



## **Strengthening capacity in the Energy, Agriculture, Forestry, and other Land-use Sectors for Enhanced Transparency in the Implementation and Monitoring of Vanuatu's Nationally Determined Contribution**

### **Part I: Project Information**

**GEF ID**

10761

**Project Type**

MSP

**Type of Trust Fund**

GET

**CBIT/NGI**

CBIT **Yes**

NGI **No**

**Project Title**

Strengthening capacity in the Energy, Agriculture, Forestry, and other Land-use Sectors for Enhanced Transparency in the Implementation and Monitoring of Vanuatu's Nationally Determined Contribution

**Countries**

Vanuatu

**Agency(ies)**

FAO

**Other Executing Partner(s)**

Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC

**Executing Partner Type**

Government

**GEF Focal Area**

Climate Change

**Taxonomy**

Focal Areas, Climate Change, Climate Change Adaptation, Climate finance, Influencing models, Strengthen institutional capacity and decision-making, Stakeholders, Type of Engagement, Partnership, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Capacity Development

**Sector**

Mixed & Others

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 2

**Climate Change Adaptation**

Climate Change Adaptation 1

**Submission Date**

2/8/2021

**Expected Implementation Start**

8/1/2022

**Expected Completion Date**

7/1/2025

**Duration**

36In Months

**Agency Fee(\$)**

108,035.00

**A. FOCAL/NON-FOCAL AREA ELEMENTS**

<b>Objectives/Programs</b>	<b>Focal Area Outcomes</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CCM-3-8	Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through the Capacity Building Initiative for Transparency	GET	1,137,215.00	2,994,500.00
<b>Total Project Cost(\$)</b>			<b>1,137,215.00</b>	<b>2,994,500.00</b>

## B. Project description summary

### Project Objective

To develop Vanuatu's institutional and human capacities for complying with Enhanced Transparency Framework (ETF) reporting requirements of the Paris Agreement, and implementation and monitoring of Vanuatu's Nationally Determined Contribution focusing on Energy, Agriculture, Forestry and other Land-use Sectors.

<b>Project Component</b>	<b>Financing Type</b>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	<b>Trust Fund</b>	<b>GEF Project Financing(\$ )</b>	<b>Confirmed Co-Financing(\$ )</b>
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Strengthening Vanuatu's institutional arrangements for a robust MRV system for NDC climate change mitigation and adaptation actions.	Technical Assistance	1.1 NDC transparency system in place following the UNFCCC modalities, procedures, and guidelines	<p>1.1.1: Institutional arrangements strengthened.</p> <p>Activity 1.1.1.1 Conducting gaps assessment focusing on institutional, regulatory, human, technology, finance, and capacity building support needed, and stakeholder mapping to meet the transparency framework of enhanced NDC actions.</p> <p>Activity 1.1.1.2 Working groups with institutional focal persons are identified and formalized through ministerial decree for data collection, sharing, and processing focusing on mitigation, adaptation, and addressing loss and damage (L&amp;D) for observed and potential climate change impacts (e.g. extreme weather events and slow onset events).</p>	GET	245,403.14	633,599.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Strengthening Vanuatu's institutional arrangements for a robust MRV system for NDC climate change mitigation and adaptation actions.	Technical Assistance	Outcome 1.2: Key Ministries, Agencies, Departments, and other stakeholders' capacity strengthened to track the NDC actions	1.2.1: Strengthened guidelines on monitoring and reporting of climate financing focusing on domestic and international sources, and both public and private sector.  Activity 1.2.1.1: Assessment of needs, constraints, and stakeholders involving the academia on tracking climate finance on enhanced NDC actions.  Activity 1.2.1.2: Based on Activity 1.2.1.1 developing methodologies, guidelines, and protocols to collect, archive, and disseminate climate finance data.  Activity 1.2.1.3: Establishment of National Climate Finance Reporting and Monitoring (NCFRM) cell linked with the proposed National ETF body to track	GET	251,520.43	642,319.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2. Provision of an online platform, tools, and training for a robust MRV system focusing on Energy, Agriculture, Forestry, and other Land-use Sectors.	Technical Assistance	2.1: Operational digital data integration and sharing system for a robust MRV system hosted by DEPC.	<p>2.1.1: Upgraded Information Technology (IT) system for a robust MRV system hosted by MOCC based on the existing system.</p> <p>Activity 2.1.1.1: Procurement of hardware and software to enhance an online-based integrated MRV system.</p> <p>Activity 2.1.1.2: Historical activity data are archived and new data are collected.</p> <p>Activity 2.1.1.3: National specific emission factors are collected and archived.</p> <p>Activity 2.1.1.4: Centralized database development linking to sectoral system with archived historical data</p>	GET	490,020.43	1,230,046.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Monitoring and Evaluation	Technical Assistance	Outcome: Project monitoring and evaluation	Outputs: Project M&E is conducted regularly including mid-term and final evaluations	GET	53,150.00	214,737.00
<b>Sub Total (\$)</b>					<b>1,040,094.00</b>	<b>2,720,701.00</b>
<b>Project Management Cost (PMC)</b>						
			GET	97,121.00	273,799.00	
			<b>Sub Total(\$)</b>	<b>97,121.00</b>	<b>273,799.00</b>	
			<b>Total Project Cost(\$)</b>	<b>1,137,215.00</b>	<b>2,994,500.00</b>	

Please provide justification



**C. Sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Forest Carbon Partnership ? Ministry of Climate Change, Adaptation, Meteorology, Geo-Hazards, Environment and Energy and NDMO	In-kind	Recurrent expenditures	2,404,500.00
Recipient Country Government	Ministry of Climate Change, Adaptation, Meteorology, Geo-Hazards, Environment and Energy and NDMO	In-kind	Recurrent expenditures	295,000.00
Recipient Country Government	Department of Agriculture, Livestock, Forestry, Fisheries and Biosecurity	In-kind	Recurrent expenditures	295,000.00
<b>Total Co-Financing(\$)</b>				<b>2,994,500.00</b>

**Describe how any "Investment Mobilized" was identified**

The investment mobilized was identified during the project preparation phase through consultations with government stakeholders. It covers the initiatives under the ongoing Forest Carbon Partnership Facility (FCPF). These are aligned with, and will add value to, the proposed CBIT project and contribute to the national effort in reducing GHG emissions under its Nationally Determined Contribution. The in-kind contribution (Forest Carbon Partnership) will be materialized through the use of facilities, and staff time (Ministry of Climate Change and Department of Forest), and National Forest Inventory (Department of Forest, Staff Time) will help in building information on emission reduction, REDD+, National Forest Monitoring Systems, Forest monitoring systems including measurement, reporting and verification (MRV) functions. This will help to produce high-quality, reliable data on forests, including forest-carbon estimates, that are critical in addressing impacts of climate change caused by, among others, deforestation and degradation of forests.

**D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds**

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
FAO	GET	Vanuatu	Climate Change	CBIT Set-Aside	1,137,215	108,035	1,245,250.00
<b>Total Grant Resources(\$)</b>					<b>1,137,215.00</b>	<b>108,035.00</b>	<b>1,245,250.00</b>

**E. Non Grant Instrument**

NON-GRANT INSTRUMENT at CEO Endorsement

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Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

**F. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,750

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programmin g of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
FAO	GET	Vanuatu	Climate Change	CBIT Set-Aside	50,000	4,750	<b>54,750.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</b>

## Core Indicators

### Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	<b>Number (Expected at PIF)</b>	<b>Number (Expected at CEO Endorsement)</b>	<b>Number (Achieved at MTR)</b>	<b>Number (Achieved at TE)</b>
<b>Female</b>	124	124		
<b>Male</b>	261	261		
<b>Total</b>	385	385	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

The number of beneficiaries is estimated based on the number of staff in different ministries and national agencies in the Vanuatu Government such as MOCC, Department of Environment Protection and Conservation (DEPC), Department of Climate Change, Department of Forest, Department of Energy (DoE), Department of Agriculture and Rural Development, Department of Industry (DoI), National Disaster Management Office (NDMO), Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity, Ministry of Finance and Economic Management, Ministry of Land and Natural Resources, Ministry of Infrastructure and Public Utilities, and Ministry of Foreign Affairs and External Trade, Vanuatu Meteorology and Geo-Hazard Department, and National Advisory Board (NAB). These staff will be directly involved in the project implementation and the country will ultimately benefit through technical capacity building of these staff. The number of direct beneficiaries will also include those from the Private Sector Organizations, such as Union Electrique du Vanuatu Limited (UNELCO), Vanuatu Utility Infrastructure (VUI) Ltd, Vanuatu Renewable Energy and Power Association (VANREPA), Vanuatu Primary Producers Authority (VPPA) and Vanuatu Chamber of Commerce (Agriculture, Livestock and Food Cluster). The number of women beneficiaries was determined during the PIF stage by the Vanuatu government officials based on the number of existing female employees in different relevant national institutes.

## **Part II. Project Justification**

### **1a. Project Description**

#### **1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)**

##### **A. Background**

###### **1. Geography and territory:**

Vanuatu is an archipelagic country located in the South Pacific. The country is located between latitude 12° to 23° South, and longitude 166° to 173° East (Figure 1), and lies in the middle of Fiji, Solomon Islands and New Caledonia. It is mostly mountainous, with narrow coastal plains. The highest peak of the country is Mount Tabwemasana located in Espiritu Santo island, which is 1877m above mean sea level. Vanuatu has several active mountainous and underwater volcanoes, such as-Lopevi, Mount Yasur, and hence volcanic activity is common with danger of major eruption<sup>[1]</sup>. Vanuatu is recognized as a distinct terrestrial ecoregion with its rain forests, and part of the Australasian realm. The country consisting of 86 islands (65 of which are inhabited) covering 12,000 km<sup>2</sup> of land area. The total coastline of the country is about 2,528 km long. <sup>[2]</sup>The largest island is Espiritu Santo, and Efate island is the home to the capital, Port Vila and the Vanuatu Government. Espiritu Santo and Malekula islands comprised nearly 50% of the total land mass. The independence of the country was celebrated on 30 July 1980, and became the 155<sup>th</sup> member of the United Nations (UN) in September 1981<sup>[3]</sup>.

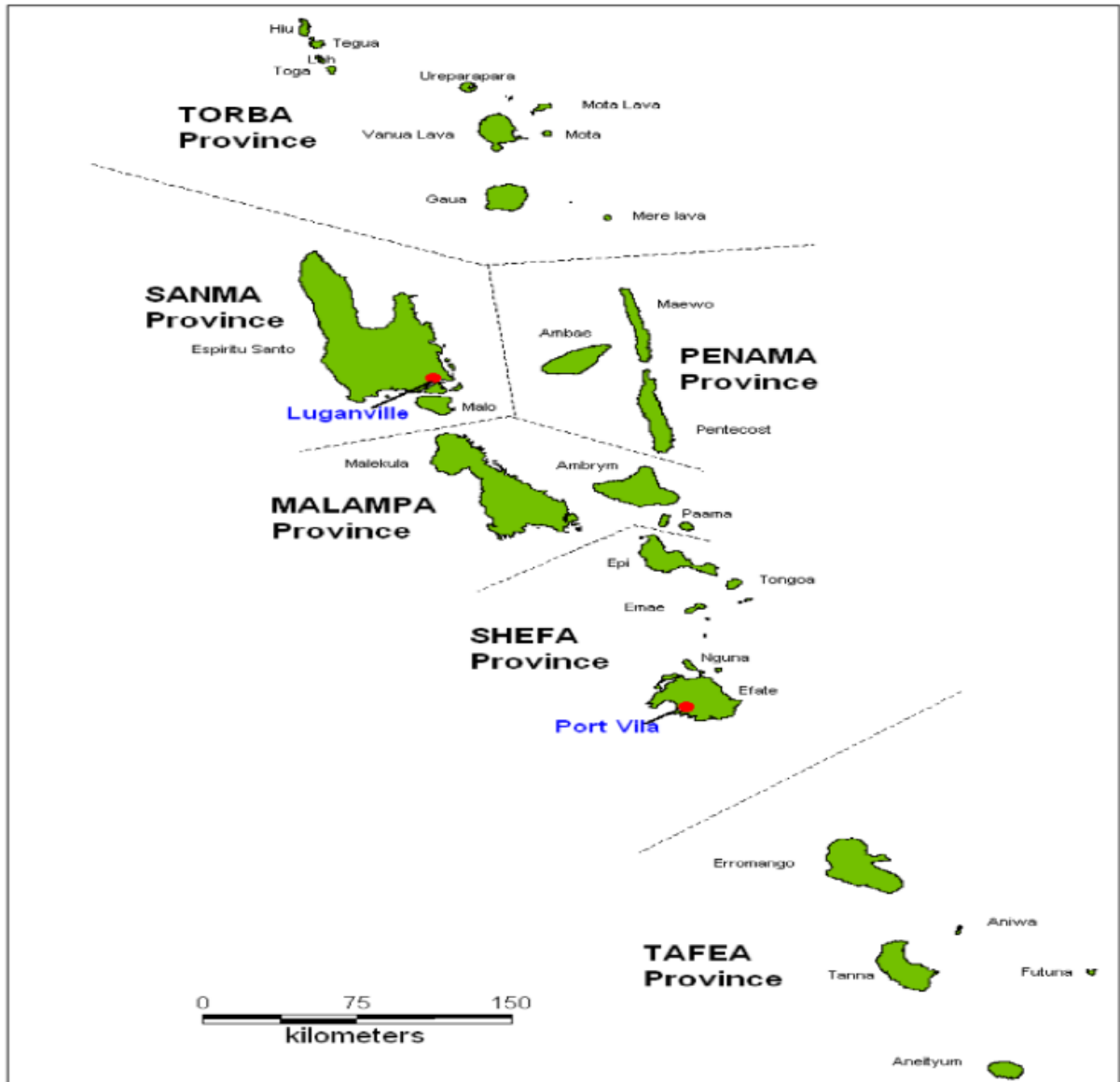


Figure 1: Map of Vanuatu. (Source: Vanuatu Transport Sector Support Program-VTSSP<sup>[4]</sup>).

## 2. Climate:

Vanuatu is situated in a tropical maritime climate having uniform temperature, high humidity and variable rainfall. From May to October tropical climate is moderated by southeast trade winds. Hot and wet season of the country is from November to April, and cool and dry is from May to October. The annual average temperatures are between 23.5?27.5°C. The temperature changes in the country is strongly associated with surrounding ocean temperature. The El Nino Southern Oscillation (ENSO) tend to bring drier conditions as well as a late start to the wet season and cooler than normal dry seasons. During La Ni?a events opposite is observed.<sup>[5]</sup> Vanuatu has a long rainy season, with significant rainfall occurring nearly every month. The rainfall of the country is strongly influenced by the position and strength of the South Pacific Convergence Zone. As a result, during summer, the South

Pacific Convergence Zone intensifies and moves further south, bringing the higher rainfall of the wet season. Rainfall is abundant in northernmost islands, with 4,000 millimeters of annual rain fall. The rainfall gradually decreases to the south of the country with 2,200 to 2,500 mm of annual rainfall. Low pressure systems along with the heavy rainfall often become tropical cyclones during the cyclone season of November to April. The number of cyclones varies widely in different years, with none in some years but up to six in others<sup>[6]</sup>.

### 3. Demography:

Vanuatu's total population was 272,459 according to the most recent mini census in 2016, compared to 234,023 in 2009 census<sup>[7]</sup>. According to the UN estimates, the population of the country as of July 1, 2020 was 307,145 (51% Male and 49% Female). The annual growth rate of the population is 2.42% and the population density is 25 people/sq. Km [8]. The population distribution of Vanuatu considering the major population centre is presented in the Figure 2. According to the World Bank development indicators the urban population in Vanuatu is around 26% of total population in 2019<sup>[9]</sup>. The urban and rural population is increasing with an average rate of 3.5% and 1.9% per year since 1999<sup>[10]</sup>. The indigenous people of Vanuatu known as ni-Vanuatu, and Melanesians originated. Around 7 to 8% of the population are immigrants/descendants from Europe, Asia and Pacific Islands regional countries.

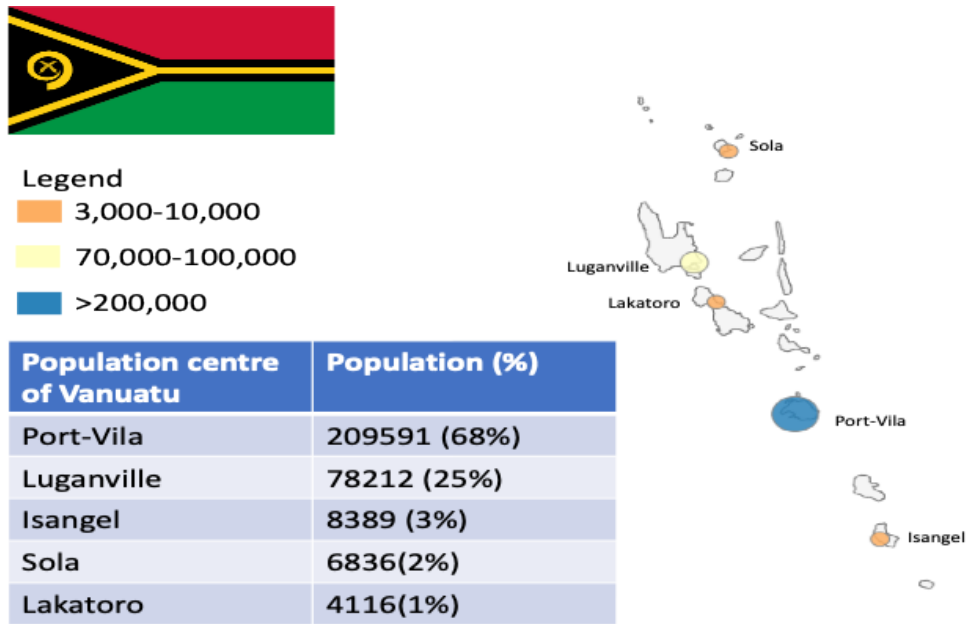


Figure 2: The population distribution of Vanuatu. (Source: Population data is based on UN 2020 estimates<sup>[11]</sup>)







The two provinces of Shefa and Sanma host Vanuatu's top two urban centres, Port Vila and Luganville, respectively. These two urban centres covers 68% and 25% of the country's population (Figure 2). The young population of the country is about 50% of national population of under the age of 40 year. The male and female ratio is close to 1:1, and it is projected to leveling of the ratio by 2050<sup>[12]</sup>.



#### 4. Economy:

Vanuatu is a developing economy and graduated from the least developed country (LDC) category on 4 December 2020[13]. The 2018 gross domestic product (GDP) of Vanuatu is 914.3 million USD (current prices), and the GDP growth is 3.2% (2018)[14]. Vanuatu's people depend on dual economic system, i.e., the subsistence and the cash economy. Most of the people is dependent on natural resources, and around 80% people relies on subsistence agriculture, contributing around 10% the country's GDP. Copra is the prominent cash crop, and constitute 35% of Vanuatu's exports, followed by timber, beef, and cocoa[15]. The industry, service, and agriculture sector contributed around 12%, 61%, 27% of the current GDP, respectively[16]. Agriculture, fishing and forestry are the key primary industries; mining and quarrying, manufacturing, electricity and water, and construction are the secondary industries, while retail, hospitality-hotels and restaurants, transport, communication, finance and business services are the tertiary sectors[17]. The status of Vanuatu concerning the first six Sustainable Development Goals (SDGs) is presented in Table 1, and the trend of life expectancy, education, gross national income (GNI) per capita as a component of HDI is presented in Table 2.

Table 1: Selected indicators of Vanuatu related to the first six Sustainable Development Goals (SDGs).

	Sustainable Development Goals (SDGs)	Year	Indicators value
Unemployment rate		2019	4.4%
Prevalence of Undernourishment		2016-18	7.2%
Prevalence of Stunting among Children under 5 Years of Age		2013	28.9%
Maternal Mortality Ratio (Per 100,000 lives birth)		2017	72
Under-5 Mortality Rate (Per 100,000 lives birth)		2018	26
Neonatal Mortality Rate		2018	12
Tuberculosis incidence (per 100,000 population)		2018	46
The proportion of Teachers Who Have Received at Least the Minimum Organized Teacher Training		2015	21.5%
The proportion of Seats Held by Women in National Parliaments		2016	3.8%
The proportion of Population Using Safely Managed Drinking Water Services		2015	91%
The proportion of Population Using Safely Managed Sanitation		2015	53%

Source: (1) Basic Statistics, Asia, and the Pacific. Asian Development Bank<sup>[18]</sup>. (2) World Bank development indicators<sup>[19]</sup>. (3) WHO country profile<sup>[20]</sup>.

Table 2: The trend of life expectancy, education, gross national income (GNI) per capita as a component of HDI between 1990 and 2018

Year	Life expectancy (years)	Education (years)	GNI per capita (USD)	HDI
1990	64.7		2,619	
1995	66.2		2,421	
2000	67.4	10.1	2,690	
2005	68.4	10.6	2,441	0.569
2010	69.1	10.8	2,846	0.585
2015	69.9	11.4	2,680	0.592
2016	70.0	11.4	2,751	0.592
2017	70.2	11.4	2,799	0.595
2018	70.3	11.4	2,808	0.597

Source: Vanuatu Human Development Report 2019 [21].

The impacts of COVID-19 in Vanuatu are significant because of tourism revenues decline, reduction in remittances and rising unemployment. The economic impacts are also compounded by Category 5 tropical cyclone Harold in April 2020. The cyclone affected 43% of the population (130,000 people), and damaged homes, schools, medical facilities and crops, severely affecting essential services and food security<sup>[22]</sup>. The combined economic cost of COVID-19 and cyclone Harold is estimated to USD 850 million<sup>[23]</sup>.

According to Asian Development Bank (ADB), a combination of higher government spending on COVID-19 prevention and stimulus measures, revenue reduction from tourism and taxation, can cause a deficit of 8% GDP in 2020. Though the key development partners (the World Bank, ADB, Australia, EU, UK and NZ) provided grant assistance of around USD 91.5 million for immediate COVID-19 response, further external supports are needed to fund future recurrent budget and stimulus packages<sup>[24]</sup>.

## 5. Agriculture and fisheries:

Vanuatu has a long tradition of subsistence farming, and it covers more than 75% of all agriculture in Vanuatu. This type of farming consisting of root crops such as Taro, Yam, Cassava and Sweet Potato. There is also some small scale semi commercial farming around the urban areas. This type of farming covers green leafy vegetables, local island cabbage, Chinese cabbage, capsicum, eggplants, spices and herbs. The agricultural sector covers more than 75% of exports with highest contribution from copra, which is dried kernel of the coconut to extract coconut oil. Coconut, cocoa, kava and coffee are the main cash crops, and the production of beef and timber is also growing in recent years.<sup>[25]</sup> Approximately, 45.1 % of total exports (USD 4.3 million estimate) is contributed by kava in 2018, followed by copra 19.9% (USD 2 million estimate), coconut oil 9.3% (USD 900,000 estimate), cocoa 8.6% (USD 800,000 million estimate), other products 11.1% (USD 1 million estimate) and the rest contributed by other exports.<sup>[26]</sup>

Approximately, USD 5.5 million (0.7% of national GDP) was contributed by the fisheries in 2012, and the export value in 2015 was around USD 100 million. Coastal fishing is primarily carried out for subsistence purposes and for sales in local markets. It basically covers fishing activities include coastal line and net fishing targeting demersal and small pelagic reef and lagoon fish, as well as reef cleaning

and collection of shellfish and other invertebrates. Approximately, 38% of people involved in marine fishing and subsistence fisheries is women. The aquaculture produced 16 tonnes of fish and shrimp in 2016.<sup>[27]</sup>

## **6. Forests and Biodiversity:**

Around 75% of Vanuatu's land is covered with natural vegetation, and the forests can be classified as (a) tropical lowland evergreen rain forest, (b) broad-leaved deciduous forest, (c) closed conifer forest, (d) montane rain forest, (e) cloud forest and (f) coastal forest. On most of islands lowland forest has largely been cleared and replaced by anthropogenic vegetation. Yet, forested areas remain the dominant landscape in the country. Forests are restricted on most of the islands (especially those that are densely populated, such as Pentecost, Ambae, Tanna and Shepherd; or have active volcanoes, such as Ambrym). Low montane forests are generally well preserved and occupy large areas in the country, and secondary forests (consisting of Hibiscus community) are dense in Vanuatu<sup>[28]</sup>.

According to Global Forest Resources Assessment (FRA) 2020 Vanuatu Country Report, the forest area of the country was 442.30 (1000 ha), and other wooded land was 478.96 (1000 ha) in 2020<sup>[29]</sup>. In 2010, Vanuatu had 1.15 Mha of tree cover, extending over 93% of its land area. From 2001 to 2020, Vanuatu lost 16.3kha of tree cover, equivalent to a 1.4% decrease in tree cover since 2000. From 2002 to 2020, Vanuatu lost 5.47kha of humid primary forest, making up 34% of its total tree cover loss in the same time period<sup>[30]</sup>.

Around 1,000 vascular plant species are reported in the country, of which around 150 are endemic. Orchids in the country have high diversity with 158 species. Palms so far reported with 21 species, of which 14 are endemic species. In terms of animal diversity, there are about 12 species of Chiropterae (Flying Foxes and Bats), 28 species of reptiles, and 121 bird species. Among the invertebrate, the coconut crab (*Birgus latro*) is the largest land crab, and important food resource in Vanuatu<sup>[31]</sup>. The value of ecosystem services of Vanuatu's marine and coastal biodiversity is estimated to be over VT4.5 billion covering tourism, fishing sectors, coastal protection, and carbon sequestration<sup>[32]</sup>.

## **7. Energy and Transport:**

The main energy sources in Vanuatu is biomass and imported petroleum products. Cooking and crop drying of residential users are mainly dependent on bio-mass, while, petroleum products are mainly used for major sectors of economy, such as electricity, industry, tourism, transportation, fishing and agriculture. Most of the primary energy needs of Vanuatu of these sectors are provided by imported petroleum, and the consumption is increasing at an annual average rate of 6% in recent years. Electricity generation is highly dependent on diesel (71%), followed by renewable energy (29%). Renewable energy sources currently utilized to generate electricity include hydro, solar, wind and biofuel<sup>[33]</sup>. The National Energy Road Map (2016 ? 2030) set a target of 100% renewable electricity, and 100% electrification of the households by 2030<sup>[34]</sup>.

Water transport is the main transportation mode of Vanuatu with its population spread over 64 populated islands.

The Vanuatu transport network cover government-owned infrastructure and services. These includes (a) 4 international seaports of entry, (b) 3 international airports, (c) a road network comprising an estimated 2,000 kilometers of sealed, gravel, and earth roads, (d) 28 domestic airstrips, and (e) 36 domestic wharves, jetties, and landings critical for interisland connectivity. The physical geography of

the country (mountainous, and steeply undulating) and the dispersed population of the country make it difficult to build and maintain transport infrastructure in Vanuatu<sup>[35]</sup>. The Bauerfield airport is Vanuatu's principal international gateway and handles around 250,000 international passengers per year. Port Vila and Luganville urban areas account for the majority of sealed roads (234 km). Around 1,142 km of road network consist of gravel, and another 400km are simple earth roads covering most other islands<sup>[36]</sup>. The Government of Vanuatu and ADB recently signed a \$5 million grant to fund the land, maritime, and aviation projects in Vanuatu<sup>[37]</sup>.

## **8. Industry and Tourism:**

The manufacturing industry of Vanuatu is small and consist of bottled water, beverages and coconut oil industries in Luganville and Port Vila. Some of the major manufacturing industrial group (their products) are: EAU DES ?LES (artisan perfume), Southern Cross Creations (fine furniture, joinery, cabinetry & boat building), Switi LTD (ice cream and fresh fruit sorbet factory), Total Construction (roofing and steel building manufacture and erection), Unicorn Pacific Corporation (Natural Food Supplement), Vanuatu Beverage Ltd (bottled spring water and soft drinks), Vanuatu Bijouterie (artisan jewelry), Volcanic Earth (skin care products and organic beauty products), Azure Pure Water (bottled water), etc<sup>[38]</sup>. The overall industrial sector growth was 7.1% in 2017, and it was almost same in 2018 (7.0%). The manufacturing industry growth rate increased 2.0% in 2017 to 3.3% in 2018 particularly due to contribution from bottled water, beverages and coconut oil industries<sup>[39]</sup>.

Tourism is Vanuatu's fastest-growing sector. The government of Vanuatu already adopted ?National Sustainable Tourism Policy (VSTP) to ensure a balance between economic viability, social acceptability and environmental responsibility. Around 58% of all international visitors travel to Vanuatu by air. The total international visitor arrivals to Vanuatu in 2019 was 63,407, a decline of 16% compared to 2018. The decline was attributed to the fall in number of visitorarrivals by sea<sup>[40]</sup>. One of the key strategies for economic growth in Vanuatu is tourism sector development. This is also linked to development of business, investment, employment, and entrepreneurial activities. As per the VSTP, tourism industry is a key player of prosperity and sustainable development. Due to Covid 19 pandemic, the reduction in tourist arrivals and halts of associated activities caused challenges for economic growth. The decline in GDP because of tourism demand decline is expected to be 3.3% in Vanuatu<sup>[41]</sup>.

## **9. Waste:**

The waste generation in the country increased from 0.43 kg/capita/day in 2011 to 1.5 kg/capita/day in 2017. The controlled landfill disposal sites are operational in Port Vila and Luganville, which are the two main urban centers of the country. Other disposal methods, such as open backyard dumpsites, disposal at sea and unused land, and open burning are also common in Vanuatu. Treatment of liquid waste through centralized system is absent in the country, however, most houses and commercial establishments have individual onsite liquid was disposal systems. In the urban areas of the country, solid waste disposal and management is noticeable compared to rural areas, where waste generation scattered and does not pose much hazard. Import and use of single use non-biodegradable plastics (e.g. shopping bags and polystyrene containers) was banned in 2018 by the government of Vanuatu through enactment of regulations<sup>[42]</sup>.

## **B. Climate Change Impacts**

10. Life and culture of Vanuatu are strongly connected to land, ocean and environment. As a result, any change in climate parameters will have adverse impacts on biodiversity, ecosystems, livelihood and economy. Most of the future climate projections indicated growing climate and disaster risks for Vanuatu. Hence, climate change is likely to have profound impact on all economic sectors, and sustainable development of the country. Around 76% of the population covering 81% of the landmass is exposed to natural hazards, such as volcanic eruptions, cyclones, earthquakes, droughts, tsunamis, storm surge, coastal and river flooding and landslides. The country experiences 2-3 cyclones in a cyclone season with high frequency in January and February. On average, the country experiences some 20 to 30 cyclones with 3 to 5 causing severe damage [43]. The United Nations World Risk Report (2012) marked Vanuatu as the most vulnerable country in the world to natural hazards and climate change[44]. Cyclone Pam, which hit the country in 2015, once again showed the vulnerability of this country to climate risks[45]. Similarly, another tropical cyclone Harold recently hit the country in 2020. It was the first Category 5 severe tropical cyclone to strike Vanuatu since Cyclone Pam in 2015. Approximately a third of Vanuatu's population was said to have been impacted by the storm across seven islands.[46]

11. Over 21st century, surface air and sea surface temperature are projected to increase. Under the Representative Concentration Pathways (RCPs), the warming can be up to 1.0°C by 2030, compared to 1995. Under the RCP 2.6 scenario, the temperature of the country 1-in-20-year hot day is projected to increase by ~0.6°C by 2030, and by 0.7°C under the RCP 8.5 scenario. By 2090, the projected increase of temperature will be 0.7°C and 3°C under RCP 2.6 and RCP 8.5, respectively. The 1-in-20-year daily rainfall in the country is projected to increase by ~9 mm by 2030 under RCP 2.6, and by 8 mm by 2030 under RCP8.5. The increase will be 1 mm, and 40 mm by 2090 under RCP 2.6 and RCP 8.5, respectively [47].

12. The sea-level rise measured by satellite altimeters showed 6 mm rise per year near Vanuatu since 1993, which is higher than the global annual average of 3.2 ± 0.4 mm[48]. Coupled Model Intercomparing Project Phase 5 (CMIP5) models simulate a sea-level rise of ~8-19 cm by 2030 compared to 42-89 cm by 2090 under the RCP 8.5 scenario[49].

13. World Risk Index (2018) ranked Vanuatu as the highest risk country out of 172 countries in the subcategory for overall risk and exposure to natural hazards. Over 50% of the population in the country could be victims of natural disasters according to this report.[50] Similarly, World Risk Index (2021) also ranked Vanuatu as the highest risk country in the world based on the assessment of the disaster risk for 181 countries[51]. Major climate change impacts and geo-hazards for Vanuatu is presented in the report "Profile of Risks from Climate Change and Geo-hazards in Vanuatu"[52]. According to this report, Agriculture (crops, cattle and sustenance), Fisheries (freshwater, coastal, deep sea, aquaculture), Forestry (including mangroves and production forest), Tourism (cruise-ships, hotels), Transport (road, ferries, and air), utilities (energy, water, and sanitation) and Health are most vulnerable for climate change.

14. Around 80% of the population dependent on the subsistence agriculture for their livelihood. So, changes in rainfall distribution, temperature and distribution can have severe impacts on agricultural production. The numerous effects of climate change induced natural hazards cyclones, flash floods,

high rainfall, high temperature and long dry periods will adversely affect agricultural production<sup>[53]</sup>. The commercial and subsistence agriculture in Vanuatu are based on rain-fed agricultural production systems. Rainfall decline, a greater proportion of rainfall falling due to storm events, increased evaporation and more pronounced dry seasons, could have severe impacts on agricultural production. Intense rainfall during planting seasons could damage seedlings, reduce growth and provide conditions that promote plant pests and diseases. More pronounced dry seasons, warmer temperatures and greater evaporation could cause plant stress reducing productivity and harvests<sup>[54]</sup>. Climate change also poses a significant threat to the fisheries and marine life of the country. The habitat will be impacted due to changing ocean temperature regime and changes in ocean circulation patterns can adversely impact the aquatic food web, resulting in migration of fish populations. Deficiency in calcium carbonate from climate-induced ocean acidification could impact the marine environment, for example coral reef calcification, and also affecting other shelled organisms<sup>[55]</sup>.

15. Due to high volcanic activity, and as a granitic island with small and steep river catchments, the watersheds of the country have restricted storage capacity due to rapid response to rainfall events<sup>[56]</sup>. Most of Vanuatu's urban centres and outer islands are dependent on ground water for drinking, given the limited availability of surface water. So, changes in precipitation in this island country will adversely affect, and increased temperatures are likely to increase the demand for potable water.<sup>[57]</sup> The Fisheries sector is vulnerable to the climate change impacts because of coastal erosion, sedimentation and inundation. Increased surface water temperature and ocean acidification will directly affect the oceanic fish habitat (coral reefs, mangroves, sea grasses and intertidal flats), marine ecosystem, and food webs [58].

16. The forests of Vanuatu play vital role in country's cultural heritage and contribute to the welfare and economic development of the people through tourism. Changes in rainfall distribution, temperature and other climate stresses will negatively affect many tree species and forest biodiversity, in particular flowering and fruiting patterns of certain forestry crops are already changed. Increase in the incidence of pest and diseases in forest tree species are already reported<sup>[59]</sup>. Tourism is one of the key foreign exchange earners of Vanuatu. Most of the infrastructure, utility services, and attractive tourists' features are located in the coastal areas. Such infrastructures are highly vulnerable to increased sea level rise, coastal degradation, cyclone and storm surges<sup>[60]</sup>. Tourism sector in the country contributes ~40% to Vanuatu's GDP. This industry is likely be negatively impacted because of attractiveness reduction as a tourist destination from loss of habitats damage such as coral reefs due to thermal bleaching, and reduced biodiversity<sup>[61]</sup>.

17. The projected climatic changes will likely affect the health sector of the country. Malaria is already endemic in certain locations of the country, and other tropical and vector borne diseases such as dengue and water related diseases such as dysentery and diarrhea are likely to increase. In association with these diseases, other problems associated with increased temperature, including contamination of food and heat stress are likely to increase<sup>[62]</sup>. The climate change impact will also adversely affect the transport and infrastructure of the country. Most of the major services, settlement and tourism infrastructure of the country are located in the coastal regions, and hence they are extremely vulnerable to sea level rise, erosion and inundation<sup>[63]</sup>.

18. There are more women (49%) involved in subsistence economy of the country than men (41%). There are also more female headed single parent households compared to men. Hence, due to climate change induced food insecurity, energy access and water scarcity will affect the women in the country and they are consequentially more vulnerable, and going to face higher poverty risks.<sup>[64]</sup>

19. Climate change adaptation is a serious and urgent need for Vanuatu. The country prepared the National Adaptation Programme of Action (NAPA) in 2007, and it outlined actions needed for several priority sectors focusing on (i) Agriculture/Food Security, (ii) Development of resilient crop species, (iii) Land use planning and management, (iv) Sustainable forest management, (v) Climate change and infrastructure, (vi) Sustainable livestock farming and management, (vii) Sustainable tourism development, (viii) Coastal Zones and Marine Ecosystems, (ix) Integrated coastal zone management, (x) Vector and water borne disease management, and (xi) Water Resources and Public Health<sup>[65]</sup>. The National Climate Change and Disaster Risk Reduction Policy<sup>[66]</sup>

identifies five key adaptation priorities and associated actions to accelerate the national adaptation efforts and building resilience including (i) Climate Change vulnerability and multi sector impact assessments; (ii) Integrated climate change and disaster risk reduction; (iii) Community based adaptation; (iv) Loss and damage and (v) Ecosystem based approaches.

### **C. Greenhouse Gas (GHG) Emissions and Sinks**

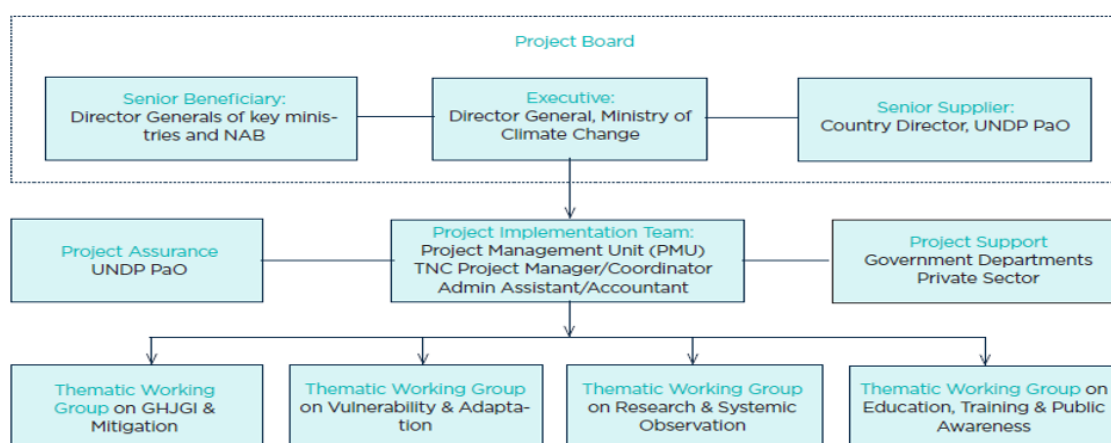
20. Vanuatu submitted the INC to the UNFCCC in October 1999, the SNC in 2014, and the TNC on 22 Mar 2021<sup>[67]</sup>, and BUR was submitted in Dec 2021. The country is in the process of preparing National Forest Reference Emission Level (FREL) through the Vanuatu REDD+ Project under the Department of Forestry<sup>[68]</sup>.

21. 1996 IPCC Guidelines were followed to prepare the INC, and in all cases default emission factors and conversion coefficients are used. The inventory focused on energy, agriculture, land-use and forestry sectors, and waste generation sector was not included<sup>[69]</sup>. The SNC was prepared using methodology developed in the revised 1996 IPCC Guidelines or National Greenhouse Gas Inventories. The UNFCCC software ?Non-Annex I National Greenhouse Gas Inventory Software, Version 1.3.3? was used for the estimation of GHG. The GHG inventory preparation was coordinated by the Department of Energy, and supported by the relevant departments such as Bureau of Statistics, Customs Department, Utility Regulatory Authority (URA), Department of Environment, Department of Forestry, Department of Agriculture, Department of Livestock and electricity utility companies UNELCO and Vanuatu Utility Infrastructure (VUI) through data compilation and reporting. The key steps were: (i) team formation to work on inventory, (ii) team capacity building/training, (iii) data collection for sectors covered under the inventory, (iv) identification of gaps, (v) documents/data review for quality assurance, and (vi) report (inventory) writing. Sectoral data for GHG estimation was compiled from various sources primarily using national data collected from annual reports, statistical reports, studies and brochures of related department/ institutions. Where actual data was not available judgment of sector experts was relied on. The sectors assessed was Energy, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other Land Use, (AFOLU), and Waste<sup>[70]</sup>.

22. TNC preparation was based on 2006 IPCC Guidelines for Greenhouse Gas Inventories, and IPCC Good Practice Guidance (GPG), and IPCC Inventory Software (Version 2.54- June 2017) was used. It

used both Tier1 and Tier2 methodologies (as appropriate) of 2006 IPCC guidelines. The national GHG Inventory for each year from 2007-2015 is prepared for all anthropogenic GHGs (excluding the precursor gases and gases covered under Montreal protocol). The key steps for the preparation of TNC and national GHG inventory for the years 2007-2015 were: (a) Project Organization Structuring, (b) Thematic Working Group (TWGs) formation, (c) Training and Capacity building Programme, (d) Data collection, Identification of data gaps and uncertainty assessment. The TNC is being managed by the Project Board, mainly responsible for making by consensus, management decisions, and approval of project plans and revisions. The institutional arrangement of the TNC and composition of Thematic Working Groups (TWGs) are mentioned below.

**The institutional arrangement of the Third National Communication (Source: TNC, Vanuatu)**



**The composition of TWGs of the Third National Communication (Source: TNC, Vanuatu)**

TWGs	Member
TWG - National Circumstances	Department of Strategic Policy Planning and Aid Coordination (DESPAC)
	Department of Environmental Protection and Conservation (DEPC)
	Department of Finance and. Treasury (DFT)
	Department of Foreign Affairs and External Trade (DFET)
	National Advisory Board on Climate Change (NAB Sec)
	Department of Women Affairs (DWA)
	Department of Agriculture (DARD)
	Fisheries Department
	Department of Energy (DOE)
TWG GHG-Green House Gas (GHGI)	Department of Energy (DOE)
	Department of Forests (DoF)
	Department of Agriculture (DARD)
	Livestock Department
	Port Vila Municipality Council (PVMC)
	Utilities Regulatory Authority (URA)
	Vanuatu National Statistics Office (NSO)
	Department of Environmental Protection and Conservation (DEPC)
Department of Biosecurity	



<b>TWGs</b>	<b>Member</b>
TWG - Vulnerability Assessment and Adaptation (V&A)	Department of Environmental Protection and Conservation (DEPC)
	National Disaster Management Office (NDMO)
	Vanuatu Meteorology & Geohazards Division (VMGD)
	Department of Agriculture (DARD)
	Department of Geology, Mines & Water Resources (DGMWR)
	Department of Forests (DoF)
	Fisheries Department
	Ministry of Health (MoH)
	Public Works Department (PWD)
	Department of Local Authorities (DLA)
	Lands Survey
	Vanuatu Meteorology & Geohazards Division (VMGD)
TWG - Mitigation	Vanuatu Meteorology & Geohazards Division (VMGD)
	Ministry of Agriculture
	Ministry of Climate Change (MoCC)
	Ministry of Education and Training (MoET)
	National Disaster Management Office (NDMO)
	Vanuatu Meteorology & Geohazards Division (VMGD)
	Department of Environmental Protection and Conservation (DEPC)
	Department of Forests (DoF)
Lands Survey	
TWG - Research & Systematic Observation	Vanuatu Meteorology & Geohazards Division (VMGD)
	National Disaster Management Office (NDMO)
	Vanuatu Meteorology & Geohazards Division (VMGD)
	Department of Agriculture (DARD)
	Fisheries Department
	Department of Geology, Mines & Water Resources (DGMWR)
	Ministry of Health (MoH)

23. According to the TNC, the total national GHG emissions excluding removals in 2015 was 610.20 Gg CO<sub>2</sub>e in comparison with 299.387 Gg CO<sub>2</sub>e in 1994 (INC) and 585.387 Gg CO<sub>2</sub>e in 2000 (SNC). The emission data as shown in Figure 3 from TNC, three major sectors contributing national GHG emissions i.e. Agriculture-Livestock and Land Use (73%), Energy (21%), and Waste Sector (6%). The sub-sectoral level analysis presented in Figure 4.

Total CO <sub>2</sub> Emissions, (CO <sub>2</sub> Equivalents Gg)									
Categories	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 - Energy	60.42	92.31	95.10	119.66	127.53	114.87	121.54	128.55	129.55
2 - Industrial Processes and Product Use									
3 - Agriculture, Forestry, and Other Land Use	427.45	433.32	309.22	414.91	427.07	432.11	388.60	439.51	443.38
4 - Waste	29.55	30.43	31.33	32.24	33.18	34.15	35.16	36.20	37.28
Total GHG Emissions, excl. Removals	517.41	556.06	435.65	566.82	587.79	581.13	545.30	604.26	610.20

Figure 3: Vanuatu's National GHG Inventory (excl. removals) for the year 2007 to 2015. Source: TNC.

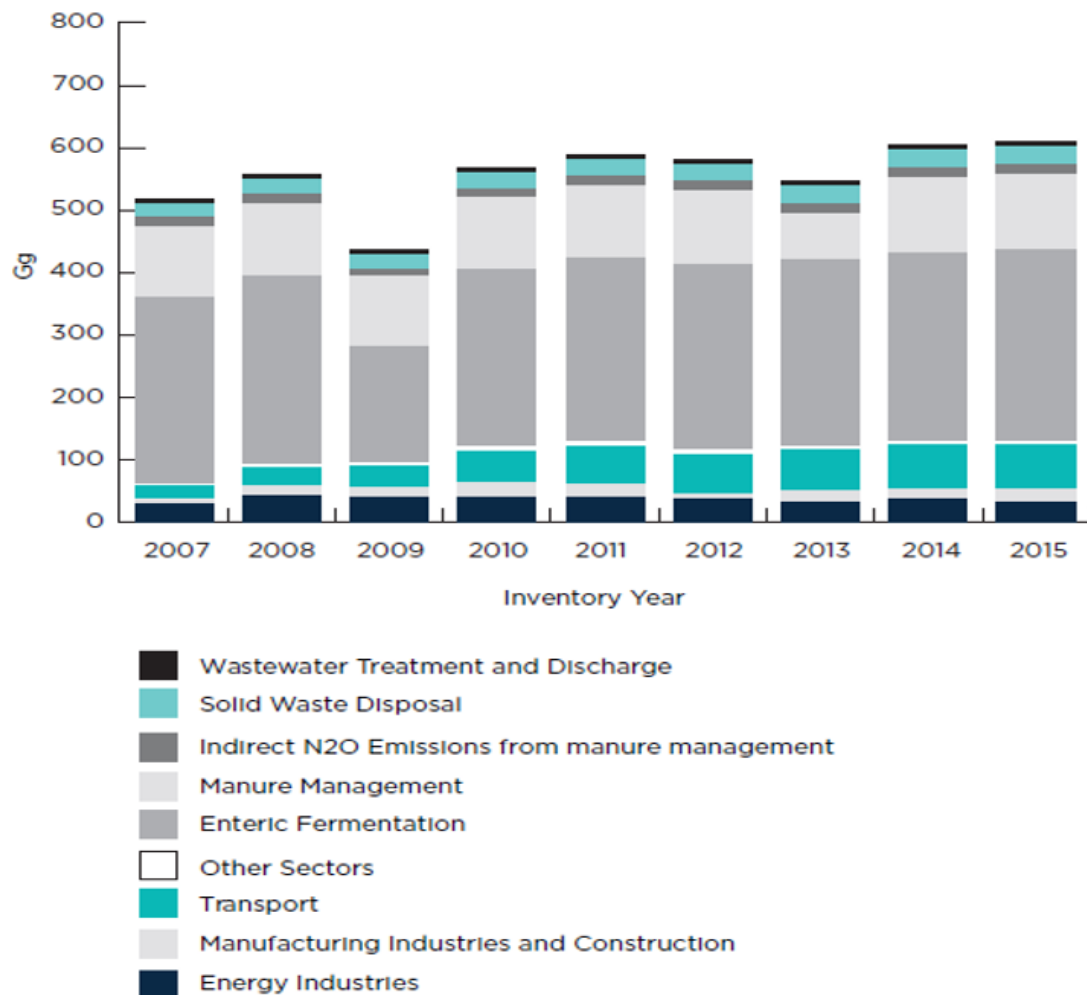


Figure 4: Sub-sectoral analysis of Vanuatu's National GHG emission (excluding removals) for the year 2007 to 2015. Source: TNC.

24. Vanuatu is still under the REDD+ preparation activities, and under the Vanuatu REDD+ Readiness Plan Preparation Support the country is carrying out the following readiness preparation activities (1) REDD+ Scheme through broad stakeholder engagement, with demonstration activities influencing future developments (2) efficient and inclusive communication and feedback mechanisms (3) SESA and ESMF under development (4) REDD+ investments reaching Ni-Vanuatu to influence land use decisions to prepare REDD+ strategy, strengthen sustainable land and forest management practices<sup>[71]</sup>. However, the INC reported 1.1534 Gg CO<sub>2e</sub> removal by forestry sector in 1994<sup>[72]</sup>. The SNC reported 7,913.16 Gg CO<sub>2e</sub> removal by forestry sector in 2000. Hence, the net removals in 2000 was 7,327.77 Gg CO<sub>2e</sub> in 2000<sup>[73]</sup>. The TNC reported 6973.7 Gg CO<sub>2e</sub> removals, and hence, net removals in 2015 was 6363.5 Gg CO<sub>2e</sub><sup>[74]</sup>. There exists limited information on forest cover change, however, the recently submitted BUR indicate that forest cover area has not changed significantly since 2000, and the forestry sector in Vanuatu is a net carbon sink<sup>[75]</sup>.

#### **D. Enhanced Transparency Framework (ETF)**

25. The Paris Agreement (PA) was adopted in December 2015 to show the global commitment for avoiding dangerous impacts from climate change by keeping global temperature increase well below 2°C. The PA calls for Nationally Determined Contributions (NDC) submissions by each country to reduce emissions of greenhouse gases (GHGs). So, NDC is the core component of the PA, and the achievement of the global commitment towards limiting the global warming target of well below 2°C. As per PA, all the signatory country stated their national target and activity plan to reduce national GHG emissions, and adaptation planning for climate change impacts<sup>[76]</sup>.

26. The PA also calls for enhanced transparency framework (ETF), and Article 13 of it explicitly mentioned enhanced transparency framework for action and support, with built-in flexibility considering capacities of different Parties, and global collective experience. The key goal of the ETF is to ensure transparency and clarity in relation to individual Parties climate change mitigation and adaptation, as well as support provided and received to have a clear overview of aggregate financial support provided and disseminate the information to the global stocktake under Article 14. In fact, Article 4, Article 5, Article 6, Article 11, Article 12, Article 13, and Article 14 is somewhat related to ensure global transparency in climate change mitigation and adaptation actions. For example, Article 6 mentions the requirement of transparency framework under the PA, and potential use of market and non-market-based approaches<sup>[77]</sup>. Though ETF has built-in flexibility to consider different capacities of the countries around the world and builds upon collective experience, as shown in Figure 5, all parties are encouraged to move towards ETF framework after 2022.

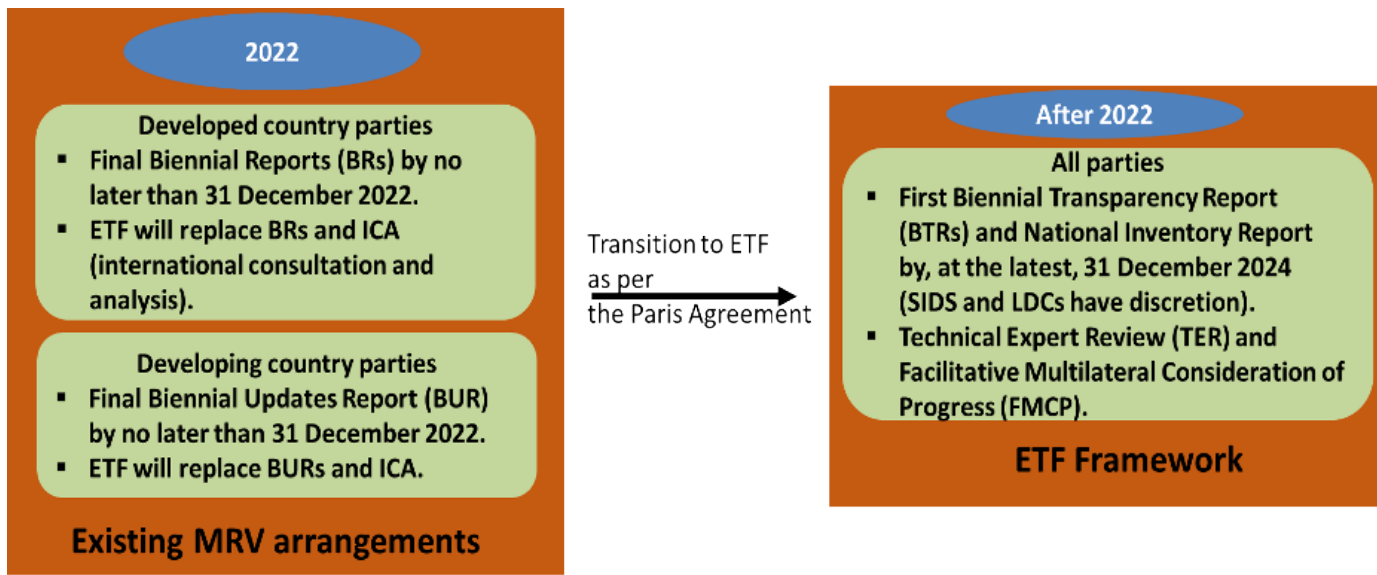


Figure 5: Transition to Enhanced Transparency Framework (ETF) as per the Paris Agreement.

27. The MPGs of ETF have more detailed guidance on the information required than the current reporting requirements of UNFCCC<sup>[78]</sup>. Under the ETF, BUR reporting will no longer be required, and it will be replaced by the biennial transparency report (BTR). BTRs will be submitted by all Parties every two years starting from by 31 December 2024. The information of BTR will be subject to a two-step review process of technical expert review (TER) and facilitative, multilateral consideration of progress (FMCP) to implement and achieve NDC targets. This review will be applicable for the mandatory elements of the BTR for developing countries. The content of the BTRs should include the followings:

***Mandatory elements (for developing countries)***

- ? National inventory report on anthropogenic emissions by sources and removals by sinks of GHGs;
- ? Information necessary to track progress made in implementing and achieving NDCs;

***Other elements***

- ? Information related to climate change impacts and adaptation (with clear linkages to the adaptation communications, which may be submitted as a component of or in conjunction with a BTR);
- ? Information on financial support, technology development and transfer as well as capacity building support needed and received as well as provided or mobilized; and
- ? Flexibility options chosen, relevant capacity constraints and improvement timeframes (for Least Developed Countries-LDCs and Small Island Developing States-SIDS).

28. As per the ETF, countries should prepare measurement, reporting and verification (MRV) framework to understand their key sources and sinks of emissions, report on progress of national mitigation commitments, and taking corrective actions based on monitoring, and

track the efficiency of climate finance as a sign of good governance practices.[79] The MRV should cover the GHG emission, NDC mitigation activities, and support received. The Government of Vanuatu is working to combat global climate change along with the global community since 1992. Vanuatu signed the UNFCCC on 9 June 1992, and deposited its instrument of ratification on 25 March 1993[80]. Vanuatu is classified as a non-Annex I country highlighting the country's vulnerability to the adverse impacts of climate change, thus requiring special needs and concerns. Vanuatu ratified the Kyoto Protocol in July 2001 and the Paris Agreement in September 2016 [81].

29. Since, 2012 the country has strong participation towards transparency in decision-making in climate change. For the 19th Conference of the Parties (COP19), Vanuatu sent a gender-balanced delegation consisting of government, civil society, and academic resulting in unprecedented success at the negotiations[82]. Such participation continued in COP20, COP21, and COP22 to ensure the country's top priorities on climate finance, and loss and damage. Vanuatu is also member of the UNFCCC's Climate Technology Center and Network (CTCN)[83].

30. In view of global effort towards climate transparency, the country submitted Initial National Communication (INC) to the UNFCCC in October 1999, and Second National Communication (SNC) was submitted in 2014. The National Adaptation Plan of Action (NAPA) was submitted in December 2007. Vanuatu is the only Pacific Island Country to have completed both a National Adaptation Program of Action (NAPA) and a National Action Plan (NAP) for Disaster Risk Reduction[84]. The country has already prepared Nationally Appropriate Mitigation Action (NAMA) focused on rural electrification in 2015. The overall target of the NAMA is to support Vanuatu in achieving the goal defined in the National Energy Road Map (NERM), namely to provide access to electricity to all households in Vanuatu. The NAMA will reduce GHG emissions through the replacement of fossil fuels with renewable energies [85]. Intended Nationally Determined Contribution (INDC) of Vanuatu was submitted in September 2016, and updated Nationally Determined Contribution (NDC) is submitted in March, 2021. The Third National Communication (TNC) and the Biennial Update Report (BUR) was submitted in December 2021. The country has also developed National Climate Change Adaptation Strategy for Land-Based Resources in 2011[86].

#### **E. Vanuatu's NDC**

25. Vanuatu has submitted the Initial Nationally Determined Contribution (INDC) on 21 September, 2016, which subsequently considered as Nationally Determined Contribution (NDC). The NDC of Vanuatu (2016) identified electricity generation sub-sector as main mitigation contributor and set a conditional target of transitioning to close to 100% renewable energy in the electricity sector by 2030. This contribution would reduce emissions in the energy sector by 72 Gg CO<sub>2e</sub> by 2030. To fulfill this ambitious target nearly all fossil fuel requirements for electricity generation should be replaced, and also need to maintain consistency with the National Energy Road Map (NERM) target of 65% renewable energy by 2020. Ancillary mitigation activities also mention possibilities related to forestry, agriculture, transport and energy efficiency sector wide.

26. The key planned mitigation interventions as per NDC include:

? Doubling of the wind installed capacity to 5.5 MW by 2025.

- ? Installing 10 MW grid connected solar PV by 2025.
- ? Commissioning the proposed first stage 4 MW Geothermal plant by 2025.
- ? Adding 10 MW grid connected solar PV by 2030.
- ? Commissioning the second stage 4 MW Geothermal plant by 2030.
- ? Substituting and/or replacement of fossil fuels with coconut oil-based electricity generation.

27. Additional planned mitigation interventions include:

- ? National Energy Road Map.
- ? Rural Electrification Nationally Appropriate Mitigation Action (NAMA)
- ? Off grid renewable energy projects under Scaling Up Renewable Energy in Low Income Countries Program
- ? Energy efficiency measures to be pursued across the board to enable 15% savings in the energy sector.
- ? Forestry sector measures to reduce deforestation and promote good land care to accepted mitigation practices according to REDD+
- ? Planned cooperation with New Zealand and other nations interested in mitigating methane (CH<sub>4</sub>) and associated emissions for ruminant, and pasture management.

28. The country has also submitted updated NDC on 22 March, 2021. The mitigation sectors cover Energy; Agriculture, Forestry and Other Land Use (AFOLU); and Waste. The mitigation commitment under these sectors are as follows. The quantified targets presented in this section are all conditional, will be implemented upon international (Technical and Financial) support by 2030.

#### Energy

<b>Target Indicator</b>	<b>2010</b>	<b>2025</b>	<b>2030</b>
Renewable Energy Generation -Grid Connected (%)	11.69%	50%	100%
Improve transport (land and marine) energy efficiency	-	-	10%
Improve biomass end use (cooking and drying) efficiency	-	-	14%
Electric Vehicles ? e-Buses	-	-	10% of public transport buses
Electric Vehicles ? e-Cars	-	-	10% of government fleet
Electric Vehicles ? 2/3 wheelers	-	-	1000 No.
Bio-diesel (bio-fuel) Blending in Diesel	-	-	20%
Renewable electricity use by rural tourism bungalows	-	-	65%
Energy Efficiency in Commercial and Residential Sector	-	-	5%
Energy Efficient Building (Green Building)	-	-	10 No.

#### Waste Sector

<b>Target Indicator</b>	<b>2010</b>	<b>2025</b>	<b>2030</b>
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Target Indicator	2010	2025	2030
Waste to Energy Plant	-	-	3
Composting Plant	-	-	1
Public and Communal Toilet Facilities including Bio- Toilets	-	-	1000

29. The base year is 2010, and the time frame is from 1st January 2021- 31st December 2030. The three energy sub-sector targets collectively can reduce GHG emissions approximately 78.786 Gg CO<sub>2e</sub> from energy sector compared to BAU scenario by 2030. This represent about 40% reduction compared to energy sector's GHG emissions from the BAU scenario. The livestock sub-sector's mitigation measures can reduce around 30.977 Gg CO<sub>2e</sub> by 2030 (9% reduction) compared to BAU. Under the forestry sub-sector, no specific NDC actions is mentioned, because measures such as deforestation reduction, and promoting good land care to accepted mitigation practices are still under development from REDD+ initiative. In future, it is expected to introduce potential mitigation interventions from REDD+ initiative. Waste sector mitigation measures, expected to reduce GHG emissions by 29.335 Gg by 2030 compared to BAU scenario (56% reduction)<sup>[87]</sup>.

30. Adaptation Priorities and Goals in NDC are in line with the National Adaptation Programme of Action (NAPA). 11 top adaptation priorities of NAPA were refined to include 5 top priorities for support and implementation. The 5 NAPA priorities are:

- ? Agriculture and food security
- ? Sustainable tourism development
- ? Community based marine resource management
- ? Sustainable forest management
- ? Integrated water resource management

31. The NDC of Vanuatu also highlighted core issues of the NAPA relevant to all priorities, and mentioned that they should be an integral part of proposed activities. Those core issues are:

- ? Awareness raising at all levels.
- ? Capacity building including institutional capacity.
- ? Research and development.
- ? Promotion of appropriate traditional knowledge and practices.
- ? Technology Transfer.
- ? Education and training.
- ? Mainstreaming of climate change and disaster risk reduction.
- ? Consideration of marine and terrestrial Biodiversity issues.

32. The NDC of Vanuatu also in agreement with the National Climate Change and Disaster Risk Reduction Policy identifies 5 key adaptation strategic priorities and associated actions. These actions are:

- ? Climate Change vulnerability and multi sector impact assessments.
- ? Integrated climate change and disaster risk reduction.
- ? Community based adaptation.
- ? Loss and damage.

? Ecosystem based approaches.

33. As highlighted in the updated NDC, as per Article 7.10 and 7.11 of the Paris Agreement, Vanuatu will submit an adaptation communication, which will include its priorities, implementation and support needs, plans and actions through the National Adaptation Plan (NAP). The NAP will outline Vanuatu's contribution towards meeting the adaptation goal set out in the Paris Agreement and the required means of implementation to implement that contribution fully.

34. Updated NDC, included the overarching adaptation goal for the agricultural sector. The goal identified as "Agriculture is able to support household income and food needs in a changing climate?". To achieve this goal, two targets were established:

- ? Target Ag1: By 2022, 80% of agriculture SMEs and private sector operators are able to generate sufficient income to cover essential household needs and services in normal and (climate, disaster and environmentally) stressed times.
- ? Target Ag2: By 2030, 100% of identified measures for enhancing the resilience of subsistence agriculture in a changing climate in the six provinces have been implemented.

35. Updated NDC also included the overarching goal for the water sector. It was identified as: "the water management system is able to support water needs for all communities in a changing climate". In contributing to the achievement of this goal, two targets were established:

- ? Target Wa1: By 2030, 100% of water-climate vulnerable rural communities in the six provinces have developed DWSSP and are able to address water needs in normal and (climate, disaster and environmentally) stressed times.
- ? Target Wa2: By 2030, 6 climate-resilient water protection zones declared and sufficiently provides urban water supply needs in normal and (climate, disaster and environmentally) stressed times.

36. Loss and damage (L&D) from climate change impact is included in Vanuatu's National Climate Change and Disaster Risk Reduction Policy (NCCDRRP) and outlines concrete actions. In NCCDRRP all types of L&D included, such as floods, storms, hurricanes, salinization and slow onset events. To address L&D, assistance is required in terms of finance and capacity building. Targets and indicators were developed that are in line with the actions outlined in the NCCDRRP, and are based on stakeholders' responses of what is needed to address L&D<sup>[88]</sup>.

## **F. Low Emission Development Strategies (LEDS)**

### Energy

37. Updated NDC mentioned that, by 2030, Renewable Energy Capacity Addition and substituting (replacement) of fossil fuels with Coconut (Copra) Oil based Electricity Generation: transitioning to close to 50% by 2025, and 100% renewable energy in the electricity generation sector by 2030. The policies and strategies as mentioned in the updated NDC will be enhanced and implemented based on technical and financial support from international community by 2030.

### Transport



38. As per updated NDC:

- ? By 2030, 10% improvement in transport (land and marine) energy efficiency;
- ? Electric Vehicles (e-Mobility): by 2030, (a) Introduce Electric Vehicles (e-buses) for public transportation (10% of total Public Buses); (b) Introduce Electric Cars (e-Cars) in Vanuatu (10% of government fleet); and (c) 1000 Electric Two wheelers (e-bikes) /Three Wheelers (e-rickshaw);
- ? By 2030, 20 % Bio-diesel (bio-fuel) Blending in Diesel; and
- ? By 2030, Milage and Emission Standards for Vehicles

#### Commercial, Institutional and Residential

39. As per updated NDC:

- ? By 2030, (a) 100% electricity access by households in off-grid areas; (b) 100% electricity access by public institutions (on- and off-grid); (c) 13% electricity sector end-use efficiency; (d) 14% improve biomass end use (improved cook stoves and drying) efficiency; (e) 65% renewable electricity use by rural tourism bungalows;
- ? By 2030, installation of 1000 numbers of Biogas Plants for Commercial and Residential Use;
- ? By 2030, Increase Energy Efficiency in Commercial and Residential Sector, (a) 5% increase in Energy Efficiency in Commercial and Residential Sector; and (b) 10 Numbers of Energy Efficient Building (Green Building); and
- ? By 2030, Increase Ecotourism Supported by Local Communities

40. The LEDS strategies covering the energy sector are:

- ? Implementation of National Energy Roadmap (NERM): 2016-2030
- ? National coconut oil strategy
- ? Milage and Emission Standards for Vehicles
- ? National Electric Vehicles (e-Mobility) Policy
- ? Energy Efficiency in Commercial and Residential Sector policy
- ? Ecotourism Policy (Supported by Local Communities)

The above measures and strategies expected to reduce the national emissions by 40% (78.786 Gg CO<sub>2e</sub>) from energy sector compared to BAU scenario by 2030.

#### AFOLU

41. Under the Livestock sector as per NDC following strategies will be implemented:

- ? By 2030, Training and capacity building for livestock farming and pasture management;
- ? By 2030, Converting Pastures to Silvopastoral Livestock Systems;
- ? By 2030, International Collaboration to Improve Livestock Efficiency;

The strategies under the livestock sector will be Livestock farming and pasture management. The impact of above mitigation measures in livestock is expected to be 9% (30.977 Gg CO<sub>2e</sub>) reduction compared to BAU by 2030.

42. As per the NDC it is highlighted that, the forestry sector in Vanuatu is a net carbon sink. Sustainable logging practices are practiced in Vanuatu for commercial logging, and the country is committed to maintain its forest cover in the country and is expected to remain net

carbon negative in future as well. The REDD+ programme is currently being implemented in Vanuatu to improve sustainable forest management practices. No specific NDC actions are identified for forestry sub-sector as the measures to reduce deforestation, and promote good land care to accepted mitigation practices are still under development under the REDD+ initiative. Based on the results and outcome from the REDD+ initiative, potential mitigation interventions are expected to include in future NDC update.

#### Waste

43. As per NDC for the solid waste management the country will implement the following measures:
  - ? By 2030, Implement Waste to Energy Plant for Municipal Solid Waste (MSW): (a) Waste to Energy Plant for Port Villa; (b) Waste to Energy Plant for Luganville; and (c) Waste to Energy Plant for Lenakel;
  - ? By 2030, Introduce Composting for municipal organic waste to produce soil enhancer;
  - ? By 2030, Implement Collect, Sort and Export of Recyclable Materials (first phase) for Port Vila; and
  - ? By 2030, Develop and Implement National Plastics Strategy.
44. As per NDC for the Waste Water management the country will implement the following measures:
  - ? By 2030, Implement Waste Water Management System in Vanuatu: (a) Centralised Waste water collection and treatment system in municipal area including awareness and capacity building; and
  - ? By 2030, Improvements to Public and Communal Toilet Facilities including Bio-Toilets.
45. With the waste sector mitigation measures, it is expected the country will reduce 56% (29.335 Gg CO<sub>2</sub>e) waste sector's GHG emissions by 2030. Accordingly, the country will formulate Municipal Solid Waste Management Policy focusing on Waste to Energy and Composting, Recycling, and Waste Water Management Policy.

#### **G. Barriers, needs and gaps related to ETF reporting in Vanuatu**

46. The first NDC identified a number of barriers as mentioned below<sup>[89]</sup>:
  - ? Most training is ad hoc in nature and not linked to a formal professional development strategy.
  - ? At the information and knowledge management level, systems exist but are not fully utilized. This makes information sharing and learning of lessons difficult.
  - ? Insufficient institutional resources, and coordination.
  - ? Lack of data; information management problems and; inadequate human resources and infrastructure.
47. The SNC <sup>[90]</sup> have identified a number of barriers as mentioned below:
  - ? Insufficient institutional and financial resources.
  - ? Lack of research data; information management.
  - ? Inadequate human resources and infrastructure.
  - ? High uncertainty associated with data of AFOLU sectors.
  - ? Lack of comprehensive information, data archiving and lack of country specific emission factors.
  - ? For Land Use Change there is no national data available.

- ? The waste sector also lacks information on waste characterization and composition.
- ? Inadequate training and capacity building on GHG inventory training.

-

48. The Vanuatu Risk Governance Assessment (2013)<sup>[91]</sup> has identified key barriers and opportunities for improved climate change governance. Several weaknesses have been identified, which are as follows:

- ? There is an inconsistent of engagement of senior officials.
- ? Lack of transparency in climate change decision making.
- ? Lack of comprehensive assessment of the capacity gaps in relation to measurement, reporting and verification of GHG emission.
- ? Most information/data sharing initiative are project based, and not through a formalized institutional continuous process.

49. The TNC and BUR identified the following barriers as mentioned below:

#### Institutional

- ? Lack of mainstreaming climate change into sectoral plans.
- ? Uncertain assessment of the effects of climate change and climate actions (mitigation and adaptation) within Vanuatu.
- ? Untapped climate change mitigation and adaptation potentials.
- ? Lack of technical support (technical knowledge and expertise) available to stakeholders on climate change or climate change science.
- ? Lack of data for monitoring and evaluation of climate change and its impacts including SDG benefits in Vanuatu.
- ? Improved communication with International community (Governments, organizations, development agencies/partners) on implication of climate change in Vanuatu and support needed.
- ? Lack of support to develop and implement appropriate educational resources and programmes on climate change topics.
- ? Lack of information dissemination, knowledge sharing, decision support tools on climate change adaptation and mitigation and risk reduction strategy.

#### Green House Gas (GHG) Inventory Gaps

- ? The data collection procedure in the country is not formalized yet. The data collection procedure adopted for inventories was by office notifications issued by the Director General, Ministry of Climate Change to relevant ministries and department, identified organizations, public-private sector and institutions. There is no permanent institutional arrangement established yet.
- ? In Vanuatu, key uncertainties are associated with data availability, missing data, lack of comprehensive information, data archiving and lack of country specific emission factors.
- ? For land use change and national forest resources currently, there is no national data available.
- ? The waste sector also lacks information on waste generation, characterization, composition, disposal and treatment.
- ? Adequate training and capacity building on GHG inventory preparations are needed for subsequent GHG inventories.

50. During the preparation of the PIF, consultation was done with the government stakeholder Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC. As per the consultation following limitation of DEPC is potential hindrance of transparency requirement:

? Lack of a centralized database for relevant divisions i.e: Environmental Protection; Pollution control and Waste management feed into main department database and accompanying data collection mechanisms, systems and infrastructure.

? Need to improve the Environment Management Information System (EMIS) with software and database to collect & analyses data for planning and reporting of progress towards achieving goals for sustainable environmental management, climate change mitigation, and adaptation. As part of the improving of EMIS there should be links to the National Sustainable Development Plan, and international indicators.

? Need for an updated data of project proposals and implemented projects (including their findings) related to the Paris Agreement.

? Lack of training on data collection and storage, information accessibility, GHG inventory preparation, land use change analysis and converting the land use change data to GHG emission, adaptation project monitoring and complying with national adaptation priorities, and transparency elements relating to the different thematic areas under the Paris Agreement.

51. During the inception workshop of this CBIT project, the barriers and gaps identified were: lack of sectoral understanding on the significance of GHG emission, lack of activity data, lack of institutional strengthening, and limited technical capacity on GHG inventory and mitigation focusing on the IPCC sectors, lack of finance, lack of access to information, restrictive or limited sharing of data and information within the government entity, lack of technical human resources.

52. Based on the gaps and barriers as mentioned above the key barriers that should be overcome to ensure the National MRV system can comply with the requirement of Enhanced Transparency Framework in the Paris Agreement are as follows:

*? Barrier 1-lack of integrated, systematic, continuous coordination and institutional mechanism focusing on data and information sharing related to climate change mitigation, adaptation, loss and damages.*

Though some of the national entity collect the data related to climate change mitigation and adaptation as mentioned in the section 2.5, and there is MRV tool for the energy sector focusing on NERM:2016-2030; there is a lack of integrated, systematic, continuous coordination and institutional mechanism focusing on data and information sharing related to climate change mitigation and adaptation focusing on Energy, Agriculture, Forestry, and Land use change. The existing data and information collection system is mostly project based, and is not a continuous process based on hardware, software, and human skills. Lack of integrated, systematic, continuous coordination, and institutional mechanism affecting the efficient monitoring of NDC actions. Besides, there is a lack of awareness among the stakeholders regarding the ETF requirement of Paris Agreement. Limited coordination is also prominent among the national stakeholders by sharing data and information related to Energy, Agriculture, Forestry, and Land use change. In addition, there is a lack of harmonized indicator and monitoring systems for prioritized national adaptation activities.

*? Barrier 2-Lack of technical expertise and knowledge of measuring, reporting, and verification (MRV) of GHG emission, monitoring of adaptation actions, loss and damages.*

There is a lack of national expertise focusing on calculation on the quantification and uncertainty of GHG emissions focusing on Agriculture, Forestry, and Land use change, because these are the sectors with highest uncertainty. Similarly, there is a lack of information on the data quality related to GHG emissions estimates, and progress of adaptation actions. Also, there is a lack of national expertise on updated IPCC GHG emission quantification methodologies, comprehensive tools, and best practices to comply with ETF requirements. Limited technical capacity and resources for prioritizing and monitoring the NDC adaptation actions progress. In conclusion, low number of national technical experts affect the development of domestic MRV systems for climate change mitigation and adaptation focusing on Energy, Agriculture, Forestry, and Land use change.

*? Barrier 3- Lack of centralized data storage, archiving, and information management system focusing on mitigation and adaptation activity data, as well as loss and damages.*

The previous GHGI data are collected indirectly from expert sources and statistics, and sometimes it is also approximated. There is a clear gap of activity data focusing on Agriculture, Forestry, and Land use change sectors, and also end use of the energy. Such insufficient activity data can lead to incomplete emissions estimates. Besides, developing country-specific emission factors related to Agriculture, Forestry, and Land use change will also improve the estimates of GHG emissions.

## **2) Baseline scenario and any associated baseline projects**

### Existing institutional arrangements on national climate change policies and relevant ministries

53. The Ministry of Climate Change Adaptation (MoCC), Meteorology & Geo-Hazards, Energy, Environment and National Disaster Management is the nodal agency as part of the Government's efforts to streamline Vanuatu's climate change response, natural disasters and sustainable development of the environment. This Ministry is created in 2014 for response to natural disasters and sustainable development of the environment; with a vision to "Promote a resilient, sustainable, safe and informed Vanuatu" and mission to "Develop sound policies & legislative framework and provide timely, reliable, scientific information for service delivery to enable resilient communities, a sustainable environment and economic development". The overall organizational structure of the ministry focusing on climate change is presented in Figure 6.

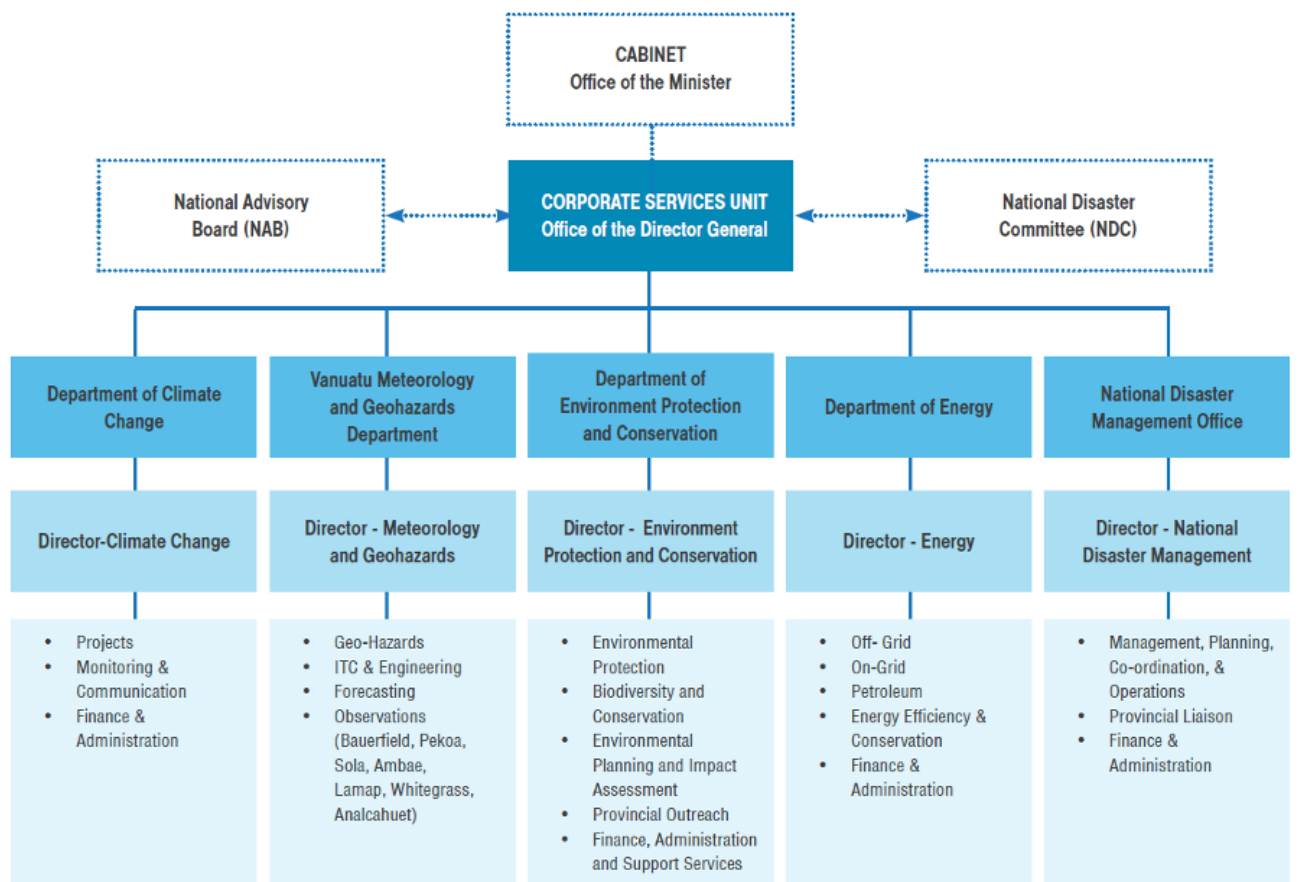


Figure 6: Organizational structure of Ministry of Climate Change (Source: BUR, Vanuatu<sup>[92]</sup>).

54. The MOCC includes the Vanuatu Meteorological and Geo-hazards Department (VMGD), the National Disaster Management Office (NDMO), the Department of Energy (DoE), the Department of Environment and the Project Management Unit (PMU). Vanuatu recognizes the importance of effective institutions and fruitful inter-relationships to ensure proper response to growing climate and disaster risks. For this reason, the Government has undertaken a major reform of national climate and disaster risk governance by establishing the Ministry of Climate Change and the National Advisory Board on Climate Change & Disaster Risk Reduction (NAB). The NAB is tasked to provide the strategic direction required for the country to navigate the complex current and future climate and disaster risks<sup>[93]</sup>.

55. The Department of Climate Change (DoCC) has been established to look after the ongoing efforts of increasing climate change resiliency of the country. The department has been formed and mandated as per the ?Meteorology, Geological Hazards and Climate Change Act No.25 of 2016 (Climate Change Act)?. DoCC is responsible for coordinating all Vanuatu's climate change related programmes and projects. The DoCC is also responsible for ensuring that climate change programmes and projects are carried out within their specified timeframes and for ensuring activities meet the necessary public participation and stakeholder requirements. The DoCC has the authority to act as a Financial

Management Agent for externally funded programmes and projects. DoCC on behalf of the NAB and the Ministry, is responsible for project financial management and administration.

56. The Department of Energy (DoE) is responsible for the coordination of the climate change mitigation activities of the energy sector covering electricity grids, petroleum, and energy efficiency. The DoE works closely with DoCC in developing project proposals and managing donor funds related to energy sector. Other Government Ministries involved in the electricity sector include the Ministry of Infrastructure and Public Utilities (MIPU), responsible for all the public infrastructure of the government, and the Ministries of Education and Health, which are involved in a program of solar energy packages for social institutions.

57. The NAB consists of government and non-government members with the primary purpose of acting as Vanuatu's supreme policy making and advisory body for all disaster risk reduction and climate change programmes, projects, initiatives and activities. So, it is the main governmental stakeholder for NAMA. The NAB is co-chaired by the Director of the Vanuatu Meteorology and Geo-Hazards Department (VMGD), and the Director of the National Disaster Management Office (NDMO). Members are selected from senior-level official of relevant government agencies, and NGOs including Vanuatu Humanitarian Team (VHT) Network, the Vanuatu Climate Adaptation Network, and the Vanuatu Association of Non-Governmental Associations (VANGO). Members are nominated in the first instance by the Directors of the VMGD and the NDMO at an official NAB meeting.

58. The NAB with its project management unit (NAB-PMU) acts as a coordinating body and works on three key areas:

? Strategic Governance and Policy - including implementation of national obligations, development of positions for international summits, identification of priorities, and development of a national policy on climate change and disaster risk reduction;

? Technical Advice, Project Monitoring and Coordination- Including providing technical advice to government departments and NGOs, acting as the coordination point for climate change and disaster risk reduction matters, starting a project endorsement process and information materials endorsement process and working to support standardized approaches; and

? Project Management ? Financing, Procurement & Administration including secretariat duties for the NAB, investigating funding mechanisms for Vanuatu, providing support and advice on procurement for climate change and disaster risk reduction, and also implementing projects. The organizational structure of NAB is presented in Figure 7.

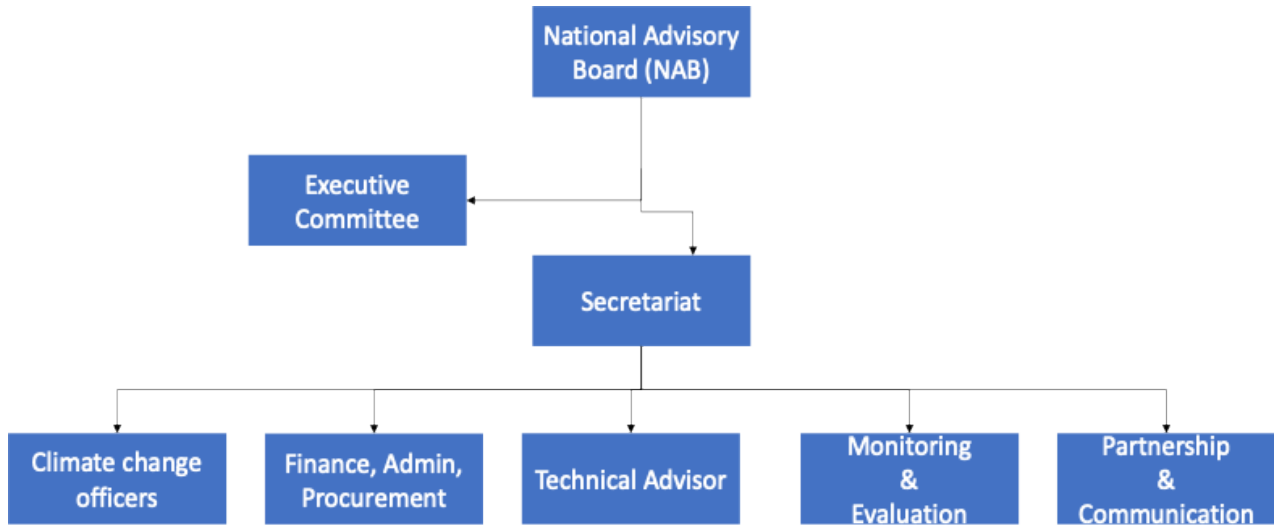


Figure 7: Organizational structure of National Advisory Board (NAB).

59. The ?Meteorology, Geological Hazards and Climate Change Act (2016)[94] provides provisions (governance and administrative provisions), transparency and roles and responsibility for meteorology, geological hazards and climate change and for related purposes. The ?Meteorology, Geological Hazards and Climate Change Act (2016) played a key role for the establishment of climate related services and institutions, such as (i) the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB), (ii) Department of Climate Change (DoCC), (iii) Department of Meteorology (DoM), and (iv) Department of Geological Hazards; Enforcement provisions. The institutional structure under the ?Meteorology, Geological Hazards and Climate Change Act (2016)? is presented in the Figure 8.

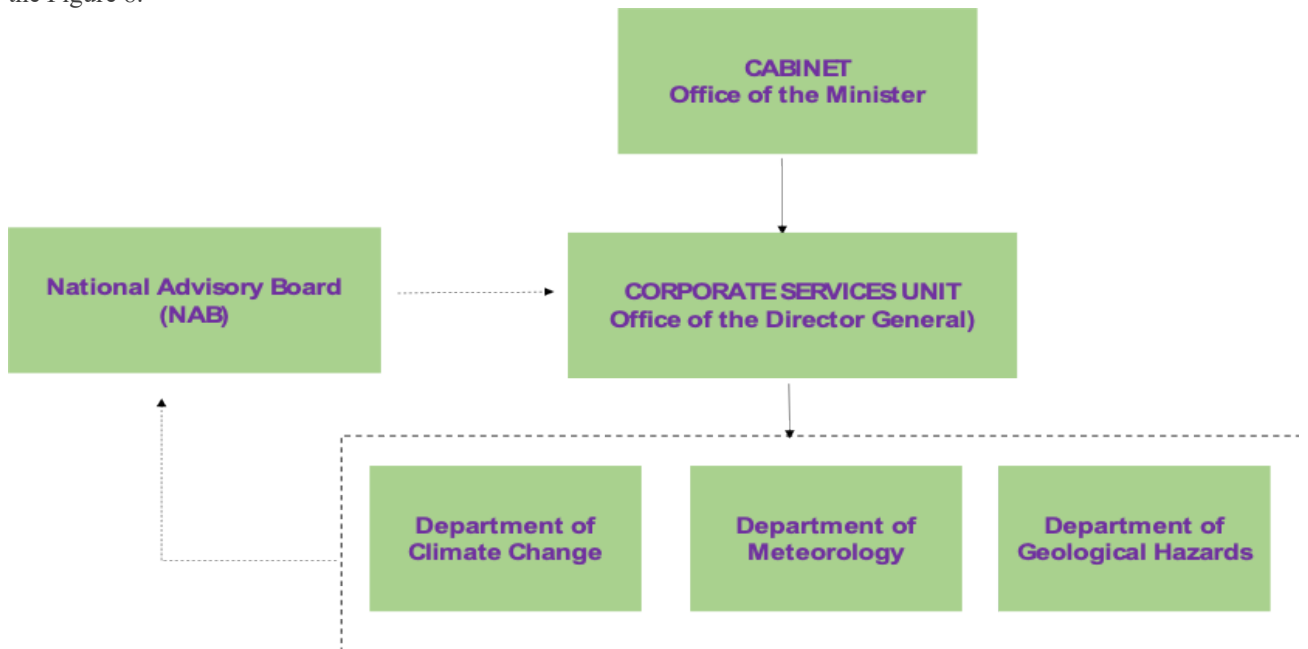




Figure 8: Institutional Structure to manage the climate change related issues, action, and initiatives in Vanuatu under the Climate Change Act (2016)

60. The Department of Forests (DOF) under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity has the regulative and administrative responsibility for the management of the forestry sector throughout Vanuatu. It leads the implementation of the National Forest Policy and implements and enforces the forestry legislation. It promotes the integral and sustainable management of all forest resources for the supply of products and services. It approves utilization operation agreements and ensures that all forest-related orders and codes are implemented. It collects information about forest resources, conducts forest research and facilitates the development of commercial plantations and agro-forestry systems. It provides advice on forest conservation, protected areas and National Parks. The DOF provides forest policy advice to the Government and ensures the sustainable management and conservation of Vanuatu's forests<sup>[95]</sup>.

61. The current institutional system for GHG inventory preparation under the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC and including other line agencies is presented in Table 3.

Table 3: Current institutional system for GHG inventory preparation under the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC and other line agencies.

<b>Organization</b>	<b>Role</b>
Department of Environmental Protection and Conservation Focal points: - Director - Principal Pollution control Officer - Principal Biodiversity and Conservation Officer. - Senior Conservation Officer	Division of Environmental Protection-Waste management & Pollution Control includes Ozone and Chemicals Programs ?This division looks after ozone depleting substances control with businesses and companies.  Division of Biodiversity & Conservation - Biodiversity and Protected Areas ? This division Looks after Protected areas ? which relates to carbon credit /sequestration programs that can coincide with protected areas.
Department of Meteorology Focal Point: Director	Agency mandated for climate and weather recording and monitoring ? National data records feed into GHG national reporting.
NAB NAB secretariat	NAB oversees the progress of national reports such as the Third National Communications and First Biennial Update report and will be responsible for communicating these official (including others) reports to the UNFCCC.

62. The current institutional system for Adaptation related data collection under the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC and including other line agencies is presented in Table 4.

Table 4: Current institutional system for GHG inventory preparation under the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC and other line agencies.

<b>Organization</b>	<b>Role</b>
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Department of Environmental Protection and Conservation Focal Point: Senior Conservation Officer	(a) EMIS (Environment Management Information System) ? the EMIS also contain maps. (b) Community Conservation Area (CCA) database ? the database contains the registration and information of the biodiversity of a CCA
Department of Forestry Focal Point : REDD+ GIS/IT specialist	NFI (National Forestry Inventory) database
Department of Meteorology Focal Point : Director	Updating the Climate Portal <sup>[96]</sup> and associated data.
Department of Climate Change Focal Point : NAB Secretariat	Updating the National Advisory Board (NAB) Portal <sup>[97]</sup> , and associated data.

63. At the Department of Forestry (DoF) the forest inventory data collection is done in two ways: (1) filed team after collecting data and send to a coordinator to check; (2) the coordinator sends data to GIS specialist. The DoF is responsible for land use and land cover change analysis for nationwide vegetation cover.

64. At the DEPC, the data are stored in the hard drive for the row data, and also stored in the Environment Management Information System (EMIS). The data in the existing EMIS are collected in Excel spread sheet and some of them also in Shapefiles. The data collected by the DEPC are not updated since its collection in 2013. For the DoF, the data are uploaded into the database located in DoF. The data are in the following format shapefiles, collect-data (by using open foris collect) and JPG formats for the photos. The data collected at DoF are stored in computer hard drive, and backed up on other computer, and also stored online on unique cloud. Existing MRV for NDC is for the Energy sector. Both EMIS and MRV for Energy are not connected to each other or with the NAB portal. The project can help to make these linkages and strengthen them. Based on the discussion held with different stakeholders during the PPG Phase linkages with existing baseline projects are mentioned in Table 7. Few adaptation related data are also currently collected by the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC as mentioned in Table 5.

Table 5: Examples of adaptation related data collected by the Department of Environment Protection and Conservation (DEPC) of Vanuatu, MOCC.

<b>Type of data</b>	<b>Collecting organization</b>	<b>Data format</b>	<b>Data storage/archiv</b>
Plant specification, and Forest inventory data.	Department of Forestry	(a) Shapefiles, (b) collect-data, (c) JPG format	Stored in computer and backed up on other computer, and also stored online on unique cloud.
Biodiversity and Community Conservation Area data.	Department of Environment	(a) Shapefiles, (b) excel spread sheet, (c) JPG format.	EMIS, and hard drive

65. The Department of Agriculture and Rural Development, under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity<sup>[98]</sup>, is the coordinating agency in the country for the agricultural sector for climate change and disaster risk reduction. In 2013, the department released a national agriculture position on climate change and disaster risk reduction which outlined the key adaptation priorities for the country, and sets out a clear policy directive, to coordinate and guide all actors, regarding climate change and the development of the agriculture sector.

66. The Department of Industry (DoI)<sup>[99]</sup> under the Ministry of Tourism, Trade, Industry, Commerce is the national entity to promote, facilitate, and support the growth of sustainable and value-added industry in Vanuatu. Major activities are: (i) formulate policies, strategies, programs to promote domestic industries and export development; (ii) strengthen institutional capacity; (iii) provide technical support to advance rural industries development; and (iv) facilitate establishments of cottage, small, medium to large scale manufacturing industries in the provinces.

67. The Ministry of Lands and Natural Resources<sup>[100]</sup> oversees the functions of the Department of Lands, the Department of Water, Geology and Mines and the Office of The Valuer General. It also works in collaboration with other Ministries, such as the Ministry of Internal Affairs through the Port Vila Municipal Council, to deal with land issues. The key focus of this national entity are: (i) ensuring fair dealing in lands, and (ii) ensuring the rights of custom owners to their lands, and its developments, are fully recognized and protected.

68. The Ministry of Infrastructure and Public Utilities (MIPU)<sup>[101]</sup> is a responsible national entity for all the public infrastructure of the government. The ministry of Finance is involved in any arrangements for financing energy systems, and other public utilities.

69. Designated National Authority (DNA)<sup>[102]</sup> to fulfil obligations under the Kyoto Protocol, thereby supporting the implementation of sustainable development projects in Vanuatu under the Clean Development Mechanism (CDM).

70. Utilities Regulatory Authority (URA)<sup>[103]</sup>, an independent regulator, to provide prices and regulatory oversight of the electricity and water sectors. The URA also acts as an economic regulator for pricing, energy access, standards and monitoring of concession agreements.

Legal and Regulatory Framework on Climate Change in Vanuatu

71. Vanuatu's society, environment and economy are highly vulnerable to climate change and disaster risks. At the same time, the country is committed to global efforts on climate change mitigation. Hence, the country has a number of national legislation and policies relevant to climate change adaptation and mitigation. These are presented in Table 6, and the notable ones are discussed in the subsequent sections.

Table 6: National legislation and policies relevant climate change adaptation and mitigation.

Type	Legislation, Policies and Plans
Overarching	Constitution of Vanuatu

<b>Type</b>	<b>Legislation, Policies and Plans</b>
instruments	National Sustainable Development Plan 2016-2030, the "People's Plan" (overarching national plan)
	Priorities and Action Agenda (PAA) 2006 ? 2015
Climate change adaptation and disaster risk reduction	Meteorology, Geo-hazards and Climate Change Act 2016
	National Disaster Act 2006 and National Disaster Risk Management Bill 2016
	Disaster Risk Reduction and Disaster Management National Action Plan 2006 ? 2016
	Vanuatu Climate Change Disaster Risk Reduction Policy 2016-2030
	Vanuatu National Adaptation Plan for Action (NAPA) 2007
	National Climate Change Adaptation Strategy for Land-Based Resources (2012 ? 2022)
Land, planning and environment	National Policy on Climate Change and Disaster-Induced Displacement (2018)
	Customary Land Management Act 2013
	Land Sector Framework 2009-2018
	National Land Use Planning and Zoning Policy 2013
	Vanuatu National Environment Policy and Implementation Plan 2016 ? 2030
	Draft Greater Port Vila Plan and Strategy for Efate
	Environmental Management and Conservation Act 2002
	National Energy Road Map (NERM) 2013-2020
	NAMA on Rural Electrification
	National Green Energy Fund (NGEF) 2016
Renewable Energy Electrification Master Plan 2016	
Infrastructure	Vanuatu Infrastructure Strategic Investment Plan 2015-2024
WASH	National Water Strategy 2008-2018
	National Water Strategy 2018-2030
Food, agriculture and livelihoods	Vanuatu National Plan of Action on Food and Nutrition Security 2013-2015
	Vanuatu National Gudfala Kakae Policy 2017-2030
	Vanuatu Agriculture Sector Policy 2015-2030
	Overarching Productive Sector Policy
	National Forest Policy 1997, 2011-2020, 2013-2023
	Reduced Emissions from Deforestation and forest Degradation (REDD+) national program
	Forest landscape Strategy (2020)
	National Livestock Policy
	National Fisheries Policy
	Vanuatu National Roadmap for Coastal Fisheries: 2019?2030
Vanuatu Oceans Policy	
Education	Vanuatu Education Sector Strategy 2007-2016
Health	Vanuatu Health Strategy 2010-2016
	National Health Plan for Climate Change Adaptation and Disaster Risk Management, 2016 ? 2020
Gender	National Gender Equality Policy 2015-2019
Child protection	National Child Protection Policy 2016-2026
Disability	National Disability Policy and Plan of Action 2008-2015

#### Climate Change Mitigation

72. Vanuatu National Environment Policy and Implementation Plan 2016-2030 (NEPIP)<sup>[104]</sup> is an overarching policy for the sustainable conservation, development and management of the environment of Vanuatu. The objectives of NEPIP are:

- ? Policy Objective 1: Conservation of biological, ecosystem, genetic, human and cultural diversity.
- ? Policy Objective 2: Sustainable resource management.
- ? Policy Objective 3: Waste management and pollution control.
- ? Policy Objective 4: Climate change.
- ? Policy Objective 5: Environmental governance and capacity development.
- ? Policy Objective 6: Sustainable growth and development.
- ? Policy Objective 7: Financing and economic instruments
- ? Under the Policy Objective 4: Climate change NEPIP, calls for supporting the implementation of the CCDRR Policy.

73. The Vanuatu's Climate Change and Disaster Risk Reduction Policy (CCDRR)<sup>[105]</sup> 2016-2030 is targeted for good governance, clear priorities and strategies for future climate actions. It is designed to deliver better information and assessment of climate change impacts and disaster risks, setting key strategies and transparently communicates to all stakeholders, including the communities, international donors and agencies. It applies six principles: 1) accountability, 2) sustainability, 3) equity, 4) community focus, 5) collaboration, and 6) innovation. Coordination and communication at all levels of government and across sectors and communities are the key policy emphasis of CCDRR. The strategic priorities of CCDRR focusing on systems, themes and cross-cutting issues are presented in the Figure 9.

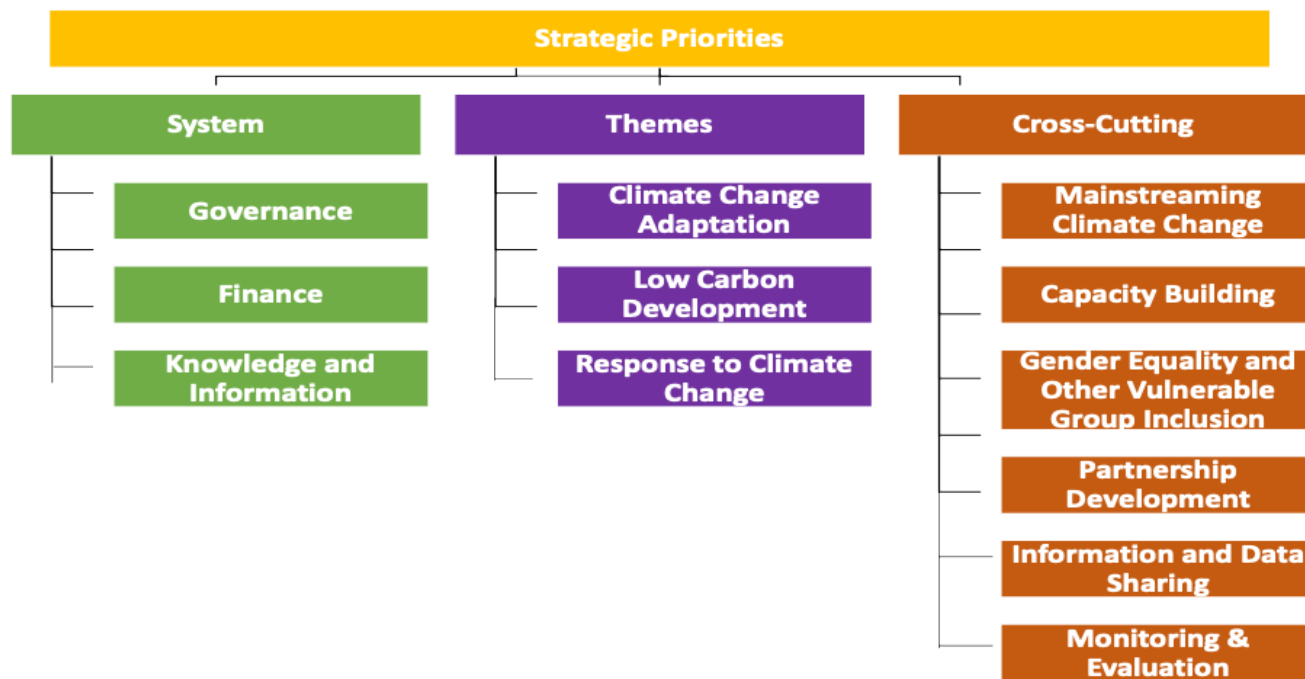


Figure 9: The strategic priorities of CCDRR focusing on systems, themes and cross-cutting issues.

74. National Sustainable Development Plan (NSDP) 2016-2030<sup>[106]</sup>. This is also known as *the Vanuatu 2030: The Peoples Plan*, and focused on long-term vision, and serves as the highest-level overarching policy framework for achieving a “stable, sustainable and prosperous Vanuatu by 2030”. The national aspirations under the NSDP includes: (i) a vibrant cultural identity underpinning a peaceful, just and inclusive society; supported by responsive and capable state institutions delivering quality public services, including health and education, to all citizens; (ii) maintaining a pristine natural environment on land and at sea that serves our food, cultural, economic and ecological needs; (iii) with enhanced resilience and adaptive capacity to climate change and natural disasters; and (iv) a stable economy based on equitable, sustainable growth that creates jobs and income earning opportunities accessible to all people in rural and urban areas.

These collective aspirations are expected to be delivered through the 15 National Sustainable Development Goals (SDGs) focusing on three pillars: Society, Environment and the Economy. The three NSDP pillars are comprised of a total of 98 policy objectives spread over 15 goals as shown in Figure 10.

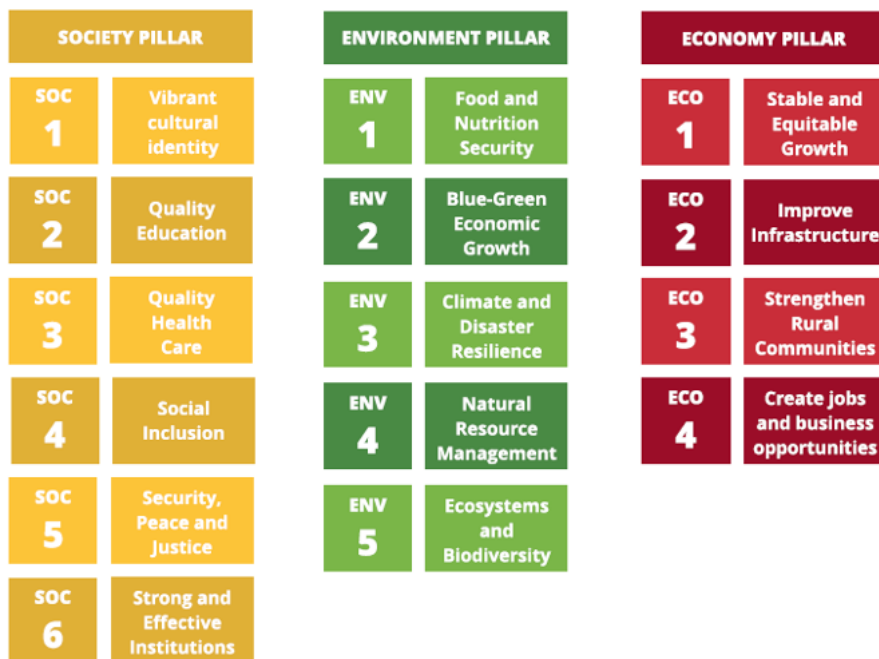


Figure 10: The three NSDP pillars and associated goals (Source: NSDP:2016-2030)<sup>[107]</sup>.

75. The “Meteorology, Geological Hazards and Climate Change Act (2016)<sup>[108]</sup> is dedicated towards governance and administrative provisions for national transparency and roles and responsibility focusing on meteorology, geological hazards and climate change related purposes. The key objectives of Climate Change Act are:

- “ Ensure that high quality services are provided in relation to weather, climate, flood forecasting and geological hazards in Vanuatu;
- “ Promote capacities of governments, communities and organizations to understand and respond to risks arising from weather events, climate change and geological hazards;

- ? Address the needs of operators of ships and aircrafts and of tourists, to access all necessary weather forecasts, bulletins, alerts, warnings and information concerning geological hazards which may impact upon the safety of their operations or activities;
- ? Facilitate the use and application within Vanuatu of relevant information, forecasts, bulletins and warnings generated and disseminated to and by local, regional and international bodies; and
- ? Ensure that the government and the public are informed of matters related to weather, climate and geological hazards, and are able to make effective use of such information and data, and to respond to warnings and alerts about such events, in order to protect the environment and the safety and welfare of the community.

76. After revision of the 1997 National Forest Policy, Vanuatu developed the 'Vanuatu Forest Policy 2011 - 2020'<sup>[109]</sup> for the sustainable development and management of the forestry sector. It was developed with clear directives (short-term, urgent, medium-term, and long-term) supported by implementation strategies including timelines and responsibilities. It was focused on forest-based rural development, conservation of ecosystems, biological diversity and the silviculture of the indigenous species thereby enhancing economic growth, well-being and livelihood of Vanuatu people.

77. Vanuatu National Forest Policy (2013-2023)<sup>[110]</sup> is the most recent forest related policy, which identifies the integration of climate change mitigation issues into forestry sector planning and activities as a specific objective. In particular, it focuses on the development of a national REDD+ initiative by the Department of Forests, the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB), and non-governmental organizations.

78. Reduced Emissions from Deforestation and forest Degradation (REDD+)<sup>[111]</sup> Programme of Vanuatu is the forestry sector mitigation action involving government and the Civil Society Organization (CSOs). The Department of Forests in support of the National Advisory Board for Climate Change and Disaster Risk Reduction (NAB), and the Vanuatu Geo-Hazard and Meteorological Department (VGMD) as the focal point, is taking the lead role as the key implementing agency in implementing the national Reduced Emissions from Deforestation and forest Degradation (REDD+) program. Under the REDD+ Programme of Vanuatu, the NFI field work has been completed after 2 long years. Data from the NFI is currently being analyzed and will finally be incorporated into a National Forest Monitoring System (NFMS) for Vanuatu. The objective of the NFI is to update information on the status of Vanuatu's forest and the dynamics associated with deforestation and forest degradation; and also, to establish permanent sample plots for a robust MRV framework, and to inform the development of a National REDD+ Strategy. The key limitation of the NFI was that, it is limited to 13 major islands only, and they were identified as key REDD islands for Vanuatu. NFI did not cover planted forests. A significant barrier for many years that have hindered the consistency in conducting NFIs is the cost required to run an NFI.

79. Forest landscape Restoration Strategy: the strategy aims to: (i) control soil erosion and siltation to protect rivers, streams and the coastal areas; (ii) improve the fertility of soils and thereby contribute to food security; (ii) address the socioeconomic needs of forest dwellers and forest dependent communities; (iii) reduce pressure on the natural forests and the vital services they provide; and (iv) contribute to climate change mitigation and adaptation. This Strategy is particularly important to the

80% of people living in the rural areas. Indeed, their participation in the implementation of this Strategy is essential as they have an important role in protecting and restoring their forests. Urban areas will also benefit from the protection of the environment and the economic benefits that forests bring. This strategy seeks to include all members of society. Its impact will be immediate, but its full potential for commercial trees will be realized as trees planted reach a harvestable age (about 20 years). This strategy will also contribute to achieving ambitious targets that Vanuatu set for itself and contribute to Global Public Good. Indeed the restoration of 24,600 ha of land through reforestation and sustainable land management will contribute to the mitigation of 11,472 MtCO<sub>2</sub>eq (11,365 M tCO<sub>2</sub> eq without the 500ha of mangroves).

80. National Energy Road Map (NERM)<sup>[112]</sup> 2013-2020 of Vanuatu has an overall vision to *energize Vanuatu's growth and development through the provision of secure, affordable, widely accessible, high quality, clean energy services for an educated, healthy and wealthy nation*?. It focuses on the objectives in the energy sector from a national development perspective, key constraints and projects financing requirements for the energy sector implementation program with a timeframe 2013-2018. It identified five priorities for the energy sector: access, petroleum supply, affordability, energy security, and climate change; which is been slightly revised (updated) to: Accessible energy, Affordable energy, Secure and reliable energy, Sustainable energy, and Green growth. It also set out objectives, targets and proposes 68 key actions to achieve these priorities and contribute to the NERM's overall vision. These priorities reflect the high-level outcomes the Government ultimately seeks to achieve in the energy sector and sub-sectors (such as petroleum and other liquid fuels, electricity, and cooking fuels). It is implemented and monitored by the Department of Energy (DoE). A comprehensive NERM Implementation Plan (NERM-IP) and NERM Monitoring, Verification and Evaluation (NERM-MRV) Plan been developed and operation. It also formed basis for development of NDC in Vanuatu, and substantially important for achieving NDC targets.

81. NAMA Rural Electrification<sup>[113]</sup> is focused on rural electrification and micro grids to improve access to electricity in the predominantly rural sector. It is a voluntary, non-binding policy instruments that provide a framework for pursuing a country's socio-economic and development goals, while contributing towards global GHG mitigation efforts. It covers two interventions:

? Micro grids establishment: Rural communities/tourism and agricultural facilities/health centres/schools are the focus of these micro grids due to their demand for electricity for lighting, cooling and appliances. The micro grids will use renewable energy sources (solar, wind, hydro) and will provide electricity for lighting, radio and phone charging for households, and for service and production activities in Rural Productivity Zones (RPZs).

? Extension of existing electricity grids on different islands: Households, public institutions and tourism/commercial consumers in the proximity of lines will be connected. Electricity will be provided for lighting, audio/TV, mobile phone charging, coastal fishing (refrigeration of the fish catches), tourism facilities (lodges), agricultural facilities (preparing, processing and packaging produces) or the production of handicrafts.

82. National Green Energy Fund (NGEF)<sup>[114]</sup> was established in April 2016. It is targeted to mobilize financial resources to provide all households with access to electricity and meet the sustainable energy target by 2030. The characteristics of NGEF are: it will operate as a revolving fund, with an anticipated



initial start-up capital of USD 10 million, to be sourced mainly from international sources, and from yearly contributions from domestically consolidated energy funds, totaling USD 300,000. It will offer funding like debt via intermediaries, including financial institutions and non-financial institutions in Vanuatu; project equity for project developers and technology providers risk sharing, in the form of a first loss facility for local banks, small grants for public institutions (no more than 5% of total fund investments). Energy efficiency investments also included renewable energy development, with a primary focus on increasing energy access in off-grid areas.

83. Vanuatu developed a Renewable Energy Electrification Master Plan <sup>[115]</sup> in 2016. It is a renewable energy-based off-grid electrification master plan for remote islands focusing on some pilot islands (Mataso, Makira, Emae and Aneityum) selected by the government, and scaling up gradually. It has two main components: (i) preliminary technical designs for renewable-energy based electrification for the four islands; and (ii) based on this sample of islands, development of a masterplan for electrifying Vanuatu's outer islands through affordable renewable energy.

84. Priorities and Action Agenda (PAA) 2006 ? 2015 of Vanuatu<sup>[116]</sup> has seven strategic priorities to achieve the national vision, which are as follows:

? Private Sector Development and Employment Creation;

? Macroeconomic Stability and Equitable Growth;

? Good Governance and Public Sector Reform;

? Primary Sector Development, Environment, Climate Change, and Disaster Risk Management;

? Provision of Better Health Services, especially in rural areas;

? Education and Human Resource Development; and

? Economic Infrastructure and Support Services.

? The country through this PAA has also prioritized various strategies which could lead to climate change mitigation like better transport services and infrastructure, sustainable utilization and management of land, improvement and strengthening of research and development in agriculture, livestock, fisheries and forestry, finalization and implementation of the climate change policy including its integration in the PAA, sector plans and ministry corporate plans etc.

85. The country is an active participant in Pacific island regional affairs and has signed on to a number of regional policies and initiatives that have implications for climate change mitigation. Some of these are briefly outlined here:

? *Pacific Plan for Strengthening Regional Cooperation and Integration (PPSRCI)*<sup>[117]</sup>: It was sanctioned in October 2005 by the Pacific Island leaders. It includes some strategies to help promote environmentally sound energy options, and facilitate international financing for action on climate change.

? *Pacific Island Framework for Action on Climate Change (PIFACC)*<sup>[118]</sup>: It was agreed in June 2005 by the Pacific Island leaders. It includes regional activities aimed at contributing to global GHG reduction. Expected mitigation outcomes are: (i) promotion of improved energy efficiency in all sectors; (ii) introduction of cost-effective renewable energy technologies; (iii) promotion of local sources and knowledge; and (iv) development and implementation of Clean Development Mechanisms.

? *Pacific Islands Energy Policy*<sup>[119]</sup>: It was adopted in November 2004 and includes a number of important goals focusing on mitigation like efficient power generation, environmentally clean and efficient transportation, development of renewable energy, and improved energy efficiency.

? *Solid Waste Management Strategy for the Pacific Region*<sup>[120]</sup>: It is developed by the Secretariat of the Pacific Regional Environment Programme (SPREP), and adopted by the Pacific Island countries in 2005. It focused on promoting recycling and reduction of the amount of waste going to landfills, which in turn can reduce GHG emissions.

? *Cleaner Pacific 2025: Pacific Regional Waste and Pollution Management Strategy 2016-2025*<sup>[121]</sup>: It is a comprehensive long-term strategy for integrated sustainable waste management and pollution prevention and control framework in this region to address waste, chemicals and pollutants. It is targeted to reduce associated threats to sustainable development of the region.

? Priority areas are: municipal solid waste, asbestos, electrical and e-waste, healthcare waste, chemicals (e.g.-organic pollutants, ozone depleting substances and mercury), used oil and lubricants, marine litter, ship-sourced pollution, disaster waste and liquid waste (e.g.-sewage and trade waste).

### Climate Change Adaptation

86. National Climate Change Adaptation Strategy for Land-Based Resources (2012 - 2022)<sup>[122]</sup> sets out a systematic, long-term approach for climate change adaptation into core sectoral functional activities. The NCCAS addresses sector and national needs, and contains specific and practical actions rather than project-based approach. Sector specific action plans includes: (i) translation of commitments into concrete actions, (ii) how changing circumstances will be accommodated, and (ii) how risks and barriers will be addressed. The sector action plans again outline the substantive interventions to address adaptation needs, and specify the allocation of responsibilities and definitive implementation timelines.

87. Vanuatu National Adaptation Programme of Action (NAPA)<sup>[123]</sup> Vanuatu prepared both a National Adaptation Program of Action (NAPA) and a National Action Plan (NAP) for Disaster Risk Reduction. The identified priorities for action are: (i) agriculture and food security (preservation/processing/marketing, modern and traditional practices, bartering), (ii) water management policies/programmes (including rainwater harvesting), (iii) sustainable forestry management, (iv) community based marine resource management programmes (modern and traditional, aqua-culture), (v) mainstream climate change considerations into infrastructure design and planning (through Environmental Impact Assessment), (vi) sustainable livestock farming and management, and (vii) Sustainable tourism.

88. The Vanuatu's Climate Change and Disaster Risk Reduction Policy (CCDRR)<sup>[124]</sup> 2016-2030 is focused on good governance, clear priorities and strategies for future climate actions. The vision of this national policy document is for Vanuatu to be a nation whose communities, environment and economy are resilient to the impacts of climate change and disaster risks. This policy provides a framework through which risks can be identified, assessed, reduced and managed. The policy will apply six

principles: 1) accountability, 2) sustainability, 3) equity, 4) community focus, 5) collaboration, and 6) innovation. The actions are organized under three themes: (1) climate change adaptation, (2) low carbon development, (3) response to climate change covering 6 cross-cutting issues.

89. National Policy on Climate Change and Disaster-Induced Displacement (2018)<sup>[125]</sup> aims to address the needs of all communities affected by displacement, including people at-risk of displacement, displaced people, internal migrants, people living in informal settlements, and host communities. Through strengthening existing planning initiatives, multi-hazards mapping, disaster-risk reduction and climate change adaptation efforts, the policy aims to reduce the triggers of displacement as much as possible. In this national policy document systems-level interventions calls for (i) institutions and governance, (ii) safeguards and protection, (iii) evidence, information and monitoring, (iv) capacity-building, training and resources. Sectoral-level interventions relate to: (i) safety and security, (ii) land, housing, planning and environment, (iii) health and well-being, (iv) education, infrastructure and connectivity, (v) agriculture, food security and livelihoods, (vi) traditional knowledge, culture and documentation, (vii) access to justice and public participation.

90. The Vanuatu Forest Policy (2013-2023)<sup>[126]</sup> highlights the following policy directives for climate change adaptation by Integrating climate change adaptation issues into forestry sector planning and activities. Such aspiration is reflected in the following strategies:

- ? Develop forestry-related adaptation demonstration projects including concerns for food security, soil stabilization, water management, and coastal erosion.
- ? Raise awareness of stakeholders on forestry climate adaptation opportunities in Vanuatu, and ? develop related materials.
- ? Liaise, collaborate and share expertise with relevant government and non-government organizations (national, regional and international) to assist local efforts to adapt to climate ? change.
- ? Introduce and promote climate change resilient tree species and varieties.
- ? Maintain and enhance food security through agro-forestry systems.
- ? Undertake ground cover initiatives to prevent soil and coastal erosion.
- ? Identify and seek financing for novel and promising forestry adaptation projects and programs.
- ? Train all stakeholders on the opportunities for climate change adaptation and impact assessment.
- ? Rehabilitate watershed and water catchment areas to secure water supplies.
- ? Systematically assess and continuously monitor the impacts of climate change on forest systems.
- ? Zone development activities and undertake land use planning to minimize site-specific climate change impacts.
- ? Minimize wind damage to crops and infrastructure by trialing windbreak species and systems.
- ? Establish and manage buffer zones around climate sensitive ecosystems, and undertake enrichment planting within these areas.
- ? Develop and regularly update a database of climate change adaptation information in the Vanuatu forest sector.
- ? Update the herbarium database to document existing vegetative biodiversity that may yield resilience to climate impacts.
- ? Enable the storage of forestry seeds for germination of vulnerable species ?out of season?.

? Identify, prioritize and implement appropriate and effective strategies for the forestry sector to adapt to climate change.

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91. In addition, to mitigate climate change and increase the adaptation potential of the country, Vanuatu is committed to sustainable forest management. Hence, Vanuatu is working on an ambitious Forest and Landscape Restoration Strategy (FLRS) with the support from FAO. The project is currently being implemented at the National level and pilot in the Tongoa island through GEF 6. The expected impacts of the project are:

- ? Control soil erosion and siltation to protect rivers, streams and the ocean;
- ? Maintain or improve the fertility of soils and thereby contribute to food security;
- ? Address the socio-economic needs of forest dwellers and forest-dependent communities;
- ? Reduce pressure on natural forests and the vital services they provide; and
- ? Reduce the drivers of climate change.

92. The has a National Water Strategy 2008-2018<sup>[127]</sup> focusing on sustainable and equitable access to safe water and sanitation for the people to support improved health and promote social and economic development. It explicitly recognizes that climate related changes could be expected to limit the future availability of potable water, constrain its productive use, and impact negatively on Vanuatu's pristine natural environment.

93. National Water Strategy (2018-2030)<sup>[128]</sup> proposed a major change in the role than the National Water Strategy (2008-2018). It focuses on the progressive devolution of responsibility, authority and resources for water management down to provincial government level and the increased community involvement in planning, management and monitoring of water use. Considering the climate change it focuses on securing water future. It recognizes that water is the primary medium through the impact of Climate Change and the vulnerability to disasters significantly impacts the safety and security of water. The strategy identifies actions to strengthen coordination with other sectors and partners to understand, predict, design and invest to secure Vanuatu's water future.

94. The Disaster Risk Reduction and Disaster Management National Action Plan 2006 ? 2016<sup>[129]</sup> entails technical, business management, and policy types of adaptations by, for example, facilitating the implementation of early warning systems which can reduce the vulnerability of the tourism sector to climate change-induced risks such as cyclones and storm surges.

95. The Meteorology, Geological Hazards and Climate Change Act 2016<sup>[130]</sup> sets out governance and administrative provisions and provides for transparency. It also outlines roles and responsibilities for meteorology, geological hazards and climate change and for related purposes. It emphasizes application of the precautionary principle when discharging responsibilities and functions or exercising powers. The Act formalized the establishment of key institutions for climate-related services, specifically, the NAB, Department of Climate Change (DoCC), Department of Meteorology (DoM), and Department of Geological Hazards.

96. The Environmental Management and Conservation Act 2002<sup>[131]</sup> provided technical, policy, and research and education adaptation types whereby, for example, the establishment of conservation areas

protects Vanuatu's natural resources, which provide future tourism attractions, thus making tourism less vulnerable to climate change-induced ecosystem damage.

97. Vanuatu's formal education sector is guided by the National Curriculum Statement which was fully climate mainstreamed in 2010. It mandates that climate change adaptation and resilience must be incorporated into all subjects at all levels of the curriculum. In 2013, the Curriculum Development Unit of the Ministry of Education completed Vanuatu's new English and French curriculum which fully mainstreams climate change and disaster risk reduction learning outcomes from levels K-13<sup>[132]</sup>.

#### Baseline initiatives of Vanuatu towards ensuring transparency in Climate Change

98. The country has developed and implemented integrated Monitoring, Reporting and Verification (MRV) Tool for Energy Sector (currently being enhanced to cover additional mitigation sectors according to the updated NDC), and a Monitoring, Reporting Verification Tool for NERM:2016-2030<sup>[133]</sup>. Vanuatu's integrated MRV tool is a web-based system includes a detailed online database for IPCC sectors and Climate actions, key features and modules includes:

? Module-1: GHG Inventory

? Module-2: Mitigation

? Module-3: Adaptation

? Module-4: Climate Finance

? Module-5: Sustainable Development Goals (SDGs)

The Vanuatu's Integrated MRV Tool aims to assist the Department of Climate Change (DoCC) and other line ministries/departments to develop a concise and strategic domestic national MRV system to enhance monitoring, tracking, reporting and verifying of climate actions including GHG emissions; mitigation, adaptation and SDG impact of projects, programme, policies etc. The QA/QC procedure on the existing MRV system is planned and detailed QA/QC procedure will be developed under capacity building and training module. The data collected at central database/data and analysis of output/outcome shall be verified by the designated agency or official prior to finalization. The Verification team may request revision in data monitoring or update in data sheet if required. Based on the existing MRV system, climate finance will be focused on (a) identification of NDC Projects and Programme and level of reporting requirements, (b) identification of parameters and data to be monitored, (c) the monitored data shall be stored at Central Database/Data-hub, (d) analysis of data, (e) verification and QA/QC, and (f) communication and reporting .

99. The Vanuatu's Climate Change and Disaster Risk Reduction Policy (CCDRR)<sup>[134]</sup> calls for incorporating rigorous processes, transparent decision-making and public reporting to ensure appropriate use of resources, and steering the climate change and disaster risk reduction agenda. It also calls for strengthening existing systems through building on experience, learning from events, activities and good practice to ensure continuity beyond the short and medium term. It also emphasizes partnering among government, regional, global and national CSOs, private sector, development partners, donors, and academic institutions to build networks and share knowledge and information.

100. NAMA Rural Electrification<sup>[135]</sup> transparent monitoring of GHG emission reductions. It particularly focused on how to build and integrate a reliable and transparent structure of financial governance into the NAMA and how to manage the financial flows and the controls required to ensure

a sustainable use of funds. The country also highlighted the results through implementation of NAMAs need to be amenable to Measurement, Reporting and Verification (MRV) to attract donors and to guarantee the sustainable success of the interventions. It states the need to follow the general principles of transparency, consistency, comparability, completeness and accuracy to all the components to be monitored. It also calls for a credible and transparent approach for quantifying and reporting GHG emission reductions.

101. National Sustainable Development Plan (NSDP) 2016-2030<sup>[136]</sup>, the so called *the Vanuatu 2030: The Peoples Plan* dedicated to achieve a 'stable, sustainable and prosperous Vanuatu by 2030'. It calls for enhance environmental monitoring, evaluation and research with relevant, open and transparent data sharing among relevant agencies (Policy objective ENV 5.6).

102. Vanuatu - Forest Carbon Partnership Fund (FCPF) Readiness Plan Preparation Project<sup>[137]</sup>: FCPF Readiness activities in Vanuatu relate to strategic planning and preparation for Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+). The development objective of this project is to assist Vanuatu to carry out the Readiness Preparation Activities by supporting the preparation of its REDD+ strategy through a participatory and inclusive process, and by producing technical and policy advice to help strengthen sustainable land and forest management practices. The project components are:

- ? Institutional Strengthening for REDD+ Management Arrangements at the national and decentralized level.
- ? Strengthening of the stakeholder engagement process at the decentralized level.
- ? Development of a REDD+ strategy for Vanuatu.

103. Climate Action Enhancement Package (CAEP)<sup>[138]</sup>: Through the Climate Action Enhancement Package (CAEP) Vanuatu aims to enhance the quality, increase the climate ambition, and implement nationally determined contributions (NDCs), as part of the 2020 update process.

104. Strengthening Vanuatu's Engagement with the International Climate Change Negotiations and its Obligations under the United Nations Framework Convention on Climate Change (UNFCCC)<sup>[139]</sup>. The project is aimed to strengthen the Republic of Vanuatu's capacity to engage with and derive increased direct benefit from the United Nations Framework Convention on Climate Change (UNFCCC). It commenced in commencing in April 2021, and the outcomes of the project are:

- ? Reform and streamline the Republic of Vanuatu's engagement with the UNFCCC Secretariat, its bodies, committees, working groups and funding mechanisms
- ? Effectively meet the reporting obligations to the UNFCCC (e.g. National Communications, Biennial Update Reports, National Adaptation Plans, and Nationally Appropriate Mitigation Actions etc.
- ? Strengthen the climate change negotiation and representation capacity of the Republic of Vanuatu at the regional and international level (including but not limited to the fora under the UNFCCC, AOSIS, MSG etc.).
- ? Improve the participation of key stakeholders (including sectorial government, civil society, private sector, academia, community, and youth) in UNFCCC processes with increasing attention paid to gender equity and balance.

? Expand the general public's awareness and knowledge of the country's engagement in UNFCCC processes and resultant benefits to the nation.

105. The above national aspiration towards climate transparency will be the main focus of this CBIT project with the technical support from FAO. Under this project technical and institutional capacities will be strengthened to meet the PA's Enhanced Transparency Framework (ETF) requirement.

106. The country also submitted BUR in December 2021, and it provides a description of the anthropogenic GHG emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) by sources and their removal by sinks has been presented for the years 2016 and 2017. This report also presents an account of the methodologies used, the quality assurance/ quality control (QA/QC) measures applied, the results of the key category analysis, and approach including quantification of the uncertainties associated with the estimates. Some of the key barriers mentioned in the BUR are: (a) lack of technical support (technical knowledge and expertise) available to stakeholders on climate change or climate change science, (b) lack of data for monitoring and evaluation of climate change and its impacts including SDG benefits in Vanuatu, and (c) lack of information dissemination, knowledge sharing, decision support tools on climate change adaptation and mitigation and risk reduction strategy.

#### Baseline initiatives of Vanuatu focusing on data and information management system

107. Vanuatu has developed an Environmental Data Portal in collaboration with Pacific Regional Environment Programme (<https://vanuatu-data.sprep.org/>). This portal provides an easy way to find, access and reuse national environmental data. The database can be used to store and access any data type including tables (excel) documents (work and PDF), GIS files (.shp, .tab) and any other file type including non-environmental datasets. The purpose is to ensure easy access and safe storage for Environmental datasets for monitoring, evaluating, and analysing environmental conditions. This data portal will eventually support environmental planning, forecasting, and reporting requirements at all levels. This data portal currently has 439 datasets covering biodiversity, fishery, inland water, atmosphere and climate, culture and heritage, etc.

108. National Climate Change Portal (<https://www.nab.vu/>) contains data and information on all the climate change related ongoing, completed and future project in the country. The portal provides easy access data on national climate change projects covering Community Awareness, Planning and Governance, Pilot /Trial/ Demonstration Project, Capacity Building, Disaster Response, etc. It also provides information on funding agency and implementing agency. This portal also includes some of the climate change related tool, such as Vanuatu Satellite Imagery Tool, and Real Time Sea Level Display.

109. POPGIS3 Vanuatu is a GIS data portal developed by the Vanuatu National Statistics Office (VNSO), and Pacific Community (<http://vanuatu.popgis.spc.int/#c=home>). This data portal provides data with mapping tool, at a range of Council, Island and Provincial layers. PopGIS3 allows users with no GIS background to create and share maps using either the data hosted in

the site or their own datasets. The datasets and shapefiles can be downloadable from the data portal.

Baseline initiatives of Vanuatu from donor funded project towards ensuring transparency in Climate Change

110. Vanuatu has implemented, or in the process of implementing the below initiatives from donor funding related to MRV and transparency:

Table 7: The baseline initiatives in Vanuatu contributing to climate change mitigation and adaptation, and possible linkages with the proposed CBIT project.

<b>Name of Initiative</b>	<b>Implementing and executing agency</b>	<b>Linkages with the CBIT project</b>
1. The First National Communication to UNFCCC. Donor: GEF Timeframe: 1999-2000	Under the Pacific Islands Climate Change Assistance Project (PICCAP) funded by the GEF and with the SPREP, and in collaboration with National Advisory Committee for Climate Change (NACCC), and National Disaster Management Office (NDMO).	The CBIT project will build on data and coordination mechanism.
2. The Second National Communication to UNFCCC. Donor: GEF Timeframe: 2013-2016	Ministry of Climate Change Adaptation (MoCC), Meteorology & Geo-Hazards, Energy, Environment and National Disaster Management (Executing agency-EA) and UNDP (Implementing Agency-IA).	The CBIT project will build on data and coordination mechanism.
3. The Third National Communication and BUR to UNFCCC. Donor: GEF Timeframe: 2017-2021	MoCC (EA) and UNDP (IA)	The CBIT project will closely work with this initiative for data and institutional arrangement.  Lessons learned and experiences from the activities will also be considered.  Opportunities for exchange and joint capacity building will be sought with this project.
4. Preparation of A National Adaptation Program of Action (NAPA). Donor: GEF Timeframe: 2003-2006	National Advisory Committee on Climate Change (EA) and UNDP (IA)	The CBIT project will build on data and coordination mechanism.



Name of Initiative	Implementing and executing agency	Linkages with the CBIT project
<p>5. Barrier Removal for Achieving the National Energy Road Map Targets of Vanuatu (BRANTV). Donor: GEF Timeframe: 2018-2022</p>	<p>Department of Energy, Ministry of Climate Change and Natural Disaster (DOE-MCCND) (EA) and UNDP (IA) &amp;</p>	<p>The CBIT project will build on data and coordination mechanism.</p>
<p>6. Protecting Urban Areas Against the Impacts of Climate Change in Vanuatu. Donor: GEF Timeframe: 2015-2020</p>	<p>Public Works Department (PWD), Ministry of Infrastructure and Public Utilities (MIPU) (EA), and Asian Development Bank (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>
<p>7. Mainstreaming Global Environmental Priorities into National Policies and Programmes. Donor: GEF Timeframe: 2015-2018</p>	<p>Department of Environment and Conservation, Ministry of Land and Natural Resources (DEC/MLNR) (EA) and UNDP (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>
<p>8. R2R: Integrated Sustainable Land and Coastal Management. Donor: GEF Timeframe: 2015-2020</p>	<p>Ministry of Lands and Natural Resources; Ministry of Agriculture, Quarantine, Forestry and Fisheries (EA), and Food and Agriculture Organization (FAO) (IA).</p>	<p>The CBIT project will build on the coordination mechanisms, capacity, knowledge management and M&amp;E systems.</p>
<p>9. Increasing Resilience to Climate Change and Natural Hazards. Donor: GEF Timeframe: 2012-2018</p>	<p>Vanuatu Meteorology and Geo-hazards Department (VMGD), with inputs from National Disaster Management Office (NDMO), Department of Local Administration (DLA), Department of Agriculture and Rural Development (DARD), Vanuatu Agriculture Research and Technology Center (VARTC), and Department of Rural Water Supply (RWS) (EA) and the World Bank (IA).</p>	<p>The CBIT project will build on the coordination mechanisms, capacity, knowledge management and M&amp;E systems.</p>
<p>10. LDC/SIDS Portfolio Project: Capacity Building and Mainstreaming for Sustainable Land Management in Vanuatu. Donor: GEF Timeframe: 2005-2012</p>	<p>Department of Lands, within the Ministry of Lands and Natural Resources (EA), and UNDP (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>
<p>11. National Capacity Needs Self-Assessment (NCSA) for Global Environmental Management. Donor: GEF Timeframe: 2004 to 2006</p>	<p>Environment Unit (EA), and UNEP (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>

Name of Initiative	Implementing and executing agency	Linkages with the CBIT project
<p>12. Pacific Climate Change Collaboration Influencing and Learning (PACCCIL) Project. Donor: Australian Aid. Timeframe: 2018 ? 2021</p>	<p>Ministry of Climate Change Adaptation (MoCC), Meteorology &amp; Geo-Hazards, Energy, Environment and National Disaster Management (EA) and Oxfam Vanuatu (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>13. Vanuatu Ecosystems and Adaptation Project. Donor: GCF. Timeframe: 2016 ? 2021</p>	<p>Vanuatu Meteorology and Geo-Hazards Department (EA), and United Nations Environment Programme (UNEP) (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>
<p>14. Adapting to Climate Change and Sustainable Energy (ACSE) Programme. Donor: EU. Timeframe: 2016 ? 2018</p>	<p>Implemented by fifteen Pacific ACP Island countries and GIZ (IA)</p>	<p>Lessons learned and experiences from the activities will also be considered.</p>
<p>15. Adaptation to Climate Change in the Coastal Zone in Vanuatu ? Phase II (VCAP II). Donor: GEF Timeframe: Concept Approved in 2020.</p>	<p>Ministry of Climate Change Adaptation (MoCC), Meteorology &amp; Geo-Hazards, Energy, Environment and National Disaster Management (EA) and UNDP (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>16. Ecosystem Restoration and Sustainable Land Management in Tongoa Island. Donor: GEF Timeframe: Concept Approved in 2020. Time frame: 2021-2024</p>	<p>Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity &amp; Ministry of Climate Change, Adaptation, Meteorology, GEO-hazards, Environment and Energy (EA), and FAO (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>

Name of Initiative	Implementing and executing agency	Linkages with the CBIT project
<p>17. Expanding Conservation Areas Reach and Effectiveness (ECARE) in Vanuatu. Donor: GEF Timeframe: Concept Approved in 2020.</p>	<p>Department of Environmental Protection and Conservation (DEPC) (EA), and International Union for Conservation of Nature (IUCN).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>18. Enhancing Early Warning Systems to Build Greater Resilience to Hydro Meteorological Hazards in the Pacific SIDS Timeframe: 2017-2022 Donor: GCF Approved in 2017</p>	<p>Ministry of Climate Change Adaptation (MoCC), Meteorology &amp; Geo-Hazards, Energy, Environment and National Disaster Management (EA) and WMO (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>Climate Information Services for Resilient Development in Vanuatu (VANKIRAP) Timeframe 2013 - 2017 Donor: GCF Approved in 2013</p>	<p>Ministry of Climate Change Adaptation (MoCC), Meteorology &amp; Geo-Hazards, Energy, Environment and National Disaster Management (EA) and SPREP (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>19. Global Cleantech Innovation Program (GCIP) for PICTs Timeframe 2013 - 2017 Donor: GEF Non-Star Allocation ? LDCF and SCCF Approved in 2013</p>	<p>Ministry of Finance and Economic Management (MFEM) (EA) and PICT (IA).</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>

Name of Initiative	Implementing and executing agency	Linkages with the CBIT project
<p>20. Climate Action Enhancement Package (CAEP) 21. Donor: German Federal Ministry</p>	<p>Ministry of Climate Change. Through the Climate Action Enhancement Package (CAEP) Vanuatu aims to enhance the quality, increase the climate ambition, and implement nationally determined contributions (NDCs), as part of the 2020 update process.</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>22. Vanuatu - Forest Carbon Partnership Fund (FCPF) Readiness Plan Preparation Project. 23. Donor: FCPF</p>	<p>Department of Forestry is the implementing agency. FCPF Readiness activities in Vanuatu relate to strategic planning and preparation for Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+). The development objective of this project is to assist Vanuatu to carry out the Readiness Preparation Activities by supporting the preparation of its REDD+ strategy.</p>	<p>Lessons learned and experiences from the activities will also be considered.</p> <p>Opportunities for data and information exchange, and joint capacity building will be sought with this project.</p>
<p>24. Vanuatu REDD+ Programme</p>	<p>The Department of Forestry is also conducting the National Forests Inventory (NFI) which has started on June of 2019 and completed in June of 2021. Data from the NFI is currently being analyzed and will finally be incorporated into a National Forest Monitoring System (NFMS) for Vanuatu.</p>	<p>Establish or strengthen institutional arrangements and processes for NFI data.</p> <p>Support the establishment or strengthening of systems and processes that will ensure regular and consistent forest inventories for medium and long term MRV purposes.</p> <p>Support the development of institutional arrangements, systems, and processes to generate data from the entire AFOLU sectors.</p>

**3) Proposed alternative scenario with a brief description of expected outcomes and components of the project and the project's Theory of Change**

111. The proposed project is aimed at assisting the Vanuatu to implement its GHG emission reduction commitments under the Paris Agreement to the UNFCCC and also track the NDC adaptation actions. Specifically, project objective is to build Vanuatu's institutional and human capacities for complying with Enhanced Transparency Framework (ETF) reporting requirements of the Paris Agreement, and implementation and monitoring of Vanuatu's Nationally Determined Contribution focusing on Energy, Agriculture, Forestry and other Land-use Sectors.

112. The theory of change (TOC) (Figure 11) underlying this project is based on the premises that for Vanuatu to establish and achieve climate change mitigation and adaptation goals that it has committed to under the Paris Accord in the most cost-effective manner, and without compromising on its national development goals and economic growth potential.

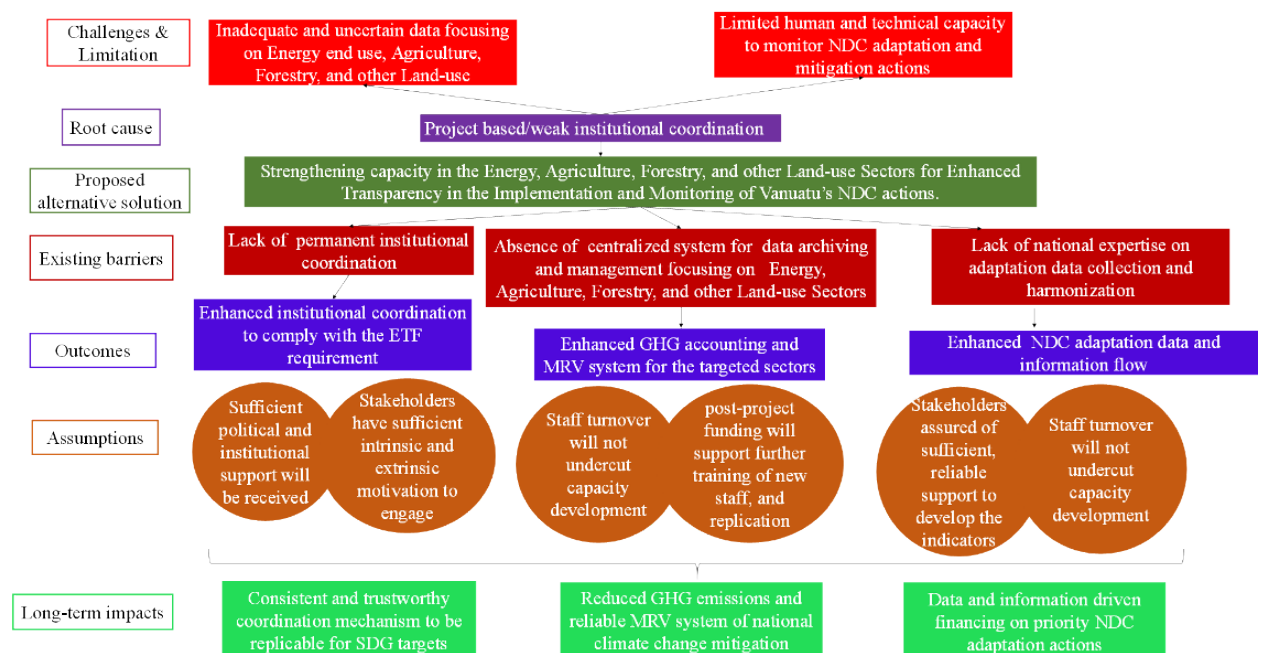


Figure 11: Theory of change of the proposed CBIT project.

113. The project consists of two inter-linked components aimed at comprehensively addressing the barriers mentioned in section G. The first component addresses institutional capacity constraints related to preparation and updation of national and sectoral NDC targets, as well as limited awareness about ETF requirement. This component in partnerships with a number of government organizations, NGOs, and private entity will support the development of robust institutional arrangement for the implementation of domestic MRV. Under the second component the project will work to set-up and strengthen MRV system through centralized information management system and human capacity development through training.

Component 1: Strengthening Vanuatu's institutional arrangements for a robust MRV system for NDC climate change mitigation and adaptation actions.

114. The CBIT project will help to strengthen the capacities of national and local institutions by placing a proper political and institutional arrangement for meeting ETF requirements (Output 1.1.1). The project is expected to strengthen the institutional requirement for ETF through strategies that consist of (i) Conducting gaps assessment focusing on institutional, regulatory, human, technology, finance and capacity-building support needed, and stakeholder mapping to meet the transparency framework of enhanced NDC actions (Activity 1.1.1.1); (ii) working groups with institutional focal persons are identified and formalized through ministerial decree for data collection and processing focusing on mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.1.2), and (iii) Based on Activity 1.1.1.2, Establishment of the National ETF body under the DEPC involving the relevant ministries of targeted sectors (Activity 1.1.1.3). Composition of the working groups and institutional focal persons will help to form the national ETF body. Under this component sectoral transparency guidelines and protocols will be established for enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Output 1.1.2). To do that PATPA-FAO Biennial transparency report (BTR) guidance and roadmap tool will be utilized. The project is expected to strengthen the sectoral transparency guidelines and protocols through activities of (i) reviewing regulatory framework and developing guidelines with a focus on equal gender participation and leadership for national ETF institutional arrangements to track the progress of enhanced NDC focusing on climate change mitigation, adaptation, and addressing L&D (Activity 1.1.2.1); (ii) Metrics and indicators for monitoring enhanced NDC actions focusing on climate change mitigation, adaptation, and addressing L&D (Activity 1.1.2.2); and (iii) Metrics and indicators for linking enhanced NDC with National Sustainable Development Plan (NSDP) and their reporting (Activity 1.1.2.3). Under this component operational quality control and assurance mechanism will be established (Output 1.1.3). The project is expected to strengthen the operational quality control and assurance mechanism through activities of (i) Development of quality control system (data collection, archiving, and data sharing) focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.3.1); (ii) Development and enhancement of existing system of data collection templates and guidelines focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.3.2); and (iii) Establishment of mechanism (through agreement, MoU) between the stakeholders for collection, generation, archiving, and dissemination of data focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.3.3). The NDC highlighted 5 top priority adaptation sectors. Out of these 5 priority adaptation sectors, under this project focus will be given to priority adaptation sectors ?Agriculture and food security? and ?Sustainable Forest Management? as pilot case. Based on the lessons learned other priority adaptation sectors (Sustainable tourism development, Community based marine resource management, and Integrated water resource management) will be incorporated in future.

115. This component will utilize the FAO strength on institutional strengthening through a number of tools developed by FAO. Some of these tools are: (i) Biennial transparency report (BTR) guidance and roadmap tool, (ii) Greenhouse Gas Data Management (GHG-DM) tool, (iii) Institutional Arrangements for National Inventory Systems, and (iv) Action recommendations on capacity-building for transparency and reporting. These tools will be utilized to strengthen the institutional structure in the Vanuatu to ensure transparency in the MRV system. In addition, FAO has also developed a number of tools and guidelines for climate change adaptation, monitoring, and evaluation under the global CBIT project. These tools and guidelines are: (i) Loss and damage assessment, (ii) Monitoring and Evaluation (M&E) training package, (iii) Modelling System for Agricultural Impacts of Climate Change (MOSAICC), and (iv) Self-evaluation and Holistic Assessment of climate resilience of farmers and pastoralists (SHARP). These will be also utilized under this component.

116. Component 1 will strengthen guidelines on monitoring and reporting of climate financing focusing on domestic and international sources, and both public and private sector (Output 1.2.1). Under this output the activities will be (i) assessment of needs, constraints, and stakeholders on tracking climate finance on enhanced NDC actions (Activity 1.2.1.1), (ii) Based on Activity 1.2.1.1 developing methodologies, guidelines, and protocols to collect, archive, and disseminate climate finance data (Activity 1.2.1.2), (iii) Establishment of National Climate Finance Reporting and Monitoring (NCFRM) cell linked with the proposed National ETF body to track climate finance of enhanced NDC actions under MOCC involving other relevant ministries (Activity 1.2.1.3). Component 1 will also strengthen capacity of national climate change stakeholders to track the enhanced NDC adaptation actions (Output 1.2.2). Under this output the activities will be (i) assessment of good practices for monitoring and reporting on enhanced NDC priority adaptation actions (Activity 1.2.2.1), (ii) designing and implementing a gender-sensitive training program involving relevant institutions at different levels to monitor enhanced NDC priority adaptation actions (Activity 1.2.2.2).

117. The above strategies will help Vanuatu to develop a long-term action plan on climate transparency, and to switch away from a project-based approach to MRV toward a full institutionalization of the ETF. By defining long-term and mid-term actions, which will not be impacted by political change, the country will be able to accelerate transparency actions in compliance with the Paris Agreement. The proposed institutional mechanism will operate continuously focusing on national communications (NC), and biennial transparency report (BTR), and will build on the previous institutional arrangement for (i) national communications, (ii) forest reference level submission, (iii) NAB institutional arrangements, and (iv) Vanuatu's Climate Change Act (2016) institutional arrangements. The project will ensure coordination with Third National Communication, and BUR, as well as ongoing adaptation related projects to avoid duplication and enhance synergies on institutional arrangement. The project will ensure coordination with the ongoing REDD+ work in the country. The ongoing REDD+ work in the country has focus on the activities such as land degradation, agroforestry etc., and such activities can provide data for the AFOLU sector. In addition, REDD+ work and the reporting obligations can also provide data for Climate Change mitigation and adaptation for national communications. For example, National Forest Inventory can provide Activity data and emission factors. So, the proposed project will work through the proposed institutional framework and will

ensure the smooth data and information flow from the ongoing REDD+ work in the country. The institutional framework will build on existing data management systems and initiatives like MRV system of NERM:2016-2030. Also, the proposed institutional framework will be linked to the NAB to coordinate high-level climate change activity (e.g. legislative and policy direction, supervision, oversight, and guidance) across different levels. In the long run, these strategies will ensure preparation of GHG inventories, and tracking of NDC actions will be supported by the Vanuatu's national budget. In addition, support from the Vanuatu's national budget will ensure the continuation of the established institutional arrangement, due to data support from the proposed strategies for the tracking of relevant sustainable development goals (SDG), such as- Affordable and Clean Energy (SDG 7), Sustainable Cities and Communities (SDG 11), Responsible Consumption and Production (SDG 12), and Climate Action (SDG 13). In addition, the project will ensure the training program organized under this component 1 will follow Training of Trainers (ToT) approach, so that the training can be replicated for the newly recruited staffs. Similarly, under the ToT national/regional institution or university faculties will be included to disseminate the technical knowledge as university curricula.

*Component 2: Provision of an online platform, tools, and training for a robust MRV system focusing on Energy, Agriculture, Forestry, and other Land-use Sectors.*

118. Component 2 will upgrade the existing EMIS system through Information Technology (IT) infrastructure development for a robust MRV system hosted by DEPC (Output 2.1.1). Under this output the activities will be (i) procurement of hardware and software to enhance an online-based integrated MRV system (Activity 2.1.1.1), (ii) historical activity data are archived and new data are collected (Activity 2.1.1.2), (iii) national specific emission factors are collected and archived (Activity 2.1.1.3), (iv) centralized database development and linking to sectoral system with archived historical data for NDC actions hosted by MOCC (Activity 2.1.1.4), (v) operational integrated MRV system with online visualization and dissemination platform focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 2.1.1.5). Component 2 will also strengthen human capacity on GHG emissions and removal tools, and climate vulnerability assessment through training and peer-to-peer learning (Output 2.1.2). Under this output the activities will be (i) designing and implementation of gender-sensitive training on data collection, storage, and management; GHG emission and removal estimation and reporting; and transparency elements (Activity 2.1.2.1), (ii) dissemination of training knowledge materials through training proceedings and recorded video of the training session through the established online MRV system (Activity 2.1.2.2), (iii) exchanging the lessons learned at the national, regional and global levels through the CBIT Global Coordination Platform (Activity 2.1.2.3). The project is expected to contribute towards this output through gender-sensitive training modules and capacity-building sessions organized focusing on estimation of GHG emissions and removals and reporting using latest tools and methodologies (Activity 2.1.2.1). FAO strength on GHG inventory preparation and MRV system development will be utilized under this component through some tools and guidelines developed by FAO under the Global CBIT project. These are: (i) Measurement, reporting and verification (MRV) guidance for mitigation actions in the agriculture, forestry and other land use (AFOLU) sector, (ii) Greenhouse Gas Data Management (GHG-DM) tool, (iii) UNFCCC Quality assurance (QA) process, (iv) Nationally determined contributions (NDC) tracking tool, (v) Nationally determined contributions in Agriculture, forestry and



other land use (NDC-AFOLU) Navigator, (vi) Nationally determined contributions expert tool (NEXT), and (vii) FAOSTAT ? Emissions.

119. Under component 2, gender-sensitive training programs will be developed on GHG inventory methodologies and tools, national specific climatic and socio-economic scenarios to assess the climate change mitigation, land use change analysis, emission factors, methodologies, and tools for mitigation assessment. The proposed trainings will utilize the ETF training materials being made available at the global CBIT platform, as well as the FAO e-learning courses on GHG inventory preparation. The project will ensure the training program organized under component 2 will follow Training of Trainers (ToT) approach, so that the training can be replicated for the newly recruited staffs. Similarly, under the ToT national/regional institution or university faculties will be included to disseminate the technical knowledge as university curricula. Gender-sensitive training programs will be developed on GHG inventory methodologies and tools, national specific climatic and socio-economic scenarios, emission factors, methodologies, and tools for mitigation assessment of GHG emission. Capacity for LULUCF assessment will be strengthened through hands-on training of relevant stakeholders using Collect Earth, and subsequent application of the tool, and as a part of training the trained participants will carry out the nationwide LULUCF assessment for a specific period. Such LULUCF assessment will be archived under the data and information system to be developed under this project. For the AFOLU sector, training will be provided based on the IPCC guidelines for GHG inventory, ETF MPGs relevant to the AFOLU sector, and FAO GLEAM-i tool relevant to livestock. In coordination with the Global CBIT-AFOLU project, targeted stakeholders will be also completed the three e-learning courses on MRV: (a) preparing a greenhouse gas inventory under the ETF; (b) assessing uncertainties in the national greenhouse gas inventory with a focus on the LULUCF; and (c) estimation of methane emissions from enteric fermentation at Tier 2 level. In addition, a MoU between MoCC and National University of Vanuatu supported by FAO was signed on 16 May 2022 to develop and implement some of the GEF-CBIT funded activities in Vanuatu. The key activities under this MoU will be (a) cooperation with MoCC and FAO for developing training program of professionals through face-to-face and online modality for different sectors under consideration of CBIT project, (b) cooperation with MoCC and FAO for developing new training program for climate change, (c) promote research and development activities on natural resources and climate change contexts to ensure that all the research outcomes is documented in database, preserved and protected. For more details on the signed MoU, please see the uploaded MoU.

120. Component 2 will build on the results of baseline activities as mentioned in section 2 to establish and strengthen fit-for-purpose MRV system focusing on Energy, Agriculture, Forestry and other Land-use Sectors. Based on the lesson learned under this project, the established infrastructure will also focus on other IPCC sectors (IPPU and Waste) for them to be incorporated in the future.

121. The above two components will support the country to increase transparency over time. For example, robust institutional arrangements and knowledge management structures for gathering, and coordinating under this project will ensure future emission factors and activity data development. In addition, enhanced knowledge sharing and coordination will ensure gradual improvement towards more transparent framework.

**4) Alignment with GEF focal area and/or Impact Program strategies and FAO comparative advantage**

122. The Capacity Building Initiative for Transparency (CBIT) and Climate Change Mitigation Focal Area of GEF- 7 are aligned with the proposed CBIT project. GEF CBIT portfolio encourage the country to strengthen the institutional and technical capacity for ETF requirements of Paris Agreement, which is the ultimate goal of the proposed CBIT project. The proposed project is also aligned with the three aims of CBIT Program:

- ?Strengthen national institutions for transparency-related activities in line with national priorities;
- ?Provide relevant tools, training and assistance for meeting the provisions stipulated in Article 13 of the Agreement; and
- ?Assist in the improvement of transparency over time.

A brief outline of the proposed CBIT project outputs with the requirements of MPGs is presented in table 8.

Table 8: Alignment of proposed CBIT project outputs with MPGs requirements.

<b>CBIT Project Outputs</b>	<b>MPGs requirements</b>	<b>Source [140]</b>
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<p>Output 1.1.1. Institutional arrangements strengthened.</p>	<p><u>Mandatory requirement</u> National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases.</p>	<p><u>Part II, section B, para 18, p. 22</u> <i>Each Party should implement and maintain national inventory arrangements, including institutional, legal and procedural arrangements for the continued estimation, compilation and timely reporting of national inventory reports in accordance with these MPGs.</i></p>
<p>Output 1.1.2 Sectoral transparency guidelines and protocols are established for NDC and enhanced NDC climate change mitigation, adaptation, loss and damage (observed and potential climate change impacts, incl. extreme weather events and slow onset event; and activities to avert, minimize and address them).</p>	<p>Information necessary to track progress made in implementing and achieving NDCs under Article 4 of the Paris Agreement (mitigation)</p>	<p>- <u>Part III, section A, para 61, p. 27</u> <i>Each Party shall provide information on the institutional arrangements in place to track progress made in implementing and achieving its NDC under Article 4, including those used for tracking internationally transferred mitigation outcomes, if applicable, along with any changes in institutional arrangements since its most recent biennial transparency report.</i></p>
<p>Output 1.1.3 Established operational quality control and assurance mechanism.</p>		<p><u>Part III, section A, para 62, p. 28</u> <i>Each Party shall provide information on legal, institutional, administrative and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC under Article 4.4.</i></p>
<p>Output 2.1.1 Upgraded Information Technology (IT) system for a robust MRV system hosted by MOCC based on the existing system.</p>		<p>- <u>Part II, section C, para 21, p. 23</u> <i>Each Party shall use methods from the IPCC guidelines referred to in paragraph 20 above. Each Party should make every effort to use a recommended method (tier level) for key categories in accordance with those IPCC guidelines.</i></p>
<p>Output 2.1.2 Strengthened human capacity on GHG emissions and removal tools, and climate vulnerability assessment through training and peer to peer learning.</p>		<p><u>Part II, section C, para 24, p. 23</u> <i>Each Party is encouraged to use country-specific and regional emission factors and activity data, where available, or to propose plans to develop them, in accordance with the good practice elaborated in the IPCC guidelines referred to in paragraph 20 above.</i></p>
		<p><u>Part II, section C, para 34, p. 24</u> <i>Each Party shall elaborate an inventory QA/QC plan in accordance with the IPCC guidelines referred to in paragraph 20 above.</i></p>
		<p>- <u>Part III, section C, para 75, p. 29</u> <i>Each Party shall provide a description of each methodology and/or accounting approach used, as applicable for: [?] (g) Methodologies used to track progress arising from the implementation of policies</i></p>

<p>Output 1.1.2 Sectoral transparency guidelines and protocols are established for NDC and enhanced NDC climate change mitigation, adaptation, loss and damage (observed and potential climate change impacts, incl. extreme weather events and slow onset event; and activities to avert, minimize and address them).</p> <p>Output 1.2.2 Strengthened capacity of national climate changes stakeholders to track the NDC and enhanced NDC adaptation actions.</p>	<p><u>Encouraged</u> Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement</p>	<p><u>Part IV, section F, para 112, p. 35</u> <i>Each Party should provide the following information, as appropriate, related to monitoring and evaluation: (c) Assessment of and indicators for, (i) how adaptation increased resilience and reduced impacts; (i) Transparency of planning and implementation;</i></p> <p><u>Part IV, section F, para 112, p. 35</u> In order to enhance their adaptation actions and to facilitate reporting, as appropriate, each Party should <i>report on the establishment or use of domestic systems to monitor and evaluate the implementation of adaptation actions. Parties should report on approaches and systems for monitoring and evaluation, including</i></p>
<p>Output 1.2.1 Strengthened guidelines on monitoring and reporting of climate financing focusing on domestic and international sources, and both public and private sector.</p>	<p><u>Voluntary</u> Information on financial, technology development and transfer and capacity-building support needed and received</p>	<p><u>Part VI, section C, para 134, p. 42</u> Developing country Parties <i>should provide, in a common tabular format, information on financial support received, including, to the extent possible, and as available and as applicable.</i></p> <p><u>Part IV, section H, para 116, p. 36</u> <i>Each Party should provide the following information, as appropriate, related to cooperation, good practices, experience and lessons learned: Monitoring and evaluation.</i></p>

123. *FAO comparative advantage.* FAO is currently implementing national CBIT projects in Afghanistan, Bangladesh, Cambodia, Mongolia, PNG, and Sri Lanka, and also under PPG stage of Solomon Islands, and Uzbekistan. Hence, FAO has extensive expertise and experience in technical areas of CBIT project such as climate change mitigation and adaptation of AFOLU sector, sustainable land use and land management, monitoring system development for production systems, land degradation, and forest management.

FAO has also considerable experience of database development and maintenance, such as FAOSTAT database, and a global GHG inventory of AFOLU sector. FAO has developed a number of tools related the CBIT project, such as Collect Earth, EX-ACT, and GLEAM. FAO has long standing expertise on tools, and training materials development for CCM MRV and GHG Inventory. For example, FAO has already developed specific course on GHG inventory related to CBIT: the national greenhouse gas inventory (NGHGI) for agriculture<sup>[141]</sup>, the national greenhouse gas inventory (NGHGI) for land use<sup>[142]</sup> and Preparing a greenhouse gas inventory under the enhanced transparency framework<sup>[143]</sup>. FAO is also currently implementing two global CBIT projects, (i) Global capacity-building products towards

enhanced transparency in the AFOLU sector (CBIT-AFOLU); and (ii) Building global capacity to increase transparency in the forest sector (CBIT-Forest).

**5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing**

124. The proposed CBIT project agrees with *“fostering enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through capacity building initiative for transparency (GEF Focal Area CCM-3-8: supports)*. GEF investment for this proposed CBIT project will ensure transparency, accuracy, consistency, compatibility, and clarity of data and information related to climate change mitigation and adaptation. The national and sectoral institutional and technical capacity gap will likely to persist, and the project-based approach in Vanuatu, if not assisted through the proposed CBIT project. Vanuatu through some completed, and ongoing project has developed disaggregated initiative (for example, national REDD+ program, or MRV tool for the NERM:2016-2030), but there are still several barriers hindering the achievement of national aspiration of climate transparency. Due to such barriers the country will not be able to achieve the transparency requirement of the Paris Agreement, if the proposed CBIT project is not implemented.

125. As a small island nation, climate change constitutes one of the political priorities in Vanuatu; yet existing technical and institutional capacity barriers affect the execution of NDC priorities. The country needs to focus on coordinated actions focusing on data and information analysis, and systematic collection, archiving and management of NDC actions related data. This project will give this opportunity to Vanuatu, and in the long run, the mechanisms and tools, which will be developed under this project, will be gradually integrated into the national system.

126. Table 9 presents how the existing barriers and constraints will be addressed by the expected outputs of the project with the GEF finance.

Table 9: Enhanced Transparency Framework (ETF) requirements and how the existing barriers and constraints will be addressed by the proposed CBIT project in Vanuatu.

<b>Barriers and Constraints</b>	<b>Expected Outputs to Address Barriers and Constraints</b>	<b>Expected contributions</b>
This barrier is mentioned in barrier 1 in section 82. Lack of Clear and robust institutional arrangements and knowledge management structures to ensure sector-specific ETF monitoring and reporting exercises.	1.1.1 2.1.1	Robust institutional arrangements and knowledge management structures for gathering, coordinating and ensuring sector-specific information for ETF monitoring and reporting exercises.

<b>Barriers and Constraints</b>	<b>Expected Outputs to Address Barriers and Constraints</b>	<b>Expected contributions</b>
<p>These barriers mentioned in barrier 2 in section 82. Lack of Strong technical capacity and robust data to track mitigation contributions and adaptation actions. Lack of activity data and local emission factors.</p> <p>Not using the updated IPCC methodologies.</p> <p>Low technical capacity of national stakeholders on domestic MRV systems.</p> <p>Quality Assurance (QA)/Quality Control (QC) and verification processes are also limited.</p> <p>lack of expertise and knowledge on the detailed calculation on the uncertainty of emissions.</p>	<p>1.1.3</p> <p>1.2.1</p> <p>1.2.2</p> <p>2.1.1</p> <p>2.1.2</p>	<p>Strong technical capacity and robust data generation system to establish MRV systems for tracking mitigation contributions.</p>
<p>This barrier is mentioned in barrier 3 in section 82. Lack of enhanced knowledge sharing and coordination of amongst transparency practitioners for ETF compliance.</p>	<p>1.1.2</p> <p>1.2.1</p> <p>1.2.2</p> <p>2.1.1</p> <p>2.1.2</p>	<p>Enhanced knowledge sharing and coordination to comply with the transparency requirement of ETF.</p>
<p>These barriers are mentioned in barrier 1 in section 82.  Lack of awareness and understanding of ETF requirements.</p>	<p>1.1.1</p> <p>1.1.2</p>	<p>Increased awareness and understanding of ETF requirements.</p>

127. The country has recently submitted TNC, 1st BUR and updated NDC. As per TNC and updated BUR, GHG data collection procedure in the country is still not formalized, and there is no permanent institutional arrangement. In addition, during the inception workshop, uncertainties associated with data availability, missing data, lack of comprehensive information, data archiving and lack of country specific activity and emission factors are also highlighted. The national and international aspiration of enhancing climate transparency will be difficult to achieve, without the proposed CBIT project.

**6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)**

128. The proposed project will strengthen the capacity of the country through an operational, robust, and functional MRV system to implement the NDCs and comply with the Paris Agreement. This will

be done through high-quality GHG emission mitigation data, and data driven progress of NDC adaptation actions. Though the project is focused on Vanuatu, through the achievement of the NDC actions, the project has the potential to contribute towards global climate change actions. Most importantly, the proposed system will enable the country to design and prioritize cost-effective project proposals to avoid duplication.

129. Indirectly, the proposed project will also provide global benefits focusing on land degradation, and biodiversity through the development of MRV system on forest and land use change. Improved management of ecosystems and natural resources due to efficient MRV system will also generate socio-economic benefits to local livelihoods. Most importantly, the proposed project will develop the technical and operational capacity of national stakeholders? local institutions, including government, academia, civil society, and the private sector data collection and analysis, quality assurance/quality control (QA/QC), GHG inventory methodologies, and adaptation progress.

130. The CBIT project will lead the low carbon development in Vanuatu in the long run, because a coordination and monitoring framework at the institutional level for GHG inventory, and NDC mitigation and adaptation actions involving key national stakeholders will be created. Thus, the global benefits will be derived through this project in the form of capacity development focusing on GHG emission reductions, adaptation, and similar approach in the long run can be taken to track the SDGs progress. Such success will not be possible to achieve based on a sporadic project-based approach of NC and BUR development.

## **7) Innovativeness, sustainability, potential for scaling up and capacity development**

### **Sustainability and potential for scaling up**

131. Innovation: The proposed CBIT project will solve the gaps highlighted in previous NCs, and NDC, and will provide long-term benefits to Vanuatu by addressing the current weaknesses of the national GHG inventory system and partnering with relevant institutions. Coordination mechanism focusing on GHG inventory, mitigation action, loss and damages, and support received will be developed in relation to ETF reporting. FAO will deploy the deeply rooted technical expertise on best practices, tools and lessons learned in climate change issues, such as Open Foris and SEPAL for the GHG inventory data generation in forestry sector. In addition, a MoU was signed on 16 May 2022 between MoCC and National University of Vanuatu, supported by FAO to develop and implement some of the GEF-CBIT funded activities in Vanuatu. The key activities under this MoU will be (a) cooperation with MoCC and FAO for developing training program of professionals through face-to-face and online modality for different sectors under consideration of CBIT project, (b) cooperation with MoCC and FAO for developing new training program for climate change, (c) promote research and development activities on natural resources and climate change contexts to ensure that all the research outcomes is documented in database, preserved and protected. For more details on the signed MoU, please see the MoU uploaded in the portal. The project is also innovative because it aims to establish a comprehensive coordination mechanism and capacity development in relation to ETF reporting in Vanuatu.

132. Sustainability: The proposed activities will result in close partnership of relevant institutions working on climate change adaptations and mitigation. So, the activities of this project will be sustainable through institutionalization of the system after the completion of the project due to stakeholders' needs. The initiatives developed under the project will be continued through the technical and infrastructural expertise developed under this project. The country will also strengthen collaboration with global platform, such as global CBIT platform, and two FAO CBIT global projects. The country has recently graduated from LDC. Hence, Vanuatu can play a significant role to share the lessons learned to enhance the climate transparency within the Small Island Developing States (SIDS), and with other comparable countries. Financial sustainability of the project will be ensured because, it builds on identified country needs, and eventually all the outcomes will be embedded in the key institutions responsible for ETF reporting in Vanuatu. It builds on existing MRV capacity and aims to further enhance capacity, systems, and coordination mechanisms required to meet the obligations of ETF under the Paris Agreement. Therefore, since the project is aligned with national priorities, financial sustainability will be ensured even after the project time period.

133. Scaling up: The focal point of the key national stakeholders will disseminate their acquired knowledge through the established institutional mechanism. Therefore, long term scaling of the project benefits will be ensured through their institutionalizations. The key national stakeholders of this project will enable to manage adequate exit points of the project, avoid disruption, and will ensure continuity of project benefits. In addition, the project outcome will be disseminated at the national and regional levels through global networks and forums, such as CBIT Global Coordination Platform. In addition, the knowledge materials will be disseminated and stored through the proposed information management system. The developed tools and training programs can be used to scale up the capacity and adoption of tools and approaches within relevant institutions at national levels relevant to other sectors, such as commercial, institutional and residential and waste generation and management.

### **Capacity development**

134. A questionnaire-based interview with relevant stakeholders (more details are added in the stakeholder's consultation section) was conducted during PPG phase for knowledge and capacity gaps assessment. During the inception workshop institutional and technical capacity gaps were highlighted as reflected in the barrier analysis. The participants of the inception workshop particularly emphasised on (a) developing and signing MOA within relevant data institutions, (b) upgrading the existing database system (MRV) and improving the quality of data, (c) practical sector-based hands-on training on MRV tool and reporting templates (Energy, Agriculture, Forestry, and other relevant agencies), and (d) providing capacity-building training and workshop to climate change stakeholders. Based on that, capacity building will be the key interventions as highlighted in project Theory of Change. As mentioned in the project activities, the proposed CBIT project at first focus on strengthening national capacity development on institutional arrangements, knowledge sharing, and institutionalize capacity building. Following that, the CBIT project will focus on capacity building of data and information systems to strengthen the sectoral capacity and NDC tracking system. The project will focus on capacity building of the public and private stakeholders with participation of women in capacity building activities as mentioned the project proposed alternative situation. It will also involve with the two global CBIT projects funded by GEF and implemented by FAO, with the aim of learning from



global experience. FAO led global CBIT project developed courses such as (a) preparing a greenhouse gas inventory under the ETF; (b) assessing uncertainties in the national greenhouse gas inventory with a focus on the LULUCF; and (c) estimation of methane emissions from enteric fermentation at Tier 2 level will be utilized for the capacity development.

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- [133] Vanuatu. Biennial update report (BUR). <https://unfccc.int/documents/403573>
- [134] Climate Change and Disaster Risk Reduction Policy. [https://www.preventionweb.net/files/46449\\_vanuatuccdrpolicy2015.pdf](https://www.preventionweb.net/files/46449_vanuatuccdrpolicy2015.pdf)
- [135] NAMA on rural electrification in Vanuatu. [https://unfccc.int/files/cooperation\\_support/nama/application/pdf/vanuatu\\_nama\\_final.pdf](https://unfccc.int/files/cooperation_support/nama/application/pdf/vanuatu_nama_final.pdf)
- [136] National Sustainable Development Plan (NSDP). <https://ogcio.gov.vu/images/nsdp/Vanuatu2030-EN.pdf>
- [137] Vanuatu - Forest Carbon Partnership Fund (FCPF) Readiness Plan Preparation Project. <https://www.forestcarbonpartnership.org/country/vanuatu>
- [138] Climate Action Enhancement Package (CAEP). <https://ndcpartnership.org/countries-map/country?iso=VUT>

[139] <https://www.nab.vu/project/strengthening-vanuatu%E2%80%99s-engagement-international-climate-change-negotiations-and-its>

[140] [https://unfccc.int/sites/default/files/resource/CMA2018\\_03a02E.pdf](https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf)

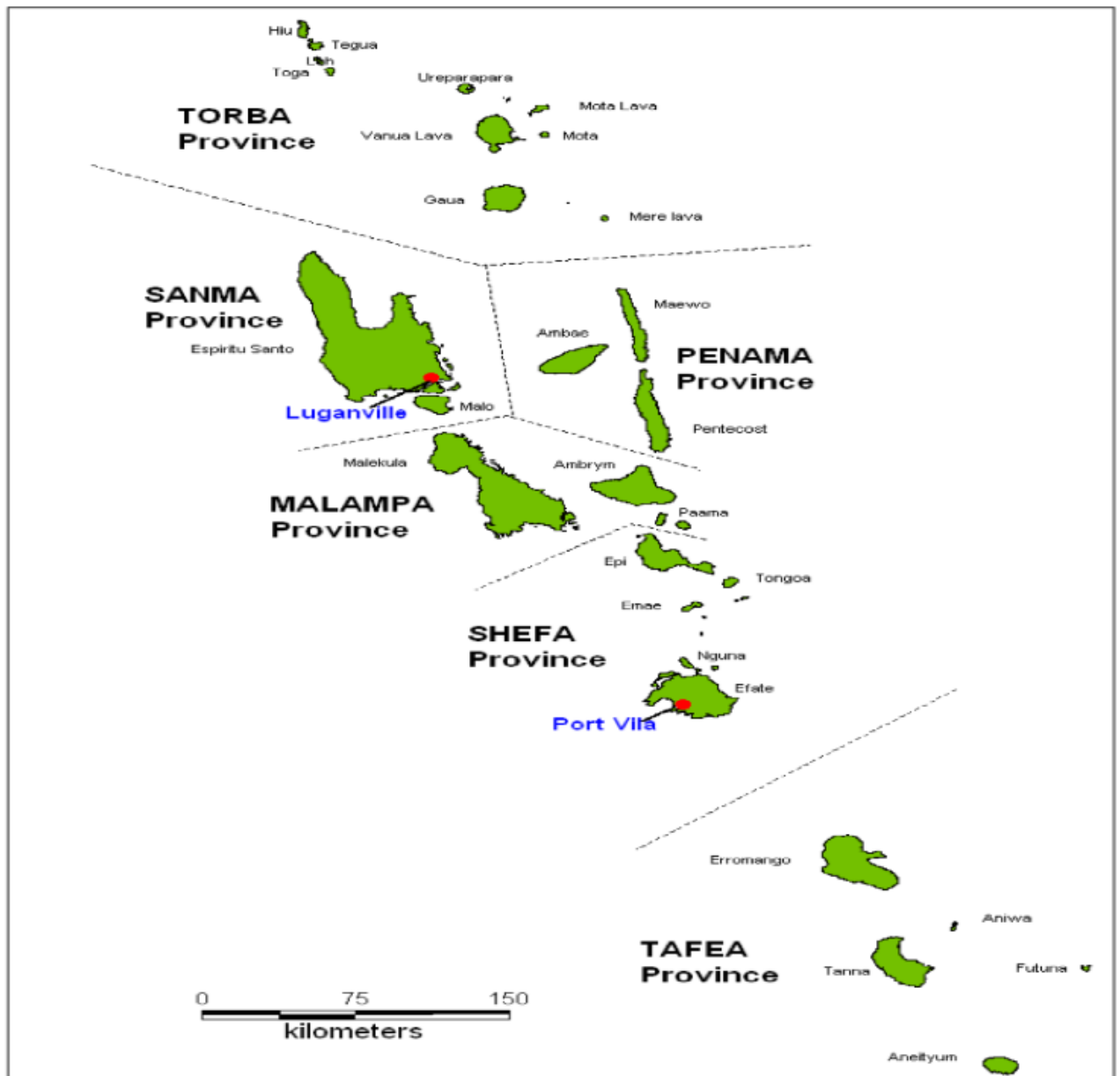
[141] <https://elearning.fao.org/course/view.php?id=639>

[142] <https://elearning.fao.org/course/view.php?id=650>

[143] <https://elearning.fao.org/course/view.php?id=618>

### 1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



Map of Vanuatu. (Source: Vanuatu Transport Sector Support Program-VTSSP<sup>[1]</sup>).

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[1] Vanuatu Transport Sector Support Program (VTSSP).  
<https://www.dfat.gov.au/sites/default/files/vanuatu-transport-sector-support-program-phase-1-design-doc.pdf>

**1c. Child Project?**

**If this is a child project under a program, describe how the components contribute to the overall program impact.**

**2. Stakeholders**

**Select the stakeholders that have participated in consultations during the project identification phase:**

**Civil Society Organizations** Yes

**Indigenous Peoples and Local Communities**

**Private Sector Entities** Yes

**If none of the above, please explain why:**

**Please provide the Stakeholder Engagement Plan or equivalent assessment.**

**Stakeholder consultations during the project design phase**

136. Academia, NGOs and Private organization as the stakeholders of the proposed CBIT project attended the inception and validation workshop of the project, and actively participated with valuable inputs for the project activities. They will also be engaged during the project implementation phase.

137. Online interviews and face-to-face meetings were conducted during the PIF stage and PPG stage with key agencies and stakeholders at the national level. A summary of the main consultations is presented below.

<b>Meeting / consultation</b>	<b>Main points of discussion and observation</b>
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<p>1. PPG Inception Workshop</p> <p>Thursday, 4 November 2021, 10 am ? 16.30 pm</p>	<p>The PPG inception workshop was attended by 20 men (69%) and 9 women (31%). The Focal points of the government agencies relevant to the targeted sectors of the project, as well as representatives from academia, research organization, NGOs, private sectors entities and civil society attended the workshop as participants. During the workshop there was technical presentation and discussion session on the proposed CBIT project, National Circumstances on GHG inventory preparation and Measurement, reporting and Verification (MRV) contexts, Third National Communication (TNC) preparation and Forest Reference Emission Level (FREL). Finally, through group exercise session all the participants provided their inputs for the project activities from sectoral point of view.</p>
<p>Melanesian Hotel, Port Vila, Vanuatu</p>	<p>The following recommendations were made (among others):</p> <ul style="list-style-type: none"> <li>? Develop and sign MOA within relevant data institutions.</li> <li>? Upgrade the existing database system (MRV) and improve the quality of data.</li> <li>? Practical sector-based hands-on training on MRV tool and reporting templates (Energy, Agriculture, Forestry, and other relevant agencies) Create a network for a roster of experts to track the NDC and enhance NDC adaptation actions.</li> <li>? Develop a manual that outlines the methodologies used to monitor and reporting of climate finance.</li> <li>? Conduct a review of existing guidelines.</li> <li>? Review the Vanuatu GCF country program plus the development investment program to guide decision-making to ensure clear and easy reporting for climate financing.</li> <li>? Practical sector-based hands-on training on MRV tool and reporting templates (Energy, Agriculture, Forestry, and other relevant agencies) Create a network for a roster of experts to track the NDC and enhance NDC adaptation actions.</li> <li>? Provide capacity-building training and workshop to climate change stakeholders on the climate change conventions and article 13 of the Paris Agreement.</li> <li>? Capacity Building (ongoing) for MRV ? data training ? DOCC taking the lead - strengthen institutional arrangements between stakeholders - strengthen monitoring and reporting ? close data gaps - ensure activities of data collection ? sustainable for accurate consistent reporting ? quarterly/bi-annually</li> <li>? A continuous dialogue with local or regional/global pacific island states/partners/agencies/countries to share experiences, peer to peer learnings e.g. data gaps, what others are doing.</li> <li>? Consultation for the feasibility of the projects to promote data/information sharing ? to create a central data hub.</li> <li>? Get up-to-date data and data storage and have one department fully dedicated to operating and implementing a data/data collection database.</li> <li>? Follow up on the endorsement for NDC enhancement on adaptation.</li> <li>? Develop legislation on NDC reporting [endorsement on data reporting]</li> <li>? Ensure adaptation is included on the MRV tool.</li> <li>? scientific research in collaboration with the university.</li> <li>? Capacity building for stakeholders on MRV tool [adaptation/mitigation].</li> <li>? Set up a task force to coordinate quality control/assurance mechanism to avoid double counting on GHG.</li> <li>? Strengthen public awareness at the community/grassroots level.</li> </ul>

<p>2. PPG Validation Workshop</p> <p>Thursday, 17 February 2022, Melanesian Hotel, Port Vila, Vanuatu</p>	<p>The objective of the validation workshop was to validate the proposed CBIT project scope, activities, potential operational, and financing arrangements with relevant government institutions, national and international stakeholders, and the FAO team. The key recommendation from the validation workshop are as follows:</p> <ul style="list-style-type: none"> <li>? Adding activity to create linkage or harmonization to enhance NSDP linkages and reporting.</li> <li>? Suggested involvement of academia for assessment of needs, constraints, and stakeholders on tracking climate finance.</li> <li>? A suggestion is to establish sectoral system linkages for the proposed system.</li> <li>? Stakeholders during the validation workshop suggested to remove the NDC because the enhanced NDC replaced the NDC.</li> <li>? To revise the sentence of some of the project activities for easy understating.</li> <li>? Adding activity for linking enhanced NDC with National Sustainable Development Plan (NSDP) and their reporting.</li> </ul>
<p>3. Department of Climate Change (DoCC), January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? DoCC Collect Raw Data from the data institutions. Coordinate relevant meetings and workshops. Liaise with sectors for data sharing, and contribute in review of the emission analysis. Data is collected for National Communications purposes by communicating through email and meeting with responsible government official of different department.</li> <li>? Collected data formats are excel spreadsheet, flash-drive based word document. Data is stored within respective data institutions, and on individuals work storage and archived folders. No centralized system and data are collected only during inventory preparation.</li> <li>? Capacity building trainings are needed on sectoral GHG inventory analysis, national communications, data management, NDC tracking and development.</li> <li>? No dedicated staff to perform roles and responsibilities focusing on the Transparency Component under the UNFCCC and Paris Agreement.</li> <li>? Minimal Coordination and Institutional arrangement.</li> <li>? Lack of systems to accommodate centralized data needed for communications purposes.</li> <li>? Limited staff to coordinated the functions of Climate Change Mitigation and adaptation actions in Country.</li> <li>? No positions exist yet for tracking the climate finance in the country.</li> <li>? Lack of knowledge on the transparency reporting requirements.</li> </ul>

<p>4. Department of Livestock, January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? Provide information upon request to MoCC in relations to livestock development programs and activities. This including updated data on different livestock species (Non-ruminant, Small ruminant and Ruminants), and pasture development activities.</li> <li>? Data collection is focused on the number of farmers using animal waste as Bio-gas and Mini Solar systems, Solar water pump systems, Land developed under improved pasture, and Livestock Census.</li> <li>? Data collection is based on assistance from VNSO through Surveys and National Agriculture Census in 2022, and livestock farm surveys.</li> <li>? Data is stored in VNSO as Livestock Database, and it is updated quarterly basis.</li> <li>? Capacity building training on the expansion and diversification of livestock throughout Vanuatu by the National, Regional and International development partners is needed.</li> <li>? No full-time officer to undertake this role so as to provide and regularly update the livestock database.</li> <li>? Limited funds through climate finance in Vanuatu to support specific livestock programs in relation to GHG inventory/climate change mitigation/adaptation.</li> <li>? Regular stakeholders? engagement is needed.</li> </ul>
<p>5. Forestry Department, January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? The forestry monitoring system is being developed to assess emission referencing level from 2008 to 2018.</li> <li>? Data collected is focused on National forest monitoring systems, Carbon stock, Forest emission reference level, and Activity data.</li> <li>? Data is collected using Open Foris, QGIS, and collect earth.</li> <li>? Capacity building training is needed on database management, GIS and Remote sensing, conducting inventory, analyzing data, and reporting.</li> </ul>
<p>6. UNELCO (public utility company), January 2022.</p>	<p>Online meeting was conducted with the representative of the UNELCO organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? Provide electricity and water to urban and peri urban communities.</li> <li>? Data collection is focused on electricity generation, and diesel use for power generation.</li> <li>? Data is collected monthly through internal unit and stored in UNELCO.</li> </ul>

<p>7. Vanuatu Meteorology and Geohazards Department (VMGD), January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? Provide informed and retaliate weather and climate information services to the people of Vanuatu.</li> <li>? Data collection is focused on community climate and weather awareness database, ENSO impact database (El Nino and La Nina), and Meteorological data (rainfall, temperature, humidity, wind, etc.).</li> <li>? Data is collected from weather observation divisions standard operating procedure (SOP), manual observation/monitoring, and automatic weather observation system. All meteorological date is manually stored in a primary domain at VMGD, and usually updated every 3 to 10 minutes (automatically).</li> <li>? Capacity building training is needed on meteorological data collection, data archiving, management, and digitization. Infrastructure needs to be developed on data management systems, missing data (manual observation data), and a secure database system.</li> </ul>
<p>8. Department of Agriculture and Rural Development (DARD), January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? DARD is not currently involved with MoCC for GHG inventory preparation.</li> <li>? Data collection is focused on Crop Production Data, Crop Research Data, Soil testing Data and maps.</li> <li>? Data collection is based on field trials and evaluations of crops, weather stations, and DARD Agromet Office. Data is stored in PC and back up memory, and updated monthly.</li> <li>? Capacity building training is needed focusing on crop improvement (resilience), Off-season technologies, soil improvement technologies, and integrated pest management.</li> <li>? Capacity building infrastructure is needed on disaster and cyclone-proof greenhouse technology for Fruits and Vegetables, Plant Health Clinics, Soil Testing and Improvement, and Disaster Food Banks (root crops, fruit trees, tools and mechanized input).</li> </ul>
<p>9. Department of Energy, January 2022.</p>	<p>Face to face meeting was conducted with the director of the department organized by the national PPG team. The observation of the meeting is as follows:</p> <ul style="list-style-type: none"> <li>? The organization is focused on collect row data and disseminate to respective agencies, and populate the excel sheet requested by MoCC for GHG inventory.</li> <li>? Data collection is focused on volume of Petroleum products imported, and LPG imported.</li> <li>? Signed MoU with the SSP and Origin Energy for data collection and information sharing.</li> <li>? Data is stored in the personal hard drive and is updated once there is shipment of the product into the country.</li> <li>? Capacity Building training on GHG inventory management is needed.</li> <li>? Capacity building is needed on human Resources for populating data onto the existing GHG inventory software, methods/techniques of data collection, and financial assistance for date collection.</li> </ul>

### Stakeholder Engagement Matrix

138. The main stakeholders identified and their envisioned role in project implementation are summarized below in Table 10.

Table 10: Stakeholders of the proposed CBIT project in Vanuatu, and their Responsibilities.

Name of key stakeholders	Responsibility/expertise for the proposed CBIT project
<p>1. Department of Environment Protection and Conservation (DEPC) of Vanuatu MOCC</p>	<p>? Project Executing Entity ? Liaising with other inter-ministerial agencies.</p>
<p>2. Other associated ministries important for the domestic MRV system and tracking the progress of NDC actions:</p> <p>2.1. The Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management (Department of Energy, Vanuatu Meteorology and Geo-Hazards Department);</p> <p>2.2. Department of Strategic Policy, Planning &amp; Aid Coordination (DSPPAC), Ministry of Prime Minister.</p> <p>2.3. Vanuatu's National Advisory Board on Climate Change &amp; Disaster Risk reduction (NAB).</p> <p>2.4. Department of Livestock (DoL), Ministry of Agriculture, Livestock, Forestry, Fisheries &amp; Biosecurity.</p> <p>2.5. Forestry Department (FD), Ministry of Agriculture, Livestock, Forestry, Fisheries &amp; Biosecurity.</p> <p>2.6. Department of Agriculture (DoA), Ministry of Agriculture, Livestock, Forestry, Fisheries &amp; Biosecurity.</p> <p>2.7. Ministry of Finance and Economic Management (MoFEM).</p> <p>2.8. Ministry of Land and Natural Resources (MoLNR).</p> <p>2.9. Department of Foreign Affairs (DoFA).</p> <p>2.10. Department of Women Affairs (DoWA).</p> <p>2.11. Vanuatu Investment Promotion Authority (VIPA).</p> <p>2.12. Ministry of Public Utilities and Infrastructure (MoPUI)</p> <p>2.13. Ministry of Education (MoE).</p> <p>2.14. Ministry of Health (MoH).</p> <p>2.15. Vanuatu National Statistics Office (VNSO)</p> <p>2.16. Department of Tourism (DoT)</p> <p>2.17. Office of the Government's Chief Information Officer</p>	<p>? Focal persons and capacity building of relevant government officials. ? Institutional arrangement. ? Data collection, archiving, and analysis ? Decision-making and national investment ? Sectoral expertise</p>
<p>3. Local government (Port Vila Municipal Council-PVMC, and Luganville Municipal Council-LMC)</p>	<p>? Data collection and analysis ? Capacity building</p>

Name of key stakeholders	Responsibility/expertise for the proposed CBIT project
4. Local/ national and international NGOs related to Climate Change actions 4.1 The Foundation of the Peoples of the South Pacific International (FSPI). 4.2 Care International 4.3 Oxfam International 4.4 Vanuatu Association of NGOs (VANGO) 4.5 Vanuatu Climate Adaptation Network (VCAN) 4.6 Vanuatu National Council of Women	? NGOs will be engaged in the implementation of the project, including the best practice analysis and validation and appraisal of the data/GHG information/Adaptation data management system.
5. Civil society organizations/Private organizations/ Oil and Gas companies/ Electricity company/ other major industries related to GHG emissions and Climate Change actions 5.1 Union Electrique du Vanuatu Limited (UNELCO) 5.2 Vanuatu Utility Infrastructure (VUI), Ltd. 5.3 Vanuatu Renewable Energy and Power Association (VANREPA): 5.4 Renewable energy equipment suppliers (Vanuatu Sun Solar, Vate Electrics, Solar Communication, Van Global, Energy 4 all, Green Tech, Jem solar, etc.)	? Data collection ? Capacity building
6. Regional Institutes 6.1 The Secretariat of the Pacific Regional Environment Programme (SPREP). 6.2 The Pacific Community. 6.3 Applied Geo-Science and Technology Division, the Pacific Community.	? Data collection ? Capacity building
7. National Research institutes and universities 7.1 Vanuatu National University. 7.2 Vanuatu Agricultural Research and Technical Centre -VARTC 7.3 Institute of Teacher Education	? Activity data collection. ? Emission factors development. ? Data quality. ? Training and curriculum development.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

#### Stakeholder Engagement Plan

25. National and sub-national stakeholders will be involved during the project implementation for enhancing data and information collection, and information system development. Besides, research institutions and universities will be directly involved for capacity building activities with particular focus on women participation. International experts will also be involved for

capacity building of national institutions and stakeholders. A stakeholder engagement plan is presented below and the grievance mechanism is included in Annex I2.

Stakeholder categories	Engagement approach	Frequency
National and local government	A close communication will be maintained through email, phone, and virtual/face-to-face meetings/ workshops to share the project knowledge products. Institutional arrangement for GHG inventory data collection, preparation, and analysis. Invitation for participation in events, and technical workshops.	At least quarterly, and during the technical skills development training.
Research institutes and academia	A close communication will be maintained through email, phone, and virtual/face-to-face meetings/ workshops to share the project knowledge products/technical capacity building opportunities. Institutional arrangement for GHG inventory data collection, preparation, analysis, and QA/QC, as well as technical capacity building.	At least quarterly, and during the technical skills development training.
Regional and international organizations, and development partners	Regional and international organizations will be involved to fill the gaps in capacity building and other technical assistance. Project knowledge products will be disseminated, and invitation for participation in events and workshops will be also sent to development partners.	At least annually
Civil society organizations and private sector	A close communication will be maintained through email, phone, and virtual/face-to-face meetings/ workshops to share the project knowledge products, and also to take part in the institutional arrangement for the GHG inventory data collection.	At least quarterly, and during the technical skills development training.
Local communities and community groups, including women, Indigenous Peoples and vulnerable groups	The project will communicate with local communities by involving the relevant government sectors at the organizations level.	As needed

**Select what role civil society will play in the project:**

**Consulted only;**

**Member of Advisory Body; Contractor;**

**Co-financier;**

**Member of project steering committee or equivalent decision-making body;**

**Executor or co-executor;**

**Other (Please explain) Yes**

Academia, NGOs and Private organization as the stakeholders of the proposed CBIT project attended during the inception and validation workshop of the project, and actively participated with valuable inputs for the project activities. They will also be engaged in consultations and provide inputs to the project during the implementation phase.

### **3. Gender Equality and Women's Empowerment**

**Provide the gender analysis or equivalent socio-economic assesment.**

#### I. Gender Analysis

141. Though the country has made some progress towards empowering women, country-wide challenges still exist in relation to widescale participation in decision making on natural resources, access to services such as health and education, violence against women, participation in economic activities and women's equal political and leadership participation in decision making. Considering that, under the proposed CBIT project, women's political and leadership participation for the institutional arrangement to ensure ETF in Vanuatu will be enhanced. In addition, focus will be given to ensure the gender ratio (32% female participation) for all the project capacity building activities, national workshop and meetings. To ensure women's participation in decision making, the gender ratio will be also ensured in the project steering committee. To provide an overview of the gender issue in the country, a brief analysis based on the national documents is highlighted here.

142. National Sustainable Development Plan (NSDP): The goal of NSDP is building a stable, sustainable and prosperous nation. To ensure women's participation, it highlighted the need of an inclusive society which upholds human dignity and where the rights of all Ni-Vanuatu including women, youth, the elderly and vulnerable groups are supported, protected and promoted in legislation and institutions. To ensure women's participation in public offices, it specifically emphasized ensuring all people, including people with disabilities, have access to government services, buildings and public spaces. To ensure the employment of women, it specifically mentioned about increasing the number of decent, productive employment opportunities, particularly for young women and men and people with disabilities. For women entrepreneurship, it suggested developing enabling business environment, creating opportunities and employment for entrepreneurs throughout Vanuatu. To ensure education for women, NSDP suggested all public infrastructure, including health, education and sports facilities should be safe, accessible, secure and maintained in compliance with building codes and standards. An inclusive, equitable and quality education system with life-long learning for all by ensuring every child, regardless of gender, location, educational needs or circumstances has access to the education system. Considering the vulnerability of women climate change, NSDP highlighted the need of a strong and



resilient nation including men and women in the face of climate change and disaster risks posed by natural and man-made hazards.

143. Vanuatu Education and Training Sector Strategic Plan 2020-2030: The primary objective of the education strategic plan is to improve education for all in an efficient and effective way. Statistics shows that enrolment of girls and boys were similar from 2010 to 2015. However, the number of girls enrolled in childhood education continues to decrease which suggests that preference is given to boys' education. The policy recommended for a specific policy to address the issue of gender parity in secondary education. Gender equity and inclusion was addressed in the Vanuatu Interim Sector Strategy (VETSS 2017 ? 2018) which recognised education role in sustainable and social development of Vanuatu. A gender-based violence module was developed aiming at raising sector awareness and combat domestic and gender-based violence that may impact access and participation to education. The Ministry of education has a Child Safeguarding policy that defines core principles and beliefs on safeguarding children as well as establishes procedures and practices to manage children safety and suspected abuse. The policy recommended that Disaster Risk Reduction and Management (DRRM) be strengthened in all schools.

144. National Gender Equality Policy 2015 -2019: Aim of the NGEP is to provide a safe and secure society where women and men of all ages and abilities live in harmony and work together for a better Vanuatu. The policy wants to promote equal rights, opportunities and responsibilities among men and women and to eliminate all forms of discrimination and violence against women and girl. Statistics of 2011 shows that women's participation in formal sector both in private and government is estimated at 40% compared to men, in proportion to women's access to education. More women (49%) than men (41%) are involved in the subsistence economy (Vanuatu National Statistics Office 2011), which makes them more susceptible to poverty, climate change, disasters and other livelihood stresses. In terms of education, education policy clearly highlighted the gender parity in school enrolment. Women remain underrepresented in tertiary education and are less likely to be awarded a govt scholarships.

145. Agriculture Policy: The goal of the agriculture policy is to ensure that agricultural resources are managed in a sustainable way to provide food and income to improve wellbeing of the people of Vanuatu. The policy promotes equal opportunities in agriculture development such as opportunities and workforce for women. It aims to increase the participation through conduct of gender-based trainings for women, youth and vulnerable groups. The policy provides recognition and contribution of women, youths and vulnerable groups in development initiatives such as the economic empowerment. At the national level, National advisory Board representation is inclusive of female directors. This increases participation of women in decision making level on climate change and disaster risk reduction.

146. Evacuation center guidelines: The guideline objective is to provide to emergency planners an effective and coordinated approach to identifying, assessing, classifying and mapping evacuation centres countrywide. The document ensures that all materials will support and maintain human dignity and respect the privacy of affected people, including being responsive to gender, culture, religion and accessibility considerations.

147. National Energy Road Map: The objective of the NERM is to energise Vanuatu's growth and development through the provision of secure, affordable, widely accessible, high quality, clean energy services for an educated, healthy, and wealthy nation. The policy recommends replacement of traditional biomass with more efficient fuels, or shifting from open fires to improved cook stoves, could have potential health benefits by reducing women's and children's exposure to smoke. It requires inputs from the provincial authorities to integrate national objectives into local area and community programmes and activities. The current community-based governance system will also need strengthening to create an environment conducive to business development and structures where

benefits are shared with the community. The policy recognises that renewable energy can also create direct opportunities for employment and income. Investing in energy infrastructure that provides electricity to businesses, such as through a mini-grid, could enable rural job creation and increased economic development in rural Vanuatu. The promotion of coconut oil-based fuel (where cost-effective and available) as a substitute for imported diesel fuel could foster employment and income generation opportunities for coconut producing regions of the country, while reducing the need to import diesel. Distributing and maintaining solar systems can provide employment opportunities in rural communities. The policy recognises that there has been progress in providing public institutions (education and health) with access, with 54% of institutions (on- and off-grid) now having access. The progress made so far is largely based on the increased access to electricity by schools. Vanuatu has 589 schools in total (496 primary, and 93 secondary). The Department of Education collects data on the types of connections (grid, solar and so on) at schools, and surveys schools on the condition of the connection (good, fair, poor, or not stated). These data show that 46% of primary schools, and 71% of secondary schools, currently have access to electricity.

148. National Livestock Policy: This policy objective is to sustainably manage the benefit all its stakeholders, contribute to greater socio-economic development, and in its endeavours ensures sound environmental and climate proofing practices, including, achieving a national cattle herd of 500,000 heads by year 2025. The livestock policy suggests to enable inclusiveness such that the diverse needs of different stakeholders in Vanuatu (women, men, youth, people with special abilities, rural etc.) all have fair and equitable access to the development outcomes that the livestock sector can create. The policy recognises that women and other vulnerable groups are an integral part of livestock development in Vanuatu. Young people perceive professional development in agriculture and livestock farming as 'dirty jobs'. This is evident with the number of graduates coming out of universities and vocational training centres annually. It is expected that this Policy framework will guide the development of the livestock sector to increase household incomes, assure food security, create employment, improve farming practices, enable environmental sustainability and adaptation to climate change and support other livestock-based commercial industries. The government must engage academia to ensure there is continuity in the development of the livestock sector. The school curriculum must include topics on livestock farming and management to generate student interest in the sector.

149. National Human Resource Development Plan (Draft): This development plan seeks to guide investment in Post-School Education and Training (PSET) to ensure available PSET resources are more efficiently and effectively used. One of its key recommendations is to provide access to quality assured and relevant Post School Education and Training (PSET) opportunities are available to all. Performance based funding criteria includes demonstrated compliance with National Gender Equality Policy. Vanuatu Qualification Authority (VQA) routinely conducts tracer studies to evaluate and report graduate employment outcomes. The Vanuatu Qualification Authority Framework and PSET Providers enable recognition of part qualifications and multiple entry and exit points into courses to facilitate lifelong learning and support on-going education and training for women and persons with disabilities. (ii) Provincial Skill Centres facilitate PSET Providers to deliver part qualifications in provincial settings to improve access for women, persons with disabilities and out of school youth to gain productive skills and/or find pathways to further education and training. (iii) The national PSET communications strategy celebrates and promotes the learning achievements of women and persons with disabilities to encourage participation of others.

150. National Disability Policy and Plan of Action 2008-2015: This policy aims to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disability. The policy recognises that women with disabilities are doubly discriminated against and to ensure that issues affecting them are incorporated into national programmes and policies. The policy recommends supporting the development of persons with disabilities and their organisations and

include them in the national policy decision-making process on disability, with special focus on the development of women with disabilities and their participation in self help organizations of persons with disabilities as well as in mainstream gender initiatives. Education and training for raising the awareness of public officials, including educational and school administrators and teachers, to promote positive attitudes to the education of children with disabilities, increase sensitivity to the rights of children with disabilities to be educated in local schools and on practical strategies for including children and youth with disabilities in regular schools. The policy also recommends ensuring that all girls and boys with disabilities are given the fullest possible opportunity for education, and to provide equal opportunities for vocational training and employment for people with disabilities.

## II. Gender Action Plan

151. The Gender Action Plan of the proposed CBIT project is presented below. The issues identified during the gender analysis includes lack of gender budgeting, gender sensitisation and gender responsive budgeting, inclusive society and equal leadership participation in decision making. The percentage of female participants targeted have been identified in consultation with the Ministry of Environment, Climate Change and Disaster Management and Meteorology.

Action	Indicator	Target	Monitoring & evaluation	Timeline
<b>Broader goal: Project's capacity development activities will equally benefit the women.</b>				
Action 1: Gender sensitive training organization under activity 1.2.1.2, 1.2.2.2 and 2.1.2.1.	Indicator 1: Ratio of male and female participants.	Target 1: At least 32% female participants.	Project M&E	End of Year 1
Action 2: Focus of the training will be based on the capacity development needs of women stakeholders for the activity 1.2.2.2 and 2.1.2.1.	Indicator 2: Number of trainings addressing the capacity needs of women stakeholders.	Target 2: At least 2	Project M&E	Throughout project
Action 3: Ensure that women employees of different govt ministries are involved in GHG inventory institutional arrangements under output 1.1.1.	Indicator 3: Ratio of male and female focal point for the institutional arrangement.	Target 3: At least 32% female focal point.	Project M&E	End of Year 1
<b>Broader goal: Gender-specific needs addressed and ensured by the project</b>				

Action 4: Inclusion of members with expertise in gender issues from the Department of Women Affairs for Technical working groups/institutional arrangements under output 1.1.1.	Indicator 4: Number of gender related experts.	Target 4: At least 1	Project M&E	End of Year 1
Action 5: Capacity gap assessment under Activity 1.1.1.1, Activity 1.1.2.1, Activity 1.2.1.1, and Activity 1.2.2.1 will include gender-specific needs assessment.	Indicator 5: Number of gender analyses and framework undertaken.	Target 5: 1	Project M&E, gender analysis report	End of Year 1
Action 6: Involvement of women officials from the Department of Women Affairs to develop and update inclusive guidelines on monitoring and reporting of climate financing output 1.2.1, and national adaptation reporting and monitoring framework (output 1.2.2).	Indicator 6: Percentage of women engaged	Target 6: At least 32% female officials.	Project M&E	Throughout project implementation
<b>Broader goal: Equal access of women towards project's governance</b>				
Action 7: Adequate representation of female PSC members and PMU staff.	Indicator 7: Male and female ratio.	Target 7: At least 32% female PSC members and PMU staff.	Project M&E	Throughout project

Action 8: Involving the representative of the Department of Women Affairs as PSC member.	Indicator 8: Number of representatives.	Target 8: At least 1.	Project M&E	Throughout project
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152. The project budget as mentioned below will also ensure the implementation of the above gender action plan, and the PMU will make sure the implementation, monitoring and reporting of the above Gender Action Plan.

Budget item	Timeline	Amount (USD)
? Output 1.1.1: Consultancy to strengthening institutional arrangements with focus on ensuring female participation in national ETF framework and to mainstream gender aspects for national ETF institutional arrangements.	Years 1-2	? 10,000
? Output 2.1.2: Designing and implementing capacity building training with a focus on gender aspects for national climate changes stakeholders to track the enhanced NDC adaptation actions	Years 1-2	? 5,000
? Development of gender-sensitive indicators and other actions included in the Gender Action Plan above	Years 1-3	No separate budget (included in output budget)
<b>Total</b>		<b>USD 15,000</b>

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?**

Yes

**Closing gender gaps in access to and control over natural resources;**

**Improving women's participation and decision making** Yes

**Generating socio-economic benefits or services or women** Yes

**Does the project's results framework or logical framework include gender-sensitive indicators?**

Yes

#### **4. Private sector engagement**

**Elaborate on the private sector's engagement in the project, if any.**

153. Vanuatu has had a long history of private sector involvement in the electricity and energy sector. In recent years it is also increasing due to renewable energy equipment suppliers. So, they will be involved during the institutional arrangement process for the capacity building and data collection

purpose. As identified during the PPG phase following entities will be involved during the project implementation phase for institutional arrangement and data collection purpose.

? *Union Electrique du Vanuatu Limited (UNELCO)*-UNELCO is a privately-owned utility that has been providing electricity to Port Vila and Luganville for several decades and has recently extended its services to parts of East Malekula and Tanna. However, UNELCO's concession for Luganville ended in 2010, a new power utility, Vanuatu Utility Infrastructure (VUI), Ltd, won the concession.

? *Vanuatu Utility Infrastructure (VUI) Ltd.*: It is a US-based company and recent player in Vanuatu's power sector. In January 2011, through competitive bidding the company won the concession for power generation and supply for Luganville, on the island of Espiritu Santo after UNELCO's concession expired. VUI's installed capacity in 2011 was 4.1 MW and generation was approximately 8,570 MWh. Demand was 7,600 MWh and forecast to grow at 2-3% annually. There are 2,302 customers, of which 614 are high consumers. The customer base is growing at around 300 customers per year.

? *Petroleum Supply*: Consumers of petroleum in Vanuatu are currently served predominantly by two private suppliers-*Pacific Petroleum (diesel, petrol, kerosene and lubricants)* and *Origin Energy (LPG)*. Both are supported by a few private retailers and distributors throughout the country.

? *Vanuatu Renewable Energy and Power Association (VANREPA)*: It is an NGO and has been active since 2003 in bringing wind power to rural areas, managing renewable energy projects for donors and selling solar lighting kits and energy-efficient stoves through Green Power, a retail spinoff. Through Green Power, VANREPA has teamed up with the Vanuatu Women's Development Scheme (VANWODS) to provide micro-finance for pico-solar kits. VANREPA also provides renewable energy generating systems to communities under its Community Powerhouse model.

? During the PPG phase AFOLU sector private organization, such as Vanuatu Primary Producers Authority (VPPA) is also suggested by the stakeholders. VPPA helps to register and support the establishment of the Farmers' Associations in Vanuatu, which are mainly the grass-root associations. Also, during the inception workshop stakeholders suggested NGOs (e.g. Nasituan and Foundation of the Betterment of Society) and Vanuatu Chamber of Commerce (Agriculture, Livestock and Food Cluster) involvement during the project implementation. These organizations have Farm Support Association that are working related to AFOLU sectors.

? During the institutional arrangement, capacity building and data collection activities, the project will ensure the involvement of private companies, professional institutes and association. In addition, during the project implementation, the project will build on the support of private sector actors previously involved with TNC and BUR. Moreover, private entities of the targeted sectors of this project will also be consulted by involving relevant ministries.

## **5. Risks to Achieving Project Objectives**

**Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

154. Limited institutional capacities, lack of technical expertise, and lack of adequate data can hinder the progress of the project. To overcome obstacles, FAO will work closely with international initiatives. For example, FAO will utilize the CBIT Global Coordination Platform, and will deploy long-standing expertise in institutional coordination, database development, and information management system development focusing on energy, agriculture, forestry and land-use change. The collaboration through Pacific Regional Environment Programme (SPREP) and Pacific Community, as well as south-south cooperation, and peer to peer support will be utilized to strengthen the capacity of the national stakeholders. Besides, there is a risk from ongoing COVID-19 and future pandemic to hindrance the technical capacity building process, inception, validation, national consultation, and technical group meeting, as well as day to day project activities. In view of such risk, online platform like Zoom/MS Team will be utilize to conduct the day to day project activities, technical capacity building process, inception, validation, national consultation, and technical group meeting. The CBIT project also provide opportunities to contribute towards COVID-19 recovery in Vanuatu. It will contribute to Vanuatu's Government Covid-19 related plan by supporting the recovery efforts focusing on climate change mitigation and adaptation.

155. The potentials risks and associated mitigation approach are mentioned in Table 11:

Table 11: Risks to CBIT project implementation and mitigation approaches to address them

<b>No</b>	<b>Description of risks</b>	<b>Types of Risks</b>	<b>Probability and impact (1-5)</b>	<b>Measures to address the risks</b>
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No	Description of risks	Types of Risks	Probability and impact (1-5)	Measures to address the risks
1	<p>Potential slow down/non-progress of the project activity due to COVID-19/other pandemic</p> <p>COVID-19/other pandemic may affect the project implementation by affecting the organization of the trainings and meetings due to lockdown.</p> <p>The CBIT project also provide opportunities to contribute towards COVID-19 recovery in Vanuatu.</p>	Global	P=4 I=5	<p>Day to day project activities will be conducted considering work from home modality. In addition, technical capacity building process, inception, validation, national consultation, and technical group meeting will be conducted through online platform like Zoom/MS Team. Technical capacity building activities will be recorded, uploaded and disseminated through information management system under this project.</p> <p>The CBIT project will contribute to Vanuatu's Government Covid-19 related recovery plan by supporting the recovery efforts focusing on climate change mitigation and adaptation</p>
2	Limited cooperation on data and information sharing among stakeholders	Organizational	P=2 P=3	MoU and data-sharing agreement among key national stakeholders to collect, archive, and manage the data and information.
3	Lack of coordination among ministries and local government.	Political	P=2 I=4	Specifying the roles and responsibilities of the national institution supported by the project guideline and arrangements.



<b>No</b>	<b>Description of risks</b>	<b>Types of Risks</b>	<b>Probability and impact (1-5)</b>	<b>Measures to address the risks</b>
4	Possible government change resulting in a lack of political will to support the project activities	Political	P=4 I=5	Combining the decision-makers for awareness-raising through a strong stakeholder involvement plan.
5	The incapability of the government after the project cycle to fund the ETF related activities	Financial	P=4 I=4	Utilize the resources available with baseline projects, and exploring the South-South cooperation for potential investment.
6	Gender mainstreaming hindered by resistance from local and national stakeholders	Cultural	P=3 I=2	Informing the key national stakeholders at the beginning regarding gender equality/representativeness as one of the key indicators of the project progress.
7	Climate change impacts on the NDC priority sectors, including agriculture, land-use, energy and waste sectors and the capacity to monitor and report under the Paris Agreement.	Natural	P=3 I=1	This is a capacity building project that aims to develop Vanuatu's institutional and human capacities to comply with reporting requirements of the Paris Agreement. Though climate change impacts do not pose a risk to the project interventions or implementation, as such, established protocols and guidelines of the government and national institutions will be followed in case of any adverse climatic events.

No	Description of risks	Types of Risks	Probability and impact (1-5)	Measures to address the risks
8	High staff turnover affecting the developed capacity and sustainability of the project.	Organizational	P=3 I=4	The project will focus on building capacity of a broad spectrum of stakeholders including government agencies, research institutions, and academia. This will help to mitigate the risk of high staff turnover. On the other hand, ToT program, established coordination mechanism, data management system, and established protocols will be institutionalized. The training materials and video will be disseminated through the established GHG information system. Hence, new staff will have the opportunity to be trained even after the project completion.

## 6. Institutional Arrangement and Coordination

**Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

### 6.a Institutional arrangements for project implementation

157. FAO will be the GEF Implementing Agency for this project. The MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will be the National Counterpart, and will be responsible for the overall national coordination and execution of the field project activities. Other stakeholders will be involved in the project implementation as described in Section 2. Stakeholders.

158. The MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will have the executing and technical responsibility for the project, with FAO providing technical and operational support as GEF Agency, as described below. The MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will act as the national counterpart and will be responsible for the day-to-day management of project results. MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will be responsible and accountable to FAO for the timely implementation of the agreed project activities, organized, coordinate, and deliver field activities as per work plan approved by the Project Steering Committee.

159. The project organization structure is as follows:

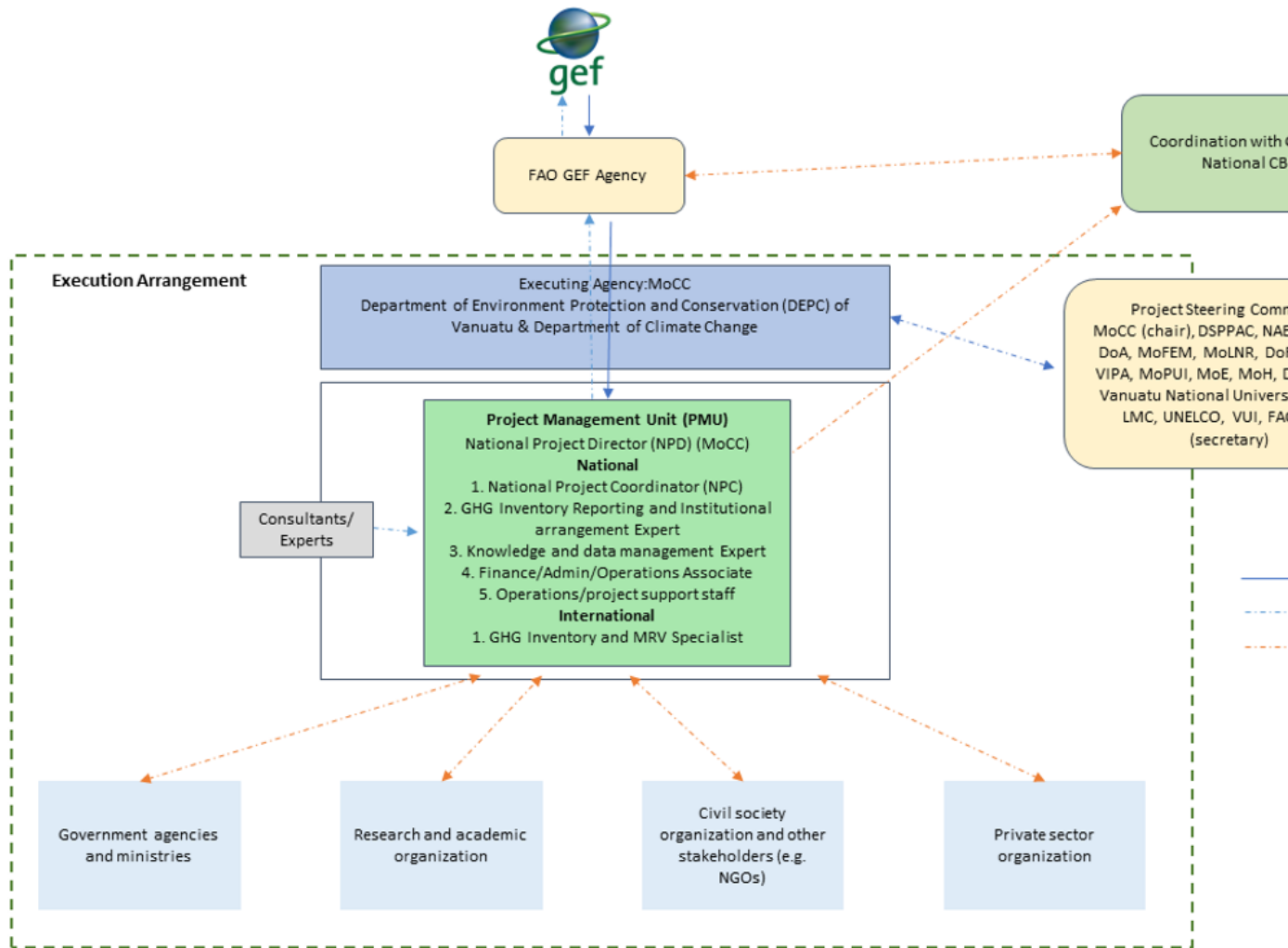


Figure 13: Project organization structure of the CBIT project in Vanuatu Island.

160. A **National Project Director (NPD)** will be designated within MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change, who will oversee the CBIT project implementation. The NPD will be responsible for coordinating the activities with all the national bodies related to the different project components, as well as with the project partners. He/she will work closely with the National Project Coordinator (see below) on the government policies and priorities. The NPD will also ensure close coordination with the ongoing TNC and BUR projects.

161. A **Project Steering Committee (PSC)** will be established to provide strategic guidance and take decisions related to the project implementation including approval of project plans, budgets and revisions. The PSC will be comprised of representatives from MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change, and the key stakeholders mentioned in the Table 10, and FAO. The NPD (or designated person from lead national institution) will chair the PSC. The PSC will provide strategic guidance to the Project Management Team and to all executing

partners. The PSC will meet at least twice per year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of governmental partners work under this project; vi) Review and approval of the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the project. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency; and (iv) facilitate the provision of co-financing to the project. The National Project Coordinator (see below) will be the Secretary to the PSC.

162. **A Project Management Unit (PMU)** will be co-funded by the GEF grant and established within the MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change. The PMU will be tasked with the day-to-day management of the project activities, as well as with financial and administrative reporting. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PMU will be composed of a National Project Coordinator (NPC) who will work full-time for the project lifetime. In addition, the PMU will include an international GHG inventory and MRV expert (part-time), national knowledge and data management expert, a finance and administrative Officer, and an operations/project support staff.

163. The **National Project Coordinator (NPC)**<sup>[1]</sup> will oversee daily project implementation, management, and operations under the overall supervision of FAO project budget holder (BH) and technical guidance of FAO Lead Technical Officer (LTO), in close consultation with the NPD, national counterpart and the relevant project stakeholders within the framework delineated by the PSC. S/he will be responsible, among others, for:

- ? Overall technical lead for the implementation of all project outputs and activities and ensure technical soundness of project implementation.
- ? Coordination with relevant initiatives.
- ? Lead technical implementation of the project Outputs.
- ? Provide technical leadership in the design, specification and development of a sector specific M&E framework and management information system (MIS) for monitoring, tracking progress, sharing data, and reporting on NDC actions.
- ? Providing technical support for Measurement, Reporting, and Verification (MRV) related activities under Component 1, 2, and 3 of the projects.
- ? Provide technical support for institutional arrangement under Component 1 the project.
- ? Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels.

- ? Coordination and close monitoring of the implementation and delivery of LOAs signed with various service providers, and ensuring compliance with all provisions during the implementation, including on timely reporting and financial management.
- ? Leading and supervising the preparation of various technical outputs, e.g. knowledge products, reports and case studies.
- ? Ensuring meaningful engagement of stakeholders as per the Stakeholder Engagement Plan.
- ? Ensuring that all the project resources are used solely to achieve project objectives as per the approved work plan and budget as per the government financial policies and FAO/GEF requirements.
- ? Tracking the project's progress and ensuring timely delivery of inputs and outputs.
- ? Providing technical support and assessing the outputs of the project national consultants hired with GEF funds, as well as the products generated in the implementation of the project.
- ? Managing requests for provision of financial resources and have proper budget control against AWP&B.
- ? Ensuring timely call for funds, thus to ensure the project has sufficient cash to run field project activities.
- ? Maintaining documentation and evidence that describes the proper and prudent use of project resources, including making available this supporting documentation to FAO and designated auditors when requested.
- ? Implementing and managing the project's monitoring and communications plans.
- ? Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan.
- ? Submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO.
- ? With support from the Knowledge Management and M&E Specialist, preparing the first draft of the Project Implementation Review (PIR).
- ? Supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED).
- ? Providing draft terminal report for FAO BH/LTO two months before the ending date of the project.
- ? Informing the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support, and serve as a secretary of the PSC.

164. The **Food and Agriculture Organization (FAO)** will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. FAO Project Task Force (PTF) will be established as a management and consultative body. The PTF consists of designated FAO staff possessing the appropriate authority and skills mix to ensure effective technical, operational and administrative project management throughout the project cycle (see Annex K for details):

- ? The Budget Holder(BH), which is usually the most decentralized FAO office, will oversight the project, provide day to day project execution management and is accountable for managing to achieve project goals and proper use of resources;

- ? The Lead Technical Officer(s) (LTO), drawn from across FAO will provide technical oversight/support to the projects, and ensure assurance and technical backstopping, and work in coordination with government representatives participating in the PSC;

- ? The Funding Liaison Officer(s) (FLO) within FAO will monitor and support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements.

? The HQ Technical Officer (HQTO) is accountable for advising and supporting the LTO in ensuring project formulation, appraisal and implementation adhere to FAO corporate technical standards and policies.

165. FAO responsibilities, as GEF agency, will include:

- ? Administrate funds from GEF in accordance with the rules and procedures of FAO;
- ? Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, and other rules and procedures of FAO;
- ? Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;
- ? Conduct at least one supervision mission per year; and
- ? Reporting to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation and the Project Closure Report on project progress;
- ? Financial reporting to the GEF Trustee, and
- ? Participate in field visit, if necessary.

#### **6.b Coordination with other relevant GEF-financed projects and other initiatives.**

166. The project will coordinate with the two FAO global CBIT projects: (i) Global capacity-building products towards enhanced transparency in the AFOLU sector (CBIT-AFOLU), and (ii) Building global capacity to increase transparency in the forest sector (CBIT-Forest). The proposed project will also coordinate with the global CBIT project: (i) to identify needs and gaps in national transparency systems, (ii) to share lessons learned through regional and global meetings, (iii) enabling knowledge sharing to facilitate transparency enhancements, and (iv) access to emerging practices, methodologies, and guidance on transparency of climate action and support. The coordination will focus on the access to emerging practices, methodologies, and guidance on transparency.

167. The proposed CBIT project will coordinate with the TNC and 1<sup>st</sup> BUR entities. This proposed CBIT project will also coordinate with the National REDD+ program, and will maintain close connection the ongoing national REDD+ initiatives.

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[1] the NPC will be a Climate Change Specialist.

#### **7. Consistency with National Priorities**

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

168. The project is consistent with the national strategies, and National Communications as mentioned in section 2. The Vanuatu's Climate Change and Disaster Risk Reduction Policy (CCDRR)[1] calls for incorporating rigorous processes, transparent decision-making and public reporting to ensure appropriate

use of resources, and steering the climate change and disaster risk reduction agenda. It also calls for strengthening existing systems through building on experience, learning from events, activities and good practice to ensure continuity beyond the short and medium term. It also emphasizes partnering among government, regional, global and national CSOs, private sector, development partners, donors, and academic institutions to build networks and share knowledge and information. So, the proposed CBIT project is in line with the national strategies, plans, and reports.

169. In addition, recently completed TNC, and 1st BUR, as well as ongoing project titled 'Strengthening Vanuatu's Engagement with the International Climate Change Negotiations and its Obligations under the United Nations Framework Convention on Climate Change (UNFCCC)' will be also supportive to the proposed CBIT project. This project also in line with the National REDD+ program, and will maintain close coordination with the ongoing national REDD+ initiatives. Through the completion of this project, several challenges mentioned in the 1st and updated NDC (e.g. data quality management, use of updated IPCC methodology, and institutional arrangement) will be addressed. The institutional arrangement and capacity building activities will help the country to actively track the progress of mitigation and adaptation actions mentioned in the 1st and updated NDC.

170. Besides the proposed CBIT project is also aligned with the following national strategies and plans:

No	National Strategies	Key aspects
1	National Sustainable Development Plan (NSDP) 2016-2030	This is also known as the Vanuatu 2030: The Peoples Plan, and focused on long-term vision, and serves as the highest-level overarching policy framework for achieving a 'stable, sustainable and prosperous Vanuatu by 2030'. These collective aspirations are expected to be delivered through the 15 National Sustainable Development Goals (SDGs) focusing on three pillars: Society, Environment and the Economy.
2	Climate Change and Disaster Risk Reduction Policy (CCDRR) 2016-2030	It is targeted for good governance, clear priorities and strategies for future climate actions. It is designed to deliver better information and assessment of climate change impacts and disaster risks, setting key strategies and transparently communicates to all stakeholders, including the communities, international donors and agencies.
3	National Adaptation Plan of Action (NAPA)	It outlined actions needed for several priority sectors focusing on (i) Agriculture/Food Security, (ii) Development of resilient crop species, (iii) Land use planning and management, (iv) Sustainable forest management, (v) Climate change and infrastructure, (vi) Sustainable livestock farming and management, (vii) Sustainable tourism development, (viii) Coastal Zones and Marine Ecosystems, (ix) Integrated coastal zone management, (x) Vector and water borne disease management, and (xi) Water Resources and Public Health.
4	Nationally Determined Contributions (NDC) roadmap <sup>[1]</sup>	The Vanuatu Nationally Determined Contributions (NDC) Implementation Roadmap is a key policy document in achieving Vanuatu's climate change mitigation obligations under the Paris Agreement.

No	National Strategies	Key aspects
5	Regional Framework for Resilient Development in the Pacific (An Integrated Approach to Address Climate Change and Disaster Risk Management - FRDP) 2017-2030 <sup>[2]</sup> .	An integrated approach to address climate and disaster risk management for more resilient development in the Pacific (FRDP). The Framework is a global first where the Pacific seeks to reduce their exposure to climate and disaster risk, support low carbon development and improve disaster response and reconstruction.
6	Vanuatu National Environment Policy and Implementation Plan 2016-2030 (NEPIP)	Under the Policy Objective 4: Climate change, NEPIP calls for supporting the implementation of the CCDRR Policy.
7	Meteorology, Geological Hazards and Climate Change Act (2016)	It is dedicated towards governance and administrative provisions for national transparency and roles and responsibility focusing on meteorology, geological hazards and climate change related purposes.
8	Vanuatu National Forest Policy (2013-2023)	It is the most recent forest related policy, which identifies the integration of climate change mitigation issues into forestry sector planning and activities as a specific objective. In particular, it focuses on the development of a national REDD+ initiative by the Department of Forests, the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB), and non-governmental organizations.
9	Monitoring Reporting and Verification (MRV) framework	Vanuatu's integrated MRV tool is a web-based system includes a detailed online database for IPCC sectors and Climate action.

<sup>[1]</sup> Vanuatu NDC Implementation Roadmap. <https://policy.asiapacificenergy.org/sites/default/files/Vanuatu%20NDC%20Implementation%20Roadmap.pdf>

<sup>[2]</sup> Framework for Resilient Development in the Pacific. <https://www.resilientpacific.org/en/framework-resilient-development-pacific><sup>[1]</sup> Climate Change and Disaster Risk Reduction Policy. [https://www.preventionweb.net/files/46449\\_vanuatuccdrrpolicy2015.pdf](https://www.preventionweb.net/files/46449_vanuatuccdrrpolicy2015.pdf)

## 8. Knowledge Management



**Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.**

171. The project aims to promote a knowledge-sharing culture and coordination on data collection and analysis in Vanuatu, the region, and globally via the CBIT Global Coordination Platform. This will include coordination among government ministries? existing databases, local governments, donor-funded projects and local actors; it will also include joint training on ETF principles so that various actors can learn and collaborate towards improved transparency in climate change-related data. Knowledge products will be designed and targeted at specific audiences using communication channels designed to reach those audiences, and translated into local languages. In addition, all the capacity building training will be recorded and hosted within the Vanuatu's National Advisory Board on Climate Change & Disaster Risk reduction (NAB) website (<https://www.nab.vu/>) for dissemination of the technical knowledge even after the project.

172. A gender-sensitive/responsive knowledge management and communications strategy will be developed at the start of the project, building on the existing GEF5 and GEF6 strategy, to support implementation and replication of project activities. The strategy will include recommended products for public awareness and other knowledge management, including training material and manuals, and communication materials. These products will be disseminated within the country and beyond the country through Global AFOLU CBIT project as well as other appropriate platforms.

173. Institutional mechanisms for UNFCCC reporting coordinated by MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will build on existing national structures and political processes rather than create new systems. Institutional and technical capacities developed through the project will build upon existing capacity assessments to avoid overlaps. Existing online platforms and information systems will be linked to a central portal rather than redesigned from scratch. While data will be uploaded to a central portal, it is expected that full data integration will take many years. CBIT support will begin this process by establishing the framework, systems and capacity for a fully integrated central climate change mitigation, adaptation and finance information portal in the long term.

174. As highlighted above, numerous past and ongoing programmes in Vanuatu have aimed to increase institutional capacity for producing, analyzing and reporting on data. However, best practices are not commonly shared among government ministries, donors and implementing agencies. With CBIT support, MOCC, Department of Environment Protection and Conservation (DEPC) of Vanuatu & Department of Climate Change will consolidate these best practices into a central hub and build upon them to design better training programmes on data collection, analysis and reporting nationwide. These best practices will be shared on the central portal in the form of videos, training manuals and other materials, helping to standardize these practices. This coordination will not only leverage donor funding more effectively, but will promote cooperation among different sectors and regions of the country, contributing to nation-wide collaboration and harmonization.

175. As highlighted in the project's logical framework, outreach activities will be used to communicate mitigation and adaptation measures, policies and their impacts. This will include documentation of results

in a user-friendly digital platform, online access to the knowledge generated by the project, training programmes and workshops. Knowledge products will be publicly accessible on web-based platforms and the global CBIT platform to disseminate best practices and lessons learned, and it will contribute to the project's goal to build national and regional capacity and awareness on the ETF and its data collection, monitoring and reporting processes. This coordination will not only leverage donor funding more effectively but will promote cooperation among different countries within the region, contributing to regional-wide collaboration and harmonization.

The key deliverables, associated timeline and budget are presented below:

Deliverable	Timeline	Budget
1. Capacity gap assessment report on institutional, regulatory, human, technology, finance, and capacity building support needed, and stakeholder mapping to meet the transparency framework of enhanced NDC actions (Activity 1.1.1.1)	Year 1	? 20,000
2. Regulatory frameworks are reviewed and guidelines are formulated with a focus on gender equality issues for national ETF institutional arrangement by maintaining gender balance for enhanced NDC climate change mitigation, adaptation, and addressing L&D (Deliverable 1.1.2.1).	Year 1	? 10,000
3. Development of quality control system (data collection, archiving, and data sharing) focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.3.1).	Year 1	? 10,000
4. Data collection templates and guidelines focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events) (Activity 1.1.3.2).	Year 1 and Year 2	? 15,000
5. Assessment of needs, constraints, and stakeholders involving the academia on tracking climate finance on enhanced NDC actions (Activity 1.2.1.1).	Year 1 and Year 2	? 10,000
6. Developing methodologies, guidelines, and protocols to collect, archive, and disseminate climate finance data (Activity 1.2.1.2).	Year 1 and Year 2	? 10,000
7. Knowledge products and publications, including awareness and training materials.	Throughout project implementation	? 25,000
8. Development and implementation of KM and communications strategy by National Knowledge and data management Expert	Year 1	? 15,500
<b>Total Budget</b>		<b>USD 115,500</b>

## 9. Monitoring and Evaluation

### Describe the budgeted M and E plan

176. Project oversight will be carried out by the PSC, FAO GEF Coordination Unit and relevant technical units in FAO headquarters. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed project global environmental benefits/adaptation benefits are being delivered. The FAO GEF Coordination Unit and HQ Technical Units will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions.

177. Project monitoring will be carried out by the PMU and the FAO Budget Holder (BH) . Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At project inception, the results matrix will be reviewed to finalize identification of: i) outputs; ii) indicators; and iii) any missing baseline information and targets. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.) will also be developed during project inception by the Knowledge Management/M&E Officer appointed at the PMU.

*Project Monitoring and Evaluation Plan*

<b>M&amp;E Activity</b>	<b>Responsible Parties</b>	<b>Timeframe</b>	<b>GEF Budget (USD)</b>
Inception Workshop	Project Management Unit (PMU)/BH/NPD	Within two months of project document signature	USD 3,000
Final Workshop	PMU/BH	Within two weeks of the workshop	USD 2,000
Project Progress Reports (PPRs)	PMU/BH	Bi-annually	National knowledge and data management expert USD 5,000
Project Implementation Review reports (PIRs)	PMU/LTO/BH	Annually in July	Covered by above
Terminal Evaluation	The FAO BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	To be launched within six months prior to the actual project completion date	USD 40,000

<b>M&amp;E Activity</b>	<b>Responsible Parties</b>	<b>Timeframe</b>	<b>GEF Budget (USD)</b>
Terminal Report	PMU, FAO-PTF	Draft prepared by NPC two months before the end date of the project	USD 3,150
<b>Total Budget</b>			<b>USD 53,150.00</b>

178. Specific reports that will be prepared under the M&E program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) annual Project Implementation Review (PIR); (v) Technical Reports; (vi) co-financing reports; and (vii) Terminal Report. In addition, assessment of the relevant GEF-7 Core Indicators against the baselines will be required at mid-term and final project evaluation.

179. **Project Inception Report.** It is recommended that the PMU prepare a draft project inception report in consultation with the LTO, FAO BH and other project partners. Elements of this report should be discussed during the project Inception Workshop and the report subsequently finalized. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, and a detailed project monitoring plan. The draft inception report will be circulated via e-mail to the PSC for review and comments before its finalization, no later than one month after project start-up. The report should be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FAO's Field Program Management Information System (FPMIS).

180. **Results-based Annual Work Plan and Budget (AWP/B).** The draft of the first AWP/B will be prepared by the PMU in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The Inception Workshop inputs will be incorporated and the PMU will submit a final draft AWP/B within two weeks of the workshop. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its review and adaptive management. Once PSC comments have been incorporated, the PMU will circulate the AWP/B to FAO BH and LTO for comments. It will be technically cleared by FAO BH and LTO, and endorsed by FAO Funding Liaison Officer (FLO) prior to uploading in FPMIS. The AWP/B must be linked to the project's Results Framework indicators so that the project's work is contributing to the achievement of the indicators. The AWP/B should include detailed activities to be executed to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be executed during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee, LTO and the FAO GEF Coordination Unit, and uploaded on the FPMIS.

181. **Project Progress Reports (PPR):** PPRs will be prepared by the PMU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework (Annex A1). The purpose of the PPR is to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action in a timely manner. PPRs will also report on projects risks and implementation of the risk mitigation plan. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR, in consultation with the PMU and the Project Task Force (PTF) members. After LTO, FAO BH, and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

182. **Annual Project Implementation Review (PIR):** The PMU (in collaboration with the FAO BH and the LTO) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the FAO GEF Coordination Unit Funding Liaison Officer (FLO) for review and approval no later than (check each year with GEF Unit but roughly end June/early July each year). The PMU will submit the first PIR draft to FAO BH/LTO, once finalized, the FAO BH /LTO will submit it to the FAO GEF Coordination Unit as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be submitted to the GEF and uploaded on the FPMIS by the FAO GEF Coordination Unit.

183. **Technical Reports:** Technical reports will be prepared by national, international consultants as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the FAO BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The FAO BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

184. **Co-financing Reports:** The FAO BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Endorsement Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and FAO BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

185. **Terminal Report:** Within two months before the end date of the project , the PMU will submit to the FAO BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for ensuring sustainability of project results.

### **Evaluation Provisions**

186. Two independent project evaluations, a rapid (reduced scope) Mid-Term Review (MTR) in the 3rd quarter of project year 2 and a Terminal Evaluation (TE), to be launched within six months prior to the actual project completion date, will be carried out. The FAO BH will arrange an independent MTR in consultation with the PSC, the PMU, the LTO and the FAO-GEF Coordination Unit. The MTR will be conducted to review progress and effectiveness of implementation in terms of achieving project objective, outcomes and outputs. The MTR will allow mid-course corrective actions, if needed. The MTR will provide a systematic analysis of the information on project progress in the achievement of expected results against budget expenditures. It will refer to the Project Budget (see Annex A2) and the approved AWP/Bs. It will highlight replicable good practices and key issues faced during project implementation and will suggest mitigation actions to be discussed by the PSC, the FAO BH, LTO and FAO-GEF Coordination Unit.

187. The GEF evaluation policy foresees that all medium and large size projects require a separate **terminal evaluation**. Such evaluation provides: i) accountability on results, processes, and performance; ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

188. The Budget Holder will be responsible to contact the Regional Evaluation Specialist (RES) six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project considering the 'GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects'. FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralized Evaluation Support team<sup>1</sup> in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

189. After the completion of the terminal evaluation, the FAO BH will be responsible to prepare the management response to the evaluation within four weeks and share it with national partners, GEF OFP, OED and the FAO-GEF Coordination Unit.

### **Disclosure**

190. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

### **10. Benefits**

**Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?**

191. An appropriate transparency framework will generate multiple social, economic and environmental co-benefits, including human capacity, local and national institutional strengthening, cost-effective national budgeting and planning, reduced vulnerability of food systems, and resilient natural resources and ecosystems on which food systems depend. Through improved and more transparent data, the project will also support increased local, regional and national investments, and improved decision making. Activities and institutional arrangements such as required NGO and civil society representation on the PSC will ensure that the project directly benefits all stakeholders by improving the quality of information related to climate change in the AFOLU and other relevant sectors. Timely, accessible, high-quality information will enable better decision making and planning, and increase transparency to improve governance and accountability.

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<sup>[1]</sup> Specific guidance on how FAO can promote the Four Pillars of Decent Work in rural areas is provided in the [Quick reference for addressing decent rural employment](#) (as well as in the full corresponding [Guidance document](#)). For more information on FAO's work on decent rural employment and related guidance materials please consult the FAO thematic website at: <http://www.fao.org/rural-employment/en/>.

## 11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

### Overall Project/Program Risk Classification \*

<b>PIF</b>	<b>CEO Endorsement/Approval</b>	<b>MTR</b>	<b>TE</b>
Low	Low		

#### Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

The project has been rated as low risk. The focus of the project is on capacity strengthening of stakeholders, particularly government officials, across different sectors in monitoring and implementing Vanuatu's NDC. The project does not envisage any field level implementation.

#### Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
FAO ES Screening Checklist Vanuatu_CBIT 01Feb2021	Project PIF ESS	
Climate risk screening- Vanuatu	Project PIF ESS	

**ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).**

Annex A1: Project Results Framework

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<b>Objective:</b> To develop Vanuatu's institutional and human capacities for complying with Enhanced Transparency Framework (ETF) reporting requirements of the Paris Agreement, and implementation and monitoring of Vanuatu's Nationally Determined Contribution focusing on Energy, Agriculture, Forestry and other Land-use Sectors.							
<b>Component 1: Strengthening Vanuatu's institutional arrangements for a robust MRV system for NDC climate change mitigation and adaptation actions.</b>							
<b>Outcome 1.1: NDC transparency system in place following the UNFCCC modalities, procedures, and guidelines</b>							
Output 1.1.1 Institutional arrangements strengthened.	(i) Qualitative gaps assessment report focusing on institutional, regulatory, human, technology, finance, and capacity building support needed, and stakeholder to meet the transparency framework of enhanced NDC actions.	--	At least 5 national agency/ministry related to ETF reporting as identified in the stakeholder section should be reviewed, and documented.	At least 10 national agency/ministry related to ETF reporting as identified in the stakeholder section should be reviewed, and documented.	Status of gap assessment report containing summary/result of field visits, interviews and surveys with relevant line ministry/government agency staff.	Sufficient political and institutional support are received to implement recommendations.	PMU



Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(ii) A national term of reference of working groups stating roles and responsibilities of stakeholders with specific guideline for participation of women (32% women) for data collection, sharing, and processing focusing on mitigation, adaptation, and addressing loss and damage (L&D) for observed and potential climate change impacts (e.g. extreme weather events and slow onset events).	Designated institutional working responsibilities exists for some ministry, but not sufficient for ETF.	Inter-ministerial agencies and other institutions identified for national MRV legal and regulatory framework.	Formalized and published national MRV institutional terms of reference stating roles and responsibilities of stakeholders related to national MRV legal and regulatory framework.	Evidence of agreements/ procedures/ TORs.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MoCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(iii) An operational National ETF body.	--	Inter-ministerial agencies and other institutions identified for national MRV legal and regulatory framework.	Formalized and operational national ETF body with terms of reference stating roles and responsibilities of stakeholders related to national ETF.	Evidence of agreements/ procedures/ TORs.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MoCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	<p>(iv) Qualitative Assessment of Institutional Capacity for Transparency.</p> <p><b>Scale - 1</b> No designated transparency institution to support and coordinate the planning and implementation of transparency activities under Article 13 of the Paris Agreement exists.</p>	--	<p>The National ETF roadmap is prepared and adopted.</p> <p><b>Scale 2</b> Designated transparency institution exists, but with limited staff and capacity to support and coordinate implementation of transparency activities under Article 13 of Paris Agreement. Institution lacks authority or mandate to coordinate transparency activities under Article 13.</p>	<p>Established and operational National ETF body under the Climate Change Division of MECDM involving relevant ministries and entities for national ETF reporting.</p> <p><b>Scale 3.</b> Designated transparency institution has an organizational unit with standing staff with some capacity to coordinate and implement transparency activities under Article 13 of the Paris Agreement. Institution has authority or mandate to coordinate transparency activities under Article 13. Activities are not integrated into national planning or budgeting activities</p>	National ETF roadmap and Established and operational National ETF body.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MoCC PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.1.2 Sectoral transparency guidelines and protocols are established for enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset	(i) Number of regulatory frameworks reviewed and formulated guidelines and action plan.	--	Based on the regulatory frameworks reviewed inter-ministerial agencies and other institutions identified for national guideline and action plan.	Published national guideline and action plan.	Status of national guideline and action plan report containing summary/result of interviews and surveys with relevant line ministry/government agency staff.	Sufficient political and institutional support are received to implement recommendations.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU
	(ii) Number of metrics and indicators for monitoring enhanced NDC actions focusing on climate change mitigation, adaptation, and addressing L&D.	--	Climate change mitigation (at least 4), adaptation (at least 4), and addressing L&D (at least 4).	Climate change mitigation (at least 6), adaptation (at least 6), and addressing L&D (at least 6).	Evidence of agreed indicators	Sufficient political and institutional support are received to implement recommendations.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
events).	(iii) Number of metrics and indicators for linking enhanced NDC with National Sustainable Development Plan (NSDP) and their reporting.	--	At least 4	At least 6	Evidence of agreed indicators	Sufficient political and institutional support are received to implement recommendations.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU
Output 1.1.3 Established operational quality control and assurance mechanism.	(i) Number of sectoral handbooks / protocols adopted (data collection, archiving, and data sharing).	--	Developed for at least 4 sectors.	Developed for at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste)	Evidence of handbooks / toolkits/protocols	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	PMU
	(ii) Number of sectoral data collection templates and guidelines.	--	Developed for at least 4 sectors.	Developed for at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste)	Evidence of templates	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(iii) Number of MOUs signed between the stakeholders for collection, generation, archiving, and dissemination of data focusing on enhanced NDC climate change mitigation, adaptation, and addressing L&D for observed and potential climate change impacts (e.g. extreme weather events and slow onset events).	--	At least 5 MOU signed between national agency/ministry related to ETF reporting.	At least 10 MOU signed between national agency/ministry related to ETF reporting.	Signed MOU	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU
Outcome 1.2: Key Ministries, Agencies, Departments, and other stakeholder's capacity strengthened to track the NDC actions							

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.2.1 Strengthened guidelines on monitoring and reporting of climate financing focusing on domestic and international sources, and both public and private sector.	(i) A qualitative gap assessment report on needs, constraints, and stakeholders on tracking climate finance on enhanced NDC actions.	--	At least 5 national agency/ministry related to climate finance identified and documented.	At least 10 national agency/ministry related to climate finance identified and documented.	Status of gap assessment report containing summary/result of field visits, interviews and surveys with relevant line ministry/government agency staff.	Sufficient political and institutional support are received to implement recommendations.	PMU
	(ii) Published and adopted sectoral methodologies, guidelines, and protocols to collect, archive, and disseminate climate finance data, and training conducted on them.	--	Developed for at least 4 sectors, and at least 2 training.	Developed for at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste), and at least 4 training.	Evidence of methodologies, guidelines, and protocols, and training proceedings.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	PMU
	(iii) Operational National Climate Finance Reporting and Monitoring (NCFRM) cell.	--	Draft ToR and involved national agencies are identified for national ETF body for national ETF reporting.	Operational national ETF body through govt resolution for national ETF reporting.	Evidence of agreements/procedures/TORs	Sufficient political and institutional support are received to implement recommendations.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.2.2 Strengthened capacity of national climate change stakeholders to track the enhanced NDC adaptation actions.	(i) Number of knowledge products / best practice documents prepared and disseminated on monitoring and reporting of enhanced NDC adaptation actions.	--	At least 2	At least 4 (of which at least one gender case study)	Evidence of knowledge products/ documents	Sufficient political and institutional support are received to implement recommendations.	PMU
	(ii) Number of training conducted and training module developed.	--	At least 2 training.	At least 4 training.	Training module and proceedings.	Staff turnover will not undercut capacity development.	PMU
<b>Component 2: Provision of an online platform, tools, and training for a robust MRV system focusing on Energy, Agriculture, Forestry, and other Land-use Sectors.</b>							
<b>Outcome 2.1: Operational digital data integration and sharing system for a robust MRV system hosted by DEPC.</b>							
Output 2.1.1 Upgraded Information Technology (IT) system for a robust MRV system hosted by MOCC based on the existing	(i) Operational and enhanced online-based integrated MRV system.	MRV system exists, but it is not updated to meet the ETF.	Hardware and software procured for enhanced MRV system.	MRV system for the relevant sector are fully operational.	Implementation report.	Existing database systems and data can be linked with the proposed system.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU



Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
system.	(ii) Number of activity data collected, developed and archived for estimation of emissions sources and sinks.	Activity data and emissions factors of the previous national communication are not properly archived in centralized storage system.	Developed for at least 4 sectors.	Developed for at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste)	Number of activity data and emission factors archived and their time period.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU
	(iii) Number of country-specific emission factors collected, developed and archived for estimation of emissions sources and sinks.	Activity data and emissions factors of the previous national communication are not properly archived in centralized storage system.	Developed for at least 4 sectors.	Developed for at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste)	Number of activity data and emission factors archived and their time period.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU
	(iv) Operational centralized database with sectoral linkages.	--	Hardware and software procured.	Centralized database are fully operational.	Implementation report.	Existing database systems and data can be linked with the proposed system.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(v) Operational integrated MRV system with online visualization and dissemination platform.	--	Hardware and software procured.	Integrated MRV system are fully operational.	Implementation report.	Existing MRV systems and data can be linked with the proposed system.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	<p>(vi) Quality of MRV systems.</p> <p><b>Scale 3</b> Measurement systems are in place for a few activities, improved data quality and methodologies, but not cost or time efficient; wider access to reporting is still limited and information is partial; verification is rudimentary /non-standardized</p>	An existing MRV system framework.	<p>Hardware and software procured to upgrade the existing system.</p> <p><b>Scale 5:</b> Measurement systems are strong for a limited set of activities and periodically report on key GHG related indicators i.e. mainstreamed into the activity implementation; reporting is improved through few pathways but limited audience and formats; verification limited</p>	<p><b>Scale 8.</b> Strong standardized measurements processes established for key indicators and mainstreamed into institutional policy implementation; reporting is widely available in multiple formats; verification is done for a larger set of information</p>	Established MRV system and number of data stored.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MOCC PMU
Output 2.1.2. Strengthened human capacity on GHG emissions and	(i) Number of training organized (32% women participants).	Limited systematic knowledge of GHG emissions and removals and reporting.	At least 5	At least 11	Training assessment surveys	Staff turnover will not undercut capacity development.	PMU

Results framework	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
removal tools, and climate vulnerability assessment through training and peer to peer learning.	(ii) Number of training knowledge materials including training proceedings and recorded video, and hosted on the online MRV system.	Limited systematic knowledge of GHG emissions and removals and reporting.	At least 5 knowledge materials.	At least 11 knowledge materials.	Published proceedings and recorded training video.	Staff turnover will not undercut capacity development.	PMU
	(iii) Number of national agencies exchanging the lessons learned at the national, regional, and global levels.	--	Organization representing at least 4 sectors.	Organization representing at least 7 sectors (Forestry, Agriculture, Livestock, Energy, Transport, Industry, Waste).	Evidence of engagement.	Stakeholders have sufficient intrinsic and extrinsic motivation to engage.	MOCC Department of Environment Protection and Conservation of Vanuatu & Department of Climate Change, PMU

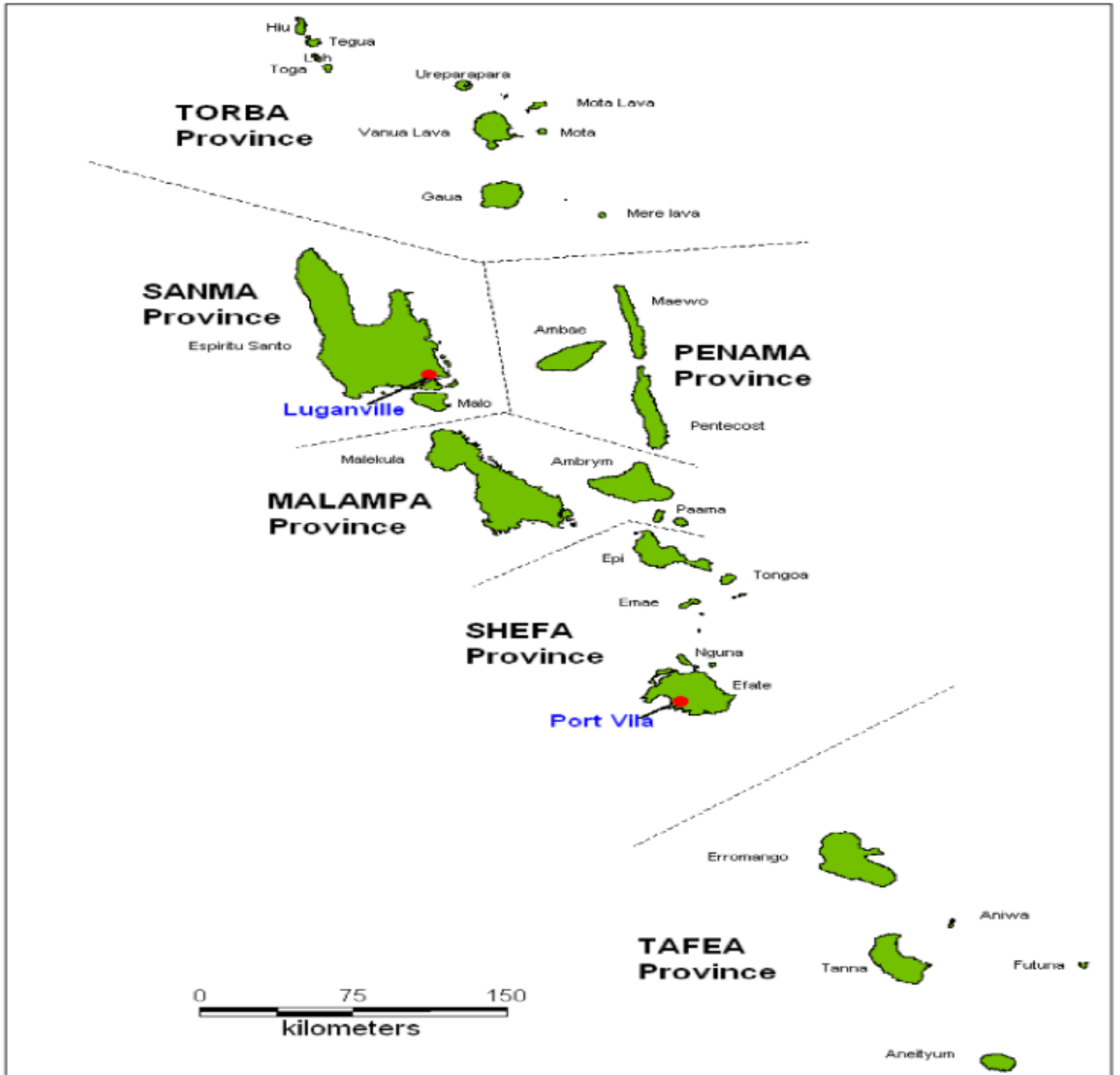
**ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).**

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:**

<b>PPG Grant Approved at PIF: USD 50,000</b>				
<b>Project Preparation Activities Implemented</b>	<b>GETF/LDCF/SCCF Amount (USD)</b>			
	<b>Budgeted Amount</b>	<b>Amount Spent to date</b>	<b>Amount Committed</b>	<b>Current Balance</b>
5011 Salaries Professional	2,380	0	0	2,380
5013 Consultants	41,500	36,638	3,927	935
5023 Training	6,120	3,472	0	2,648
5028 General Operating Expenses	0	0	1,800	(1800)
<b>Total</b>	<b><u>50,000</u></b>	<b>40,110</b>	<b>5,727</b>	<b>4,163</b>

**ANNEX D: Project Map(s) and Coordinates**

**Please attach the geographical location of the project area, if possible.**



**ANNEX E: Project Budget Table**

Please attach a project budget table.

CBIT project: Strengthening capacity in the Energy, Agriculture, Forestry, and other Land-use Sectors for Enhanced Transparency in the Implementation and Monitoring of Vanuatu's Nationally Determined Contribution	BUDGET (USD)											Budget by Agency					
	Outcome 1.1				Outcome 1.2			Outcome 2.1				M&E	PMC	Total GEF	Government - Vanuatu	National University Vanuatu	FAO Managed
	1.1.1	1.1.2	1.1.3	Total 1.1	1.2.1	1.2.2	Total 1.2	2.1.1	2.1.2	Total 2.1							
<b>5570 Consultants</b>																	
<b>International Consultants</b>																	
1. GHG Inventory and MRV Specialist (International)	5,714	5,714	5,714	17,143	5,714	5,714	11,429	5,714	5,714	11,429							40,000
<b>Sub-total - International Consultants</b>	<b>5,714</b>	<b>5,714</b>	<b>5,714</b>	<b>17,143</b>	<b>5,714</b>	<b>5,714</b>	<b>11,429</b>	<b>5,714</b>	<b>5,714</b>	<b>11,429</b>							<b>40,000</b>
<b>National Consultants</b>																	
1. National Project Coordinator and Climate Change Specialist (NPC)	9,037	9,037	9,037	27,111	9,037	9,037	18,074	9,037	9,037	18,074			23,141				86,400
2. GHG Inventory Reporting and MRV Expert	7,714	7,714	7,714	23,143	7,714	7,714	15,429	7,714	7,714	15,429							54,000
3. Knowledge and data management Expert	7,000	7,000	7,000	21,000	7,000	7,000	14,000	7,000	7,000	14,000	5,000						54,000
4. Financial/Operations Associate	1,714	1,714	1,714	5,143	1,714	1,714	3,429	1,714	1,714	3,429			42,000				54,000
5. Operations cum administrative assistant	4,943	4,943	4,943	14,829	4,943	4,943	9,886	4,943	4,943	9,886			5,000				39,800
<b>Sub-total - National Consultants</b>	<b>30,408</b>	<b>30,408</b>	<b>30,408</b>	<b>91,225</b>	<b>30,408</b>	<b>30,408</b>	<b>60,817</b>	<b>30,408</b>	<b>30,408</b>	<b>60,817</b>	<b>5,000</b>	<b>70,141</b>	<b>288,000</b>				<b>128,000</b>
<b>5570 Sub-total - Consultants</b>	<b>36,123</b>	<b>36,123</b>	<b>36,123</b>	<b>108,368</b>	<b>36,123</b>	<b>36,123</b>	<b>72,245</b>	<b>36,123</b>	<b>36,123</b>	<b>72,245</b>	<b>5,000</b>	<b>70,141</b>	<b>328,000</b>				<b>166,000</b>
<b>5650 Contracts</b>																	
1. Service Contract for Platform Development for GHG inventory, Adaptation and climate finance information. National Vanuatu University				-	21,250	21,250	42,500	42,500		42,500							85,000
2. LOA Organizing national training sessions, meetings, PSC etc. and project start-up, mid-term and closing workshops (venue, catering, meeting materials, participants travel costs), communication materials, other relevant activities.	9,000	9,000	9,000	27,000	9,000	9,000	18,000	9,000	9,000	18,000	5,000	12,000					80,000
3. Final Evaluation (FE)				-			-			-	40,000						40,000
4. Terminal Report				-			-			-	3,150						3,150
<b>5650 Sub-total - Contracts</b>	<b>9,000</b>	<b>9,000</b>	<b>9,000</b>	<b>27,000</b>	<b>30,250</b>	<b>30,250</b>	<b>60,500</b>	<b>51,500</b>	<b>9,000</b>	<b>60,500</b>	<b>48,150</b>	<b>12,000</b>	<b>208,150</b>				<b>80,000</b>
<b>5900 Travel</b>																	
1. International travel	4,800	4,800	4,800	14,400	4,800	4,800	9,600	4,800	4,800	9,600							33,800
2. National Travel	2,571	2,571	2,571	7,714	2,571	2,571	5,143	2,571	2,571	5,143							18,000
<b>5900 Sub-total - Travel</b>	<b>7,371</b>	<b>7,371</b>	<b>7,371</b>	<b>22,114</b>	<b>7,371</b>	<b>7,371</b>	<b>14,743</b>	<b>7,371</b>	<b>7,371</b>	<b>14,743</b>							<b>51,800</b>
<b>5920 Training</b>																	
1. Training on GHG emission inventory (targeted sectors)				-			-			80,000	80,000						80,000
2. Training on Statistical analysis and reporting related to GHG inventory				-			-			60,000	60,000						60,000
3. Training on spatial analysis for AFOLU sectors				-			-			80,000	80,000						80,000
4. Training on adaptation and climate finance reporting data management (all sectors)				-	40,000	40,000	80,000			-							80,000
5. Training on ETF reporting of UNFCCC		60,000		60,000			-			-							60,000
<b>5920 Sub-total - Training</b>		<b>60,000</b>		<b>60,000</b>	<b>40,000</b>	<b>40,000</b>	<b>80,000</b>			<b>220,000</b>	<b>220,000</b>						<b>360,000</b>
<b>6000 Expendable Procurement</b>																	
1. IT equipment/software for GIMS, AIMS, Spatial analysis setup for NEPA Climate Change Division, and documentation and archiving system.				-			-	98,500		98,500							98,500
2. Communication and awareness raising materials		16,255		16,255			16,255	16,255		16,255							48,765
3. Office furniture and IT accessories	886	886	886	2,657	886	886	1,771	886	886	1,771							6,200
4. Printers	143	143	143	429	143	143	286	143	143	286		2,000					3,000
<b>6000 Sub-total - Expendable Procurement</b>	<b>1,029</b>	<b>17,284</b>	<b>1,029</b>	<b>19,341</b>	<b>1,029</b>	<b>1,029</b>	<b>18,312</b>	<b>115,784</b>	<b>1,029</b>	<b>116,812</b>		<b>2,000</b>					<b>156,465</b>
<b>6100 Non-expendable Procurement</b>																	
1. Communication equipment (cameras, palmtops, etc)	257	257	257	771	257	257	514	257	257	514			2,000				3,800
2. Laptops	457	457	457	1,371	457	457	914	457	457	914			8,000				11,200
<b>6100 Sub-total - Non-expendable Procurement</b>	<b>714</b>	<b>714</b>	<b>714</b>	<b>2,143</b>	<b>714</b>	<b>714</b>	<b>1,429</b>	<b>714</b>	<b>714</b>	<b>1,429</b>			<b>10,000</b>				<b>15,000</b>
<b>6300 General Operating Expenses (GOE; ≤ 5%)</b>																	
Office operation (stationeries & other utilities)	2,146	2,146	2,146	6,437	2,146	2,146	4,291	2,146	2,146	4,291			2,980				18,000
<b>6300 Sub-total - GOE</b>	<b>2,146</b>	<b>2,146</b>	<b>2,146</b>	<b>6,437</b>	<b>2,146</b>	<b>2,146</b>	<b>4,291</b>	<b>2,146</b>	<b>2,146</b>	<b>4,291</b>			<b>2,980</b>				<b>18,000</b>
<b>GRAND TOTAL</b>	<b>66362.7</b>	<b>132637.7</b>	<b>\$ 66,363</b>	<b>\$ 245,403</b>	<b>\$ 117,633</b>	<b>\$ 133,888</b>	<b>\$ 251,520</b>	<b>\$ 213,638</b>	<b>\$ 276,383</b>	<b>\$ 490,020</b>	<b>\$ 53,150</b>	<b>\$ 97,121</b>	<b>\$ 1,137,215</b>	<b>\$ 727,496</b>	<b>\$ 102,069</b>	<b>\$ 307,650</b>	

## ANNEX F: (For NGI only) Termsheet

Instructions. Please submit a finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

## ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement

with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

**ANNEX H: (For NGI only) Agency Capacity to generate reflows**

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).