL approach
6. Scenario analysis based on REDD+ strategy options as described in Component 2b and agreed validated through the stakeholder consultation and participation process (Component 1c);
7. Monitoring of DAC, land use, and land cover, and REDD+ policy performance applying the MRV framework (Component 4a).

As indicated, Component 3 builds on outputs provided other Components. Figure 12 illustrates how the results of different components are being anticipated to develop activity-based reference emission levels which will be aggregated across activities and subnational domains.

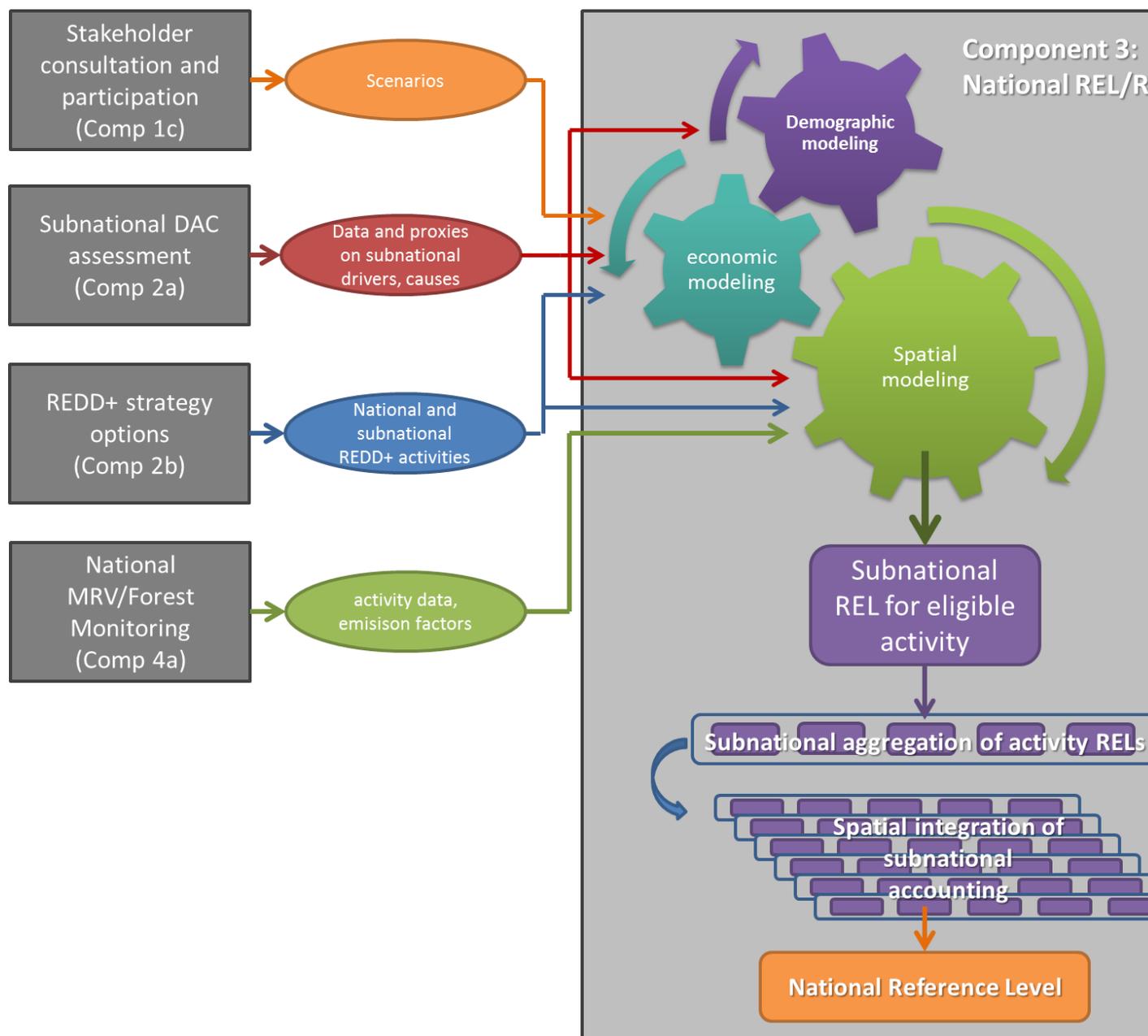


Figure 12: Development rationale and integration of activity-based subnational RELs

4. Methodological framework

Different approaches exist to anticipate national circumstances in developing the national REL/RL. Within a direct approach, the results of a BAU based on appropriate data, approved policy scenarios, and sound modeling approaches, for example a projected deforestation pattern for the period 2014-2020 can be directly combined with strata-specific emission factors to determine the REL. Within an indirect approach, a derived BAU can be adjusted to factor in future development needs, sector policies, or other factors considered relevant. In case of Vanuatu, both approaches will be tested. Different tools and methods will be applied to establish and integrate activity specific RELs:

Focus groups and scenario development: To identify and explore Vanuatu's sector specific development pathways (e.g. for tourism, forestry, and agriculture) focal groups interviews

involving different stakeholders and experts will be conducted at the national level and on 5 pilot islands following the approved procedures for stakeholder consultation and participation (Component 1c). The interviews will be based on national sector policies and development plans, the island specific DAC analysis (Component 2a) and will lead to the development of the BAU case and alternative land-use change scenarios. Complementary, the potential of Delphi-methods can be explored to balance the view of policy leaders with expert opinions from academe and other stakeholders.

Surveys will play a crucial role in assessing the dynamics and impacts of particular degradation activities. VCS provides modules to quantify fuelwood extraction and charcoal making (VCS VMD0008). Apart, they will be used to understand the behavior of deforestation and degradation agents in a changing policy environment. Vanuatu will explore the potential of these methodological elements on selected pilot sites.

Statistical regression, economic and demographic modeling: Vanuatu has comprehensive demographic and agricultural census data (see next section), which has to be explored to assess the statistical correlation between certain trends (e.g. demographics, agricultural production) and historic deforestation and degradation patterns. Economic models⁴⁹ will be tested for key drivers (coconut, cattle ranching) following peer-reviewed approaches. Demographic growth will be anticipated applying a SystemDynamics approach implemented in Vensim⁵⁰. The demographic model will be directly linked to the spatial modeling approach.

Spatial modeling: The DinamicaEGO 2.0⁵¹ will be used to assess the explanatory power of certain drivers (e.g. access to forest, site specific environmental conditions, and settlement patterns) and to project the historic deforestation pattern into the future under different scenario assumptions. Spatial models will be linked to quantitative assumptions and scenarios about the future deforestation, and if feasible degradation rates. A spatial deforestation model will be developed and specifically calibrated for each of the 5 pilot islands.

Projecting removal by enhancing forest carbon stocks will use methodological tools developed under the CDM such as TARAM 1.4. It is expected that similar tools will be developed for NAMAs, soon and shall be tested as soon as they become available.

The explanatory power and quality of higher-order modeling approaches such as optimization in agricultural modeling and System Dynamics shall be tested in cooperation with national and international research institutions. However, these tests shall be used as opportunities to enhance national REDD+ research opportunities.

⁴⁹ Hans Löfgren, Rebecca Lee Harris, and Sherman Robinson, *A standard computable general equilibrium (CGE) model in GAMS* (Washington, D.C.: International Food Policy Research Institute, 2002); Brent Sohngen and Sandra Brown, "Measuring Leakage from Carbon Projects in Open Economies: a Stop Timber Harvesting Project in Bolivia as a Case Study," *Canadian Journal of Forest Research* 34, no. 4 (April 2004): 829–839, doi:10.1139/x03-249.

⁵⁰ P.M. Fearnside et al., "Modelagem De Desmatamento e Emissões De Gases De Efeito Estufa Na Região Sob Influência Da Rodovia Manaus-Porto Velho (BR- 319)," *Revista Brasileira De Meteorologia* 24, no. 2 (2009): 208–233.

⁵¹ B. S. Soares-Filho, H. O. Rodrigues, and W.L.S. Costa, *Modeling Environmental Dynamics with Dinamica EGO*, 2010.

5. Data requirements and availability

As noted, the REL/RL development will build on inputs from several other components to be implemented during the Readiness phase. Thus, there is limited need to procure additional data for this component.

Within its efforts to implement a national forest monitoring system Vanuatu will process historic deforestation patterns and rates for the periods 1990-2000-2007-2010-2014 (cf. Annex 4a). Degradation reporting will be based on the stratification of the new vegetation map⁵² reflecting the state of 2010 – 2014 and eventually 2007-2010. The high-resolution topographic derived from NEXTMap® 2003 TopoSAR orthorectified radar images serves as a comprehensive and highly accurate spatial data source for roads, settlements, hydrography, and mining, and other infrastructure features. Apart, the (sub)national geodatabases on drivers, agents and underlying causes will be linked.

Besides the spatial MRV data the Government of Vanuatu is conducting different surveys on a regular basis, of which the following are of high relevance for the REL/RL development:

Table 1: Available statistical data for REL/RL development

Type	Year(s)	Coverage	Source
Census of Agriculture	2007	<ul style="list-style-type: none"> Structure and characteristics of agricultural activities of households; Number and distribution of household engaged; Data on the farm/holding/sub-holding area, quantity of the crops grown/sold, number of cattle and other livestock kept, quantity of fisheries species gathered/caught, etc. 	VNSO 2008 ⁵³
5th National Census of Population and Housing 2009	2009 (1967, 1979, 1989, 1999)	<ul style="list-style-type: none"> Population size and growth 1999 – 2009 by province and island Various demographic indicators 	VNSO 2009b ⁵⁴
Household Income and Expenditure Survey	2006, 2010	<ul style="list-style-type: none"> Demographic, income and expenditure data at the household level as well as relative standard errors for the data 	VNSO 2009a ⁵⁵ , 2010 ⁵⁶
Tourism statistics	Monthly	<ul style="list-style-type: none"> Origin, visitor arrivals, purpose of visit, length of stay, means of transport 	VNSO

Current data availability and structure can be considered satisfactory for REL/RL development. Combining available statistical and forest monitoring data robust spatially explicit model can be constructed and calibrated which will link the performance of key drivers and underlying causes to the evolving historic deforestation pattern. The correlation between the degradation pattern 2007-2010 (if detectable) and certain agricultural, demographic, and socioeconomic parameters has to be investigated further. Additional data needs might arise when higher-order modeling

⁵² Ministry of Agriculture, Quarantine, Forestry and Fisheries 2011: Elaboration of a Vegetation and Land Cover Map of Vanuatu” under the FAO Program “Strengthening of the Monitoring, Assessment and Reporting (MAR) on Sustainable Forest Management (SFM)”, elaborated by Martin Schweter.

⁵³ The Vanuatu National Statistics Office (VNSO) 2008: Census of Agriculture 2007—Vanuatu

⁵⁴ The Vanuatu National Statistics Office (VNSO) 2009b: 2009 National Census of Population and Housing, Summary Release.

⁵⁵ The Vanuatu National Statistics Office (VNSO) 2009a: Vanuatu Household Income and Expenditure Survey 2006.

⁵⁶ The Vanuatu National Statistics Office (VNSO) 2010: 2010 Household Income and Expenditure Survey (HIES) Survey Operations Report.

approaches will be tested. These needs would have to be addressed by complementary funding sources.

6. Key activities and work plan

BAU and policy scenarios development: An international consultant (natural resources economist or policy analyst) will elaborate the BAU and alternative development scenarios. The consultant will develop a policy survey design which has to be approved by the National REDD+ Technical Committee (TC) (Cf. Component 1a). An ad-hoc Working Group (AWG) will be created within the TC to deal specifically with the REL/RL issues and this AWG will be the focal point for the consultant. Based on the design the consultant will scope relevant sector policies to derive alternative development scenarios and their impacts in terms of land-use change. Besides, the impact of REDD+ strategy options framed by Component 2b will be assessed at national and subnational level. The following options will be anticipated (cf. Component 2b for further detail):

The following options are currently being considered:

- (1) Forestry extension: National enhancement of forest carbon stocks (EFCS) program
- (2) Agricultural extension: Intensification of cattle ranching and copra production
- (3) Agricultural extension: promotion of agroforestry systems
- (4) Development of NTFPs chains (e.g. sandalwood, Canarium) linked to EFCS program
- (5) Performance-based compensation or national investment scheme
- (6) Institutional strengthening, capacity building, and improved forest governance
- (7) Conservation agreements
- (8) Improved land use planning
- (9) Disaster Risk Management
- (10) Mainstream REDD+ into other sector, e.g. by making carbon assessments a requirement of EIAs

Once the TC has reviewed and approved these scenarios, the international consultant will conduct a 3-step Delphi questionnaire sent to a panel of national and international experts to identify the BAU to validate the approved scenarios. The preselected policy scenarios will be adjusted based on the Delphi survey results and presented to the Steering Committee. Together with the spatial projections of the BAU (see below), they will be validated by local stakeholders in 5 regional outreach workshops on the five pilot islands. The Workshop results will be documented, the BAU and alternative scenarios adjusted and submitted to the TC for final approval.

Economic and demographic modeling: Two sector-specific (copra, meat production) partial equilibrium sector models will be developed using standard economic modeling tools (AIMMS, GAMS). The models will build on available program libraries and standard approaches. They will be adjusted to capture the specific national circumstance of both sectors in Vanuatu. Both models will be verified, validated, and the sensitivity of their core variables and parameters will be assessed. The models will anticipate the BAU scenario and test alternative policy scenarios developed in the first step. This modeling task has to be outsourced as Vanuatu doesn't count with the human resources to conduct this task.

Demographic growth modeling: The future demographic trajectory will be developed within a SystemsDynamics approach, which can be directly linked to the spatial modeling approach (Vensim linked to Dynamica EGO). As demographic modeling is SystemDynamics is well established, this task can build on several peer-reviewed modeling libraries. As with other modeling tasks, the work package covers model verification and validation, sensitivity analysis, scenario analysis (BAU scenario and alternative policy scenarios test) and documentation. This modeling task has to be outsourced as Vanuatu doesn't count with the human resources to conduct this task.

Spatiotemporal deforestation modeling: Spatiotemporal deforestation models will be developed and calibrated for 5 pilot islands. An international consultant (GIS specialist) will compile a Geodatabase using available spatial (Component 4a) and statistical data. The consultant will conduct a spatial regression analysis to identify statistical correlations between spatial deforestation patterns, deforestation rates, key parameters and proxies capturing the drivers', causes', and agents' dynamics. Based on the results of the statistical analysis the consultant will develop and calibrate a spatiotemporal model in DinamicaEgo using historical data to project the future deforestation pattern for each pilot island based on the past trend. Once the policy scenarios have been developed, their land-use change impacts will be simulated and assessed using the calibrated model. Together with the policy scenarios the spatial simulations will be presented to the TC. Having been analyzed during the 5 regional outreach workshops they will be adjusted for final approval and documented.

EFCS Database development: Enhancement of forest carbon stocks (EFCS) activities will be implemented within the national forest plantation program focusing on site-specific forest plantation concepts, in particular for degraded areas, and compensatory tree planting.⁵⁷ These activities will have to be registered (location, stand characteristics), monitored, and measured. Thus, an IPCC 2006 approach 3 compliant database will have to be developed which maintains spatial consistency in reporting emissions and removals across the national domain. A geodatabase has to be developed which support the national EFCS registry reporting tasks. The geodatabase has to be designed in consistency with the reporting requirement established by the IPCC 2006 inventory guidelines and reporting formats, the forest monitoring system (Component 4a) as well as with future COP decisions.

REL/RL integration: The spatiotemporal deforestation model, the forest monitoring system and the EFCS database will be integrated within a common GIS framework. This framework will support IPCC 2006 approach 3 compliant reporting on emissions and removals. The integration of subnational REL/RLs will follow the Technical Recommendations version 2 and the forthcoming Technical Requirements of the VCS Jurisdictional and Nested REDD Initiative (JNRI). JNRI compliance will be validated by an UNFCCC and VCS accredited certifier.

Stakeholder coordination and outreach: To secure optimum stakeholder coordination and outreach the National REDD+ Steering Committee will accompany the process, review and approve milestone products (policy survey design, policy survey, BAU and policy scenarios, and integrated national REL/RL framework). Local stakeholders will validate the subnational REL/RLs components (BAU, policy scenarios, and spatiotemporal modeling results) at regional outreach workshops to be held on the 5 pilot islands.

Annex 3 presents the work plan and the tentative schedule.

⁵⁷ Department of Forests, Vanuatu Forest Policy (2011-2020): Comprehensive Version. June 2011.

7. Institutional Framework

The development of activity specific subnational REL/RLs integrated into a national RL requires support and backstopping from different governmental agencies as well as local stakeholders. The following governmental institutions will be requested to actively participate in backstopping, data sharing and framing at the level of the TC:

- Ministry of Agriculture, Quarantine, Forestry and Fisheries
- Vanuatu National Statistics Office
- Departments of Agriculture
- Department of Forest
- Department of Land Surveys
- Department of Provincial Affairs

The National REDD+ Coordinator will manage the REL development, supervise the work of the consultants and liaise with provincial offices. Complementary research in the field of REL development will be coordinated and approved by the TC.

8. Budget Assumptions

The budget has been prepared specifically for Vanuatu. All activities have been planned and budgeted in MS Project.

Relevant input data will be provide by Components 2a (DAC assessment) and 4a (MRV/Forest monitoring) as well as through regular national census efforts (demographics, national economy, tourism, agriculture). Thus, this component will not require additional data.

The modeling tasks (economic modeling of copra and meat production; demographic growth) will be conducted at the national level disaggregated into subnational domains following peer-reviewed approaches.

All activities referenced in the budget listed below are described further in section 6 of this component and coincide with the work plan in Annex 3. Each activity budget has been calculated assigning a defined amount of resources to each activity using MS Project.

Sub-activities are only listed down to the first level. Annex 3 provides further details on costs of economic modeling activities.

All analytical work has to be outsourced Vanuatu doesn't count with the human resources to develop the approaches. However, capacity training will be provided to assure ownerships on approaches and methodologies.

Component 3: Summary of Reference Level Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
BAU and policy scenarios development	Policy survey design	5	-	-	-	5
	Policy survey	30	-	-	-	30
	Delphi survey	48	-	-	-	48
	Policy scenario development	20	-	-	-	20
	Documentation	-	10	-	-	10
Economic modeling	Copra production	80	-	-	-	80
	Meat production	73	7	-	-	80
Demographic Modeling	Conceptual model development	5	-	-	-	5
	Programming and calibration	15	-	-	-	15
	Model validation	5	-	-	-	5
	Sensitivity analysis	8	-	-	-	8
	Scenario analysis	7	-	-	-	7
	Documentation	5	-	-	-	5
Spatial deforestation modeling	Geodatabase compilation	20	-	-	-	20
	Statistical analysis	20	-	-	-	20
	Model calibration	25	-	-	-	25
	Scenario tests	2.9	22.1	-	-	25
	Scenario adjustment	-	15	-	-	15
	Documentation	10	-	-	-	10
EFCS Database development	GeoDatabase design	20	-	-	-	20
	Geodatabase implementation and training	24.7	-	-	-	24.7
	Documentation	10	-	-	-	10
REL/RL integration	Accounting framework design	-	40	-	-	40
	Spatial REL/RL integration	-	10	-	-	10
	Reporting	-	15	-	-	15

Stakeholder coordination and outreach	Steering Committee	27.81	24.14	-	-	51.95
	Regional outreach workshops	-	109.8	-	-	109.8
External REL/RL validation		-	-	-	90	90
Total		461.41	253.04	-	90	794.45
Other Development Partner (not yet specified)		461.41	253.04	-	90	794.45

Component 4: Design Systems for National Forest Monitoring and Information on Safeguards

4a. National Forest Monitoring System

Standard 4a the R-PP text needs to meet for this component: National Forest Monitoring System

The R-PP provides a proposal and workplan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD-plus strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest-dependent indigenous peoples and other forest dwellers. The R-PP should also address the potential for independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

1. Objectives, scope and principles of the MRV system

Vanuatu is committed to developing a cost-effective MRV system, which will be implemented step by step. It will build on available terrestrial inventory and remote sensing data and anticipate new emerging technologies to be provided by different space agencies during the Readiness phase, which eventually will cover all five eligible REDD+ activities.

The final National Forest Monitoring System will be based on the latest decisions of the 19. Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) to be held in Warsaw in 2013. Although the UNFCCC Parties have not yet agreed to what extent the IPCC guidance and guidelines will be used in accounting for emissions and removals in REDD+, Vanuatu is committed to base its REDD+ MRV on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Eggleston et al. 2006). In its initial phase, it is aiming at a tier 2 compliant GHG inventory approach gradually improving the accuracy of emission factors over time to reach tier 3 for selected carbon pools. In the same way, the spatial resolution, accuracy, and precision of forest cover monitoring shall improve over time. While the detection of historic land use land use change has to be based on medium resolution optical (Landsat, Aster, Spot) and radar imagery (ALOS Palsar), the design of the future system will anticipate new improved sensor technologies (e.g ESA's Sentinel 2 sensor) and new processing methodologies.

While Vanuatu aims at implementing a comprehensive national REDD+ approach covering all the 5 eligible activities, it will focus its efforts on geographic areas, policy approaches, and eligible activities which show the highest potential to achieve emission reductions and GHG removals on short to medium term. Besides monitoring deforestation and forest degradation, the MRV system shall be capable of tracking GHG removals enhancing forest carbon stocks at

different scales (e.g. community forestry, ecosystem restoration) and in different ways (e.g. reforestation using timber species, agroforestry).

While activity data will be generated in a wall-to-wall mode, Vanuatu will focus its GHG inventory efforts during the first and second phase on the 5 bigger islands Santo, Malekula, Efate Tanna, and Erromango. However, a sampling Scheme will be developed that supports the processing of emission factors which can be attributed to land use and land use change on all islands. In the third phase, the sampling Scheme can be intensified to cover all relevant geographical entities.

Along this line, Vanuatu’s REDD MRV framework is integrating building blocks developed at the regional level to reduce the national implementation costs. Particularly, it will anticipate MAR-SFM, the Monitoring, Assessment and Reporting for Sustainable Forest Management Framework⁵⁸, a forest inventory approach adjusting FAO’s inventory framework to the specific conditions of small islands in the South Pacific. While the country will focus its REDD efforts during the readiness phase on developing its capacities in the managing geodata, the Applied Geoscience and Technology Division (SOPAC) of the Secretariat of the Pacific Community (SPC) will generate relevant activity data to account for forest related GHG emission and removals.

2. Key Components of the MRV system

2.1 Eligible activities and corresponding MRV components

As mentioned above, once mature the system will cover all five eligible REDD+ activities. Table 5 summarizes the initial scope of the MRV system to be implemented during the Readiness phase. Annex 4 describes the available and required data sources, processing methodologies, and scope for each of the 5 eligible activities.

Table 5: Key systems characteristics of Vanuatu’s initial REDD+ MRV system

REDD+ activity	Activity data (AD) and Emission factors (ED)	Spatial domain	Temporal boundaries
Deforestation	AD: Optical and radar data ED: IPCC 2006 tier 2 compliant forest inventory	AD: wall-to-wall processing (83 islands) ED: terrestrial inventory on 5 biggest islands	AD: 1990-2000-2007-2010-2014 -2017 ED: 2013/14, 2017
Degradation	AD: detected managed/non-intact forest land remaining forest land ED: IPCC 2006 tier 2 compliant forest inventory	AD: hot spot monitoring on 4 biggest islands ED: Terrestrial inventory on 4 biggest islands	AD: 2014 – 2017 ED: 2013/14, 2017
Sustainable management of forests	AD: Management plans ED: site specific inventories	Registered pilot sites	2013/14 - 2017
Enhancement of forest carbon stocks	AD: National registry of AR activities ED: species specific default values	Registered pilot sites	2013/14 - 2017

⁵⁸ Thiele et al. 2010

Conservation of forest carbon stocks	AD: residual areas (intact unmanaged forest land) ED: IPCC 2006 tier 2 compliant forest inventory	AD: wall-to-wall processing (83 islands) ED: terrestrial inventory on 5 biggest islands	AD: 1990-2000-2007-2010-2014 -2017 ED: 2013/14, 2017
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2.2 Activity data

2.2.1 Deforestation Monitoring

Forest cover and forest cover change for 1990-2000 have been detected over the whole national territory.⁵⁹ Vanuatu will cover the periods 1990-2000-2007-2010-2014-2017 in reporting on emissions from deforestation and forest degradation. It will apply the methodology developed by Herold et al. 2007 to the periods 2000–2007 and 2014–2017 complementing it applying SAR-based methodologies developed by⁶⁰, which have been successfully tested on Santo Island.⁶¹ Seven major tasks will be conducted during the Readiness phase on each of the 5 pilot islands:

- (1) Deforestation processing 2007–2010
- (2) Cloud correction 1990–2000
- (3) Optical based Deforestation processing 2000–2007
- (4) SAR based deforestation processing 2007 - 2010–
- (5) Deforestation processing 2010–2014 based on optical and SAR data
- (6) Deforestation processing 2014–2017 based on new optical and SAR sensors
- (7) Vegetation map 2010 and 2017 updates

Tasks (1) has been already been processed for Santo Island.⁶² Tasks (2)-(4) are currently being conducted for this island. Once tasks (1) to (4) have been completed for Santo Island, they will be conducted on the other pilot islands.

Annex 4 identifies the data requirements, methods to be used, and resources required. The minimum mapping unit (MMU) of deforestation mapping for the historic periods (1990-2000-2007-2010-2014) is 0.81 ha. The MMU of future forest cover change mapping might be smaller depending on the availability of ESA's Sentinel-2 data to be launched in 2014. A minimum thematic accuracy of 80% for forest/non-forest and forest cover change mapping shall be achieved and will be assessed using very-high resolution (VHR) data source.

During an initial phase (2012–2014) all remote sensing tasks will be conducted at the regional level with the support of the Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SOPAC). A Vi Vanuatu remote sensing technician has been contracted by GIZ and is currently being trained in applying the optical and SAR methods under

⁵⁹ Herold, M., Sambale, J., Lindner, M., Urban, M. and Weaver, S. 2007: Satellite based monitoring of the national forest resources in the pacific island state of Vanuatu, DGPF Tagungsband 16 / 2007 – Dreiländertagung SGPBF, DGPF und OVG.

⁶⁰ JAXA 2012b

⁶¹ Zeballos, D.M, Seifert-Granzin, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

⁶² Zeballos, D.M, Seifert-Granzin, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

supervision of SOPAC with technical backstopping from GIZ. Apart, relevant governmental units (Forestry Department, Lands Department) in Vanuatu are being trained to verify and use the products. Local stakeholders will be involved in all activities in validating the products of each task before completion. All products will be made available to Vanuatu's REDD+ stakeholders applying a disclosure policy to be elaborated.

2.2.2 Degradation Monitoring

Vanuatu will test GOF-C-GOLD's indirect approach in combination with IPCC 2006 reporting requirements. It will consider the strata open medium-high forest, open low forest, and open thicket as degraded. Other forest classes will be sub-stratified in intact and non-intact, and complementary in managed and unmanaged, if appropriate, applying GOF-C-GOLD's six criteria to report emissions from degradation. Reporting will anticipate the periods 2014-2017. A direct degradation monitoring approach based on spectral mixture analysis will be tested in the near future once the temporal coverage of forthcoming multispectral sensors provide data at least on a monthly basis. Backward reporting for the periods 2007-2010-2014 will be tested on Santo Island within a research project to be funded complementarily.

2.2.3 Enhancement of Forest Carbon Stocks (EFCS)

The Department of Forestry will establish a registry for enhancement of carbon stock activities eligible under a REDD+ compensation Scheme. It will monitor removals on registered sites, account and report corresponding GHG removals using formats and rules to be agreed under UNFCCC for REDD+ reporting. For each of the 5 pilot islands, VHR data will be processed to identify suitable EFCS sites and register activities. Currently, a WorldView-2 coverage for 2011 is being processed at SOPAC by the Vi Vanuatu remote sensing technician. The final 2011 VHR land cover / land use map will serve as a basis for piloting the registry of a national plantation and replanting program as a National Appropriate Mitigation Action (NAMA) on Santo Island. Local communities and land owners already gained substantial experience and knowledge in EFCS activities using local species (e.g. Sandalwood, Canarium, and Whitewood) in agroforestry systems. Consequently, they will be involved in designing the national EFCS Incentive Scheme, in defining site selection criteria, and in the implementation of the EFCS incentive Scheme at different levels.

2.2.4 Conservation of Forest Carbon Stocks

Vanuatu is committed to create and extend protected areas to be managed by communities and landowners. It will report on conservation of carbon stocks in those areas.

2.2.5 Sustainable Management of Forests

The Department of Forests will analyze the potential of promoting pilot activities reducing logging impacts. It considers the available VCS methodologies for Reduced Impact Logging (RIL) as an option for nested project-based approaches.

2.2.6 Data availability and quality

Table 3 (Available data sets for deforestation monitoring) in Annex 4 lists the activity data already acquired. Landsat 7 data for the last decade suffers from the gaps due to the SLC-error.

Cloud cover remains an issue, but can be compensated due to the higher acquisition frequency of Landsat 7. The use of ALOS Palsar Fine Beam dual polarization data (25m) has been tested for the period 2007-2010.⁶³ The [Japan Aerospace Exploration Agency](#) (JAXA) provided Palsar data for Santo, Efate, Melkula, Epi, and Ambrym for 2007, 2008, 2009, and 2010. The data has been orthorectified and radiometrically corrected (Shimada 2010; Shimada and Ohtaki 2010) by the JAXA, such that less than 3 % of Santo's area is affected by data gaps due to radar shadowing, foreshortening, and layover. The thematic accuracy of the change detection analysis is currently being assessed and recalibrated to match the results of the optical processing chain for 2007. Multispectral (8 +1 band) VHR WorldView-2 data is available. For Santo, GIZ already acquired a full WorldView-2 coverage for multiple purposes (accuracy assessment, EFCS registry). Overall, data availability and quality are satisfactory for the periods 1990-2000-2007-2010. The lack of suitable sensors for the period 2010-2014 can't be compensated. But it affects degradation detection, only, while deforestation monitoring can bridge this gap as soon as Landsat 8 becomes operational (expected for June 2013).

2.3 Emission factors - the National Forest and GHG Inventory Approach

Vanuatu's last national forest inventory has been concluded in 1993. Its results have been integrated into the Vanuatu Resource Information System (VANRIS), which is still being used to support land use planning and forestry activities⁶⁴. During the last two decades, unsustainable logging practices have degraded forest carbon stocks on all islands. Thus, VANRIS' carbon pool parameters can't be used to quantify current forest carbon stocks⁶⁵. A new combined national Forest and GHG Inventory has to be conducted.

The Stratification of the National Forest Inventory will be based on the Government of Vanuatu's recently released new vegetation and land cover map of Vanuatu (Ministry of Agriculture, Quarantine, Forestry and Fisheries MAQFF 2011). Eight forest classes open and closed high forests, low forests, thickets, mangroves as well as tree crops will be covered by the forest inventory, while GHG removals by forest plantations will be monitored for specific sites. The inventory design will follow the Protocols of the Monitoring, Assessment and Reporting for Sustainable Forest Management (MAR-SFM) developed by the Secretariat of the Pacific Community (SPC). Plots including subplots, units, and subunits will be established following a cross-shaped plot design (see Annex 4a). While aboveground biomass, deadwood, litter, and soil-carbon will be measured in the field, belowground biomass will be estimated using IPCC default values for root-to-shoot ratios.

Aiming at a precision of ± 10 per cent of the true value of the mean at the 95 per cent confidence level for aboveground biomass in each stratum, it is estimated that 180 plots will be required to cover the relevant strata. The final plot number is currently being estimated based on a pre-test of the inventory approach conducted on Santo Island in October 2012. Aboveground biomass will be calculated using new pantropical allometric equations (Chave et al. 2005). The targeted precision combined with a targeted thematic accuracy of more than 80% for the activity data (cf.

⁶³ Zeballos, D.M, Seirfert, Jörg. 2013 SAR-based Deforestation Assessment, Espiritu Santo Island Vanuatu: Processing Description and Results Version 1.0 January 18, 2013. SPC/GIZ Regional Project: Climate Protection through Forest Conservation in the Pacific Island Countries.

⁶⁴ Annex 4 provides further information on VANRIS.

⁶⁵ Within a complementary research effort, VANRIS' carbon pool parameters could be compared with updated information on forest carbon stocks to assess long-term impacts of certain logging practices. The carbon stock difference might correlate with the performance of certain drivers (e.g. population density).

section 2.2.1) suffices to fulfill the requirements of the IPCC Good Practice Guidance on Land Use, Land Change and Forestry (Penman et al. 2003), the IPCC 2006 Guidelines for National GHG Inventories (Eggleston et al. 2006), and VCS AFOLU Requirements for project based and jurisdictional accounting (VCS 2012a; VCS 2012b).

The Forest Inventory will be conducted under the lead of SPC and VDoF during 2013 – 2014 with financial and technical support of GIZ. In accordance with the MAR-SFM protocol (Thiele et al. 2010) key biodiversity parameters will be assessed, too. All plots will be installed involving local communities and land owners. The results will be presented, discussed and validated by landowners and other stakeholders on each island during the Readiness phase.

3. MRV of, drivers, social, environmental, and REDD+ strategy impacts

3.1 MRV of drivers and underlying causes

Assessing the influence of underlying causes on agents and their aggregated performance as drivers on historic forest cover change requires integrating different multiannual measurement and monitoring and reporting approaches:

- (1) National census data
- (2) National Agricultural census
- (3) Mapping of transport networks, settlement patterns, land titles, landscape and land use features
- (4) Land use and land cover (LU/LC) change detection including disaster impacts
- (5) International statistics on agriculture and forestry

While the demographic (1) and agricultural census (2) are being conducted periodically (cf. Annex 3), Monitoring Schemes for mapping relevant proxies representing certain drivers (3) as well as for land-use and land cover change (4) have to be established. Table 8 in Annex 2b outlines how certain drivers and underlying causes will be measured and reported. In a nutshell, current land use in areas which have changed from forest to non-forest will be classified and tracked over time applying IPCC's 2006 approach 3 (spatially explicit tracking of land conversion) to quantify the influence of key drivers (cattle ranching, coconut extension, shifting cultivation). Periodically, information on land use/land cover change will be processed following agreed periods to be synchronized with the national census efforts. To assess the impact of current drivers, land use in areas deforested during the last two decades (1990-2000-2010) will be classified using VHR data.

3.2 MRV of environmental impacts

While the biodiversity of Santo Island has been assessed implementing an innovative comprehensive ridge-to-reef inventory (Bouchet, Le Guyader, and Pacal 2009), other islands have been neglected, so far. Replicating the Santo inventory approach goes beyond the possibilities of the REDD+ implementation framework. Instead, the REDD+ biodiversity impact monitoring builds in three data sources:

- (1) The forest inventory will provide information about tree species diversity, forest resilience (changes in the dead wood pool), standing timber volume and vegetation structure, which will be extracted, analyzed and reported.
- (2) The deforestation monitoring will provides complementary data (deforestation rates and patterns) for a forest fragmentation analysis, which can be related to inventory data on

biodiversity distribution⁶⁶. This approach will be tested on Santo Island within a research cooperation involving interested universities.

- (3) To establish the basis for future monitoring efforts project-based pilot activities are encouraged to implement biodiversity monitoring Scheme following an Before-After/Control-Intervention BACI approach. The inventory assessed habitat characteristics, species richness, (key) species population, occupancy, and habitat extent inside and outside the pilot site.

As Vanuatu aims at implementing a national REDD+ Scheme structured along subnational boundaries (islands, and/or Provinces) it will assess in-country displacement of emissions⁶⁷ as long as the national territory isn't fully covered by a fully operational national REDD+ Scheme. As specific guidance isn't yet available, Vanuatu will test the forthcoming VCS tools for determining jurisdictional leakage on Santo Island, as soon as it will be released.

The risk of reversals caused by extreme weather events (typhoons, tsunamis, etc.) and their impacts (floods, landslides, storm damage, etc.) require spatially explicit monitoring and inventories of potential damaged areas. The damage monitoring and inventory system component will be designed in closed cooperation with Vanuatu's Meteorology and Geo-hazards Department.

3.3 MRV of REDD+ policy measures

Different MRV approaches and tools will be used to monitor the performance of REDD+ policy measures (cf. Component 2b). The majority of these do not require specific measurement Schemes but efforts to compile, aggregate, and analyze data provided by other monitoring activities. Table 6 lists the relevant MRV approaches to report on REDD+ policy performance.

Table 6: MRV approaches to report on REDD+ policy performance

REDD+ policy measure	MRV approach	Responsible unit
Subnational piloting	National MRV: deforestation monitoring, land use classification Registry of spatio-temporal boundaries of sites and activities	Department of Forestry REDD+ Registry
NAMA type national enhancement of forest carbon stocks (EFCS) program	National MRV: EFCS site specific monitoring Registry of spatio-temporal boundaries of sites and activities	Department of Forestry REDD+ Registry
Agricultural extension: Intensification of cattle ranching and copra production	National Agricultural census Registry of spatio-temporal boundaries of sites and activities	Department of Agriculture REDD+ Registry
Agricultural extension: promotion of	National MRV: multiannual land use monitoring	Department of Forestry

⁶⁶ Laforteza et al. 2010

⁶⁷ The Cancún Agreements request Parties to support and report on 7 safeguards, including (f) risks of reversals, and (g) displacement of emissions (Appendix I par. 2 to decision 1/CP.16 (FCCC/CP/2010/7/Add.1). The scope of the term "displacement of emissions" hasn't been clarified, so far. It is assumed that it refers to in-country processes as international displacement (or leakage) hasn't been addressed by UNFCCC mechanisms. In-country displacement only matters, if the national territory isn't fully covered by an GHG accounting scheme.

agroforestry systems	Registry of spatio-temporal boundaries of sites and activities	REDD+ Registry
Development of NTFPs chains (e.g. sandalwood, Canarium) linked to EFCS program	Activity-based reporting; Output monitoring	Department of Forestry
Performance-based compensation / national investment Scheme	MRV: domestic REDD+ finance	Department of Finance National REDD+ coordination REDD+ Registry
Certified timber production	National MRV: site specific monitoring Registry of spatio-temporal boundaries of sites and activities	Department of Forestry REDD+ Registry
Institutional strengthening, capacity building, and improved forest governance	Activity-based reporting	National REDD+ coordination
Conservation agreements	National MRV: deforestation monitoring, land use classification Registry of spatio-temporal boundaries of sites and activities	Department of Environment Department of Lands REDD+ Registry
Consolidation of land disputes and property rights	Reporting on disputes and land titling	Department of Lands Department of Forestry Department of Agriculture REDD+ Registry
Improved land use planning	National land use plan updates	Department of Lands Department of Forestry Department of Agriculture REDD+ Registry Others: Transport, Tourism, etc.

4. Cross-cutting MRV tasks

4.1 Common Geodata Infrastructure and Standards in Terrestrial Monitoring

To improve consistency in data management, geo services, and ultimately the quality of the REDD+ monitoring and reporting the Department of Lands, Department of Agriculture and Rural Development, Department of Environmental Protection and Conservation, and the Department of Forests have to agree on common Geodata standards, formats, and official datasets.

4.2 Capacity assessment and required capacity building

During the Readiness phase GIS routines and geo-databases have to be consolidated first, before the remote sensing capacities can be improved. To facilitate the proliferation of common Geodata standards and procedures, GIS staff of different Departments dedicated to terrestrial monitoring shall be involved in GIS training and remote sensing technology transfer. A long-

term capacity building concept will be developed during the initial Readiness phase to guide this process.

4.3 Independent Review and Certification

Vanuatu will follow the Technical Recommendations of the Jurisdictional and Nested REDD Initiative (JNRI) of the Verified Carbon Standard (VCS) version 3.3.⁶⁸ It aims at certifying its REDD+ MRV system by an UNFCCC accredited certifier. The validation can be initiated once the integrated REL/RL framework has been established (Component 3).

5. Resources and capacity constraints

Due to the limited number of technical staff in Vanuatu's Department of Forestry tasks have to allocate in a way that strengthens local capacities and avoids paralyzing operations. As of now, a few forest engineers use GIS intensively and to a limited extend remote sensing tools. For the remote sensing tasks one Ni-Vanuatu remote sensing technician has been contracted by GIZ, who is currently conducting the remote sensing tasks with supervision of SOPAC and technical backstopping of GIZ. Once all tasks have been completed for Santo Island, she will move from SOPAC's head office in Suva, Fiji to Vanuatu to conduct the tasks for the other islands. In parallel, training on SAR and optical processing are being conducted which involve technicians from other departments in Vanuatu.

The implementation of the combined Forest and GHG inventory requires additional logistical and technical support. GIZ will support its implementation on Santo Island. SPC will provide backstopping and technical guidance on the inventory design, while a service provider will be contracted to support the inventory role out on Santo. Local communities and land owners will be involved in conducting the inventory.

⁶⁸ VCS 2012a: VCS Standard. VCS Version 3.2 Requirements Document, Washington, DC: Verified Carbon Standard; VCS2012b: Agriculture, Forestry and Other Land Use (AFOLU) Requirements. VCS Version 3.2 Requirements Document, Washington, DC: Verified Carbon Standard; VCS 2012c: Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations – Version 2.0, February, 22 2012, Washington, DC: Verified Carbon Standard.

Component 4a: Summary of Monitoring Activities and Budget for Implementation Framework						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
National Inventory	Forest					
	Inventory preparation	49.34	-	-	-	49.34
	Inventory piloting	101.65	238.9	-	-	340.55
	Inventory roll-out	-	203.25	78.98	-	282.23
	Data processing and reporting	-	-	36.75	-	36.75
Deforestation monitoring	Deforestation processing 2000–2010	124.3	79.3	-	-	203.6
	Cloud correction 1990-2000	-	125.64	7.61	-	133.25
	Deforestation analysis 2000-2007-2010	-	-	43.4	-	43.4
	Deforestation analysis 2010 – 2014	-	-	-	119.51	119.51
	External verification	-	-	-	70	70
GeoData management		-	40	60	-	100
GIS/RS Training		-	50	50	80	180
Total		275.29	737.09	276.73	269.51	1,558.62
Other Development Partner (not yet specified)		275.29	737.09	276.73	269.51	1,558.62

4b. Designing an Information System for Multiple Benefits, other Impacts, Governance, and Safeguards

Standard 4b the R-PP text needs to meet for this component: Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards:

The R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) for an integrated monitoring system that includes addressing other multiple benefits, impacts, and governance. Such benefits may include, rural livelihoods enhancement, conservation of biodiversity, and/or key governance factors directly pertinent to REDD-plus implementation in the country.

(The FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

1. Introduction

The main objective of REDD+ is to reduce forest-related emissions and thus contribute to climate change mitigation. However, it is increasingly recognized that REDD+ can contribute to providing a range of benefits beyond climate mitigation to REDD+ countries and stakeholders.⁶⁹ For example, REDD+ should foster more transparent government processes, improved participation of civil society in policy making and the conservation of biodiversity and cultural heritage. The importance of these benefits should not be underestimated because they play an important role in explaining to stakeholders, especially Ni-Vanuatu communities, the advantages they have from participating in REDD+. The SESA carried out in Component 2d will help to identify what these benefits are in the context of Vanuatu while ensuring they correspond to the priorities of the REDD+ relevant stakeholders in the country.

In order to ensure the non-carbon impacts of REDD+ are indeed positive or at a minimum cause no harm, a comprehensive monitoring system for these impacts will be developed during R-PP implementation. These impacts are often referred to as safeguards (when they are expected to be negative) or co-benefits (when they are expected to be positive). Following the general guidance provided by decision reached at COP 17 in Durban, a safeguard information system (SIS) will be developed in order to assess and regularly monitor how safeguards are addressed by Vanuatu's REDD+ Scheme.⁷⁰ Similar to the MRV system developed in 4a, Vanuatu is committed to developing this system in a cost-effective way. The carbon emissions reductions, carbon storage or carbon stock enhancement resulting from REDD+ activities will be monitored and documented through the systems described in Component 4a while all non-carbon impacts will be monitored through the parallel systems described in this component. Whenever possible, links and synergies with the MRV system being developed in Component 4a will be sought.

⁶⁹ Dickson, B. et al. REDD+ Beyond Carbon : Supporting Decisions on Safeguards and Multiple Benefits. UN-REDD Programme Policy Brief, 16 October 2012.

⁷⁰ UNFCCC (2012). Guidance on systems for providing information on how safeguards are addressed and respected. FCCC/CP/2011/9/Add.2. p. 16.

2. Identify Multiple Benefits

The first step in building the system is to identify and prioritize all the possible benefits, risks and impacts of REDD+ that would be relevant for the SIS. The Cancun Safeguards⁷¹ provide general guidance, which will help to narrow down the safeguards relevant to REDD+, but Vanuatu will need to develop a national approach for how to identify and prioritize social and environmental safeguards for its REDD+ Scheme. These potential impacts must be identified as early on as possible, i.e. through the SESA, in order to avoid potential harms as well as set a baseline from which to build upon.

An Ad-hoc Working Group (AWG) in the TC will be dedicated specifically to building this system, or it is possible the AWG created for the SESA will take up this task in parallel. In collaboration with the E&O Manger, this AWG will determine how best to define the issues or potential risks to be monitored and begin to define the baseline for co-benefits. Most likely, the AWG supported by the E&O Manager will facilitate a national multi-stakeholder dialogue with the goal of carrying out a comprehensive assessment of safeguard issues and risks surrounding REDD+.

2.1 Biodiversity monitoring

To the extent possible, biodiversity priorities will be incorporated into the REDD+ Scheme. Given the lacking data and lower technical capabilities of Vanuatu's institutions responsible for gathering and managing biodiversity data, REDD+ represents an unprecedented opportunity for the conservation of forest biodiversity in Vanuatu. A phased approach to implementation will be taken in order not to over-burden REDD+.⁷²

In Vanuatu, conservation programs and initiatives related to the Convention on Biological Diversity (CBD) exist,⁷³ and the national and sub-national institutions responsible for these programs must become more involved in REDD+. During the initial phases, these institutions will be identified and their capacity to monitor biodiversity responses to forest change will be built. Investments and activities for REDD+ will then be linked to the data generated in order to minimize the risk of REDD+ activities negatively impacting biodiversity as well as enhance biodiversity co-benefits in the future. In order to achieve this goal, biodiversity monitoring will be combined with GHG emissions and removals monitoring described in Component 4a.⁷⁴

2.2 Agriculture

The Republic of Vanuatu understands REDD+ as a mechanism to improve the sustainable management of natural resources, as opposed to a protection and conservation mechanism. Land is managed by the people, the majority of which conduct subsistence agriculture and rely on the ecosystem services supplied by the natural resources. Improvement in carbon stocks has to be implemented by the land use groups and must promote livelihood improvement in order to succeed. As economic rule, the people would otherwise decide to continue using land as business as usual.

⁷¹ UNFCCC. 2010. COP16, FCCC/CP/2010/7/Add.1. Appendix 1, paragraph 2e. <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>

⁷² Gardner, T.A., et al. A framework for integrating biodiversity concerns into national REDD+ programmes. *Biol. Conserv.* (2011), doi:10.1016/j.biocon.2011.11.018

⁷³ For example, Vanuatu's Environment Unit submitted its Third National Report to the CBD COP in November 2006- <http://www.cbd.int/doc/world/vu/vu-nr-03-en.pdf>.

⁷⁴ Dickson B, Kapos V. Biodiversity monitoring for REDD+, *Curr Opin Environ Sustain* (2012), <http://dx.doi.org/10.1016/j.cosust.2012.09.017>

It is crucial to address agricultural land use through the investment system to reduce emissions from forest land. Measures that decrease food security and household incomes will not be implemented by the people of Vanuatu. Agriculture and the issue of food security will play an important role in the conception of the extension and outreach topics.

2.3 Forest governance assessment

A forest governance assessment would be relevant and advantageous for Vanuatu to carry out for the purposes of generating baseline information and fostering a dialogue regarding the multiple benefits of reforms sparked by REDD+. Forest governance is understood differently depending on contextual factors and definitional boundaries. The concept holds different meanings for different stakeholders depending on their values and interests, and governance appraisals account for these multiple views by providing the space to share different perspectives. A forest governance assessment such as that described by the [Program on Forests](#) (PROFOR) or the [Governance of Forests Initiative](#) (GFI) would help benchmark and pinpoint priority governance areas requiring reform. These diagnostic tools have been developed to be simple and actionable and help practitioners to generate detailed evidence about the strengths and weaknesses of forest governance in a given country or jurisdiction. A forest governance assessment can help establish a baseline for forest governance and build consensus among stakeholders.

Forest governance can refer to various geographical, political or administrative levels. Although forest governance at the national level, i.e. policy frameworks, processes and implementation capacities will be important for REDD+; in the case of Vanuatu, forest governance assessments may also be required or be most appropriate at the island level. This is where the local structures and situations of forest-dependent peoples or Ni-Vanuatu landowners can be given special attention, especially because they are most directly affected by decisions surrounding forests. At all levels, but especially at the jurisdictional and national level, forest governance includes the process and /or outcome of how forest resources are accessed, managed and the benefits thereof distributed. In many cases, the way forest resources are put to use may be governed by informal rules or commonly-accepted practices not dictated by the law. Such informal institutions are often poorly understood and difficult to address, but remain central to how forests are governed.

The simplest way to understand forest governance is to think of it as: how people and forests interact and *good* forest governance refers to the processes and outcome of this interaction. Good forest governance is based on fundamental democratic principles including: (i) **accountability**, or clarity about the role of institutions⁷⁵ in decision-making and whether they can be held responsible for these decisions; (ii) **effectiveness**, or the ability of institutions to carry out their objectives; (iii) **efficiency** in terms of time, resources, organizational capacity and collaboration; (iv) **fairness/equity**, or equal opportunities for all members of society to improve or maintain their well-being; (v) **participation** and involvement of citizens and stakeholders in decision-making, either directly or through legitimate intermediaries representing their interests; and (vi) **transparency**, or free and clear flow of information enabling members of society to access, understand and monitor process, institutions and information. These six principles of good forest

⁷⁵ The definition of institutions has two components: formal and informal. Institutions can be ‘formal’ laws or regulating structures as well as ‘informal’ norms, customs, behavioral patterns or „rules of the game” that determine “what payoffs will be assigned to individuals dependent on their actions. Ostrom, Elinor, 1990. *Governing the commons. The evolution of institutions for collective action*, Cambridge University Press, MA.

governance (shown below in *Figure 13*) apply to the policy, legal, institutional and regulatory frameworks surrounding forests; the planning and decision-making processes; and how these principles and processes are implemented, enforced and complied with. This framework provides an appropriate foundation upon which to base forest governance, but the bars and pillars may not be exhaustive, e.g. legitimacy and sustainability may also be relevant.

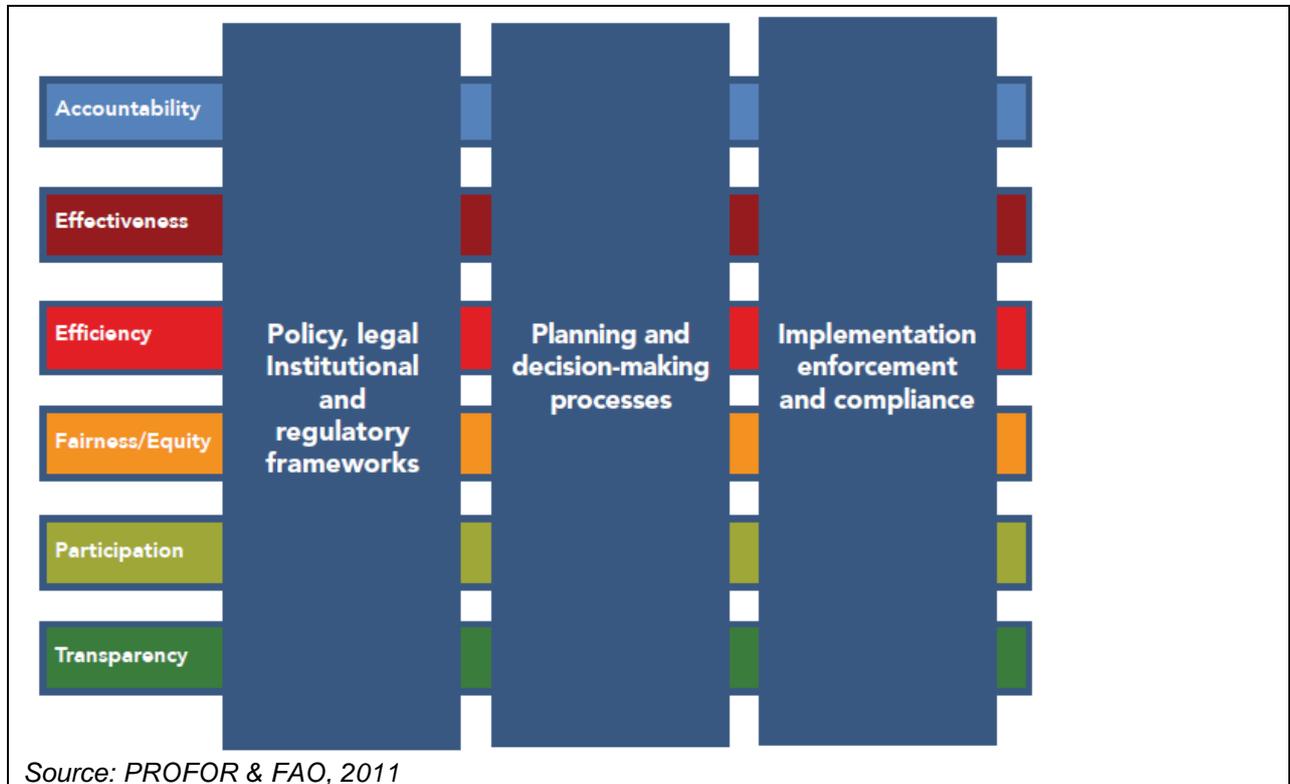


Figure 13: Forest Governance Framework: Principles and Pillars

3. Build Safeguard Information System

Once the potential impacts and risks have been identified, a system must be developed through which the monitoring will take place. An assessment of existing systems and capacities will be carried out in order to build upon existing institutions, such as the Ministry of Lands and Natural Resources and the Department of Environment. Vanuatu has existing safeguard standards and monitoring systems and safeguard requirements specific to REDD+ should not place too heavy a burden on the Vanuatu’s administration.

One of the goals of this assessment is to develop a concept note for how to coordinate the collection of safeguard information collection with other processes. Overlaps and potential collaboration with other programs, e.g. JBE or the Environmental Impact Assessment Review Committee at the Department of Environment, should be identified before and during implementation. This will also help to strengthen the impact of efforts, improve effectiveness and reduce redundancies. Seeing as the PMU in the NAB is steering the REDD+ process as well as coordinating all climate change-related activities in Vanuatu, it would be advantageous to have the SIS institutionalized in this body. The system will also be developed in line with the MRV system being developed in Component 4a.

3.1 Information Gathering

Once the priority safeguards and governance indicators are defined and the institutional and management arrangements clarified, quantitative and qualitative data will need to be gathered on a regular basis and fed into the monitoring system. Existing databases will be explored, such as the CBD or GHGI. Where important information is lacking, this will be gathered for the purposes of REDD+. It is important that all information gathered be available for public access. This transparency should help Vanuatu in assessing its other development objectives or sector policies.

Data collection must be cost-effective and feasible in the island context of Vanuatu. While quantitative information, i.e. economic valuation of the impacts of available REDD+ strategy options, would be ideal, the cost of such methods may be prohibitive. The costs of implementing the SIS are not fully known because the capacity assessment of existing institutions and current practices for safeguards data collection has not yet been carried out.

Monetary valuation techniques would help decision-makers and other stakeholders assess different land use options against REDD+ strategy options. Due to the complexity and uncertainty of impacts surrounding REDD+ strategy options, scenario analysis that assess different possible futures would be useful.⁷⁶ These evaluations should seek to include opportunity, implementation and transaction costs associated with REDD+. Map-based analysis will also help in visualizing priority areas for biodiversity conservation or cultural heritage.

Given numbers may not always capture the entire governance and safeguards picture and its inherent complexity, qualitative data gathering would help in assessing safeguards. Expert interviews will help to measure the progress and challenges facing REDD+ in the context of increasing development and globalization in Vanuatu. For example, interviews can be carried out whenever there are serious indications that the REDD+ is not meeting safeguard requirements, which can then be reported to the PMU. The SIS should help the relevant stakeholders make choices about whether and how REDD+ should be implemented. It should assist Vanuatu in collectively reaching informed decisions in light of local and national priorities and international safeguards.

3.2 Adaptive management

Monitoring the positive and negative social and environmental impacts should go a step further in influencing the decisions taken regarding REDD+ activities and priorities. A feedback mechanism for properly integrating the information collected in the SIS must be developed. The feedback structure for dealing with any risks or negative impacts will be developing in the ESMF, described in Component 2d. The multiple benefits monitoring system, i.e. SIS, will help to detect those issues or conflicts that will then be mitigated through the ESMF.

3.3 Financial audits and independent monitoring

Although Vanuatu has an internal financial auditor body, which is legislatively required to audit the Vanuatu Government annually, a third-party or independent organization would help to monitor and possibly provide additional auditing functions for REDD+. An organization, such as Transparency International Vanuatu, could independently approve and publish REDD+ results in Vanuatu and support 'watchdog' functions. The capacity of this organization can be built up during R-PP implementation.

⁷⁶ Dickson, B. et al. REDD+ Beyond Carbon : Supporting Decisions on Safeguards and Multiple Benefits. UN-REDD Programme Policy Brief, 16 October 2012.

The tasks might include:

- overseeing that MRV for carbon is implemented in accordance with national and international standards;
- verifying or certifying emissions reductions to be credited in the voluntary or compliance markets, or to be rewarded by national or international funds or donors;
- overseeing the operation of social and environmental safeguards; and
- implementing and overseeing grievance procedures.

4. Capacity building

Vanuatu faces a number of very important practical challenges to implementing this information system in a way that is effective. For example, during the first step of defining the benefits or potential risks to be monitored, it is important to keep in mind that numerous unexpected impacts are likely to occur, making it difficult if not impossible to identify in advance. The monitoring system must be regularly reviewed and the type of information gathered updated and this flexibility must somehow be built into the system itself from the beginning. The system must be cost-effective while simultaneously meeting the requirements of international standards and best practice. Guidance will be sought from other countries implementing REDD+ R-PPs.

REDD+ in Vanuatu will follow the FCPF's safeguard requirements, actually quantifying or qualifying the impact of these safeguards, i.e. the co-benefits generated through REDD+, may be a new concept to many stakeholders in the country. An important goal of this component is to set up a system and culture of monitoring multiple benefits and governance that reaches beyond REDD+ activities, such as transparency, law enforcement and independent monitoring by civil society. The ultimate goal of this component is to create or reinforce existing national institution(s) capable of setting standards and monitoring impacts of sector policies even if REDD+ is no longer relevant. Some important benefits or risk factors, e.g. land tenure, gender equality and civil society participation, are relevant at a level much larger than REDD+.

4.1 Community Monitoring

One main goal of developing this system is to build national capacity in order for this culture of monitoring to be supported among the many stakeholder groups involved in REDD+, including Ni-Vanuatu communities. Monitoring of REDD+ co-benefits is meant to take place at the national level, but should incorporate local institutions such as community natural resource monitoring structures. When communicating these concepts to communities, linkages will be sought with other R-PP components, such as the FRGM laid out in Annex 2c. Communities can play an important role in monitoring adherence to safeguards and this capacity will be built surrounding demonstration activities during R-PP implementation. The guidelines, including gender and cultural sensitivity, laid out in the Consultation and Participation Plan (see Annex 1c) will be followed during community monitoring capacity building activities.

Traditional knowledge is highly valued in Vanuatu and certain donors, such as GIZ, is funding a framework on collection of relevant knowledge for the environment and environmental changes, including in a database. This framework enables all actors, but especially communities and civil society, to collect and disseminate knowledge in a way that is sensitive, takes into account intellectual property and falls under Vanuatu Cultural Center guidance and coordination. The Vanuatu Kaljarel Senta is utilizing its island-based fieldworkers to document climate-related knowledge: key focus is on 1) climate indicators for 'early warning' and 'forecasting' and 2) on adaptation and disaster risk reduction knowledge.

Component 4b: Summary of Monitoring Activities and Budget for Assessing and Monitoring Co-Benefits						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Assessment of existing information or data management regarding safeguards	Conduct study	20	-	-	-	20
Forest Governance Diagnostic Assessment	Stakeholder dialogue	10	-	-	-	10
	Dissemination of results	-	5	-	-	5
Build multiple benefits monitoring system	Hardware	10	-	-	-	10
	Regular data collection	-	2	2	2	6
Community capacity building	Safeguard monitoring during demonstration activities	-	5	3	3	11
Total		40	12	5	5	62
Other development partner (not yet specified)		40	12	5	5	62

Component 5: Schedule and Budget

Standard 5 the R-PP text needs to meet for this component: Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

The total amount of funding required for R-PP implementation is **7,186,080 USD**. The funding requested from FCPF amounts to 3,600,000 USD. The intended areas of expenditure for this amount are highlighted by blue fields in the table.

3,586,080 USD of necessary funding are yet unspecified. Ways to secure this funding will be explored in the implementation phase. The potential contributions of other donors that are listed below are not quantifiable, as contributions are not directed at REDD+. Their implementation will serve to fulfill some of the tasks outlined in this document and relieve the implementation costs. Major activities are not yet covered with funding, namely the implementation of demonstration activities and the implementation of the MRV system and REL/RL development. Vanuatu is seeking additional development partners to assist with funding and development of REDD+ activities.

The budget for each activity has been based on expected working days and whether local, regional, or international consultants are anticipated for the tasks. Those backgrounds are described in the related sections of the R-PP. In many cases, synergies with existing initiatives and projects are possible, cutting down the total costs (i.e. projects funded by the German Environmental Ministry work on MRV and REL/RL for Santo Province and on Mangroves). Since there are not many donors and implementers in Vanuatu, the planning targets a minimum effort for preparation of the national REDD+ Scheme, i.e. in developing and implementing demonstration activities. Additional efforts will be highly welcome, but can't be realistically planned for at this stage.

Lastly, it is expected that certain items decrease in costs in future, such as remote sensing data. Model processes are being developed, such as the SESA, of which countries that join the REDD community later will profit in terms of efficiency.

R-PP Comp	Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
			2014	2015	2016	2017	Total
Component 1a	Institutional strengthening of NAB Secretariat / PMU	Hire administrative advisor	60	60	60	60	240
	Institutional strengthening of DoF	Hire technical specialist	80	80	80	80	320
		Hire Extension & Outreach manager	120	120	120	120	480
	REDD+ Technical Committee and Ad-hoc Working Groups	Record meetings and decisions TC	10	10	10	10	40
		Dissemination of findings	15	15	25	30	85
		Travel	30	30	30	30	120
	Capacity assessment	Study: Develop capacity building plan	40	-	-	-	40
	Provincial REDD+ Committees (6 Provinces)	ToR development	10	-	-	-	10
		Stakeholder identification in each Province	50	-	-	30	80
		Meeting costs (travel, preparation, facilitation, documentation)	40	-	-	40	80
	Mainstreaming of REDD+ throughout sectors	Identification of relevant positions	40	20	-	-	60
		Integrating REDD+ into job descriptions	-	-	20	20	40
	REDD+ assistance	Communication and logistics	30	30	30	30	120

Component 1b		Development of Plan for Continued Information Sharing and Early Dialogue	15	-	-	-	15	
		Implementation of Information Sharing and Early Dialogue	-	50	30	-	80	
		Review/ Evaluation of Information Sharing and Early Dialogue process	-	-	-	25	25	
		National level awareness raising campaign for REDD+	-	30	-	-	30	
		Hire local PR consultancy	20	50	50	50	170	
	Consultation and empowerment at local community level		Workshop logistics and travel	80	60	40	-	180
	Capacity building and dissemination of the REDD+ strategy	Multi stakeholder REDD+ strategy events	10	5	5	-	20	
		Logistics and travel	20	10	10	-	40	
		Dissemination	30	20	10	-	60	
	Component 1c	Extension and Outreach Officer	Management of Extension & Outreach	70	70	70	70	280
Consultation & Participation Implementation			70	70	70	70	280	

	Grievance Mechanism	Design and planning	50				50
		Setup and trainings	30	60	25	20	135
		Ongoing	-	5	5	5	15
	Consultation and empowerment at local level	Logistics and travel	60	40	20	-	120
Component 2a	Study with a detailed assessment of drivers of deforestation	Country-wide study	20	-	-	-	20
		Public validation of findings	20	-	-	-	20
		Printing and dissemination of study as a study	7	-	-	-	7
	Legal harmonization concerning carbon rights and commercial land use activities	Legal study: overview of contradictory laws and recommendations	50	-	-	-	50
		Legislative adjustments for REDD+	-	40	40	40	120
Component 2b	Creation of ad-hoc working group to develop strategy options	Launch of ad-hoc working group and development of ToR	10	-	-	-	10
	Study to explore strategic options for REDD+	Development of strategic options	60	-	-	-	60
		Opportunity cost assessment of alternative land uses	40	-	-	-	40

		Public validation	-	30	-	-	30
	Formulation of design options for the REDD+ Implementation Framework	Consultation of government and non-government stakeholders and endorsement of design options	30	-	-	-	30
	Development of demonstration activities	Select pilot provinces and participative activity identification	20	-	20	-	40
		Planning and implementation of demonstration activities	-	60	100	140	300
Component 2c	Study surrounding land and carbon rights	National Dialogue	50	40	-	-	90
		Legislative changes required for REDD+ Scheme	-	40	-	-	40
Component 2d	Capacity Building	Comprehensive assessment of capacities of existing institutions to manage key environmental, social and vulnerability issues	20	-	-	-	20
		Capacity building for SESA / EIA / ESMF for government staff	-	20	20	20	60
	SESA ToRs Development	Stakeholder Consultations and drafting of ToRs	20	-	-	-	20

		Workshops for sharing and approving the ToRs	-	30	-	-	30
	SESA Study and Report Dissemination	Hiring of Consultant Team	30	20	-	-	50
		Dissemination of SESA report	-	20	-	-	20
	ESMF ToRs Development	Stakeholder Consultations and drafting of ToRs	-	-	20	-	20
		Workshops for sharing and approving the ToRs	-	-	30	-	30
	Formulation of SESA / ESMF	Carrying out SESA	-	-	20	70	90
		Formulation of ESMF	-	-	20	-	20
		Piloting of ESMF in three selected Provinces	-	-	-	70	70
	FPIC	Technical assistance for identifying potential areas/issues requiring FPIC	-	20	-	-	20
		Carrying out FPIC	-	-	25	25	50
Component 3	BAU and policy scenarios development	Policy survey design	5	-	-	-	5
		Policy survey	30	-	-	-	30
		Delphi survey	48	-	-	-	48

	Policy scenario development	20	-	-	-	20
	Documentation	-	10	-	-	10
Economic modeling	Copra production	80	-	-	-	80
	Meat production	73	7	-	-	80
Demographic Modeling	Conceptual model development	5	-	-	-	5
	Programming and calibration	15	-	-	-	15
	Model validation	5	-	-	-	5
	Sensitivity analysis	8	-	-	-	8
	Scenario analysis	7	-	-	-	7
	Documentation	5	-	-	-	5
Spatial deforestation modeling	Geodatabase compilation	20	-	-	-	20
	Statistical analysis	20	-	-	-	20
	Model calibration	25	-	-	-	25
	Scenario tests	2.9	22.1	-	-	25
	Scenario adjustment	-	15	-	-	15
	Documentation	10	-	-	-	10

	EFCS Database development	GeoDatabase design	20	-	-	-	20
		Geodatabase implementation and training	24.7	-	-	-	24.7
		Documentation	10	-	-	-	10
	REL/RL integration	Accounting framework design	-	40	-	-	40
		Spatial REL/RL integration	-	10	-	-	10
		Reporting	-	15	-	-	15
	Stakeholder coordination and outreach	Steering Committee	27.81	24.14	-	-	51.95
		Regional outreach workshops	-	109.8	-	-	109.8
	External REL/RL validation		-	-	-	90	90
	Component 4a	National Forest Inventory	Inventory preparation	49.34	-	-	-
Inventory piloting			101.65	238.9	-	-	340.55
Inventory roll-out			-	203.25	78.98	-	282.23
Data processing and reporting			-	-	36.75	-	36.75
Deforestation monitoring		Deforestation processing 2000–2010	124.3	79.3	-	-	203.6
		Cloud correction 1990-2000	-	125.64	7.61	-	133.25
		Deforestation analysis 2000-2007-2010	-	-	43.4	-	43.4

		Deforestation analysis 2010 – 2014	-	-	-	119.51	119.51
		External verification	-	-	-	70	70
	Geodata management		-	40	60	-	100
	GIS/RS training		-	50	50	80	180
Component 4b	Assessment of existing information or data management regarding safeguards	Conduct study	20	-	-	-	20
	Forest Governance Diagnostic Assessment	Stakeholder dialogue	10	-	-	-	10
		Dissemination of results	-	5	-	-	5
	Build multiple benefits monitoring system	Hardware	10	-	-	-	10
		Regular data collection	-	2	2	2	6
	Community capacity building	Safeguard monitoring during demonstration activities	-	5	3	3	11
Component 6	Design, finalize and sanction the M&E framework	Overall design of the M&E framework	4	-	-	-	4
		Identification of measurable and verifiable indicators	2	-	-	-	2
		Collection of feed-back from CSOs to the program M&E	5	-	-	-	5

		framework					
		Endorsement of M&E framework	2	-	-	-	2
M&E framework implementation		Setting up of program database	5	-	-	-	5
		Link of program database to NAB website	3	2	2	2	9
		Monthly collection of data for update of database	12	12	12	12	48
Mid-term evaluation		Evaluation report preparation	-	-	50	-	50
Periodic reporting and adjustments		Preparation, publication and distribution of half-yearly and annual reports M&E reports	8	8	8	8	32
		Public forums to review implementation progress and provide feedback	6	6	6	6	24
		Adjustments to the program implementation	2	2	2	2	8
	Total		2,182.7	2,187.13	1,366.74	1,449.51	7,186.08
	FCPF		1,100	900	785	815	3,600
	Other development partners (not yet specified)		1,082.7	1,287.13	581.74	634.51	3,586.08
			Vanuatu Government				

	Contributions from other Development Partners, amounts not quantifiable:	EU <ul style="list-style-type: none"> - Global Climate Change Alliance - Funding Live & Learn - Increasing Resilience to Climate Change and Natural Hazards
		World Bank (Jastis Blong Evriwan)
		Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
		Global Environment Facility Pacific Alliance for Sustainability
		AusAID Climate Change Consortium
		USAID Climate Change-related funds

Component 6: Design a Program Monitoring and Evaluation Framework

Standard 6 the R-PP text needs to meet for this component: Design a Program Monitoring and Evaluation Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

1. Introduction

M&E specialists already exist within the PMU that monitor all CC and DRR activities led by the GoV. There is also a National Implementing Entity within the PMU through which all funds related to climate change are channeled. Upon a successful R-PP assessment, it will be decided whether an independent entity will be hired in order to carry out the necessary M&E for Vanuatu's R-PP.

The program monitoring addresses the following four dimensions:

1. Technical achievements
2. Engagement and ownership of national stakeholders
3. Financial implementation of the program / disbursement of funds
4. Administrative procedures

A crosscutting issue to be monitored and evaluated is:

- Capacity building created among government and non-government stakeholders

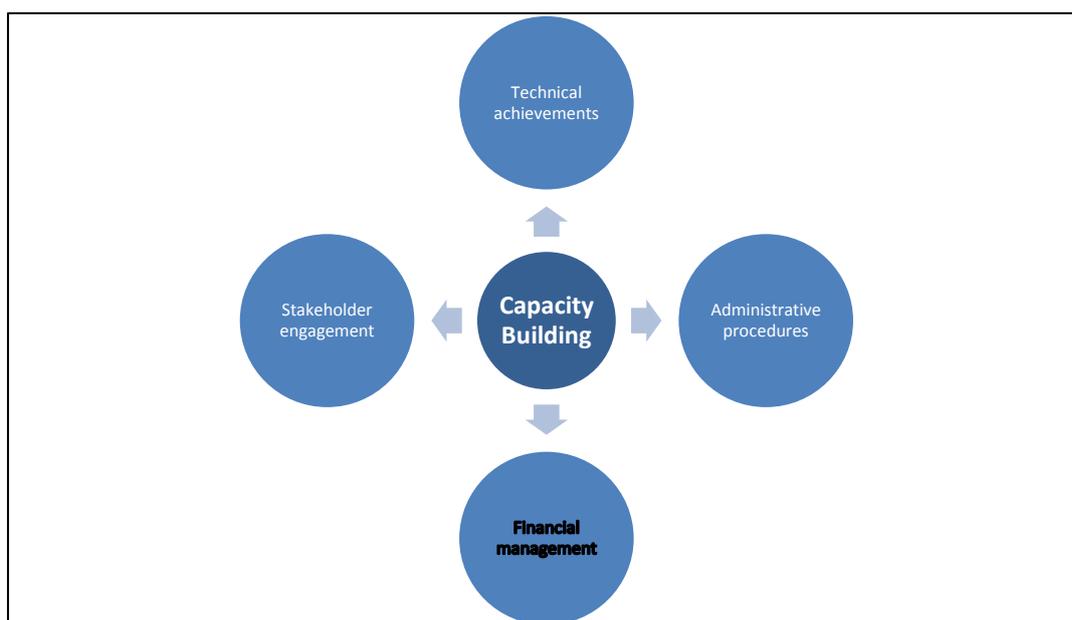


Figure 14: Dimensions of R-PP Monitoring

2. Monitoring and Evaluation Framework

The monitoring and evaluation (M&E) framework proposed below defines time horizons, deliverables and indicators associated with the implementation of the R-PP. It is an important instrument of program management and provides leads for the readjustments of the implementation modalities on an ongoing basis (monitoring). It also serves as a basis for the periodic assessment of the program's success against its set targets.

The simple and robust framework outlined below will ensure the R-PP is implemented in a way that meets its time schedule and objectives. Continuous monitoring and feedback tools will help to ensure the implementation process is effective, efficient and transparent.

The Table below outlines the main elements that will need to be monitored, but the full M&E framework must be developed during R-PP implementation in order to correspond with the REDD+ strategy. The framework identifies inputs, outputs and outcomes and has the long-term objective to include a column with observed *impacts*. These impacts, however, may only be perceivable within the next decades.

Details of the framework including concrete outcome indicators will be worked out by an AWG 'Monitoring' in the TC. It will be difficult to attribute specific impacts directly to the program implementation, but they will still have to be documented in as much detail as possible.

The PMU has engaged an officer who is currently creating an M&E system for all climate change related activities. VMGD will therefore contribute in-kind to the REDD+ M&E system.

Table 7: R-PP M&E framework

This draft serves as an input to the institutions in Vanuatu that will further develop the M&E framework for R-PP implementation in Vanuatu. The REDD+ Coordinator and the REDD+ Technical Committee are in the lead for this. The final M&E framework will be based on the planned activities for implementation.

R-PP Component	Inputs and major activities	Outputs	Means of verification	Outcomes (Objectives)	Indicators for each outcome (qualitative or quantitative)	Time frame of indicators	Impact
1a National Management Arrangements	Mainstreaming of REDD+ throughout sectors	Concept papers for mainstreaming REDD+ into other sectors Stakeholder dialogue	Participants list Minutes of Meetings Copy of the concept paper	REDD+ policy integration/mainstreaming Institutional framework strengthened	REDD+ included in X sector policies, sector strategies, mid-term plans Respective sectors employ staff for the implementation	REDD+ part of 10 documents as described by 2018	GoV operationalized REDD+ effectively
	Regular TC Meetings Internal review of TC	X meetings conducted with 70 % attendance Recommendations for administrative decisions provided TC review recommendations documented	Minutes of meetings publically available (Vanuatu Climate Change Portal) Participants list TC review reports	Public interest and feedback registered Governance and implementation of Scheme steered and adapted REDD+ ownership enhanced	TC and AWGs meetings announced in newspapers, minutes published on website	3 times per year starting in 2014	
					X review recommendations actioned and documented		
					Public discussions in media, e.g. newspaper, radio;	annually	
					FGRM employed X amount of times		
REDD+ responsible staff in each relevant Ministry contributed to R-PP mid-term report with TC as coordinator	Mid-term report delivered by 2017						
Create new	Feedback and	Institutions exist,	FGRM	100% of formal	starting mid-		

	FGRM or support existing one for REDD+ Promote awareness of FGRM	grievance redress mechanism established	random samples prove responsiveness Documentation of FGRM as part of awareness campaigns	complaints filed effectively Complaints registered and addressed publically	complaints addressed; 100% of complaint resolution documentation published on designated website; less than 10% of complaint resolutions publically scrutinized	2014	
1b Early Dialogue and Information Sharing	Early dialogue and information sharing continues	REDD+ information disseminated in media Awareness material produced	Newspapers, radio, other means Awareness material available at many sources, always also at DoF, VMGD	Public is aware of REDD+ and its objectives Interest in REDD+ is increased	Number and types of examples of REDD+ actions where CSOs participate actively Number of representatives of rural communities, women and vulnerable groups and private sector involved in REDD+ process	ongoing	Ni-Vanuatu have fully understood the national REDD+ Scheme, influenced the design, and based land use decisions on this knowledge
		Awareness campaign and stakeholder dialogues carried out	Campaign documentaton	Consultation and empowerment at community level	X amount of community level dialogue meetings leads to x % of provincial stakeholders understanding the principle of REDD+, measured through surveys	ongoing	
1c Consultation and Participation	This R-PP chapter is crucial, but the main impact is described in other chapters (1a, 1b, 2b)						
	Comprehensive study of drivers,	Provincial and national level	Hard copies and digital copies of	Relevant stakeholders have	Drivers of deforestation and forest degradation	every 5 years beginning	Incentives have efficiently addressed

2a Assessment of Drivers	also showing differences between the provinces	analysis of drivers of deforestation and forest degradation	document	agreed on main drivers designed incentives in the provincial stakeholder committees	study Provincial committee submission to TC X % of stakeholders identified in the implementation of the C&P Plan participated in provincial stakeholder committee meetings	2014	deforestation and forest degradation
	Legal study on contradictory laws commissioned	Legal study identifying the current conflicts or unclear issues conducted	Hard copies and digital copies of document	TC and different sectors made aware of legal discrepancies Findings followed up	Stakeholder workshop discussed report findings Follow up agreed X initiatives to harmonize conflictive regulations have started	2015-2017	
2b REDD+ Strategy Development	Collaborative strategy development, based on stakeholder participation, SESA and technical requirements (e.g. MRV)	Ad-hoc Working Group created Stakeholder workshops in provinces conducted List of strategy options developed	Documentation of AWG meetings Documentation of provincial workshops List of strategy options	Relevant stakeholders have understood and accepted the REDD+ strategy REDD+ strategy is being implemented	REDD+ strategy options presented and discussed with X amount of stakeholders in at least 4 provinces Comparison of documented stakeholder discussion and REDD+ Strategy show that 100 % of comments have been addressed	2016	REDD+ Scheme is functional
	Opportunity cost assessment study	Opportunity cost assessment study delivered and discussed in TC Opportunity cost study results are disseminated and	Document Documentation of stakeholder workshops Participants lists	Investment areas selected, based on opportunity cost assessment and drivers of deforestation and forest degradation	Decisions for priority investment areas explain impact of opportunity cost study	every 5 years	

		explained to relevant stakeholders nationwide					
	Implementation of demonstration activities	Demonstration activities for activity-based approach implemented Lessons learnt documented Lessons learnt discussed with relevant stakeholders	Planning documents and reporting of demonstration activities Entries in national registry Field visits to activity sites Lessons learnt available Workshop documentation and revised planning documents	Number of successful demonstration activities increased Lessons learnt integrated in demonstration activity planning and strategy option documents Capacity of GoV to plan and support activity implementation increased	X % increase of demonstration activities X amount of tC avoided or sequestered	ongoing	
					Revised strategy document	2017	
2c Implementation Framework	Making reports and financial records publically available Description of credible and transparent institutional, economic, legal and governance arrangements	Documents made publically available to allow for public control of use of funds	Public access to all relevant documents (internet, request to DoF and VMGD)	Confidence of Ni-Vanuatu in government-led process increased FGRM functional	Necessary legislation and regulations adopted National REDD+ information system or registry publically accessible and updated on monthly basis X amount of funding-related feedback channeled through FGRM	ongoing	
2d. SESA	Develop SESA Streamlining SESA through R-PP	SESA summary report developed and discussed in TC	SESA report available TC minutes of meeting	SESA used to develop ESMF Social and environmental	<i>tbd in SESA design consultancy</i> SESA delivered	2014-2017	Social and environmental sustainability of government

	implementation Mainstreaming SESA through other sectors	Multi-sectoral workshops conducted	workshop documentation	risks are known and monitored Nationally relevant safeguards defined Compliance with Common Approach ensured SESA effectively mainstreamed into other sector policies			activities increased in all sectors
3 Reference Levels	Development of REL/RL	National forest reference emission level developed	REL/RL document available International acceptance of RL/REL documented	National forest carbon stock changes reported MRV system revised to enhance efficiency and accuracy	REL / RL document made available	2015	National forest carbon stock change and co-benefit measuring and reporting operational
4a. MRV	Conduct national forest carbon inventory Deforestation and degradation monitoring	National forest inventory data compiled and reported Forest carbon data compiled and reported	Forest carbon emission report sent to UNFCCC UNFCCC comments on report integrated in MRV system		MRV report submitted	2016	
4b. Non-carbon MRV	Implementing monitoring following SESA recommendations	Existing safeguards information systems identified and adapted to SESA findings Safeguard	MRV methodology includes safeguards Progress reports, minutes of meetings, and		National capacity for safeguard monitoring reinforced Community capacity enhanced in order		

		information system integrated in MRV system	other important information	to conduct monitoring Active involvement of civil society and engagement of media in monitoring Non-carbon impacts measured, reported and addressed			
5. Budget and Timeline	Monitoring of use of funds	Financial reports on use of funds compiled and published	Financial reports Public discussion Related contributions to FGRM	Financial transparency ensured Appropriate use of funds ensured Confidence and motivation of Ni-Vanuatu in government and REDD+ process increased	Report on amounts of R-PP investments received (FCPF and non-FCPF) Report on amounts of R-PP investments spent (FCPF and non-FCPF) Increased demand by Ni-Vanuatu for participation in the REDD+ Scheme	annually	National REDD+ readiness achieved
Overarching	R-PP Implementation	Mid-term Report R-Package	Documents made available	Major review of R-PP implementation integrated in all activities R-Package	Mid-term report accepted by PC R-Package accepted by PC	2016 2017	Forest carbon emissions effectively quantified and reduced

				successfully delivered			
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3. Reporting routines

Information about the R-PP implementation will be collected on a continuous basis in easy to use excel sheets. Routine reporting to the NAB will be done every six months and posted on Vanuatu Meteo Climate Change Portal. To guide the day-to-day management of the program, this information can be accessed internally at any time, making it an important source of performance monitoring.

3.1 Mid-term progress report

As per the FCPF Charter, Vanuatu will have to prepare a mid-term progress report to the Participants' Committee. The reporting will follow the format developed by the Facility Management Team (FMT). The objective of the mid-term progress report is to report on the progress made in activities funded by the FCPF Readiness Preparation Grant. The mid-term progress report also provides an overview of the overall progress in the implementation of the R-PP. The exact timing of the progress reporting will be specified in the grant agreement with the FCPF.

4. M&E Capacity Building

The M&E capacities built up during R-PP implementation are the foundation for the permanent systems required for REDD+ implementation. Although this framework only helps to ensure the successful implementation of the R-PP, it is meant to provide important insights and experience for the SIS and ESMF to come later.

Community M&E

As described in Component 4b, ideally, community-based monitoring and evaluation will be an important aspect of Vanuatu's future REDD+. Civil society capacity will be built throughout the R-PP implementation process so that monitoring of REDD+ and other programs becomes more engrained in local structures. The remoteness of many communities in Vanuatu's volcanic mountain island terrain poses significant challenges to the ability of much of civil society living in rural areas to effectively contribute to the monitoring of the R-PP implementation process. Not only will these communities need to be informed of REDD+, but the way in which their complaints or otherwise is gathered and fed back into the process must become institutionalized.

Table Summary of a Program Monitoring and Evaluation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated costs (in thousands US\$)				
		2014	2015	2016	2017	Total
Design, finalize and sanction the M&E framework	Overall design of the M&E framework	4	-	-	-	4
	Identification of measurable and verifiable indicators	2	-	-	-	2
	Collection of feed-back from CSOs to the program M&E framework	5	-	-	-	5
	Endorsement of M&E framework	2	-	-	-	2
M&E framework implementation	Setting up of program database	5	-	-	-	5
	Link of program database to NAB website	3	2	2	2	9
	Monthly collection of data for update of database	12	12	12	12	48
Mid-term evaluation	Evaluation report preparation	-	-	50	-	50
Periodic reporting and adjustments	Preparation, publication and distribution of half-yearly and annual reports M&E reports	8	8	8	8	32
	Public forums to review implementation progress and provide feedback	6	6	6	6	24
	Adjustments to the program implementation	2	2	2	2	8

Total	49	30	80	30	189
Other Development Partner (not yet specified)	49	30	80	30	189

Annexes

Annex 1a: National Readiness Management Arrangements

National REDD+ Policy Workshop Participants, 19-21 September 2012, Port Vila		
Names of Participants	Organization	Contact Details
Vano Esrom Marek	Department of Women's Affairs	7118846, hesronvano@gmail.com
Fremy Shadrack	TVET Sector Strengthening Program	774544, 37933
Björn Hecht	GIZ/SPC	bjoern.hecht@giz.de
Juha Seppala	World Bank	jseppala@worldbank.org
Martha Kaluatman	Presbyterian Church of Vanuatu	5455830
Pastor Shem Tema	Presbyterian Church of Vanuatu	7772852, 27300
Benwel Tarilongi	DQL	7749237
Johnny Koanapo	Department of Foreign Affairs	5688217
Michael Mangawa	Ministry of Lands	5989889
Karlton Sam	Ministry of Cooperatives	5955269
Donald James	Wan Smol Bag Theater Group	5419968, 27119
Gina Tari	Live & Learn Environmental Ed.	5949283, 36807
Glarinda Andre	Live & Learn Environmental Ed.	27448
Anjali Nelson	Live & Learn Environmental Ed.	27448
Jessie	Live & Learn Environmental	27448

Kampai	Ed.	
Anne Marie Sarisets	Department of Forests	5333460
Touasi Tiwok	Department of Environment	ttiwok@vanuatu.gov.vu
Ella Gabriel	Department of Forests	ella.gabriel@my.jcu.edu.au
Johnety Jerette	Department of Foreign Affairs	jjerette@vanuatu.gov.vu
Ruben Tafau	Department of Industry	retafau@vanuatu.gov.vu
Godfrey Bome	Department of Forests	bmkottie@gmail.com
Presley Dovo	Department of Forests	dovopress@gmail.com
Hendry Jackson	Red Cross	hendry.jcksn@gmail.com
Gwen N Tari	Department of Agriculture	gntari@vanuatu.gov.vu
Jesse Benjamin	Climate Change Office – VMGD	7113959, jbenjamin@vanuatu.gov.vu
Brian Phillips	Climate Change Office – VMGD	7744388, piccap@vanuatu.com.vu
Malcom Dalesa	Climate Change Office – VMGD	5344800, malcolmdalesa@gmail.com /mdalesa@meteo.gov.vu
Dr. Sean Weaver	Consultant, Carbon Partnership Ltd	sean@carbonpartnership.co.nz
Ioan Viji	Vanuatu REDD+ Coordinator	vutilolo03@gmail.com

Issues raised by participants

The participants who attended the National REDD+ Policy Workshop and who contributed to the drafting of this R-PP will all receive a copy of the draft R-PP prior to its finalisation. Several participants to this workshop formed the Vanuatu R-PP Drafting Committee, who will meet in December 2012, and again in January 2013 to review and approve the R-PP prior to submission to the FCPF.

1.1 Critical information distributed and comments received

The National REDD+ Policy Workshop involved training and awareness raising for participants (days 1 and 2) followed by an R-PP drafting session (day 3). This session involved multistakeholder dialogue resulting in core elements for input into Components 1 and 2 of this R-PP.

Mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process and for conflict resolution and redress of grievances

A dispute resolution mechanism will need to be developed for RPP implementation and the subsequent National REDD-plus Program. Vanuatu does not currently have a suitable mechanism for addressing grievances, conflict resolution and redress of grievances outside of conflict relating to land ownership. With the assistance of civil society organisations and the State Law Office, the National REDD+ Technical Committee will look to establish a grievance mechanism that is accepting of customary approaches to conflict resolution while ensuring transparency of Government responses. An existing mechanism for REDD-plus would be ideal, but has not yet been found to use.

2.1 Customary Lands Tribunal Act

A process exists for grievances relating to customary landownership in Vanuatu under the *Customary Lands Tribunal Act*.⁷⁷ The Customary Lands Tribunals (Tribunals) occur in all Provinces and members are appointed by the appropriate chiefs from the custom area under dispute.⁷⁸ The Act is currently under review with the aim to increase a focus on mediation to reduce pressure on the appeals process. This review is underway and maybe in effect as soon as min-2013. The Act sits with the Customary Lands Tribunal Unit has recently merged with the Malvatumauri Council of Chiefs. The Act exercised through the Tribunals is the appropriate mechanism for disputes over landownership in relation to REDD-plus activities.

2.2 The Ombudsman

Vanuatu's Ombudsman has been in operation under the *Ombudsman Act*⁷⁹ since 1996. It deals with high-level conflict resolution or grievance redress and does not provide an appropriate avenue for a REDD-plus dispute resolution mechanism. It is also not highly active having processed one public report (investigation) in 2012 and three in 2011.

2.3 Unofficial Processes for Grievances

The most common, although not mandated, process for individuals or communities to communicate their grievances in relation to Government actions occurs through their local chief then up through the Area Council Secretary to the Extension Officer for the relevant Government Department. Some Provinces have stronger structures than others so in many cases Area Secretaries will not be the key contacts points for the communication of grievances. In these cases local associations such as the Church, farmer's associations and cooperatives will provide an avenue for communication to the relevant authority. During the recent extension and outreach process it was clear that many communities felt that their grievances were unheard and if heard never responded to.⁸⁰ They also stated that custom practices for conflict resolution

⁷⁷ *Customary Land Tribunal Act* [Cap 271].

⁷⁸ Corrin, J., on behalf of SPC/GIZ Regional REDD+ Project 'Climate Protection through Forest Conservation in Pacific Island Countries', 2012, *Redd+ And Forest Carbon Rights In Vanuatu Background Legal Analysis*

⁷⁹ Ombudsman Act of 1998 (Act No. 27 of 1998)

⁸⁰ Live & Learn Environmental Education, 2013, Report on Extension and Outreach for RPP Development see Appendix X

needed to be respected and that conflict should be resolved as locally as possible. A strong Consultation and Participation Plan could go some way to improving grievance redress in relation to grievances against the Government but the dispute resolution mechanism will also need to be proactive in reaching the many communities marginalized by their remoteness to address Government-related concerns. Allowing for informal conflict resolution measures to take place whilst protecting the national REDD-plus program will require strong mediation and communication by those managing the mechanism.

2.4 Environment, Protection and Conservation Act

Management committees required in Vanuatu for Community Conservation Areas (CCAs) under the Environment Protection and Conservation Act⁸¹ establish a grievance mechanism inline with the Act. Under CCAs, the management committee is mandated to first air its grievance to the village council within which it sits. This grievance is then escalated if unresolved to the relevant Extension Officer at the Department of Environment and Conservation. Alignment with this existing process could be a requirement of any project-scale REDD-plus but does not provide a suitable mechanism for current purposes. The use of Government Extension Officers (Provincially-based staff) as key avenues for communication of grievances could be adopted within the REDD-plus grievance mechanism.

2.5 Guidance from State Law Office

The State Law Office advised Live & Learn that a dispute resolution mechanism could be set up by way of a sub-committee of the REDD+ Technical Committee. The committee would need the approval and recognition of the relevant Government Minister, the Development Committee Officials and the Council of Ministers. It was unclear whether there were any standard protocols for the development of such a grievance committee and further research would need to be undertaken to assess the impartiality and success of such committees in the past.

2.6 Civil society Support

In the civil society sector, Transparency Vanuatu could provide support to a grievance mechanism through its Advocacy and Legal Advice Centre (ALAC).⁸² While its focus is on documenting and reporting human rights abuses in Vanuatu it also has a goal to help Government institutions to uphold human rights and may provide some support to the REDD+ Technical Committee in the design of an effective dispute resolution mechanism.

Programs such as ALAC, the World Bank's Justice Blong Evriwan Program and the Customary Land Tribunal Unit's Provincial Customary Land Officers program could provide support to the National REDD+ Technical Committee's dispute resolution mechanism. This may involve ensuring these stakeholders are adequately informed and can disseminate information through their channels or it may mean engaging these groups to provide transparency and accountability to the overall process of developing and managing a dispute resolution mechanism.

Potential issues arising with REDD+ that will require an effective FGRM

⁸¹ *Environment, Conservation and Protection* [CAP 283]

⁸²

Vanuatu's constitutional recognition of customary land rights has resulted in numerous disputes surrounding land ownership and leases. The JBE program conducted one national and two more comprehensive case studies on Epi and Tanna islands the issues surrounding land leases. This analysis demonstrated that disputes and competing customary claims over lands are widespread. Current methods for addressing disputes take place through multiple forums of dispute resolution, from *nakamal* (customary forums) to area and island councils of chiefs, customary land tribunals, and civil courts. The multitude of dispute resolution fora and the fact that outcomes of customary fora are not recorded and are not required to be considered by customary land tribunals and civil courts extends the period of time required to solve disputes. This often results in leases being signed by the Ministry of Lands as the lessor as opposed to the land dispute being resolved in the best interests of the customary land owners.

Although land-tribunals have been established, land disputes in forest areas or areas with potential for development continue to hamper forest development. Disputes about ownership of land and forest resources disrupt forestry operations, cause financial losses for forestry investors and limit the establishment of development projects. These disputes might even increase with the development of forest carbon projects.

**Annex 1b: Information Sharing
and Early Dialogue with Key Stakeholder Groups**

**Participants of Early Dialogue in Tanna Province
26-27 November 2012**

	Name	Organization	Contact Email/Telephone
1	Willie Iau	Agriculture Dept.	willie.iauniuan@gmail.com 5949824
2	Daniel Samson	Live and Learn	ionaviewtanna@gmail.com 7742766 / 5976359
3	Lui Noah	Farmer	
4	Weia Tira	Farmer	
5	Jeffry Nouras	Farmer	
6	Tom Saieu	Farmer	5417220
7	Nako Dam	Farmer	5930333
8	Willie Kapioko	Farmer	5687157
9	Amos Tom	Farmer	
10	Pierre Tom	Farmer	
11	Samson Tom	Farmer	7779430
12	Johnny Saman	Farmer	5440051
13	Jesse Benjamin	Mitigation Officer, VMGD	7113959
14	Ioan Viji	REDD+ Coordinator	7733656
15	Björn Hecht	GIZ	Bjoern.hecht@giz.de 5988574

Participants of Early Dialogue in Sanma Province

30. November 2012

	Name	Organization	Contact Email/Telephone
1	Gina Tari	Live and Learn	gina.tari@livelearn.org 36807
2	Harry Bule	Farmer, ex forestry officer	
3	Harry Tete	Luganville Municipality	landplanner@vanuatu.com.vu 7727722
4	Hoso Sokarai	DoF	36519
5	Mackenzie Naupa	DoF	36519
6	Eddy Lamoureux	Sawmill owner	5442618
7	Alsen Fred Obed	Fisheries Dept.	7745499
8	Prosper Buletare	Sanma Province	prosperbuletare@yahoo.com 7754532
9	Daniel Tass	Custom Landowner Butmas	
10	Rene Theimu	DoF	
11	Fremy Shadraek	TVET	fremden@vanuatutvet.org.vu 37933/7745444
12	Jerry Spooner	TVET	jerry@vanuatutvet.org.vu
13	Ethel Aru	DoF	ethel.aru@gmail.com 7728928
14	Benjamin	DoF	
15	David Sailas	DoF	davidsilas91@gmail.com 5622173
13	Jesse Benjamin	Mitigation Officer, VMGD	7113959
14	Ioan Viji	REDD+ Coordinator	7733656
15	Björn Hecht	GIZ	Bjoern.Hecht@giz.de 5988574

Participants of Early Dialogue in Malampa Province

7 December 2012

List of Stakeholders engaged during initial Extension & Outreach phase:

Interviewees	Organisation
Rebecca Iaken	Monitoring and Evaluation Specialist, National Advisory Board on Climate Change and Disaster Risk Reduction Project Management Unit
Adam Lopez	Director, Voices for Change
Ioan Viji	National REDD+ Coordinator
Milena Stefanova	Justice Blong Evriwan Program, World Bank
Jeffrey Kaitip	Principal Physical Planner, Department of Internal Affairs
Chris Lunnay	Mama Graon Project, AusAID
Johnety Jerette	Acting Director, Department of Foreign Affairs
Jason Pakoasongi	State Law Office
Michel Kalworai	Secretary General, Shefa Provincial Government
Trinison Tari, Donna Kalfatak, Rolenas Tavoe	Department of Environment Conservation and Protection
Stephanie Neilsen and team	Legal Coordinator Transparency Vanuatu
Benuel Tabi	Director, North, Lands Dept
Thompson Wari Paul	Acting PEO Sanma Education
Leimon Kalomor	Forestry Officer, Forestry Dept
Rosette Kalmet	IWRM Project Coordinator
Glen Alo	Director North, Fisheries Dept
James Moli	Santo Branch Manager, VBTC
Philip Banban	Director North, Agriculture Division
Clentin Ronson	Senior Cooperatives and Business Development Officer

List of participants in Community Consultations

Community Consultations	Focus Groups
Santo: Matantas, Sara One, Sara Two (Lakon), Hog-Harbour, Port-Olry, Sarete, Ipayato	Santo: Stephen Molisa, Airports Vanuatu Limited Samuel Nisa, Vanuatu Commodity Marketing Board Esther Paul, Vanuatu Broadcasting & Television Corporation Clentin Ronson, Department of Cooperatives Gloria Tarileo, Department of Women's Affairs

	<p>Leimon Kalomor, Department of Forestry Saniel Vilvil, Ipaiato Village Oniel Dalesa, Department of Agriculture Jimmy Tes, Live & Learn Environmental Education Yvonne Taiki, Live & Learn Environmental Education Warakar Ser, Live & Learn Environmental Education Marie Kalsei, Live & Learn Environmental Education</p>
<p>Tanna: Lauanamangen, Imaio, Kwaraka</p>	<p>Tanna: Ketty Napuat, Secretary-General Tafea PGC David Tovovor, Assistant Secretary-General Tafea PGC Willie Yao, Director, Agriculture Department Southern Division Stephen Kaveng, Planner, Tafea PGC David Kiel, Junior Staff, Tafea PGC</p>

Annex 1c: Consultation and Participation Process

Guidelines for Effective Consultation and Participation

1.1 Principles and Guidance for Effective Stakeholder Engagement

National REDD+ Technical Committee must take into account the Principles and Guidance for Effective Stakeholder Engagement as outlined in Annex B of the R-PP Template.⁸³

FCPF and UNREDD Principles	<i>Applicability to Vanuatu Context</i>
<p><i>8.a. The consultation process should include a broad range of relevant stakeholders at the national and local levels. The diversity of stakeholders needs to be recognized. In particular the voices of forest-dependent and vulnerable groups must be heard, whether they are indigenous or not. Different stakeholders have different stakes and/or interests in REDD+. Some may be positively impacted, others negatively.</i></p>	<p>As a greater understanding of REDD+ develops, a broader range of stakeholders will respond to requests for engagement.</p> <p>Forest-dependent peoples in Vanuatu can be seen as the custom owners of the land which make up more than 95% of the population. Rural and isolated groups are most vulnerable through their lack of access to information and support.</p>
<p><i>8.b. Consultations should be premised on transparency and timely access to information. In the context of REDD+, timely information dissemination at all levels and in a culturally appropriate manner is a pre-requisite to meaningful consultations. Stakeholders should have prior access to information on the proposed consultation activities. Sufficient time is needed to fully understand and incorporate concerns and recommendations of local communities in the design of consultation processes. Public awareness and information, education and communication campaigns are important vehicles for ensuring that stakeholders understand the objectives of REDD+, the related risks and opportunities and their potential role in the process, and can – if they decide to do so – make informed and substantive contributions to the formulation of REDD+ strategies and policies.</i></p>	<p>Consultations in Vanuatu must provide information slowly over time and ensure regular engagement if they are to effectively engage stakeholders.</p>
<p><i>8.c. Consultations should facilitate dialogue and exchange of information, and consensus building</i></p>	<p>Informal dialogue is important for increasing exchange of information during consultations.</p>

⁸³ *Readiness Preparation Proposal (R-PP)*, Version 6 Working Draft, Forest Carbon Partnership Facility (FCPF)

<p><i>reflecting broad community support should emerge from consultation. The consultation process should occur voluntarily. In the case of the UN-REDD Programme, consultations leading to giving or withholding consent should be carried out in accordance with the UN-REDD Programme Guidelines on FPIC (see Annex 2).</i></p>	<p>Those consulted must have their impact on the design process noted back to them. Where consent is required, it will be sought in accordance with FPIC guidelines.</p>
<p><i>8.d. Consultations with indigenous peoples must be carried out through their own existing processes, organizations and institutions, e.g., councils of elders, headmen and tribal leaders. Indigenous peoples should have the right to participate through representatives chosen by themselves in accordance with their own procedures and decision-making institutions (see Step #2 under the Practical Steps for Carrying out Effective Consultations section below for more details). It is also important to ensure that consultations are gender sensitive.</i></p>	<p>While existing structures for communication are highly decentralised, diverse and often weak, they must be supported through the consultation process.</p>
<p><i>8.f. Special emphasis should be given to the issues of land tenure, resource-use rights and property rights because in many tropical forest countries these are unclear as indigenous peoples' customary/ancestral rights may not necessarily be codified in, or consistent with, national laws. Another important issue to consider for indigenous peoples and other forest dwellers is that of livelihoods. Thus clarifying and ensuring their rights to land and carbon assets, including community (collective) rights, in conjunction with the broader array of indigenous peoples' rights as defined in applicable international obligations, and introducing better access to and control over the resources will be critical priorities for REDD+ formulation and implementation.</i></p>	<p>Land tenure and resource-use rights are highly localised and follow customary law in Vanuatu. The ownership of carbon sits with the custom landowners of Vanuatu. A special emphasis on this topic is of the highest importance in the implementation of the R-PP.</p>
<p><i>8.g. Impartial, accessible and fair mechanisms for grievance, conflict resolution and redress must be established and accessible during the consultation process and throughout the implementation of REDD+ policies, measures and activities.</i></p>	<p>Mechanisms for grievance, conflict resolution and redress must support traditional processes while enabling a transparent and accessible process for the escalation of grievances to government to occur.</p>

1.2 Specific Guidelines for Effective Consultation and Participation in Vanuatu

Analysing and reviewing the experiences made during the Information Sharing and Early Dialogue (Comp. 1b) the following principles for effective consultation and Participation' have been recognized for REDD related work in Vanuatu:

- *Bislama*, or where possible local dialects, should be the primary language used for oral communication with stakeholders. English and French should be used for written communication and where deemed necessary Bislama translation provided.
- Visual materials should be used where possible
- Written material is not as effective as verbal messages in rural areas. Announcements made by community leaders in Nakamals, Churches and other events are much more effective than those made by outside communicators.
- Information must be easy to understand. Support should be sought from professional facilitators and media experts in how to present more complex elements of REDD+ to the audience.
- Existing channels for communication should be used but provided support to ensure that messages are reaching the target audience.
 - Group work is an effective way to obtain information in Vanuatu and gender separation is beneficial in rural settings.
 - Facilitators should aim to go to participants rather than participants travelling to take part in the consultation.
 - Facilitators should allow for ample time before and after official consultations in order to have informal dialogue with stakeholders.
 - Where the budget allows, Facilitators should seek feedback and information through informal community visits rather than just through formal consultations.
 - Any consultation that takes longer than 3 hours must provide food. If travel is required then allowances must be provided.
 - Timing of consultations is important if gender equity is to be ensured. This may mean beginning very early in the morning before people go to their gardens or in the evening. In highly remote areas the best time may be weekends after church services as people are congregated.
 - Providing key questions that are simple to understand prior to the consultation increases participation.
 - Focus groups with organizational stakeholders that address very specific issues can be an effective way to receive feedback and support in R-PP implementation.
 - Providing tasks to focus group members increases the participatory process.

The NAB PMU's Monitoring & Evaluation Specialist should provide advice to design of feedback collection and integration of this feedback into decision-making.

3. Design of a REDD+ grievance mechanism for Vanuatu

A grievance process will need to be developed for R-PP implementation and the subsequent National REDD+ Program. During the consultation process to develop a Consultation and Participation Plan, Live & Learn investigated current grievance mechanisms in Vanuatu in the search for one that could be used for addressing grievances regarding consultation and participation in the REDD+ process and for conflict resolution and redress of grievances. Unfortunately Live & Learn could not find a suitable mechanism for general complaints other than those to do with landownership. Live & Learn recommends that one is created and provides below suggestions for avenues to develop a grievance mechanism that is both impartial and requires minimal resourcing given the small population of Vanuatu.

In addition to the recommendations below, the FCPF has developed a toolkit for the development of grievance mechanism. It will provide significant support to those developing a grievance mechanism during implementation.

A process exists for grievances in Vanuatu under the Customary Lands Tribunal Act.⁸⁴ The Customary Lands Tribunals occur in all Provinces and members are appointed from the custom area under dispute by the appropriate chiefs.⁸⁵ The Act is currently under review with the aim to increase a focus on mediation, reduce the number of levels of appeal and thereby reduce the number of ongoing cases. This review is underway and maybe in effect as soon as mid-2013. The review is being run by the Customary Lands Tribunal Unit. **The Act's focus on land ownership provides an avenue for land tenure-related grievances and should be recommended by the National REDD+ Technical Committee as the correct action should any landownership-based grievances be raised during R-PP implementation and beyond.**

The World Bank through its *Jastis Blong Evriwan* Program (part of Justice for the Poor Program) and AusAID through its Mama Graon project are working in the space of custom land issues. Mama Graon with the Malvatumauri Council of Chiefs and the Customary Land Tribunal Unit have trained Provincial Customary Land Officers to work in each of Vanuatu's six Provinces to support communities and Provincial stakeholders in navigating legal issues relating to land especially relating to the Customary Land Tribunal Act. *Jastis Blong Evriwan* is establishing a pilot program to provide a legal advisory service, including mobile legal clinics with a specific focus on assisting custom landowners through the land leasing process. **While not developing grievance mechanisms per se, field officers working within *Jastis Blong Evriwan* and Mama Graon could provide an avenue for the REDD+ Technical Committee to communicate its grievance procedures.**

Vanuatu's Ombudsman has been in operation under the *Ombudsman Act*⁸⁶ since 1996. **The Ombudsman deals with high-level conflict resolution or grievance redress and does not provide an appropriate avenue for a REDD+ dispute resolution mechanism.** It is also not highly active having processed one public report (investigation) in 2012 and three in 2011.

The most common, although not mandated, process for individuals or communities to communicate their grievances in relation to Government actions occurs through their local chief then up through the Area Council Secretary to the Extension Officer for the relevant

⁸⁴ Customary Land Tribunal Act [Cap 271].

⁸⁵ Corrin, J., on behalf of SPC/GIZ Regional REDD+ Project 'Climate Protection through Forest Conservation in Pacific Island Countries', 2012, Redd+ And Forest Carbon Rights In Vanuatu; Background Legal Analysis

⁸⁶ Ombudsman Act of 1998 (Act No. 27 of 1998)

Government Department. Some Provinces have stronger structures than others so in many cases Area Secretaries will not be the key contacts points for the communication of grievances. In these cases local associations such as the Church, farmer's associations and cooperatives will provide an avenue for communication to the relevant authority. During the recent extension and outreach process it was clear that many communities felt that their grievances were unheard and if heard never responded to.⁸⁷ They also stated that custom practices for conflict resolution needed to be respected and that conflict should be resolved as locally as possible. A strong Consultation and Participation Plan could go some way to improving grievance redress in relation to grievances against the Government but the dispute resolution mechanism will also need to be proactive in reaching the many communities marginalized by their remoteness to address Government-related concerns. **Allowing for informal conflict resolution measures to take place whilst protecting the national REDD+ program will require strong mediation and communication by those managing the mechanism.**

The Department of Environment, Conservation and Protection explained that management committees, required in Vanuatu for Community Conservation Areas (CCAs) under the Environment Protection and Conservation Act⁸⁸, establish a grievance mechanism in line with the Act. Under CCAs, the management committee is mandated to first air its grievance to the village council within which it sits. This grievance is then escalated if unresolved to the relevant Extension Officer at the Department of Environment and Conservation. Alignment with this existing process could be a requirement of any project-scale REDD+ but does not provide a suitable mechanism for current purposes. **The use of Government Extension Officers (Provincially-based staff) as key avenues for communication of grievances could be adopted within the REDD+ grievance mechanism.**

The State Law Office advised Live & Learn that a grievance process could be set up as a sub-committee of the REDD+ Technical Committee. To do this the committee would need the approval and recognition of the relevant Government Minister, the Development Committee Officials and the Council of Ministers. It was unclear whether there were any standard protocols for the development of such a grievance committee and further research would need to be undertaken to assess the impartiality and success of such committees in the past. **The State Law Office should be used by the REDD+ Technical Committee to provide support for the development of a legally-sound grievance mechanism.**

In the civil society sector, Transparency Vanuatu could provide support to a grievance mechanism through its Advocacy and Legal Advice Centre. While its focus is on documenting and reporting human rights abuses in Vanuatu it also has a goal to help Government institutions to uphold human rights and may provide some support to the REDD+ Technical Committee in the design of an effective grievance mechanism. Further, Transparency Vanuatu has officers in every Province who could also support the dissemination of information for REDD+ grievance procedures. **It is recommended that the REDD+ Technical Committee engage civil society organisations to assist with the development of a grievance mechanism to ensure transparency but also to provide technical support.**

⁸⁷ Live & Learn Environmental Education, 2013, Report on Extension and Outreach for R-PP Development see Appendix B

⁸⁸ *Environment, Conservation and Protection* [CAP 283]

Informal Communication Report Template

Dispute Resolution Report	
Informal Communication	
Report Name and Number	*
Date	*
1. Party 1 (initiator)	*
2. Representative/s	*
3. Party 2 (respondent)	*
4. Representative/s	*
5. Means of communication	Telephone, email, letter, personal contact *
6. Issue resolved?	Yes / No * (If “Yes” describe solution in 7. below. (If “No” proceed to either next steps or Formal Communication process)
7. Resolution	State resolution reached *
8. Next steps	State agreed next steps if not moving to formal communication *
9. How dispute was resolved	*
10. Unresolved issues	Insert list (if none state “none”) *
11. Further action if not resolved	E.g. Repeat Informal Communication but with altered scope; move to Formal Communication; or separate proposals by the parties.
a. Party 1 Proposal	
b. Party 2 Proposal	
12. Signature of parties	
a. Party 1 Signature	*
b. Party 2 Signature	*

* = Obligatory fields

Formal Communication Report Template

Dispute Resolution Record			
Formal Communication			
Report Name and Number	*		
Date	*		
1. Party 1 (initiator)	*		
2. Party 1 representative/s	*		
3. Party 2 (respondent)	*		
4. Party 2 representative/s	*		
5. Process Agreement Completed?	Yes/No *		
6. Describe Process Agreement	*		
7. Did actual process follow the Process Agreement?	Yes / No *		
8. Justify deviations from Process Agreement (if any)	*		
9. How dispute was resolved	*		
Issue 1 (repeat for each issue)			
a. Problem Analysis			
(i) Present perspective	Party 1 Yes/No	Party 2 Yes/No	
(ii) Active Listening	Party 1 Yes/No	Party 2 Yes/No	
(iii) Agreement Points	Insert list		
(iv) Disagreement Points	Insert list		
(v) Method for addressing disagreement points			
(vi) Further Treatment			
(vii) Agree to proceed	Party 1 Yes/No	Party 2 Yes/No	
b. Cause Identification			
(i) Present perspective	Party 1 Yes/No	Party 2 Yes/No	
(ii) Active Listening	Party 1 Yes/No	Party 2 Yes/No	
(iii) Agreement Points	Insert list		
(iv) Disagreement Points	Insert list		
(v) Method for addressing disagreement points			
(vi) Further Treatment			
(vii) Agree to proceed	Party 1 Yes/No	Party 2 Yes/No	
c. Solution Design			
(i) Present perspective	Party 1 Yes/No	Party 2 Yes/No	
(ii) Active Listening	Party 1 Yes/No	Party 2 Yes/No	
(iii) Agreement Points	Insert list		
(iv) Disagreement Points	Insert list		
(v) Method for addressing disagreement points			
(vi) Further Treatment			
(vii) Agree to proceed	Party 1 Yes/No	Party 2 Yes/No	
d. Implementation Strategy			
(i) Present perspective	Party 1 Yes/No	Party 2 Yes/No	
(ii) Active Listening	Party 1 Yes/No	Party 2 Yes/No	

	(iii) Agreement Points	Insert list	
	(iv) Disagreement Points	Insert list	
	(v) Method for addressing disagreement points		
	(vi) Further Treatment		
	(vii) Agree to implement	Party 1 Yes/No	Party 2 Yes/No
10. Summary of outcome	*		
12. Unresolved issues	Insert list *		
13. Further action if not resolved	E.g. progress to higher level remedy such as formal mediation. *		
	a. Party 1 Proposal		
	b. Party 2 Proposal		
12. Next steps	*		
14. Signature of parties			
	a. Party 1 Signature	*	
	b. Party 2 Signature	*	

* = Obligatory fields

**Annex 2a: Assessment of Land Use, Land Use Change Drivers,
Forest Law, Policy and Governance**

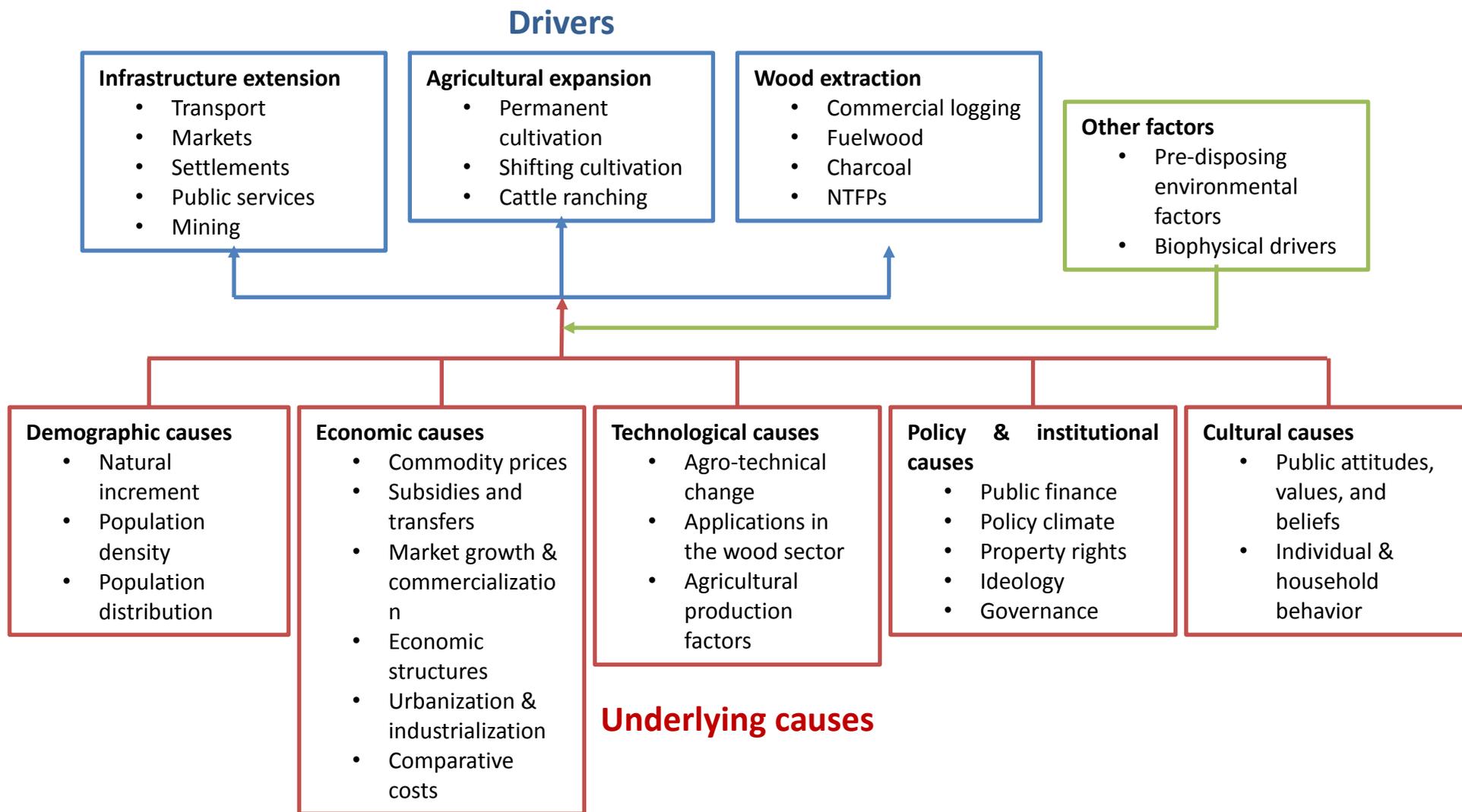


Figure 15: Deforestation and forest Degradation Drivers and Underlying Causes

Annex 2b: REDD-plus Strategy Options

Table 8: Links between drivers, underlying causes, agents, strategy options, MRV and REL approach

Category	Driver	Underlying causes	Agents	Strategy Options	MRV approach	REL approach
Infrastructure extension	Transport	Population growth	Households	Land use planning	National Census	SystemDynamics: projection of population growth
		Urbanization	Government	EIAs to include emissions impacts as REDD+ component	National Census Periodic LU/LC mapping	Spatial Modeling coupled to SystemDynamics, Proxy in spatial model: settlements
	Markets	Market growth: Tourism, commercial, subsistence agricultural products	Private sector	REDD+ project guidelines to allow private sector engagement on voluntary market	Mapping of transport networks	Sector-specific focus groups: scenario analysis
	Settlements	Pre-disposing environmental factors: Soils, slope, access to transport	Externality	Disaster Risk Management	Geodatabase compilation and periodic updating	Proxies in spatial model: soils, slope, distance to roads, coast, settlements
	Mining	Urbanization: quarries	Private sector	Land use planning	Multi-annual LU/LC mapping	Implicitly via urbanization; no specific REL

required

Category	Driver	Underlying causes	Agents	Strategy Options	MRV approach	REL approach
Agricultural expansion	Permanent cultivation, i.e. coconut	Pre-disposing environmental factors: Soils, slope, rainfall, altitude, distance to coast	Private sector, households	Land use planning Engagement of private sector	Geodatabase compilation and periodic updating	Proxies in spatial model: soils, slope, altitude, distance to coast, rainfall
		Household behavior: coconut planting to establish claim	Households	Invest into sustainable land use alternatives	Biannual deforestation mapping, multi-annual LU/LC mapping	
		Development and sector policies	Government	Mainstream REDD+ into other sectors	Periodic reporting and updating	Sector-specific focus groups: scenario analysis
	Shifting cultivation	Pre-disposing environmental factors: Slope, rainfall, altitude, distance to coast	Households	Land use planning Intensification/ Agroforestry	Geodatabase compilation and periodic updating	Proxies in spatial model: soils, slope, altitude, distance to coast, rainfall
		Natural demographic increment	Households	Investment program Extension Services for more sustainable agriculture	National Census	SystemDynamics: Projection of population growth
		Soil degradation	Households	Avoiding deforestation, conservation of mangroves	National census: GPS location	Spatial Modeling coupled to SystemDynamics
		Population density and distribution	Households	Agricultural intensification	National Census	
		Agricultural production factors	Households	Intensification/ Agroforestry	National Agricultural census	Prototyping and coupled

Category	Driver	Underlying causes	Agents	Strategy Options	MRV approach	REL approach
Agricultural expansion	Cattle ranching	Pre-disposing environmental factors: Soils, slope, rainfall, altitude, distance to coast	Externality	Promote agroforestry	Geodatabase compilation and periodic updating	Proxies in spatial model: soils, slope, altitude, distance to coast, rainfall
		Market growth: external demand, Tourism	Externality: VAN = small country	Agricultural intensification	National Agricultural census and statistics, FAO reporting	Regressing analysis: beef production, tourism / external beef prices
		Development and sector policies	Government	Land use planning	Periodic reporting and updating	Sector-specific focus groups: scenario analysis
Wood extraction	Commercial and small-scale logging	Pre-disposing environmental factors: Forest type, slope, altitude, distance to coast	Externality	Land use planning EFCS program, i.e replanting and tree maintenance	Multi-annual LU/LC mapping; Geodatabase compilation and periodic updating	Proxies in spatial model: vegetation type, slope, altitude, distance to coast
		Development and sector policies	Government	Development of NTFPs chains (e.g. sandalwood, Canarium) linked to EFCS program	High-res annual degradation monitoring	Sector-specific focus groups: scenario analysis
Other	Biophysical drivers	Extreme weather events: cyclones, floods, landslides	Externality	Disaster Risk Management EFCS program	Meteorological and Disaster monitoring; damage mapping	Not applicable

**Annex 3: Develop a National Forest Reference Emission Level
and/or a Forest Reference Level**

Table 1: Resources costs REL/RL development (in USD)

Resource Name	Work	Standard Rate	Cost
Policy analyst	170.5 days	1,000.00/day	170,500.00
GIS specialist	232.5 days	1,000.00/day	232,500.00
Statistics expert	72.5 days	1,000.00/day	72,500.00
Agricultural economist	180.15 days	1,000.00/day	180,150.00
SteeringCom meeting	5	800	3,700.00
workshop	2	500	1,000.00
Outreach workshop	5	5,000.00	25,000.00
Int flight	7	5,000.00	35,000.00
Nat flight	20	500	10,000.00
int per diem	99	200	19,800.00
nat per diem	40	100	4,000.00
MS Access license	1	300	300
External validator	1	50,000.00	50,000.00
TOTAL			804,450.00

Table 2: Activity schedule REL/RL development

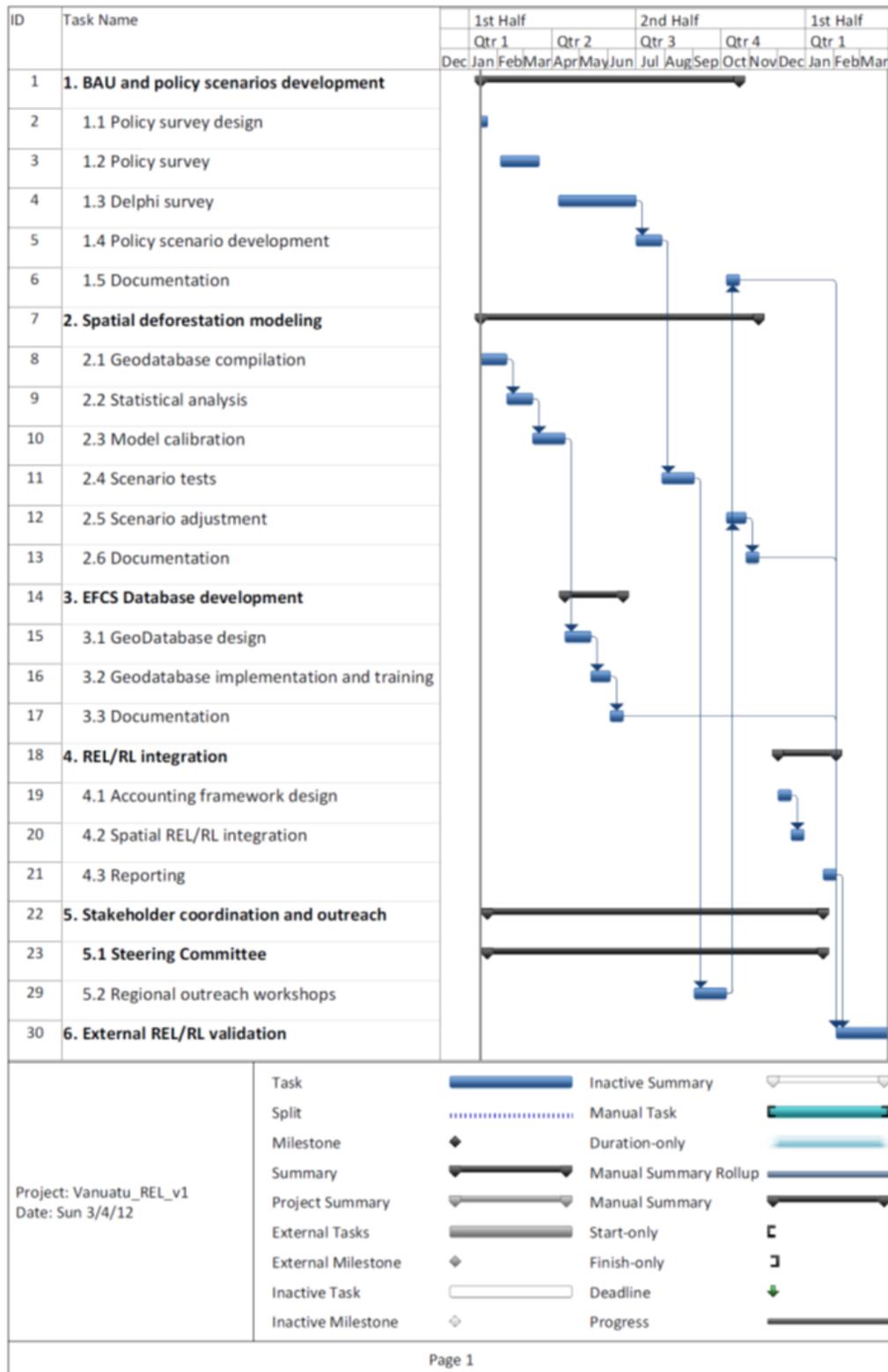


Table 3: Activity costs REL/RL development

Task Name	Duration	Cost
1. BAU and policy scenarios development	210.13 days	113,000.00
1.1 Policy survey design	5 days	5,000.00
1.2 Policy survey	30 days	30,000.00
1.3 Delphi survey & focus groups	60 days	48,000.01
1.4 Policy scenario development	20 days	20,000.00
1.5 Documentation	10 days	10,000.00
2. Economic modeling	160 days	160,000.00
2.1 Copra production	80 days	80,000.00
2.1.1 Conceptual model development	10 days	10,000.00
2.1.2 Programming and calibration	30 days	30,000.00
2.1.3 Model validation	10 days	10,000.00
2.1.4 Sensitivity analysis	10 days	10,000.00
2.1.5 Scenario analysis	10 days	10,000.00
2.1.6 Documentation	10 days	10,000.00
2.2 Meat production	80 days	80,000.00
2.2.1 Conceptual model development	10 days	10,000.00
2.2.2 Programming and calibration	30 days	30,000.00
2.2.3 Model validation	10 days	10,000.00
2.2.4 Sensitivity analysis	10 days	10,000.00
2.2.5 Scenario analysis	10 days	10,000.00
2.2.6 Documentation	10 days	10,000.00
3. Demographic Modeling	45 days	45,000.00
3.1 Conceptual model development	5 days	5,000.00
3.2 Programming and calibration	15 days	15,000.00
3.3 Model validation	5 days	5,000.00
3.4 Sensitivity analysis	8 days	8,000.00
3.5 Scenario analysis	7 days	7,000.00
3.6 Documentation	5 days	5,000.00
4. Spatial deforestation modeling	225.13 days	115,000.00
4.1 Geodatabase compilation	20 days	20,000.00
4.2 Statistical analysis	20 days	20,000.00

4.3 Model calibration	25 days	25,000.00
4.4 Scenario tests	25 days	25,000.00
4.5 Scenario adjustment	15 days	15,000.00
4.6 Documentation	10 days	10,000.00
5. EFCS Database development	45 days	54,700.00
5.1 GeoDatabase design	20 days	20,000.00
5.2 Geodatabase implementation and training	15 days	24,700.00
5.3 Documentation	10 days	10,000.00
6. REL/RL integration	65 days	65,000.00
6.1 Accounting framework design	10 days	40,000.00
6.2 Spatial REL/RL integration	10 days	10,000.00
6.3 Reporting	10 days	15,000.00
7. Stakeholder coordination and outreach	280 days	162,050.00
7.1 Steering Committee	280 days	52,250.00
7.1.1 Policy survey design approval	10 days	800
7.1.2 Policy survey approval	15 days	800
7.1.3 Scenario and modeling validation	15 days	49,050.00
7.1.4 BAU and policy scenario approval	15 days	800
7.1.5 Approval REL/RL framework	15 days	800
7.2 Regional outreach workshops	25 days	109,800.00
8. External REL/RL validation	40 days	90,000.00
TOTAL		804,750.00

Annex 4: Design Systems for National Forest Monitoring and Information on Safeguards

1. The National Forest Inventory Approach

Current state: Vanuatu’s last national forest inventory has been concluded in 1993. Financed by the Australian development cooperation it provided the data for the Vanuatu Resource Information System (VANRIS). Based on a wall-to-wall aerial photo coverage from 1986, reconnaissance mapping (soil, geology, climate), the national census 1989 and a comprehensive national forest resources assessment (Bellamy 1993), VANRIS provided the basis for forest management over the last twenty years. It included a comprehensive MapInfo GIS containing the graphical representation of all Resources Management Units (RMUs) and the inventory database. VANRIS is still being used to provide landowners with information on the available commercial forest resources and has been used to develop a new national vegetation map (see below). However, VANRIS can only partially be used for future REDD+ activities, as the land use and land cover have changed during the last two decades, new national data set have been made available, and certain data bases are outdated. Thus, it requires a complete revision and update. Several new potential inputs are available, which can be used within a new National Forest Inventory approach focusing on accounting of GHG emissions and removals⁸⁹.

Forest Definition: Depending on the objectives of past forest inventories, different forest definitions have been used in Vanuatu. In consistency with Vanuatu’s Forest Policy 2011 – 2020 the following definition for the term ‘forest’ is proposed for REDD+ reporting purposes during the readiness phase:

Minimum area of land of 0.81 hectare with tree crown cover (or equivalent stocking level) of more than 10 percent with trees with the potential to reach a minimum height of 3 meters at maturity in situ.

The definition includes tree stands in agricultural production systems (e.g. fruit plantations and agroforestry) as authorized by the Vanuatu Government and future UNFCCC COP decisions. It shall also include areas with bamboo and palms provided that height and canopy cover criteria are met; forest roads, fire breaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of scientific, historical, cultural or spiritual interest; windbreaks, shelterbelts and corridors of trees with an area of more than 0.81 hectares and width of more than 20 meters; plantations primarily used for forestry or protected purposes; such as rubber wood plantations and cork oak stands.

Stratification: In 2011, the Government of Vanuatu released a new vegetation and land cover map of Vanuatu (Ministry of Agriculture, Quarantine, Forestry and Fisheries MAQFF 2011).

⁸⁹ VANRIS distinguishes 5.808 Resources Management Units of which 1.936 were considered in the forest inventory. After regrouping by forest types 229 forest strata have been used for reporting purposes. Islands groups have been stratified separately to preserve regional differences in species’ composition and timber volumes (Bellamy 1993). However, VANRIS’ stratification can’t be used for GHG accounting, as the stratification is far too detailed. Apart, several forested areas have been excluded as “non-forested”, e.g. mangroves, thicket, and tree crop systems.

The vegetation map simplifies VANRIS' forest stratification. It anticipates national wall-to-wall 2003 NEXTMap® orthorectified radar image (ORI) and 1999- 2003 Landsat, as well as selected ASTER scenes for the year 2000 (see below). Anticipating this stratification, the following strata will be used in the inventory design:

Table 1: Forest cover categories to be used in the National Forest Inventory

Type	Description	VANRIS code
Fm1	Medium height forest (> 20m), mostly closed canopy	Fme*, Fmm*
Fm2	Medium height forest (> 20m), open canopy, degraded or logged over	Fmo*, Fms, FmW
Fl1	Low forest (< 20m), mostly closed canopy	Fl*
Fl2	Low forest (< 20m), open canopy, degraded or logged over	Flo*, Fls*
Fp	Forest plantation	N/A
T1	Thickets (3-8m), dense structure	T*
T2	Thickets (3-8m), open structure	T*
M	Mangroves ⁹⁰	M
LU2	Cultivated area, plantations, i.e. coconut plantations or crop area dominated by coconut	N/A

Source: MAQFF 2011

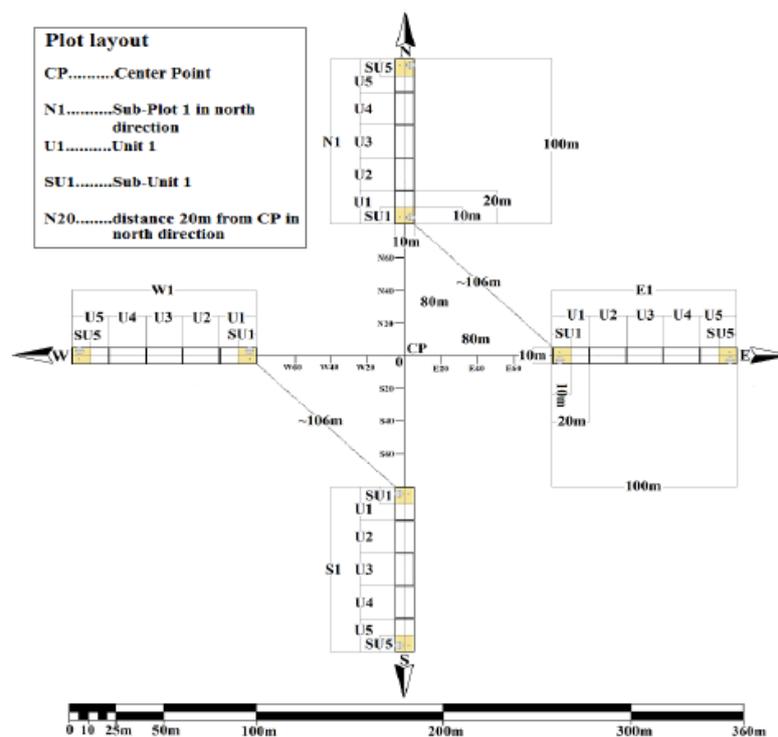
The proposed stratification is based on 2003 satellite data and has to be updated during the readiness phase anticipating the field observation during the initial inventory, detected deforestation and degradation patterns, and new sensor products. Thus, a new refined release could be envisaged for the period 2015-2017. Eight forest classes open and closed high forests, low forests, thickets, mangroves as well as tree crops will be covered by the forest inventory, while GHG removals by forest plantations will be monitored for specific sites. Eventually, the stratification has to be refined to distinguish degraded from non-degraded stands using suitable proxies (e.g. minimum distance to roads and settlements) and categories (IPCC: managed and unmanaged lands).

Plot design and carbon pools: As a small island state with a comparatively low deforestation rate Vanuatu aims at a cost-effective implementation of REDD+ anticipating technical and financial support, both from the subnational and the regional level. The Secretariat of the Pacific Community (SPC) has developed an inventory approach specifically adapted to the conditions of small Pacific island states (Thiele et al. 2010), which will be used in Vanuatu's forest inventory. The Monitoring, Assessment and Reporting for Sustainable Forest Management (MAR-SFM) system has been designed based on FAO's Forest Resources Assessment (FRA) guidelines and its National Forest Inventory approach. Plots including subplots, units, and subunits will be established following a cross-shaped plot design (figure 1). While aboveground biomass,

⁹⁰ MAQFF 2011 merges mangroves and marshes into one single class. For REDD+ reporting purposes they have to be split into two. Most of the mangrove stands can be found on Efate and Malekula and are easy to detect using multispectral optical imagery.

deadwood, litter, and soil-carbon will be measured in the field, belowground biomass will be estimated using IPCC default values for root-to-shoot ratios. However, in case of mangrove forests the plot design has to be adjusted to the stand characteristics and particular measurement conditions.

Sampling: The number of plots shall be determined aiming at a precision of ± 10 per cent of the true value of the mean at the 95 per cent confidence level for aboveground biomass in each stratum. Within each stratum plots will be selected randomly from a predefined population evenly spatially distributed across the stratum according to a map grid with geographic projection (stratified systematic random sampling). To estimate the variance on aboveground biomass and to determine the required plot number for each stratum an initial pretest will be conducted.



Source: Thiele et al. 2010

Figure 1: MAR-SFM Plot design

Allometrics: Aboveground biomass (AGB) will be calculated using recently published pan-tropical allometric equations (Chave et al. 2005) anticipating two different climate domains:

- **Dry forests:** $AGB = \exp\{-2.187 + 0.916 \cdot \ln(RD^2H)\} \equiv 0.112 * (RD^2H)^{0.916}$
- **Moist forests:** $AGB = \exp(-2.977 + \ln(RD^2H)) \equiv 0.0509 * RD^2H$

Where D: dbh [cm]; R: wood specific gravity [g/cm³], H: height [m]; wood specific gravity default values from the Global Wood Density Database⁹¹ will be used. AGB of coconut and other palm species will be estimated based on the allometric equations referenced in Thiele et al. 2010. Emissions from the dead wood pool will be estimated applying IPCC default values for the decay rate.

Implementation mode and steps: The forest inventory will be conducted in 2012 with technical support from SPC and financial support from GIZ. SPC will train dedicated staff of Vanuatu's Department of Forests (VDoF) in designing and implementing the inventory, as well as in data analysis and processing. The following work packages and activities have to be conducted:

1. **Inventory preparation:** GIS data compilation, data base modelling, sampling design and plot allocation.
2. **Inventory piloting on Santo Island:** installation of 97 plots in 8 strata, variance estimation and plot number calculation for each stratum, mission planning and mapping.
3. **Inventory roll-out:** field measurements and biodiversity assessment on 3 islands.
4. **Database compilation and analysis:** Data base consolidation and statistical analysis, calculation of 5 carbon pools (AGB, belowground biomass, litter, deadwood, soil carbon), reporting QA/QC, and external review

For planning purposes it is assumed that 180 plots are required to cover 8 strata (Table 2). In a first step, 20 plots will be installed on Santo Island to estimate the variance in each stratum in the mode of a pre-test to determine the final plot number per stratum and their location. It is expected, that tree crops will be substratified into two or three strata according to the distribution of different agroforestry systems.

Table 2: Size of relevant forest strata and number of allocated plots on the 4 pilot islands

Stratum	Efate			Malekula			Santo			Erromango			Total ha	Plots allocated
	ha	%	Plots	ha	%	Plots	ha	%	Plots	ha	%	Plots		
Closed medium height forest	10,737	11	4	27,414	28	7	30,701	32	8	27,414	28	7	96,266	25
Open medium height forest	12,684	10	4	14,347	11	3	85,465	67	17	14,347	11	3	126,843	25
Closed low forest	20,755	14	4	17,624	12	3	87,172	61	15	17,624	12	3	143,175	25
Open low forest	11,102	20	4	82	0	0	32,959	61	12	10,166	19	4	54,309	20
Closed thicket	5,263	7	3	3,082	4	1	66,090	85	17	3,082	4	1	77,517	25
Open thicket	4,746	15	3	10,487	32	6	6,866	21	4	10,487	32	6	32,586	20
Mangroves	152	12	2	1,092	88	8	-	-	-	-	-	-	1,244	10
Tree crops	3,414	16	5	578	3	1	16,243	78	23	578	3	1	20,813	30
Total			29			29			97			25		180

The Forest Inventory will be conducted under the lead of SPC and VDoF during 2012 - 2013. Appendix 3 provides the activity schedule. In accordance with the MAR-SFM protocol (Thiele

⁹¹ <http://datadryad.org/handle/10255/dryad.235>

et al. 2010) key biodiversity parameters will be assessed, too. All plots will be installed involving local communities and land owners. The results will be presented, discussed and validated by landowners and other stakeholders on each island during the Readiness phase. Depending on the availability of additional funds the sampling of the Forest Inventory can be intensified during the Readiness phase by installing additional plots on smaller islands. The protocols will be validated, its report independently reviewed and its results verified by a certifier accredited under the UNFCCC.

Deforestation monitoring

Current state: Vanuatu doesn't count with an operational deforestation monitoring system. Recently, a consortium of international scientists started the processing of the historic deforestation pattern and presented first results for the period 1990 – 2000, which have been anticipated in Vanuatu's R-PIN.⁹² According to this analysis the gross deforestation for all islands of Vanuatu between 1990 and 2000 is estimated with 4.678 ha or 468 ha/a. Although the processing included different sensor products (Landsat, ASTER, SPOT) 20% of the Vanuatu land area could not be included in the change detection because of persistent cloud cover. Consequently, the analysis has to be complemented anticipating additional multispectral optical and radar imagery. Table 3 presents the currently available data sets relevant for deforestation monitoring⁹³.

Table 3: Currently available data sets for deforestation monitoring

Sensor	Type	Spatial resolution	Spatial Coverage	Temporal coverage	Corresponding mapping product and remarks
Landsat TM, ETM	Multispectral optical	30m	Wall-to-wall	GLC 1990, 2000	Vanuatu forest cover and deforestation map 1990 – 2000 (Herold et al. 2007)
SPOT	Multispectral optical	20m	16 scenes	1992 - 1993	
ASTER	Multispectral optical	15m	14 scenes	2000	
NEXTRMap® TopoSAR ORI	Orthorectified radar image	1.25m	Wall-to-wall	2003	Vanuatu Department of Lands and Survey: Topographic map of Vanuatu
ALOS Palsar	L-Band radar dual-pol FBD	25m	Wall-to-wall	2007, 2008, 2009, 2010	Acquired by GIZ under the ALOS Science Program Phase 3
WorldView 2	Pan/8 multispectral	0.5/2m	Santo	2010/2011	Acquired by GIZ: Accuracy assessment source for forest mask 2010 and Palm stand delineation

⁹² Herold, M., Sambale, J., Lindner, M., Urban, M. and Weaver, S. 2007: Satellite based monitoring of the national forest resources in the pacific island state of Vanuatu, DGPF Tagungsband 16 / 2007 – Dreiländertagung SGPBF, DGPF und OVG.

⁹³ Freely available data sets like SRTM, ASTER GDEM, and medium-resolution data (MODIS, ENVISTA, etc.) are not explicitly referenced.

Taking into account the current limitations in medium to high resolution non-commercial data availability (e.g. Landsat 7 SLC error, CBERS 2 and ALOS failure) and the forthcoming new sensors (Landsat 8 DCM, Sentinel 2, CBERS 3, ALOS 2) announced for 2013 onwards, Vanuatu will structure the processing of national deforestation coverages along the temporal boundaries outlined in Table 4. It will use the methodology developed by Herold et al. 2007 to the periods 2000 – 2007 and 2007 – 2011 complementing it applying radar-based methodologies to reduce the clouds coverage.

To establish an operation REDD+ deforestation monitoring framework the following tasks have to be conducted:

- ***Deforestation processing 2007 – 2010:*** A 2010 forest mask will be processed using SPOT 5 and ASTER data. ALOS Palsar data will be used to reduce cloud cover in optical data.
- ***Palm stand delineation 2010:*** Coconut palm stands will be delineated applying a methodology developed by SOPAC to very-high resolution optical data (WorldView 2). The methodology will be piloted on Santo Island.
- ***Cloud correction 1990- 2000:*** The correction of the 1990-deforestation analysis requires the processing of radar imagery as almost all available optical imagery has been included by Herold et al. 2007. Although expensive, Radarsat-1 shows a promising potential. Data availability has to be verified by submitting a request to MDA⁹⁴. If no suitable radar-data can be acquired, the coverage would have to be complemented by medium-resolution data (MODIS, available for 2001 onwards) or younger optical imagery would have to be processed to verify, that areas under clouds in 2000 do not appear as deforested in the recent past. Both alternatives would lead to higher uncertainties and should only be considered if no suitable radar data can be acquired for the year 2000.
- ***Deforestation processing 2000 – 2007 – 2010:*** Once the deforestation detection between 2000 and 2010 has been consolidated, the period can be split into two by processing the forest mask 2007. Additional data on emerging deforestation patterns in the recent past will improve the understanding of the drivers and underlying causes of deforestation and improve the calibration of the Reference Emission Level (REL). The forest mask will be processed using ALOS Palsar 2007 data. Thematic accuracy will be assessed applying the methodology developed by GOFC-GOLD (Strahler et al. 2006) to very-high resolution data. Apart, direct biomass assessment methods (Mitchard et al. 2011) for low-biomass forest stands (thickets, open low forest) will be tested. It is expected that these methods could reduce the costs of future terrestrial inventory work.
- ***Deforestation processing 2010 – 2014:*** 2011 to 2014 will be the most difficult period for forest monitoring in terms of data availability as several sensors have ceased operations (ALOS, CBERS) or already operate far beyond their operational lifetime (Landsat 5). As the next generation of publicly financed satellites is expected to become operational in 2014, interim solutions have to be identified which fit into the periodicity of a future REDD+ mechanism under the UNFCCC and the pace of Readiness activity implementation. It is assumed, that data from ESA's Sentinel 2 satellite will be available from 2014 onwards and freely accessible for national REDD+ activities. To reduce cloud coverage Cosmo SkyMed L-band radar data can be used. 2014 might become a critical milestone, as sensor technologies for operational forest monitoring will change. Thus, it

⁹⁴ <http://gs.mdacorporation.com/SatelliteData/Radarsat1/Radarsat1.aspx>

is foreseen to conduct an in-situ verification mission in 2015 complementary to the desk accuracy assessment based on high-resolution optical data to achieve a high accuracy for the 2014 data set which will open the door to wall-to-wall deforestation monitoring at 10m spatial resolution and a corresponding minimum mapping units (MMU) smaller than 0.5ha.

- **Deforestation processing 2014 – 2017:** As neither the technical specifications of the new sensor generation nor the future reporting periodicity of a UNFCCC REDD+ mechanism are currently clear, it is difficult to plan or budget future forest monitoring efforts. Here, it is assumed that the after 3-5 years a new national deforestation monitoring will be conducted.
- **Vegetation map 2010 and 2017:** Once the Forest inventory has been completed and the forest mask 2011 has been processed and verified the currently used vegetation map (MAQFF) will be updated to anticipate the current land use. A next update can be scheduled once the REDD+ reporting periods are defined.

Table 4: Temporal structure of the national REDD+ deforestation monitoring

Period	Data sources	Targeted spatial resolution/MMU	Processing methodology	Remarks
1990 2000	- Landsat TM/ETM, SPOT, ASTER, Radarsat-1 wide	30m / 0.81ha	Herold et al. 2007	Cloud cover in the original product will be reduced using Radarsat-1 data.
2000 2007	- Landsat TM, SPOT, ASTER, ALOS Palsar	30m / 0.81ha	Herold et al. 2007 Almeidha-Filho et al. 2009	2007 forest mask will be derived from ALOS Palsar imagery.
2007 2010	- ALOS Palsar, SPOT 5, ASTER	25m / 0.56ha	Almeidha-Filho et al. 2009 Mitchard et al. 2011	Radar-based direct biomass assessment for 2011 will be tested for open forests and thickets.
2010 2014	- SPOT 5, ASTER, Cosmo SkyMed	25m / 0.56ha	To be defined	Suitability of Cosmo SkyMed L-Band radar data for cloud processing has to be tested.
2014 2017	- Sentinel 2, ALOS Palsar 2	10 - 15m / < 0.5ha	To be defined	

Appendix 4 introduces the budget for deforestation detection and monitoring covering the periods between 1990 and 2014. Appendix 5 provides the human, technical and financial resources required. Appendix 6 outlines the tentative schedule to conduct these activities.

During an initial phase (2012 – 2015) all remote sensing tasks shall be conducted at the regional level with the support of the Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SOPAC). In this phase, relevant governmental units in Vanuatu will be trained to verify and use the products. In parallel, remote sensing training of dedicated staff members in different departments (VoDF, Department of Lands, Department of Environmental Protection and Conservation, amongst others) will be conducted to generate the remote sensing processing capacity in the country until 2017 (see the capacity training section below).

Local stakeholders will be involved in all activities in validating the products of each task before completion. All products will be made available to Vanuatu's REDD+ stakeholders applying a disclosure policy to be elaborated.

Degradation monitoring

Vanuatu's first forest inventory VANRIS already considered forest degradation in its forest stratification introducing the open forest category. Some of Vanuatu's forest area are already heavily degraded and over logged while other on remote islands remained intact. Estimating emissions from forest degradation in the tropical domain is still considered a challenge (GOF-C-GOLD 2011), mostly on the site of generating suitable activity data. Regrowth dynamics in tropical forests requires the high temporal frequency acquisition of imagery at the beginning and the end of a harvesting season, as logging gaps might close within a couple of months. Some degradation activities like charcoal production, animal grazing and fuel wood extractions can't be assessed using RS approaches. Furthermore, effects of natural degradation (storm damage, natural fires, and droughts) have to be factored out from anthropogenic impacts. Although direct degradation detection approaches have successfully being tested at the project level, they are not yet operational and sufficiently cost-effective to become part of national forest monitoring, particularly considering budget restriction in smaller developing countries.

As an alternative path GOF-C-GOLD 2011 proposes an indirect approach to assess emissions from forest degradation. This approach bypasses the need to directly generate activity data on area change caused by forest degradation. Instead, it distinguishes intact forest from non-intact forest, applying 6 criteria to spatial ancillary data. To operationalize this concept, GOF-C-GOLD proposes to first delineate non-intact forest recognizing that those criteria need to be adapted to country or ecosystem level. As consequence, non-intact forest would either remain non-intact, or could be converted to non-forest. Financial benefits from reducing emissions from degradation could still be achieved if the area of non-intact forest remains the same and the carbon stocks increase during a given reporting period. Thus, this approach shifts the operational efforts from the RS component focusing on activity data to the inventory component determining corresponding carbon densities and emission factors. Following the recommendation of GOF-C-GOLD to adjust the concept to national circumstances the following criteria for intact forest will be tested:

- 1) situated within the forest land according to the approved national forest definition;
- 2) larger than 500 ha;
- 3) containing a contiguous mosaic of natural forest ecosystems;
- 4) not fragmented by infrastructure (1km buffer around roads, navigable rivers, pipelines, settlements);
- 5) without signs of significant human transformation;
- 6) and without burnt lands and young tree sites adjacent to infrastructure objects.

IPCC 2006 requests to distinguish between managed and unmanaged land. Combining this concept with the indirect approach proposed by GOF-C-GOLD would require further sub-stratification of each forest stratum, if appropriate.

Vanuatu will test GOF-C-GOLD's indirect approach in combination with IPCC 2006 reporting requirements. It will consider the strata open medium-high forest, open low forest, and open thicket as degraded. Other forest classes will be sub-stratified in intact and non-intact, and complementary in managed and unmanaged, if appropriate, applying GOF-C-GOLD's 6 criteria to report emissions from degradation.

Regarding the temporal reporting boundaries a compromise has to be found between the different input data. The stratification will be based on the vegetation map (MAQFF 2011) which reflects the state of 2003. Changes in forest cover will be detected for the periods 1990-2000-2007-2011-2014, while the forest inventory will provide emission factors for 2012-2013. Thus, degradation reporting combining emission factors and activity data could report for 2011 onwards. A test will be conducted to discount carbon stocks of degraded strata backwards in time aiming at the 2007 forest mask. Based on Mitchard et al. 2011 and other ongoing research in Cameroon and the Philippines regrowth rates will be estimated deriving aboveground biomass of low-carbon stands from ALOS Palsar data. As this effort will be based on an experimental, not an operational approach, it won't be budgeted within the RPP framework. Instead, it will be conducted as a research project to be funded externally.

Enhancement of forest carbon stocks

Vanuatu's Forest Policy 2011 – 2020 sees planted forests as the basis for Vanuatu's forest resources and timber supply and identifies several enhancement of carbon stock activities:

- *Establish 20,000 ha of planted forests by 2020 by way of large-scale plantations, community forestry plantations and woodlots.*
 - *Develop a national forest plantation program to ensure sufficient supply for forest industry and contribute to climate change mitigation;*
 - *Develop site-specific forest plantation concepts, in particular for degraded areas, with clear production objectives and preference for local fast growing commercial species;*
 - *Establish and strengthen a system of priority species seed orchards and nurseries to provide appropriate planting material for afforestation and reforestation;*
 - *Plant high-value, locally adapted and cyclone and climate resistant wood and non-wood species;*
 - *Establish plantations for the sustainable production of fuel-wood, charcoal and other forest products.*
- *Undertake compensatory replanting.*
 - *Strictly balance the GHG emissions resulting from any forest conversion to non-forest use by compensatory replanting;*
 - *Promote compensatory tree planting when a farmer or landowner needs to convert forest for food production;*
 - *Achieve "zero" net-deforestation in Vanuatu by 2020 to balance deforestation-related emissions.*

The Department of Forestry will establish a registry for enhancement of carbon stock activities eligible under a REDD+ compensation Scheme. It will monitor removals on registered sites, account and report corresponding GHG removals using formats and rules to be agreed under UNFCCC for REDD+ reporting. Vanuatu will test existing reporting tools (e.g. TARAM) developed under the CDM to analyze their potential to be used at the national level of a small islands country. It will analyze the option to implement a national plantation and replanting program as a National Appropriate Mitigation Action (NAMA) and decide about an appropriate reporting period.

Conservation of forest carbon stocks

Vanuatu is committed to create and extend protected areas to be managed by communities and landowners. It will report on conservation of carbon stocks in those areas.

Sustainable management of forests

As of now, no logging concessions are operating in the country. Timber harvesting is mostly done on a small scale with the help of mobile sawmills, while sustainable forest management is being promoted at the community level. Vanuatu's new forest Policy 2011 – 2020 aims at promoting sustainable management using internationally accepted mechanisms and tools and incorporating traditional and cultural practices. While logging impacts will be monitored and reported as degradation, improved harvesting techniques and corresponding reduced logging impacts and biomass losses can be assessed at the level of timber permits or concessions. The Department of Forests will analyze the potential of promoting pilot activities reducing logging impacts. It considers the available VCS methodologies for Reduced Impact Logging (RIL) as an option for nested project-based approaches.

Common GeoData Infrastructure

To improve the consistency in geodata management of different governmental entities mandated to regulate land-based natural resources management it is necessary to develop common Geodata standards and an infrastructure to effectively share Geodata amongst stakeholders while protecting those assets. Past experience shows, that VANRIS data got damaged and lost. Departments are working with different imagery, GIS software and inconsistent geodata and maps. To improve consistency in data management, geo services, and ultimately the quality of the REDD+ monitoring and reporting the Department of Lands, Department of Agriculture and Rural Development, Department of Environmental Protection and Conservation, and the Department of Forests have to agree on common Geodata standards, formats, and official datasets.

Capacity building: GIS and Remote Sensing

At present, the Department of Forestry doesn't count with technical capacities or dedicated staff members in advanced image processing. One staff member is processing VANRIS based maps on request of landowners. To implement and operate REDD+ forest monitoring additional dedicated staff and long-term training is required. During the Readiness phase GIS routines and geo-databases have to be consolidated first, before the remote sensing capacities can be improved. To facilitate the proliferation of common Geodata standards and procedures, GIS staff of different Departments dedicated to terrestrial monitoring shall be involved in GIS training and remote sensing technology transfer. A long-term capacity building concept will be developed during the initial Readiness phase to guide this process.

Independent review and certification

Vanuatu will provide the opportunity to nest project-based pilot activities into the subnational and national REDD+ accounting framework. It will follow the AFOLU Technical Requirements of the Jurisdictional and Nested REDD Initiative (JNRI) of the Verified Carbon Standard (VCS) version 3.2 (VCS 2012a-c). To reduce the transaction costs of project based implementation and to encourage private sector investment in REDD+ Vanuatu aims at certifying its REDD+ MRV

system by an UNFCCC accredited certifier. The validation and verification can be initiated once the National Forest Inventory has been implemented and the activity data for the periods 1990-2014 have been processed.

Appendix 1: National Forest Inventory - Activity Costs in USD

Task Name	Duration	Cost	2014	2015	2016
1. Inventory preparation	20 days	88,340.00	88,340.00		
1.0 External backstopping	20 days	39,000.00	39,000.00		
1.1 GIS data compilation	5 days	3,250.00	3,250.00		
1.2 Sampling design	3 days	1,500.00	1,500.00		
1.3 Mapping	3 days	450	450		
1.4 Database modelling	5 days	3,250.00	3,250.00		
1.5 Tools and materials procurement	20 days	34,390.00	34,390.00		
1.6 Field sheet preparation	3 days	6,500.00	6,500.00		
2. Inventory piloting Santos	174 days	452,550.00	407,501.36	45,048.62	
2.0 External backstopping	174 days	112,000.00	93,241.38	18,758.62	
2.1 Mission preparation Santos	5 days	4,000.00	4,000.00		
2.2 Inventory pretest Santo: 20 plots	50 days	75,750.00	75,750.00		
2.3 Encoding and inventory planing	20 days	13,000.00	13,000.00		
2.4 External backstopping	5 days	8,900.00	8,900.00		
2.5 Inventory roll-out Santos 77 plots	144 days	215,520.00	212,610.00	2,910.00	
2.6 Data processing Santos	30 days	23,380.00		23,380.00	
3. Inventory roll-out	192 days	518,430.00		518,430.00	
3.1 Mid-term backstopping	7 days	33,400.00		33,400.00	
3.2 Efate	66 days	137,990.00		137,990.00	
3.2.0 External Backstopping	66 days	39,100.00		39,100.00	
3.2.1 Mission preparation	5 days	4,000.00		4,000.00	
3.2.2 Data collection 29 plots	51 days	83,680.00		83,680.00	
3.2.3 Statistical analysis	10 days	11,210.00		11,210.00	
3.3 Malekula	132 days	161,065.00		161,065.00	
3.3.0 External Backstopping	132 days	73,200.00		73,200.00	
3.3.1 Mission preparation Malekula	5 days	4,000.00		4,000.00	
3.3.2 Data collection Malekula 29 plots	51 days	76,205.00		76,205.00	
3.3.3 Data preprocessing Malekula	10 days	7,660.00		7,660.00	
3.4 Erromango	60 days	185,975.00		185,975.00	
3.4.0 External Backstopping	60 days	107,000.00		107,000.00	
3.4.1 Mission preparation Erromango	5 days	4,000.00		4,000.00	
3.4.2 Data collection Erromango 25 plots	45 days	67,475.00		67,475.00	
3.4.3 Data preprocessing	10 days	7,500.00		7,500.00	

Erromango					
4. Database compilation and analysis	50 days	126,750.00		94,050.00	32,700.00
4.0 External Backstopping	50 days	90,000.00		67,900.00	22,100.00
4.1 Data base consolidation	10 days	6,500.00		6,500.00	
4.2 Statistical analysis	15 days	11,250.00		11,250.00	
4.3 Report drafting	15 days	10,500.00		8,400.00	2,100.00
4.4 QA/QC and external review	10 days	8,500.00			8,500.00
TOTAL		1,186,070.00	495,841.36	657,528.62	32,700.00

Appendix 2: National Forest Inventory – Resources’ Costs in USD

Resource Name	Work	Standard Rate	Cost
Lead scientist	73.25 days	500.00/day	36,625.00
Botanist	428 days	150.00/day	64,200.00
SPC Field manager	513 days	200.00/day	102,600.00
VDoF forester height	465.5 days	150.00/day	69,825.00
VDoF forester dbh	465.5 days	150.00/day	69,825.00
Driver	341 days	90.00/day	30,690.00
Field assistant 1	341 days	20.00/day	6,820.00
Field assistant 2	341 days	20.00/day	6,820.00
Local guide	341 days	15.00/day	5,115.00
GIS technician	85 days	150.00/day	12,750.00
Pickup	341 days	200.00/day	68,200.00
fuel	341 days	20.00/day	6,820.00
Consultancy	256.4 days	1,500.00/day	384,600.00
Trimble Juno GPS	2	1,000.00	2,000.00
ArcPad 10	2	800	1,600.00
GPS Otter Box	2	100	200.00
Clinometer	2	200	400.00
Survey compass	4	200	800.00
Laser range finder	2	1,000.00	2,000.00
Camping gear	1	3,990.00	3,990.00
Field tools	1	5,000.00	5,000.00
Field material	1	5,000.00	5,000.00
Office material	1	5,000.00	5,000.00
Laptop	1	2,000.00	2,000.00
MS Access	1	400	400.00
MapInfo 11 Prof	1	4,500.00	4,500.00
GoogleEarth Pro	1	500	500.00
dbh tape	6	100	600.00
per diem FA	682	30	20,460.00
per diem VDoF	682	115	78,430.00

per diem int Sc	290	200	58,000.00
per diem FM	348	150	52,200.00
Int flight	10	5,000.00	50,000.00
Nat flight	27	500	13,500.00
Workshop	1	1,000.00	1,000.00
Digital camera	2	500	1,000.00
External hard drive	2	200	400.00
Soil lab analysis	720	10	7,200.00
External review	1	5,000.00	5,000.00
TOTAL			1,186,070.00

Appendix 3: Activity schedule for the National Forest Inventory

ID	Task Name	Duration	Cost	2015												2016								
				H2					HL	H2					HL									
				M	J	J	A	S	O	N	O	J	F	M	A	M	J	J	A	S	O	N	O	J
1	1. Inventory preparation	20 days	88,340.00																					
2	1.0 External backstopping	20 days	39,000.00																					
3	1.1 GIS data compilation	5 days	3,250.00																					
4	1.2 Sampling design	3 days	15,000.00																					
5	1.3 Mapping	3 days	450.00																					
6	1.4 Database modelling	5 days	3,250.00																					
7	1.5 Tools and materials procurement	20 days	34,390.00																					
8	1.6 Field sheet preparation	3 days	6500.00																					
9	2. Inventory piloting Santos	174 days	452,550.00																					
10	2.0 External backstopping	174 days	112,000.00																					
11	2.1 Mission preparation Santos	5 days	4,000.00																					
12	2.2 Inventory pretest Santos: 20 plots	50 days	75,750.00																					
13	2.3 Encoding and inventory planing	20 days	13,000.00																					
14	2.4 External backstopping	5 days	8,900.00																					
15	2.5 Inventory roll out Santos 77 plots	144 days	215,520.00																					
16	2.6 Data processing Santos	30 days	23,380.00																					
17	3. Inventory roll out	192 days	518,430.00																					
18	3.1 Mid term backstopping	7 days	33,400.00																					
19	3.2 Efate	66 days	137,990.00																					
20	3.2.0 External backstopping	66 days	39,100.00																					
21	3.2.1 Mission preparation	5 days	4,000.00																					
22	3.2.2 Data collection 29 plots	51 days	83,680.00																					
23	3.2.3 Statistical analysis	10 days	11,210.00																					
24	3.3 Malekula	132 days	161,065.00																					
25	3.3.0 External backstopping	132 days	73,200.00																					
26	3.3.1 Mission preparation Malekula	5 days	4,000.00																					
27	3.3.2 Data collection Malekula 29 plots	51 days	76,205.00																					
28	3.3.3 Data preprocessing Malekula	10 days	7,660.00																					
29	3.4 Erromango	60 days	125,975.00																					
30	3.4.0 External backstopping	60 days	107,000.00																					
31	3.4.1 Mission preparation Erromango	5 days	4,000.00																					
32	3.4.2 Data collection Erromango 25 plots	45 days	67,475.00																					
33	3.4.3 Data preprocessing Erromango	10 days	7,500.00																					
34	4. Database compilation and analysis	50 days	126,750.00																					
35	4.0 External backstopping	50 days	90,000.00																					
36	4.1 Data base consolidation	10 days	6500.00																					
37	4.2 Statistical analysis	15 days	11,250.00																					
38	4.3 Report drafting	15 days	10,500.00																					
39	4.4 QA/QC and external review	10 days	8500.00																					

Project: Vanuatu NF Inventory Date: Mon 2/25/13	Task		Inactive Summary	
	Split		Manual Task	
	Milestone		Duration only	
	Summary		Manual Summary Adlop	
	Project Summary		Manual Summary	
	External Tasks		Start only	
	External Milestone		Finish only	
	Inactive Task		Deadline	
	Inactive Milestone		Progress	

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Appendix 4: Deforestation detection and monitoring - Activity Costs in USD

Task Name	Work	Duration	Cost	2014	2015	2016	2017	Total
1. Inventory preparation	69 days	20 days	88,340.00	88,340.00				88,340.00
2. Inventory piloting Santos	2,230 days	174 days	452,550.00	407,501.36	45,048.62			452,549.98
3. Inventory roll-out	1,851.15 days	192 days	518,430.00		518,430.00			518,430.00
4. Database compilation and analysis	182.5 days	50 days	126,750.00		94,050.00	32,700.00		126,750.00
1. Deforestation processing 2000–2010	902.5 days	270 days	207,600.00	166,765.00	40,835.00			207,600.00
2. Cloud correction 1990-2000	395 days	145 days	133,250.00		132,945.00	305.00		133,250.00
3. Deforestation analysis 2000-2007-2010	437.5 days	135 days	48,400.00			48,400.00		48,400.00
4. Deforestation analysis 2010 – 2014	642.5 days	220 days	148,012.50		148,012.50			148,012.50
5. Accuracy assessment 2014	140 days	140 days	521,000.00			521,000.00		521,000.00
6. 2014 VHR land use land cover mapping	160 days	160 days	29,000.00			18,150.00	10,850.00	29,000.00
7. Fragmentation analysis	50 days	50.88 days	17,500.00			17,500.00		17,500.00
8. Dammage monitoring and accounting	70 days	55 days	15,000.00			15,000.00		15,000.00

9. External validation & verification	70 days	40 days	76,000.00			76,000.00	76,000.00	
GeoData management				40,000.00	60,000.00		100,000.00	
GIS/RS Training				50,000.00	50,000.00	80,000.00	180,000.00	
TOTAL				662,606.36	1,069,321.12	763,055.00	166,850.00	2,661,832.48

Appendix 5: Deforestation detection and monitoring 1990–2014 – costs in USD

Resource Name	Work	Standard Rate	Cost
Senior scientist	280 days	6,000.00/mon	84,000.00
RS technician 1	785 days	3,000.00/mon	117,750.00
RS technician 2	405 days	3,000.00/mon	60,750.00
VDoF forester	7.5 days	150.00/day	1,125.00
Local guide	7.5 days	15.00/day	112.50
Driver	7.5 days	90.00/day	675.00
Radarsat1	24	3,600.00	86,400.00
SPOT 5 L2A	20	2,500.00	50,000.00
ASTER L1B	20	400	8,000.00
Cosmo SkyMed ScanSAR wide	20	2,200.00	44,000.00
RapidEye L3A	8	3,200.00	25,600.00
Workstation	2	5,000.00	10,000.00
Office equipment	2	2,000.00	4,000.00
Office material	640 days	100.00/mon	3,200.00
Envi 5.x + FLAASH license	2	12,000.00	24,000.00
MS Office Prof license	1	700	700.00
MapInfo 11 Prof	2	4,500.00	9,000.00
Backup	1	1,000.00	1,000.00
External trainer	1	20,000.00	20,000.00
Int flight SP	12	1,000.00	12,000.00
Int flight	1	4,000.00	4,000.00
per diem SP	78	150	11,700.00
per diem int	14	250	

			3,500.00
Internet phone	720 days	100.00/mon	3,600.00
Workshop	20	1,000.00	20,000.00
Pickup	7.5 days	200.00/day	1,500.00
fuel	7.5 days	20.00/day	150.00
External verification	1	64,000.00	64,000.00
WorldView2 2014 national coverage	1	500,000.00	500,000.00
ArcGIS ArcInfo + SpatialAnalyst License	1	10,000.00	10,000.00
Publication	3	5,000.00	15,000.00

TOTAL

1,195,762.50

