Country programme

Vanuatu

March 2021

GREEN CLIMATE FUND

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Vanuatu GCF Country Program

Vanuatu's Climate Transformation with Green Climate Fund

Published in March 2021

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Goverment of Vanuatu

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FOREWORD

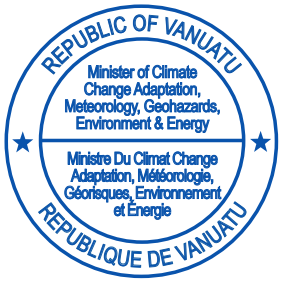
As Minister of Climate Change, I am pleased to release this Country Program of Ideas for the Green Climate Fund's future investment into the nation.
Vanuatu is not only ranked the most vulnerable country in the world to the negative effects of climate change, but it is also leading from the front in regards to its transformative adaptation interventions and high ambition emissions reduction targets.

Building on Vanuatu's moment, this GCF Country Program of Ideas sets an ambitious program of work to further refine, develop, submit and eventually implement climate change adaptation and mitigation projects that will provide a paradigm shift towards greater resilience and net zero carbo development.

The project ideas contained herein derive from comprehensive consultation with the line agencies of Government, provincial and municipal authorities, traditional chiefs, civil society agencies, the private sector, donors, academia and other development partners. Meaningful engagement will all stakeholders defines the Government's priority for pursuing resources from the Green Climate Fund.

The project ideas of this Country Program are to be further developed by stakeholders across Vanuatu, with the Ministry of Climate Change only providing an advisory role. The ideas and projects must come from within, and represent Vanuatu's own national priorities, and not those of international or regional partners. For this reason, I call upon all Vanuatu partners to step up, and take on the leading role in furthering the GCF agenda in Vanuatu in line with your own mandates, capacities and aspirations. The resources to be made available by the GCF are only as comprehensive as the project concepts and proposals you are now tasked to develop.

I would like to thank the National Advisory Board on Climate Change & Disaster Risk Reduction, and the NAB Secretariat, and the NAB Climate Finance Working Group supported by the German Agency for International Cooperation GIZ for taking the nation towards this first Pipeline of Ideas for future GCF Investment. I would also like to thank the hundreds of local experts and resource people who provided their advice and guidance on the way forward for Green Climate Fund investment in Vanuatu.



Honourable Bruno Leingkone TAO (MP)
Minister
MoCC

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AE	Accredited Entity
CC	Climate Change
CF	Climate Finance
CFWG	Climate Finance Working Group
CN	Concept Note
CBO	Community-Based Organisation
CFU	Climate Finance Unit
COP	Conference of Parties
CPEIR	Climate Public Expenditure and Institutional Report
CSO	Civil Society Organisation
DAE	Direct Access Entity
EE	Executing Entity
ESS	Environmental and Social Safeguard
FAO	Food and Agriculture Organisation
GCF	Green Climate Fund
GCFRP	Green Climate Fund Readiness Programme
GDP	Gross Domestic Products
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
GOV	Government of Vanuatu
HDI	Human Development Index
IAE	International Accredited Entity
INCR	Initial National Communication Report
LDCF	Least Developed Countries Fund
MoA	Ministry of Agriculture
MoFEM	Ministry of Finance and Economic Management
MoLG	Ministry of Local Government
MSME	Micro, Small and Medium Enterprises
NAB	National Adaptation Board
NAP	National Adaptation Plan
NAPA	National Adaptation Plan Action
NDA	National Designated Authority
NDC	Nationally Determined Commitments
NGO	Non Governmental Organization
NOL	On-Objection Letter
NSDP	National Sustainable Development Plan
PMU	Project Management Unit
PPF	Project Preparation Facility
PPCR	Pilot Programme for Climate Resilience
PPP	Public Private Partnership
PSC	Proposal Screening Committee
PSF	Private Sector Facility
SDG	Sustainable Development Goal
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United National Industrial Development Organization
USD	United States Dollar
WB	World Bank

Photo by Fábio Hanashiro on Unsplash

SECTION 1
COUNTRY PROFILE

Geographical location	South Pacific
Land area	12,189 sq. km
Population	272,459 people (2016, census[1])
Types of climate	Tropical Rainforest (Af)[2]
Vanuatu nation status	Vanuatu was admitted to the group of Least Developed Countries in 1985 and is expected to graduate in 2020[3]. Today it is still part of this group although its per-capita GDP exceeds the LDC thresholds. This situation is due to the adjustment based on the 'vulnerability index'[4], which takes into account the vulnerability of Vanuatu's economy to natural disasters.
Development profile	The country's economy is primarily based on small-scale agriculture, which provides a livelihood for two thirds of the population, while fishing, offshore financial services and tourism support the economy[5]. Unlike many of the island nations of the South Pacific, Vanuatu is well endowed with considerable **land-based resources**, with some localized **fertile volcanic soils** (facing depletion due to sub-optimal land management practices), **and extensive forests**. **Agriculture** is one of the most productive sectors, providing for over 27% of the country's GDP. Kava, copra and cocoa are the cash crops produced, with subsistence emphasis placed on taro and yams[6]
Potential growth sectors and priorities	• Enhancing food and nutrition security through climate resilient agriculture and sustainable agriculture. • Scaling up low emission and impact tourism through the scaling up RE (e.g. solar PV) and EE (e.g. energy efficiency lighting and cooling) solutions and low impact (e.g. without putting stress and pollution on the coastal ecosystem) and inclusive tourism (e.g. where local could benefit). • Low carbon transport e.g. biodiesel vehicles and mass transport. • Sustainable waste management to reduce methane emissions
GHG emissions profile	Absolute levels of CO2 eq. emissions are very small at under 0.0016%[7] of global emissions (0.6 tCO2 per capita) compared to 1.06 tCO2 per capita for Pacific small islands states[8]
Key emitter sectors	• In 2014 Vanuatu emitted 154 KtCO2. • For the year 2000, key emitting sectors were energy (70.34 Gg CO2e), agriculture (502.83 Gg CO2e) and waste (12.21 Gg CO2e)[9] • Nearly 99 GHG emissions in Vanuatu come from five activities: energy, transport, livestock, N2O from agriculture soils and waste. The largest contributor to GHG emissions in year 2000 was livestock sector amounting to 56.5% of total GHG emissions. The next biggest contributor was N2O from agriculture soils with 29.4% of GHG emissions followed by transport sector which contributed to 5.9% of total emissions
Key climate risks	Intensified cyclones, storm surges, landslides due to intense rainfall, flooding and drought, sea level rise, increasing air and sea temperatures
Vulnerable sectors	Agriculture, water, fisheries, forestry, tourism, transport, infrastructure, health, environmental sector[10]
NDA/FP	Ministry of Climate Change Adaptation (MCCA), Meteorology & Geo-Hazards, Energy, Environment and National Disaster Management, Director-General of the Ministry of Climate Change Adaptation, Jesse Benjamin (jbenjamin@vanuatu.gov.vu)
National/Regional AEs	Secretariat of the Pacific Regional Environment Programme (SPREP)
International AEs	ADB, AFD, CI, FAO, GIZ, IFAD, IUCN, UNDP, UNEP, WB, WWF
Readiness Delivery Partners	Those above + GGGI, PIFS, SPC
Potential AEs nominated	Ministry of Finance & Economic Management, Ministry of Climate Change, National Bank of Vanuatu, Save the Children

1 Retrieved from: https://vnso.gov.vu/

2 Climate-Data.org, 2018, 'Climate: Vanuatu. Retrieved from: https://en.climate-data.org/country/109

3 https://www.un.org/development/desa/dpad/least-developed-country-category-vanuatu.html

4 The country strategy and National Indicative Programme: Vanuatu, 10th EDF Programme of the European Commission (2008-2013).

5 World Bank, (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

6 World Bank (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

7 Source: NDC

8 https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=S2

9 SNC (2014). Second National Communication to the UNFCCC

10 Not arranged in order of priority. SNC (2014). Second National Communication to the UNFCCC

Development Profile

Figure 1: Map of Vanuatu

The archipelago nation of Vanuatu is located in the Melanesian region of the South Pacific Ocean between 12° and 23° north latitude and 166° and 173° east longitude, covering an expanse of approximately 1,300 kilometers (km). Over eighty islands, covering a total land area of 12,233 square kilo-meters (km2) with just over 2.5 thousand kilometres of coastline and an exclusive economic zone of 680,000 km2 make up the country (Figure 1). The largest of the islands, Espiritu Santo and Malekula cover 50% of the country's land mass and harbour the majority of Vanuatu's population. Vanuatu gained independence in 1980 from the UK and France. It is a member of the international organizations such as Commonwealth, Pacific Islands Forum, World Trade Organization, UN, ADB and the World Bank.

Vanuatu has a population of 272,459 (2016). The annual growth rate of 2.14% has been declining in the recent years[11]. Seventy-five per-cent of the population live in rural areas[12] and approximately 26.6% of the population is between 15-29 years of age. Approximately 80% of the population in Vanuatu engages in subsistence agriculture, which contributed to about 27% to Vanuatu's gross domestic product (GDP) in 2017[13].

The country's economy is primarily based on small-scale agriculture, which provides a livelihood for two thirds of the population, while fishing, offshore financial services and tourism support the economy[14]. Unlike many of the island nations of the South Pacific, Vanuatu is well endowed with considerable **land-based resources**, with some localized fertile volcanic soils (facing depletion due to poor land management practices), and extensive forests. **Agriculture** is one of the most productive sectors, providing for over 25% of the country's GDP. Kava copra and cocoa are of the cash crops produced, with subsistence emphasis placed on root crops like taro and yam[15].

Vanuatu has uniquely fragile **water resources** due to its small size, lack of storage and limited freshwater lens[16]. Water shortages are common during the dry season. Water crises during El Niño-driven droughts are becoming increasingly common on smaller and more remote southern atolls that rely primarily on rainwater and have limited harvesting capacity. Increased sea levels come with the threat of salt-water intrusion in the shallow fresh water lens, particularly in coastal areas and in areas where recharge rates are on the decline. Already, some of the country's freshwater lens has been contaminated with brine. Hygiene and sanitation continue to be a concern, with the additional challenge of managing sewage without contaminating the ground-water lens. A growing urban population makes meeting the needs of the population in the two main urban centres ever more challenging and urgent[17].

11 https://data.worldbank.org/country/Vanuatu
12 Mini Census Report (Post TC Pam), 2016
13 CIA World Factbook
14 World Bank, (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile
15 World Bank (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile
16 SOPAC 2007. Integrated Water Resources Management Programme's Diagnostic Report
17 World Bank (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation

Coastal resources harbour a critically important spawning habitat for a wide diversity of fish, many of which are critical to food security in coastal areas across Vanuatu. The country's extensive Exclusive Economic Zone (EEZ) supports a vibrant but diminishing pelagic and deep-water fish (tuna, snapper and related species) industry. While these fisheries currently contribute a small portion of the country's GDP, they represent a potentially growing market. Tuna fisheries are known for their sensitivity to changing sea surface temperatures. During the 1997/98 El Niño episode, the western Pacific experienced a clear decrease in catches[18] [19]. Over fishing is also exacerbating the reduction in catch during the natural cycle of El Nino.

The coastal areas are also where a large majority of the country's population - and therefore livelihood activities and services - are located. Natural tectonic subduction, increasing incidence of inundation, land loss, and coastal erosion had led to the implementation of a retreat plan in the northern island of Tegua. Sand extraction, mangrove removal, and other economic activities are increasing the vulnerability of many coastal areas to storm surges and sea-level rise. This is of particular concern for the Torres Group, Mele on Efate Island, East-Ambae and the Shepherds Islands[20]. In response, the national policy on climate change and disaster induced displacement was launched in 2018.

Vanuatu's **climate** varies with latitude, from wet tropical in the northern islands, which receive over 4,000 millimeters (mm) of annual rainfall to the dryer subtropical in the southern extremes of the archipelago, where annual average rainfall measures at 1,500 mm. Average temperatures range from 21°C to 27°C, and unlike many of the Pacific island nations, seasonal temperatures in the capital city of Port Vila exhibit high variability with summertime highs exceeding 30°C and minimum temperatures often reaching below 20°C. Seasonal and inter-annual variations in climate are driven by changes associated with the El Niño Southern Oscillation (ENSO), which affect every aspect of the climate in the Pacific. Cyclones are common during the warm months of November to April, although two recent cyclonic events were experienced outside of the traditional cyclonic season.[21]

Almost 74% of the **land area** in Vanuatu is covered by natural vegetation, with around one third covered by forest. Vanuatu's total land area is about 12,336 km2 with more than 36.1% (440,000 hectares) covered by tropical forest. Vanuatu has some 108 known species of amphibians, birds, mammals and reptiles; of these, 21.3% are endemic, meaning they exist in no other country, and 13% are threatened. Vanuatu is also home to at least 870 species of vascular plants, of which 17.2% are endemic. There are around 1000 vascular plants of which 150 are endemic and 700 species of bryophytes including many Invertebrates species (butterfly, bees, flies, ants and termites etc.) One of the best-known invertebrate species in Vanuatu is the coconut crab. There is a repertoire of 121 bird species, some of which are rare or vulnerable and around 30 species of Reptiles and Amphibians. The region is rich in sea life, with more than 4,000 species of marine molluscs.[22] But these habitats are under increasing pressures from invasive creeper, tree and aquatic species. A large proportion of Vanuatu's forests are are secondary due to reasonably high forestry impacts during colonial times.

National Development Aspirations: Vanuatu 2030 is the highest-level policy framework for the country fully titled the **National Sustainable Development Plan (NSDP) for 2016 – 2030.** [23] The document describes the national sustainable development goals under three "pillars": Society, Environment and Economy. Each pillar has several goals and policy objectives are articulated under each goal. The development goals under Society pillar include cultural identity, quality education and healthcare, social inclusion, security, peace, justice, and strong and effective institutions. The goals under the Environment pillar are achievement of food & nutrition security, blue-green[24] economic growth, climate and disaster resilience,

Country Profile

18 Amos, M.J. (2007). Vanuatu fishery resource profile. IWP-Pacific Technical Report (International Waters Project) no. 49

19 World Bank (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

20 SPREP. Pacific Adaptation to Climate Change Programme for Vanuatu. Report of In-Country Consultations

21 World Bank (2011). 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

22 SNC (2014). Second National Communication to the UNFCCC.

23 Vanuatu 2030, The People's Plan

24 This term is used to describe sustainable use of ocean resources in green development

natural resource management, and ecosystems & biodiversity. Finally, the Economy pillar goals include stable & equitable growth, infrastructure improvement, strengthening of rural communities, and creating jobs & business opportunities.

Even though all the pillars of the NSDP are important and GCF support will be relevant to each of the pillars, the policy objectives under the Environmental pillar are an example where GCF can provide support in the short and medium term. The environment pillar seeks to ensure a pristine natural environment on land and at sea that continues to serve food, cultural, economic and ecological needs, and "enhance resilience and adaptive capacity to climate change and natural disasters". There are five national development goals under the environment pillar namely: i) Food & nutrition security; ii) Blue-green economic growth; iii) Climate and disaster resilience; iv) Natural resource management; and v) Ecosystems & biodiversity.

One of the goals under the environment pillar is for Vanuatu to **become a strong and resilient nation in the face of climate change and disaster risks posed by natural and man-made hazards**. There are several policy objectives under this goal, and all the objectives under this goal are likely to be relevant to Green Climate Fund support. This is one example where GCF support could be channelled though other goals and objectives are also relevant to GCF support.

Inclusion of climate change and disaster resilience in the main development vision (NSDP) and in the National Climate Change & Disaster Risk Reduction Policy (CCDRR Policy) is welcome as this conforms to the GCF funding criterion of country ownership and institutional capacity and the sub-criterion of "existence of a national climate strategy". Targets set in the NSDP's M&E framework for increased private sector involvement is also welcome as it assists in scaling up as well as in sustainability. This also conforms to the GCF criteria of investment.

NSDP describes high level goals and policy objectives, which are largely qualitative. The "Monitoring and Evaluation Framework for the NSDP" is a complementary document that defines the baselines, targets and monitoring frameworks including indicators for measuring success. According to the NSDP, the policy objectives and consequently the goals will be delivered through annual planning and work programmes of the government. It is anticipated that the annual plans will define intermediate and detailed targets.

One of the policy objectives under the Environment pillar is to access available financing for climate change adaptation and disaster risk management. Green Climate Fund is identified in the NSDP as one of the sources of financing to achieve its the goals and objectives.

Macro-Economy: The basic socio-economic statistics for Vanuatu from 2010 and 2017 is summarised in Table 1. The economy of Vanuatu is mainly dependent on agriculture (including fishing and forestry), services and industry. The agriculture sector (including fishing and forestry) has contributed about 27% to the GDP, while services as a growing sector (e.g. offshore financial services, tourism, real estates,

wholesale and retail) has contributed 63.9% to the GDP, with industrial sector contributing about 9% in 2017[25]. The Services Sector is dominant in terms of value-added but its growth has been very unstable and in terms of labour it involves only the 30% of the population; the 60% of Vanuatu population still works agriculture. **The CP provides an opportunity to understand how the Services Sector can become more labour intensive so that its growth can have a bigger sustainable impact on local employment, local population and on poverty reduction.** However, recent estimates from ADB show that the services sector contributes nearly two-thirds to the GDP and is expected to grow slightly in the coming years[26]. Over the past several years, GDP of Vanuatu has been fluctuating and in 2015, the GDP reduced significantly which was due to the Cyclone damages that occurred early in the year. The GDP growth increased in 2016 to 4% and increased further to 4.5% in 2017, following the cyclone and subsequent construction boom. According to ADB estimates[27], GDP growth is going to stabilize and slightly reduce in year 2018 and 2019 (3.2 and 3.0% respectively).

The development of Vanuatu is constrained by its relatively narrow export base. Vanuatu heavily invests in social services, especially education. Mineral deposits are negligible. A small light industry sector caters to the local market. Tax revenues come mainly from import duties. Economic development is also hindered by the vulnerability to natural disasters, and long distances from main markets and between constituent islands. In response to foreign concerns, the government is in the process of tightening regulation of its offshore financial centre. In mid-2002, the government stepped up efforts to boost tourism through improved air connections, resort development, and cruise ship facilities. Australia and New Zealand are the main suppliers of tourists and foreign aid.

Table 1: Basic socio-economic statistics of Vanuatu between 2010 and 2017

Parameters	2010	2011	2012	2013	2014	2015	2016	2017
GDP Growth rate (%)[28]	1.63	1.22	1.75	1.97	2.33	-0.80	4.0	4.5
GDP (current US$ million)[29]	700.8	792.1	781.7	801.8	815.0	737.9	787.9	862.9
GDP/ capita (US$)[30]	2,965.8	3,275.1	3,158.6	3,167.3	3,148.4	2,788.8	2,914.0	3,123.6
GNI/ capita, Atlas method (US$)[31]	2,690	2,860	2,950	3,200	3,170	2,860	2,870	2,920
Domestic credit as % of GDP[32]	64.7	67.4	70.5	68.7	71.7	71.8	68.5	66.8
Ease of doing business[33]	NA	NA	NA	NA	NA	88	83	90
HDI[34]	0.591	0.592	0.591	0.596	0.598	0.597		
Population [5]	236,295	241,871	247,485	253,142	258,850	264,603	272,459	276,244
Population growth (%)[36]	2.36	2.33	2.29	2.26	2.23	2.20	2.3	
Vulnerability score[37]	0.591	0.578	0.581	0.582	0.579	0.579	0.579	NA
Poverty headcount ratio at national poverty lines (% of population)[38]	12.7	NA	NA	NA	NA	NA	NA	NA

25 CIA World Factbook
26 ADB (2018). Asian Development Outlook
27 ADB (2018). Asian Development Outlook
28 2010-2015 - World Bank (http://databank.worldbank.org/data/indicator/), 2016-17, ADB
29 https://data.worldbank.org/country/Vanuatu
30 https://data.worldbank.org/country/Vanuatu
31 https://data.worldbank.org/country/Vanuatu
32 World Bank Data (http://databank.worldbank.org/data/indicator/) – Credit to Private Sector only
33 World Bank Data (http://databank.worldbank.org/data/source/doing-business#)
34 UNDP, 2016, 'Human Development Report 2016: Human Development for Everyone'. Retrieved from: http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf
35 2010 – 2015, World Bank Data (http://databank.worldbank.org/data/indicator/), 2016 – Mini Census Report, 2016, 2017 - https://data.worldbank.org/country/Vanuatu
36 2010 – 2015, World Bank Data (http://databank.worldbank.org/data/indicator/), 2016 – Mini Census Report, 2016
37 https://gain.nd.edu/about
38 World Bank Data (http://databank.worldbank.org/data/indicator/)

Regional integration: Vanuatu ratified the Pacific Island Countries Trade Agreement (PICTA) in July 2005[39]. Vanuatu is also a member of the Melanesian Spearhead Group (MSG) whose Free Trade Agreement has entered a second phase, involving tariff cuts for key traded products. Work has begun to extend both the MSG and PICTA to cover services, which has the potential to increase competition and investment in important sectors. Two other major trade agreements are the Economic Partnership Agreements (EPA) with the EU and the Pacific Agreement on Closer Economic Relations (PACER), an umbrella agreement between members of the Pacific Islands Forum with Australia and New Zealand which provides a framework for the future development of trade cooperation.

Being a small island nation in the Pacific, Vanuatu faces risks from cyclones, sea level rises, floods and landslides as well as risks from tectonic activity which is prevalent in the region. Vanuatu experienced devastating Category 5 Cyclone Pam in 2015, which caused major infrastructure damage in the country[40] and affected four out of six provinces. According to the Vanuatu Government's assessment[41] of the impact, the cost of the cyclone on the economy was approximately 450 million USD, equivalent to 64.1% of the GDP. Major reconstruction has taken place with support from various international donor agencies. The reconstruction efforts helped the economic growth and the increase in GDP in 2017 by approximately 3.5%. However, ADB warns that the economic growth that followed the reconstruction can slow down if there is a delay in implementing the large public infrastructure project pipeline.[42]

The country has benefitted from the reconstruction efforts after the Cyclone Pam in 2015, including new infrastructure projects. Governments of Australia provided support of 40 million Australian dollars for immediate and long-term recovery of the country, including support for rebuilding schools and health infrastructure. In addition, ADB has provided support to rebuild roads and schools in Vanuatu, some of the funds for which came from the Government of Japan. World Bank provided support to rebuild the infrastructure including roads.

Tourism is starting to recover after the Cyclone and is another sector that contributed to the GDP significantly. According to the World Travel & Tourism Council (WTTC), in 2017, the Travel and Tourism sector had a direct contribution of 18.2% to the GDP and is expected to rise by 3.9% per annum until 2028[43]. Critically affecting recovery was the **devastating El Nino event immediately following TC Pam which exacerbated impacts on already stressed communities and sectors.**

The latest figures available suggest that services sector is the largest contributor to the GDP overall, even though temporarily the construction boom after the Cyclone Pam contributed significantly to the GDP. Services sector is expected to grow further and agricultural sector is expected to stabilize. Given that Vanuatu as an archipelago of small islands faces a multitude of development challenges. Providing services and building infrastructure in Vanuatu is challenging due to the remoteness of islands, rugged terrains, access to basic utilities and difficulty in developing transportation, communication and marketing infrastructure. Vanuatu also suffers from natural disasters. Given that Vanuatu is located in the Pacific Ring of Fire, it is prone to frequent earthquakes and volcanic eruptions. Natural disasters such as cyclones, storms and floods also have adverse impacts on the economy on a regular basis.

Vanuatu Infrastructure Strategic Investment Plan (VISIP 2015): The VISIP sets out strategy for infrastructure investment in the country for the period 2015-2024 and aims to align itself with the NSDP goals. Infrastructure projects such as transport, shipping, water supply, waste management, energy, telecommunications and ICT, Tourism and health are proposed in the VISIP. The total cost of the projects identified as priority in the VISIP amounts to just over 400 million USD. The proposed sources of funding are grants from international development partners (USD 125 million), loans (USD 148 million) and private sector funding (USD 133 million). According to ADB Outlook, much of the investment is actually likely to come from concessional loans and grant funding. Vanuatu raises much of its revenue from

39 Vanuatu Service Sector Analysis (2014). http://www.intracen.org/uploadedFiles/intracenorg/Content/Exporters/Sectors/Service_exports/Trade_in_services/Vanuatu_ServicesSectorBrief%20.pdf

40 UN OCHA Report

41 Post-Disaster Needs Assessment (PDNA), Vanuatu

42 ADB (2018). Asian Development Outlook

43 WTTC (2018). Travel and Tourism: Economic Impact, Vanuatu

VAT and import tariffs.[44] VAT was increased recently which is expected to boost the revenue but it is imperative, according to the ADB Outlook, that the government should assist the private sector to grow and help to minimize other costs (such as costs related to starting a business and construction permits, as highlighted by the Ease of Doing Business report) for businesses below.

Human Development Index (HDI): Regarding the overall human development, the HDI for Vanuatu was 0.597 (on a scale from 0 to 1, HDI of 1 being the level of highest development) and has been ranked 135th out of 188 countries in Global Human Development Index in 2015 and was categorized as being a "medium human development" country.[45] The country's HDI had been flat at about 0.59 between 2010 and 2012 and increased to 0.598 in 2014 before slightly going down to 0.597 in 2015, which could be likely because of the Cyclone Pam.

Domestic credit: Domestic credit to private sector, in terms of per cent of GDP in Vanuatu has reduced in 2016, and further reduced in 2017 to around 67%, having been at the higher level of over 70% in the two preceding years (2015-16). However, in general, there has been an overall increase in the credit to private sector from 2000, when the value was 31.5% of GDP. According to IMF[46], credit to the private sector is estimated to increase in 2018 by approximately 4% year on year. The level of domestic credit as mentioned above is higher than that of some LDCs but to sustain economic growth, this needs to increase. Improving the access to financial products and services will be required to encourage more lending to the private sector to scale up climate change mitigation and adaptation solutions. No major credit agencies (such as S&P or Moody's) has produced any national credit rating for Vanuatu.

Ease of Doing Business: Overall, Vanuatu was ranked at 90th from the top in a list of 190 countries with regards to the "Ease of Doing Business" in 2018[47]. However, the country ranks lower in aspects such as 'Starting a Business' (128th), Dealing with Construction Permits (151st), Protecting Minority Investors (108th) and Trading Across Borders (143rd). This suggests that the country needs to improve in these areas to encourage investments in the country as this may be affecting investments in renewable energy and climate change mitigation and adaptation activities. Clearly, there are other problems such as remoteness and limited infrastructure that also affect investment coming into the country. According to the Vanuatu Chamber of Commerce and Industry (VCCI), a number of permits and approvals from different departments are required to start a business. Therefore, a "one stop shop" for starting a business will assist in reducing the costs of setting up a business.

Gender Mainstreaming: Gender equality is enshrined in the Constitution of Vanuatu, and the Government recognizes gender equality as a fundamental right. Vanuatu government has adopted a National Gender Equality Policy for the years 2015-2019, and the main policy states that "...the Government of Vanuatu will exercise leadership to achieve gender equality and take proactive steps to embed gender equality into its legislation, policies, programs, organisational structures and operational procedures." The goals of the policy will be achieved through the following four strategic action areas:

- Reducing domestic and gender-based violence.
- Enhancing women's economic empowerment.
- Promoting women's leadership and equal political participation.
- Building a foundation for gender mainstreaming.

Like many countries in the region, gender roles in Vanuatu are ingrained in the norms and cultures of the country. The traditional social norms, values and practices that condone and perpetuate discrimination towards women and girls are the main causes of the barriers to women's economic empowerment in Vanuatu[48]. Moreover, despite high level commitments from the government, there has been slow progress towards gender equality in Vanuatu. There is resistance to change due to prevailing gender

44 ADB (2018). Asian Development Outlook

45 UNDP (2016). 'Human Development Report 2016: Human Development for Everyone'. Retrieved from: http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

46 https://www.imf.org/~/media/Files/Publications/CR/2018/cr18109.ashx

47 WB (2018). Ease of Doing Business

48 Molony, T. (2014). Desk Review: Women's and girls' empowerment program, CARE International in Vanuatu as quoted in Supporting Women in Provincial Vanuatu: TVET Program Gender Equality Report, May 2016

norms which grant men control over female behaviour, notions of masculinity linked to power and decision making, and an acceptance of violence as a way to resolve conflict.[49] According to a report by International Federation of Journalist[50], rate of domestic violence in Vanuatu is among the highest in the world. The report also suggests that women have low levels of education and representation in positions of power and influence. The Gender Equality Policy document acknowledges that Gender Based Violence (GBV) is a serious issue affecting women in Vanuatu, though the document highlights positive changes in gender equality in the recent years. Women's role in politics and position of power is also limited. According to Pacific Women in Politics (website)[51], there are no female MPs in 52-strong parliament in Vanuatu, as of March 2018.

In addition, more women than men (49% vs. 41%) are involved in subsistence agriculture that makes the women more susceptible to effects of climate change.[52] Hence gender responsive climate solutions must be designed to ensure that women, youth and disadvantaged groups are not side-lined but trained, sensitised and empowered to participate in the planning, formulation, implementation, monitoring and evaluation of climate solutions as a strong exit strategy beyond the one-off project. It must be recognised that their inclusive participation as value chain actors are critical to the successful implementation of the climate and development project/progamme.

Adaptation and risk management policies/strategies: Vanuatu Government has developed the Vanuatu Climate Change and Disaster Risk Reduction (CCDRR) Policy 2016-2030, which is the key policy pronouncement in this sector. In addition, the NSDP (2016-2030) has a development aspiration of "enhanced resilience and adaptive capacity to climate change and natural disasters". CCDRR defines six strategic priorities to achieve the goal of "resilient development" for climate change and disaster risk reduction – governance, finance, knowledge and information, climate change adaptation and disaster risk reduction, low carbon development, and response & recovery. The National Climate Change & Disaster Induced Displacement Policy was launched in 2018 and aims to help guide climate, disaster and development planners 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.

Vanuatu has been ranked as the number one country in the World Risk Index 2016, published by the United Nations University.[53] The report uses exposure to natural disasters and vulnerability (which is a measure of adaptation, coping mechanisms and susceptibility) to calculate the risk. Vanuatu is also number one in exposure to natural hazards (cyclones, drought, earthquake, flood, and sea level rises). Natural disaster is one of the key challenges that the country faces, particularly the exposure to such hazards which is difficult to mitigate. This will be one of the challenges to implement CCDRR policy and achieve its goals. Moreover, the Monitoring and Evaluation will be difficult due to limited baseline data available. The willingness of the international community to support countries such as Vanuatu with a high risk of adverse effects of climate change is an opportunity for Vanuatu to take advantage of while planning and implementing actions on climate change adaptation and disaster risk reduction.

Even though the CCDRR policy was officially launched in 2016, according to the Vanuatu Climate Change Finance Review[54], there is no costed implementation plan yet[55] to support the resourcing of the actions identified in the policy. This is clearly a major challenge in the implementation of the CCDRR. For an effective implementation of a policy, clearly costed and defined action plan is necessary. There is reported to be limited human resources available for monitoring and evaluation of the progress. The development and adoption of National Energy Roadmap (NERM) (see below) is a welcome step in addressing climate change mitigation through reduction of greenhouse gases through the use of

49 Molony, T. (2014). Desk Review: Women's and girls' empowerment program, CARE International in Vanuatu as quoted in Supporting Women in Provincial Vanuatu: TVET Program Gender Equality Report, May 2016
50 Country Report: Media and Gender in Vanuatu. International Federation of Journalists, 2015
51 https://www.pacwip.org/women-mps/national-women-mps/
52 Gender Equality Policy, 2015-2019
53 World Risk Report 2016 (United Nations University)
54 VANUATU CLIMATE CHANGE FINANCE REVIEW, February 2018
55 As of February, 2018

renewable energy and energy efficiency and is a complementary policy framework to CCDRR policy. Furthermore, the GCF Country Programme will help to address some of these challenges.

National Energy Roadmap (NERM): The main policy framework for Vanuatu in the energy sector is the National Energy Roadmap (NERM), which was originally adopted in 2013 covering the period between 2013 and 2030. However, in 2016, a revised version has been produced to reflect recent changes and to cover the period between 2016 and 2030. NERM sets targets including 100% of electricity generation from renewable energy by 2030 and 65% by 2020. It also sets a target of 100% of electricity access in the country by 2030. Even though these targets are achievable, they are ambitious given that in 2016, only about 58% of people had access to electricity in Vanuatu.[56] A conducive enabling environment including incentives for private sector is important to achieve these targets, particularly given a short time frame. As part of the roadmap, NERM includes implementation plan covering infrastructure investment to produce renewable energy in the country. It appears that majority of those projects are either funded by donor agencies or the government. For long term sustainability and also to expedite the investment in renewable energy, moving away from grant funded and publicly funded projects to Independent Power Producers (IPP) projects would be beneficial. Necessary legislative and regulatory framework needs to be in place to encourage investment from the private sector – both for grid connected schemes and also for large commercial enterprises to install renewable energy systems for their own use. In addition, necessary support should be provided to the private sector to obtain low interest loans.

NERM identifies Climate Change as one of the top priorities in the energy sector. In addition, CCDRR Policy also recognises the role of NERM in addressing the climate change by promoting low carbon renewable energy development, in line with NSDP. This indicates that the government has been successful in mainstreaming climate change in development planning.

The Reserve Bank of Vanuatu is the central bank in the country which acts as the regulator of the banking sector. There are limited commercial banks in the country including National Bank of Vanuatu, ANZ, Bank South Pacific (BSP) and BRED banks providing personal and business banking services. Like other island nations and nations in the Pacific region, Vanuatu has high levels of financial exclusion leading to small and remote communities with limited access to financial products and services often exacerbated by lack of collateral and unfavourable terms and interest rate. Larger commercial banks cater to the population in urban areas, generally and hence rural and remote communities are unable to take advantage of the services these banks provide. In order to meet some of these unmet needs, alternative methods such micro finance services are being implemented in Vanuatu. Given the market size is relatively small in many of the pacific nations, regional microfinance initiatives are catering to the needs of customers in many countries of the region. These microfinance agencies provide small loans in various sectors including for solar home systems. Some of the agencies active in micro finance sector in Vanuatu are VanWoods, the South Pacific Business Development (SPBD) Microfinance Ltd and the National Bank of Vanuatu (NBV).

Private Sector in Vanuatu is active and involved in Climate Change mitigation and adaptation activities, as demonstrated in a recent trade show[57] in Vanuatu organized by the Vanuatu Business Resilience Committee of the Vanuatu Chamber of Commerce & Industry. Nearly 180 companies involved in diverse sectors such as agriculture, tourism, energy, food security and waste management presented their companies' activities and products in dealing with climate change effects and made recommendations for improving climate finance slows to the private sector. However, most of these companies are involved in small scale products and services delivery in the energy and climate change sector. Vanuatu's private sector faces usual hurdles such as unavailability of affordable finance and need for regulatory reforms. According to the Renewables Readiness Assessment for Vanuatu, the relatively new Department of Energy (DoE) and Utilities Regulatory Authority (URA) may need additional authority and resources and there is a need for greater clarity on the institutional roles, functions and responsibilities of each of these two important entities.[58]

56 ADB Data (https://data.adb.org/dataset/basic-statistics-asia-and-pacific)

57 Private Sector Climate Finance Tradeshow, April 2018

58 Renewables Readiness Assessment, IRENA, 2013

Climate Change Profile

Climate Scenarios

Vanuatu, as many Small Island Developing States (SIDS), is strongly affected by and extremely vulnerable climate change. The susceptibility of the country to climate change impacts is shaped by its geographic and socio-economic characteristics. Particularly, the small size and remoteness in conjunction with large parts of the population living in poverty and key infrastructure being located in particularly exposed areas exacerbate Vanuatu's vulnerability. Considering a wide range of natural hazards, Vanuatu ranked first out of 171 countries in the World Risk Index 2017 indicating their high susceptibility towards natural hazards[59]. The key climate change impacts projected to affect the nation are: (i) sea level rise; (ii) variations in air and ocean temperatures; (ii) intensification of extreme weather phenomena, such as cyclones; (iv) changes in precipitation patterns; and (v) ocean acidification. Most of these impacts are already common risk factors in the country, which are projected to get exacerbated by climate change. These climate change impacts could undermine the gained development efforts and pose a serious threat to Vanuatu's sustainable development pathway..

Climate Change Scenarios and Projections

The mean annual **temperature** for the Pacific are projected to increase between 1.4 and 3.1ºC[60]. Vanuatu, as well as globally, a changing temperature regime could be observed in recent decades. In both Port Vila and Aneityum, annual maximum temperatures increased since 1950 with a rate of 0.17°C per decade increase in Port Vila and 0.18°C per decade Aneityum[61]. Rates that are consistent with global warming patterns. The future mean temperatures in Vanuatu by 2040 are projected to increase by 1.2°C[62]. Another, older, model indicates the temperature increase to be in the range of 0.4 - 1.0°C[63]. All projections indicate, though, an increase of air and sea surface temperature for Vanuatu.

Changing precipitation patterns in conjunction with higher temperatures can enhance the risks of droughts and floods. Both at Port Vila and in Aneityum no clear trends in annual and dry season precipitation patterns since 1950 could be found. In Port Vila, however, there is a decreasing trend in wet season rainfall (Figure 5). There are no homogenous results for future rainfall projections, with models projecting +/-25% changes in rainfall[64]. Projections generally suggest an increase in wet season rainfall and a decrease in dry season rainfall until 2100. The strengthened wet seasons is related to projected intensification of the South Pacific Convergence Zone. The inter-annual variability El Nino Southern Escalation (ENSO), with El Niño and La Niña years, significantly influences precipitation and weather patterns in Vanuatu. Some studies expect an intensification of ENSO phenomena due to global climate change, whereas this is still debated. Nonetheless, this strong correlation between the ENSO phenomenon and Vanuatu's weather adds uncertainty to the short to medium term climate change

59 Bündnis Entwicklung Hilft /United Nations University (2017): WorldRiskReport 2017. Berlin: Bündnis Entwicklung Hilft, Bonn

60 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

61 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFgglMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

62 Government of the Republic of Vanuatu, 2015, 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030', Secretariat of the Pacific Community, Suva, Fiji

63 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFgglMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

64 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

impact projections.

Projections of future **droughts** are inconsistent for Vanuatu. However, the small groundwater bodies at some outer islands, which are already sensitive to changing precipitation patterns, could experience intensified water shortages in case of insufficient rainwater[65]. Contrary, **floods** (extreme precipitation events) are projected to become more frequent and intense[66].

Another anticipated major climate change impact for the south pacific region, including Vanuatu, are changing frequency and intensity of **extreme weather events**, such as cyclones. Cyclones and storms are no new phenomenon to Vanuatu, with annual occurrences between November to April. There appears to be an existing trend of an intensification of storms. When comparing the frequency of category 4-5 storms in the Pacific region for the times from 1975-1989 and 1990-2004, the rate of occurrence more than doubled. Vanuatu is among the most affected SIDS in the region and experienced most cyclones between 1990 and 1999 (2.6 annually) among its neighbouring Pacific nations. Out of which cyclone Uma, in 1998, caused 50 casualties and led to an estimated US$150 million in damage, and cyclone Prema, in 1993, caused an estimated US$60 million in damage[67]. Severe Category 5 Cyclone Pam in 2015 caused total economic effects of Total economic effects USD 449.4 mil with USD270.9 mil attributable to damage and USD178.5 mil attributable to loss, overall roughly equivalent to 64.1% of GDP[68]. Regional forecasts project a change in the storm and cyclone regime in Vanuatu leading to an increased intensity, but a decrease in the frequency of occurrences.[69] [70]

Sea level rise (SLR) is another climate change induced threat affecting coastal areas and pose of the most severe risks to many SIDS. According to the International Panel on Climate Change (IPCC), the mean global sea level could rise to about one meter by 2100[71], whereas there are significant regional differences in magnitude. Observed global mean sea level variations since 1870 show an annual increase at a rate between 2.8 and 3.6 mm[72] [73]. An increased overall mean sea level exacerbates impacts of extreme tides and tidal surges leading to inundations and damages in coastal areas. According to satellite data, the sea level rise around Vanuatu was between 6-10mm per annum between 1993 to 2011, which resembles 3 times to global average rate[74] [75]. It is assumed that this high rate may be influenced by the ENSO phenomenon, which leads to inter-annual sea level variations in the Pacific region. Measured data from the Port Vila SEAFRAME gauging station indicates a sea level rise of around 3.1 mm/year (1993-2011)[76]. Projections indicate a continued sea level rise around Vanuatu with an anticipated increase

65 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

66 Government of the Republic of Vanuatu, 2015, 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030', Secretariat of the Pacific Community, Suva, Fiji

67 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile.

68 TC Pam Post Disaster Needs Assessment https://reliefweb.int/report/vanuatu/post-disaster-needs-assessment-tropical-cyclone-pam-march-2015

69 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFgglMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

70 Government of the Republic of Vanuatu, 2015, 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030', Secretariat of the Pacific Community, Suva, Fiji

71 Intergovernmental Panel on Climate Change (IPCC), 2013, 'Working Group I Contribution to the IPCC Fifth Assessment Report on Climate Change 2013: The Physical Science Basis: Summary for Policymakers'. International Panel on Climate Change, Stockholm

72 Church, J. A., & White, N. J., 2011, 'Sea-Level Rise from the Late 19th to the Early 21st Century', Surveys in Geophysics, 32(4–5), 585–602

73 Merrifield, M. A., Merrifield, S. T., & Mitchum, G. T., 2009, 'An Anomalous Recent Acceleration of Global Sea Level Rise', Journal of Climate, 22(21), 5772–5781

74 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFgglMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

75 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

76 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation

of 3-17 cm by 2030 and up to 100cm by the end of the century, under a high emissions scenario[77] [78].

Closely related to sea level rise are **intensified rates of salinization** of coastal ground and surface water aquifers, and soils, through more frequent inundations with saltwater. Many coastal locations in Vanuatu rely on groundwater wells, many of which have now become saline ad unusable. These impacts associated with salinity intrusion will further be exacerbated through an intensification of extreme weather phenomena like cyclones.

Another significant impact for nations, such as Vanuatu, that are highly dependent on marine ecosystems is climate change induced **ocean acidification**. Partly due to increased sea surface temperatures the ocean uptakes CO2 at higher volume which leads to a changed pH regime of the waters. This can significantly impact marines' flora and fauna and is a major driver of coral bleaching events. In the Pacific region, the observed sea surface temperatures have increased by 0.6 to 1 C since 1910[79]. The acidity projections for the sea waters around Vanuatu predict, under all emissions scenarios, a continued trend of acidification over the 21st century[80]. One projection indicates that this continued ocean acidification will degrade 80% of coral reefs within 20 years[81].

In addition to the climate projections provided above (of which most are already manifesting), Table 2 provides a summarising overview about projected climate change impacts for Vanuatu based on findings from the 2012 Aus-Pacific Climate Change Science Program (PCCS).

Table 2: Projected change in the annual and seasonal-mean climate for Vanuatu (under the B1 (low; blue), A1B (medium; green) and A2 (high; purple) emissions scenarios)[82] [83]

Variable	Season	1980–1999 average	2030	2055	2090	Confidence
Surface air temperature (°C)	Annual	24.2 (Efate)	+0.6 ± 0.4 +0.7 ± 0.4 +0.7 ± 0.3	+1.0 ± 0.5 +1.4 ± 0.6 +1.4 ± 0.3	+1.4 ± 0.7 +2.2 ± 0.9 +2.6 ± 0.6	High
Maximum temperature (°C)	1-in-20-year event	N/A	N/A	+1.0 ± 0.6 +1.5 ± 0.7 +1.5 ± 0.5	+1.3 ± 0.5 +2.1 ± 0.9 +2.6 ± 1.2	Low
Minimum temperature (°C)	1-in-20-year event	N/A	N/A	+1.2 ± 1.8 +1.5 ± 1.9 +1.5 ± 1.7	+1.5 ± 1.8 +2.0 ± 1.9 +2.3 ± 1.8	Low

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77 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFggIMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

78 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

79 Folland, C.K., J.A. Renwick, M.J. Salinger, N. Jiang, and N.A. Rayner, 2003: Trends and variations in South Pacific Islands and ocean surface temperatures. Journal of Climate, 16, 2859-2874 and Folland, C.K., J.A. Renwick, M.J. Salinger, and A.B. Mullan, 2002: Relative influences of the Interdecadal Pacific Oscillation and ENSO on the South Pacific Convergence. Zone. Geophysical Research Letters, 29, 21-1-21-4

80 Pacific Climate Change Science Program, 2011, 'Current and future climate of Vanuatu'. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj68PzM3NPbAhWaTn0KHczsDEoQFggIMAA&url=https%3A%2F%2Fwww.pacificclimatechangescience.org%2Fwp-content%2Fuploads%2F2013%2F06%2F15_PCCSP_Vanuatu_8pp.pdf&usg=AOvVaw37bNue7VvkCbAvMUdCbGuT

81 Government of the Republic of Vanuatu, 2015, 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030', Secretariat of the Pacific Community, Suva, Fiji

82 Projected change in the annual and seasonal-mean climate for Vanuatu presented under the B1 (low; blue), A1B (medium; green) and A2 (high; purple) emissions scenarios. Projections are given for three 20-year periods centred on 2030 (2020–2039), 2055 (2046–2065) and 2090 (2080–2099), relative to 1990 (1980–1999). Values represent the multi-model mean change ± twice the inter-model standard deviation (representing approximately 95% of the range of model projections), except for sea level where the estimated mean change and the 5–95% range are given (as they are derived directly from the Intergovernmental Panel on Climate Change Fourth Assessment Report values).

83 Aus-Pacific Climate Change Science Program (PCCS), 2012. Available at: http://www.pacificclimatechangescience.org/

Total rainfall (%)*	Annual	2,118mm (Efate)	+3 ± 9 +2 ± 11 +1 ± 17	+1 ± 12 +3 ± 15 +3 ± 16	+1 ± 16 +3 ± 19 +8 ± 20	Low
Wet season rainfall (%)*	November- April		+5 ± 8 +3 ± 11 +3 ± 17	+3 ± 12 +5 ± 15 +5 ± 15	+3 ± 15 +7 ± 19 +11 ± 18	Moderate
Dry season rainfall (%)*	May-October		0 ± 16 +1 ± 20 -2 ± 22	-4 ± 20 -1 ± 24 -1 ± 27	-2 ± 23 -4 ± 25 +2 ± 31	Low
Sea-surface temperature (°C)	Annual	27.1 (Average)	+0.6 ± 0.4 +0.6 ± 0.3 +0.6 ± 0.4	+0.9 ± 0.5 +1.2 ± 0.5 +1.3 ± 0.4	+1.3 ± 0.5 +2.0 ± 0.7 +2.5 ± 0.6	High
Aragonite saturation state (Ωar)	Annual maximum	N/A	+3.5 ± 0.1 +3.4 ± 0.1 +3.4 ± 0.1	+3.2 ± 0.1 +3.0 ± 0.1 +3.0 ± 0.1	+3.1 ± 0.1 +2.6 ± 0.1 +2.5 ± 0.1	Moderate
Mean sea level (cm)	Annual	N/A	+10 (5-16) +10 (5-16) +10 (3-17)	+19 (10-27) +20 (8-31) +19 (7-31)	+32 (17-47) +40 (20-59) +42 (21-63)	Moderate

All these climate change impacts outlined above lead to cascading impacts (secondary impacts) that include increased coastal erosion, damage to coral reefs and fisheries, reduced water quality and quantity, loss of soil fertility, and a reduced potential to grow certain traditional crops.

Vulnerabilities

Vanuatu, like all Small Island Developing States (SIDS), is extremely vulnerable to the adverse impacts of climate change. The vulnerability of Vanuatu to climate change is predominantly shaped by its geographic and socio-economic situation. Geographically, the remoteness (long distance to other major land bodies) and dispersed archipelago and mountainous terrain that makes administration, communications, and operations costly and challenging. Its extensive coastline and dependence on marine biodiversity as protein source is, furthermore, prone to climate-induced coastal erosion, spring tides, and species loss/ coral bleaching. The remoteness of the island and small land area also constraints any development of scalable exporting economic sectors (apart from tourism, whereas the low standard of the infrastructure limits the growth and competitiveness of the tourism industry) and creates barriers to attract foreign investments. The small size of the nation, furthermore, can lead to the situation that one disaster (e.g. cyclone) can disproportionally affect an entire sector compared to larger countries where this risk can be spatially more diversified. Other factors that significantly shape the vulnerability of Vanuatu to climate change relate to the financial status of the nation – Vanuatu is a Least Developed Country (LDC) – and the high dependency of the local population on fisheries and agriculture (80% of the population engages in subsistence agriculture). Both sectors are particularly susceptible to climate change.

According to the World Risk Index 2017 (mean values for 2012-2016), Vanuatu ranked highest, out of 171 countries, in the subcategory for overall risk and exposure to natural hazards (volcanic eruptions were excluded as risks for the index). Conferring to estimations of the report, almost 64 percent of the country's population could potentially become victims of natural disasters. In addition to the climate change related risks, outlined above, Vanuatu is located along tropical cyclone tracks and on the Pacific Ring of Fire (tectonic plate boundaries with a chain of volcanoes), which frequently leads to earthquakes and tsunamis[84]. Between 1993 and 2006, seven tsunamis were recorded in Port Vila out of which one measured 90 cm (1999) and another one 80 cm (2002)[85].

Particularly vulnerable to climate-induced impacts are Vanuatu's **coastal areas** where the majority of the country's population are residing, and a large share of infrastructure is being located. Sea level rise in

84 Bündnis Entwicklung Hilft /United Nations University (2017): WorldRiskReport 2017. Berlin: Bündnis Entwicklung Hilft, Bonn

85 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

combination with tectonic subsidence have led to extensive coastal erosion processes and increasingly frequent inundations in some islands. This led in some incidences to the forced relocation of entire communities, e.g. through the retreat plan in the northern island of Tegua[86]. Sea level rise is also eroding important cultural sites, such as the graveyard in Worasiviu village on Pele Island. These trends are being exacerbated through anthropogenic mangrove removal, sand extraction, and other unsustainable development patterns that increase the coastal vulnerability. Climate change is already exacerbating human displacement, often towards urban centers, as outlined in the National Climate Change & Disaster Induced Displacement Policy,

Sectoral Impacts

Almost all economics sectors in Vanuatu are likely to be impacted by climate change induced cyclones, sea level rise, inundations, salinity, ocean acidification and other hazards. The most vulnerable sectors considered in the Second National Communication of Vanuatu to UNFCCC are: (i) **agriculture** (crops, cattle and sustenance); (ii) **fisheries** (freshwater, coastal, deep sea, aquaculture); (iii) **forestry** (including mangroves and production forest); (iv) **tourism** (cruise-ships, hotels); (v) **transport** (road, ferries, and air); (vi) **infrastructure** (utilities [energy, water, and sanitation], houses, offices, and industry); (vii) and **Health**. The climate change impacts on these sectors are outlined below, and are contributing to urbanization and internal displacement with the associated challenges of security, housing, waste management and social protection.

Agriculture: Due to the large amount of the population, around 80%, being dependent on subsistence agriculture the climate change impacts pose a tremendous risk to Vanuatu's agriculture sector and food security[87]. Agricultural activities in Vanuatu are particularly susceptible climate change induced changes in precipitation patterns (as most cropping practices are rain-fed), extreme rain or drought events, salinization processes, increases in evapotranspiration, seasonal variations, and reduction in fresh-water availability[88]. Prolonged and intense rainfall, for example, damage seedlings and encourage conditions that promote diseases and pests[89]. Droughts, on the other hand, cause added thermal stress on plants. Projected temperature increases may reach the maximum heat tolerance thresholds of crops and induce heat stress and crop failure, especially in traditional crops like cassava, taro, and yam. Inundations with saltwater and salinization of soils and freshwater lenses poses additional risks to coastal and low-lying farms. These climatic impacts are exacerbated by soil erosion and loss of soil fertility due to improperly managed deforestation and environmental degradation[90]. Furthermore, anthropogenic and demographic pressures through migration/urbanization, loss of social cohesion and culture and over use of natural resources (fishing, poor land management practices) are exerting unsustainable pressures on the fragile resources with associated loss of ecosystem services.

This demands adaptive responses from the industry, the government, and local people to reach a paradigm shift in resilient livelihood choices and production patterns.

Fisheries: As an island nation, the fisheries sector is of high importance for the country for income generation and as a food source, particularly for fisher communities. Climate change poses a significant threat towards Vanuatu's fisheries and marine life. The changing ocean temperature regime can lead to migration of fish populations and habitat impacts. Changes in ocean circulation patterns, furthermore, may affect the aquatic food web as species seek conditions suitable for their lifecycle. Climate-induced ocean acidification processes could impact the marine environment through deficiency in calcium

86 Ballu, V., Bouin, M.-N., Siméoni, P., Crawford, W.C., Calmant, S., Boré, J.-M., Kanas, T., Pelletier, B., 2011. Comparing the role of absolute sea-level rise and vertical tectonic motions in coastal flooding, Torres Islands (Vanuatu). Proc. Natl. Acad. Sci. U. S. A. 108, 13019–13022

87 Republic of Vanuatu, 2014, 'Second National Communication to the UNFCCC

88 World Bank, 2011, 'Vulnerability, Risk Reduction, and Adaptation to Climate Change: Vanuatu', Climate Risk and Adaptation Country Profile

89 Republic of Vanuatu, 2007, 'National Adaptation Programme of Action (NAPA)

90 SPREP. Pacific Adaptation to Climate Change Programme for Vanuatu. Report of In-Country Consultations

carbonate, affecting shelled organisms and coral reef calcification. The reduction of coral reefs (e.g. due to acidification or temperature-driven coral bleaching) can lead to reduced fish and invertebrate populations which naturally seek shelter or raise their offspring in reef habitats. Changing precipitation patterns, ocean temperatures, and habitats can, further, influence fish and invertebrate physiology i.e. metabolism, growth, reproduction. High temperatures may also induce growth of aquatic micro and macrophytes, which often lead to habitat degradation and oxygen depletion. Coastal marine ecosystems, can furthermore be impacted through enhanced sedimentation due to soil erosion from agricultural and forestry practices, intense cyclones or storms that cause physical damage, or extreme rainfall events leading to flash floods and landslides. Table 3 shows the projected percentage change in coastal fisheries production under the different emission scenarios.

Table 3: Projected change in coastal fisheries production (%) (under the B1 (low; blue), and A2 (high; red) emissions scenarios)[91]

Coastal fisheries category	B1/A2 2035	B1 2100*	A2 2100	Main effects
Demersal fish	-2 to -5	-20	-20 to -50	Habitat loss and reduced recruitment (due to increasing Sea Surface Temperature and reduced currents)
Near shore pelagic Fish (tuna dominate)	0	-10	-15 to -20	Reduced production of zooplankton in food webs for non-tuna species and changes in distribution of tuna
Targeted invertebrates	-2 to -5	-10	-20	Habitat degradation, and declines in aragonite saturation due to ocean acidification
Inter/subtidal invertebrates	0	-5	-10	Declines in aragonite saturation due to ocean acidification

* Approximates A2 in 2050

Forestry: With a total of 36% of Vanuatu's landmass the forest coverage is high and makes the country a net carbon sink. Forests, as fisheries, always been an integral part of lives of the people of Vanuatu and contribute to the welfare and economic development. There are limited assessments been done on the effects of climate change on the forestry in Vanuatu. However, drawing on relevant impact projections it can be expected that climate-induced changing precipitation trends, temperature and seasonal variability, and intensified extreme weather events create significant additional stress to many tree species and biodiversity of Vanuatu's forests. This can lead to changed ecosystem composition and decline in plant density or migration of some species.

In its National Forest Policy (2013-2023) Vanuatu acknowledges the need to adapt to climate change and targets to "integrate climate change adaptation issues into forestry sector planning and activities". However, the enforcement of regulations is hindered by the fact that all forests are privately owned, whereas the constitution demands from landowners to manage their land in a way that "safeguards the national wealth, resources and environment in the interests of the present generation and of future generations".

Tourism: With a contribution of around 40% to Vanuatu's GDP (in 2014), tourism is one of the most important economic sectors with the highest growth potential for the nation. Climate change could, however, be a threat to the industry and its growth potential[92]. This is acknowledged in Vanuatu's Strategic Tourism Action Plan 2014-2028. The industry is likely being impacted through a reduced attractiveness as a tourist destination due to loss of destination habitats such as coral reefs (e.g. due to thermal bleaching) and reduced biodiversity. Further, tourism infrastructure that is located close to the shoreline is now under threat through coastal erosion and storm surges, both intensified and caused by cyclones and sea level rise (see above). Increasing temperatures is further leading to increasing cooling costs and/or heat stress for tourists. And more variable rainfall can lead to drought and water shortages

91 Republic of Vanuatu, 2014, 'Second National Communication to the UNFCCC' based on Bell et al. 2011

92 http://epubs.surrey.ac.uk/534351/3/Wong_Climate_Change.pdf

for tourists. It is inevitable to consider climate change in tourism development planning processes in order to enhance the sectors resilience and enable a sustainable sectoral growth.

Transport & Infrastructure: Similar to the tourism specific infrastructure, the wider transport sector and infrastructure in Vanuatu are exposed to climate change induced risks. Transportation is pivotal for the country's prosperity and further development. Air and sea are the predominant modes of transportation in Vanuatu. There are 29 airports (5 paved and 24 unpaved) and two main ports and terminals across the different islands. Developed road systems only exist on larger islands, whereas most roads are being located in proximity to the coasts. The existing road system comprises a total 1,894 km of roadways (111 km paved and 1,783 km unpaved). The inter-island transportation is already impacted by extreme climatic events frequently interrupting air and shipping services. Like the road systems most human settlements and man-made infrastructure is located in close proximity to the shoreline. The main commercial centres of Port Vila and Luganville, are located on the perimeter of the major islands.

The location of existing infrastructure close to the coast enhances its susceptibility and vulnerability to climate change impacts, such as coastal erosion, storm surges, cyclones, sea level rise, and landslides[93]. Pavements are furthermore likely to be impacted by temperature variations[94].

Health: Health is another sector that the government identifies of needing to receive particular attention to properly adapt to climate change and reduce associated risks. Particularly, the marginalised parts of society with limited access to existing health facilities are prone to additional risks created through progressing climatic changes. Besides the physical direct impacts through cyclones, extreme temperatures, and storm surges on human health[95], the indirect health related impacts stem from increases of diseases and potential nutritional deficiencies. According to one study[96], "The highest level of risk from climate change in Vanuatu includes the health impacts from water-borne and food-borne diseases." There is some evidence that the areas prone to malaria infections, with problem already being endemic, is extending southwards[97]. Other direct climate change impacts related to intensified cyclones that could damage existing health infrastructure or hinder transportation of injured or sick people, as well as damage critical water and energy supply infrastructure affecting the people's health.

GHG emissions profile

Vanuatu is a small island developing state with absolute levels of CO2 eq emissions at under 0.0016% of world emissions. Based on SNC[98], Table 4 provides an overview about Vanuatu's greenhouse gas emissions profile from the year 2000. The total GHG emissions by 2000 were 585.39Gg CO2eq (excluding removals) with the sectoral distribution of 70.34Gg CO2e from Energy; 502.83Gg CO2e from Agriculture and 12.21Gg CO2e from Waste Sector. When considering the CO2 sequestration by the forestry and land use sector of 7,913.16Gg CO2e, the total GHG emissions, including these sinks, are with - 7327.77Gg CO2e negative, indicating that Vanuatu is a net sink for GHG emissions. Nearly 99% of GHG emissions in Vanuatu stem from five activities: energy, transport, livestock, N2O from agriculture soils and waste. Out of which the largest source of emissions can be found in the agriculture sector mainly in the form of methane gas (CH4) from livestock raising. Another major source, and the largest one for CO2 emissions, can be identified in the energy sector. An updated emission estimate indicates that the quantity of GHG emissions increased from 585.39G gCO2e in 2000 to 720.66Gg CO2e in 2010.

93 https://www.adb.org/sites/default/files/pub/2013/climate-change-transport.pdf
94 https://www.pacificclimatechange.net/sites/default/files/Vanuatu-Climate-Resilient-Road-Standards-brochure.pdf
95 https://www.unicef.org/pacificislands/Children_and_Climate_Change_.pdf
96 http://www.eldis.org/document/A64386#.U6tngpSSzZg
97 Republic of Vanuatu, 2014, 'Second National Communication to the UNFCCC
98 Republic of Vanuatu, 2014, 'Second National Communication to the UNFCCC

Table 4: GHG Emissions in Vanuatu in year, 2000 ("-"represents, not estimated due to non-availability of data or negligible value)[99]								
GHG Sources & Sinks	Total (CO2, CH4 and N2O), CO2-e	GHG Gg						
		CO2 Emissions	CH4	N2O	NOx	CO	NMVOC	SO2
Energy	70.34	69.61	0.02	0.00	0.45	1.41	0.25	0.001
Industrial Processes	-	-	-	-	-	-	-	-
Solvent and Other Product Use	-							
Agriculture	502.83	-	15.59	0.57	-	-	-	-
Land-Use Change & Forestry	-7,913.16	-7,913.16						
Waste	12.21	-	0.42	0.01	-	-	-	-
Total GHG Emissions, excl. Removals	585.39	69.61	16.03	0.58	0.45	1.41	0.25	0.00
Total GHG Emissions, incl. Removals	-7,327.77	-7,843.55	16.03	0.58	0.45	1.41	0.25	0.00

Regardless of their low (or negative) contributions global GHG emissions, Vanuatu is determined to further mitigate GHG emissions acknowledging the potentially severe negative impacts for their country of a failure of the Paris Agreement to effectively reduce global emissions. The government of Vanuatu started to establish a comprehensive institutional and regulatory framework to mainstream climate change into public decision-making processes. The country, in light of their socio-economic situation, is determined to effectively mitigate GHG emissions and risks associated to climate change but will require continued financial, technical, and capacity building support to do so.

99 Republic of Vanuatu, 2014, 'Second National Communication to the UNFCCC'

Climate Change Response

National framework

In response to a changing climate, the Government of Vanuatu has been taking proactive steps and developed a range of frameworks and plans to guide the country, and its stakeholders, towards a low emissions and climate resilient development trajectory. The challenges induced by a progressing climate change and its exacerbating impacts on existing development challenges and natural risks are well recognised. A range of acts, policies, plans, and strategies of relevance to deal with climate change related threats were developed and enacted. These form Vanuatu's climate change response framework, where key components are outlined below in Table 5.

The work of the National Advisory Board on Climate Change & Disaster Risk reduction (NAB) and its Climate Finance Working Group is underpinned by the **National Sustainable Development Plan** and the **Climate Change and Disaster Risk Reduction Policy.** These two flagship documents provide information on Republic of Vanuatu's climate change and disaster risk management priorities and goals. A **policy search tool** (beta) has been developed to provide supporting policy statements, simply intended to be a convenient tool to assist policy research. In addition to these two policies, there are other sector policies, strategies and plans that are available at http://nab.vu/national-and-sector-policies-and-strategies and are summarised in Annex 4.1 which should inform the development and entrench the country ownership of the Vanuatu CP.

Table 5: Summary of the major climate policies and responses

National Initiatives	Responses
NDC	Vanuatu's NDC aims to achieve an ambitious mitigation contribution with a transitioning to close to 100% renewable energy in the electricity sector by 2030. This contribution would reduce emissions in the energy sector by 72Gg by 2030. Emissions in this sector were around 130 Gg in 2010 but are expected to rise to 240 Gg by 2030 (3% per annum). Furthermore, it aims to reduce emissions in all sectors, except agriculture and forestry, by 15%. The forestry sector mitigation will be attended to as part of the existing REDD+ program and the mitigation in the agriculture sector will depend on cooperative programs with other nations. The outlined adaptation targets in the NDC resemble the adaptation priorities and related project ideas, outlined in Vanuatu's NAPA (2007) and Vanuatu Climate Change and Disaster Risk Reduction Policy 2016 – 2030 (both are summarised below in Table 6).
NSDP	To compliment the social and economic pillars, the target of the third environment pillar (ENV 3) addresses the climate change links stating that they seek to build "A strong and resilient nation in the face of climate change and disaster risks posed by natural and man-made hazards". In addition to the NDSP, the government of Vanuatu published a monitoring and evaluation framework in which they outline on how they want to measure progress towards reaching the development goals. The document provides information on the baseline situation of each indicator and the aspired measurable target by 2030. Some objectives for the ENV 3 goal are, for example a 100% mainstreaming of CC and disaster risks in public policies, budgets, and legislation by 2030, as well as a 100% coverage of all provinces by a multi-hazard warning system
CCDRR Policy	Vanuatu Government has developed the Vanuatu Climate Change and Disaster Risk Reduction (CCDRR) Policy 2016-2030, which is the key policy pronouncement in this sector. CCDRR defines six strategic priorities to achieve the goal of "resilient development" for climate change and disaster risk reduction – governance, finance, knowledge and information, climate change adaptation and disaster risk reduction, low carbon development, and response & recovery. The National Climate Change & Disaster Induced Displacement Policy was launched in 2018 and aims to help guide climate, disaster and development planners 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

NAMA	**NAMA for Rural Electrification:** Access to modern energy services is a prerequisite for sustainable development. In Vanuatu, only one third of households have access to electricity, most of which are connected to the government regulated grid in the two main urban areas (Port Vila and Luganville). Yet 75 per cent of Vanuatu's households live in rural areas, where only one in six homes, under half of the schools (42 per cent), and one in four health facilities have some self-generated electricity (mainly fossil fuel based). Hence Vanuatu has, at 17 per cent, about the same level of rural electrification as the most underdeveloped countries of Sub-Saharan Africa. The Government of Vanuatu is well aware of these needs and challenges, and is developing effective responses in association with development partners to address the issues. This is being done through key government policy statements and national action plans which include the Government's Priority and Action Agenda (PAA) 2006- 2015, the National Energy Road Map (NERM), and the Scaling-up Renewable Energy in Low Income Countries Programme (SREP). The NAMA represents an opportunity for sustainable development for Vanuatu, and at the same time an opportunity for low carbon development. The government can build on the existing policy framework, which targets the implementation of various policies, plans and actions aimed at mitigating GHG emissions while achieving sustainable development, so as to define a comprehensive and coherent NAMA development framework for Vanuatu. The NAMA differs from traditional funding mechanisms which promote rural electrification and renewable energy projects. Interventions under the NAMA framework are prioritized in line with the socio-economic development objectives of the host country. The NAMA is designed with sustainable development benefits in mind and the design includes a focus on interventions which allow for income- generating activities which can create business opportunities for individuals, households and communities. The NAMA will spur the development of an environment which facilitates transformative change in the energy sector through an attractive regulatory and policy environment that incentivizes the private sector. 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. The NAMA will also contribute to Sustainable Development (SD) benefits, such as improvement of the situation of groups with specific vulnerabilities, women and the poor.
NEPIP[100]	The Vanuatu National Environment Policy and Implementation Plan 2016–2030 (NEPIP) is an overarching policy for the sustainable conservation, development and management of the environment of Vanuatu. It is the first of its kind since Vanuatu gained independence in 1980. The NEPIP aims to: 1) provide for the co-ordination of related activities; 2) promote the environmentally sound and safe management and conservation of the natural resources and environment of Vanuatu; and 3) outline the operational matters necessary to implement 1) and 2) above. There are several challenges and opportunities to be addressed. The NEPIP provides the opportunity for change. This policy will be implemented in pursuit of the National Sustainable Development Plan (NSDP), which is an overarching government policy document. The environment is one of the three pillars under the NSDP. The NEPIP links the NSDP and the various sectors under the environment pillar. Apart from other key national policies, this policy is cognisant of the various sector policies under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity and the Ministry of Tourism, Commerce, Industry and Ni-Vanuatu Business. The policy aims to strengthen the national coordination of the rapidly expanding work and responsibilities of the Government of Vanuatu and other stakeholders for coping with the increasing scale and complexity of environmental needs and requirements. At a sub- regional and regional level, it takes into account regional policies under the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Pacific Community (SPC), but most importantly the SAMOA Pathway. At an international level, Vanuatu is a signatory to several agreements and protocols which commit the government to taking necessary measures to protect and preserve biodiversity. Since the NEPIP has direct links with the NSDP, it is also linked to the Sustainable Development Goals.
NERM	The main policy framework for Vanuatu in the energy sector is the National Energy Roadmap (NERM), which was originally adopted in 2013 covering the period between 2013 and 2030. However, in 2016, a revised version has been produced to reflect recent changes and to cover the period between 2016 and 2030. NERM sets targets including 100% of electricity generation from renewable energy by 2030 and 65% by 2020. It also sets a target of 100% of electricity access in the country by 2030. Even though these targets are achievable, they are ambitious given that in 2016, only about 58% of people had access to electricity in Vanuatu.[101] A conducive enabling environment including incentives for private sector is important to achieve these targets, particularly given a short time frame. As part of the roadmap, NERM includes implementation plan covering infrastructure investment to produce renewable energy in the country. It appears that majority of those projects are either funded by donor agencies or the government. For long term sustainability and also to expedite the investment in renewable energy, moving away from grant funded and publicly funded projects to Independent Power Producers (IPP) projects would be beneficial. Necessary legislative and regulatory framework needs to be in place to encourage investment from the private sector – both for grid connected schemes and also for large commercial enterprises to install renewable energy systems for their own use. In addition, necessary support should be provided to the private sector to obtain low interest loans.

100 https://reliefweb.int/report/vanuatu/vanuatu-national-environment-policy-and-implementation-plan-2016-2030

101 ADB Data (https://data.adb.org/dataset/basic-statistics-asia-and-pacific)

<table>
<tr><th colspan="2">Table 6: Summary of NDC targets</th><th>Estimated resources required USD</th></tr>
<tr><td>Conditional</td><td>Adaptation:

The NDC does not seek to set adaptation targets for Vanuatu however it provides an opportunity to reiterate the adaptation priorities as identified and prioritised in key national documents such as the National Adaptation Programme of Action (NAPA) and the National Climate Change and Disaster Risk Reduction Policy (NCCDRRP).

The 5 NAPA priorities include:
1. Agriculture and food security
2. Sustainable tourism development
3. Community based marine resource management
4. Sustainable forest management
5. Integrated water resource management

Strategic priorities in the NCCDRRP from 2015 to 2020 include the need for:
1. Climate Change vulnerability and multi sector impact assessments
2. Integrated climate change and disaster risk reduction
3. Community based adaptation
4. Loss and damage
5. Ecosystem based approaches</td><td>1 billion</td></tr>
<tr><td></td><td>Mitigation:

i. Transition to close to 100% renewable energy in the electricity sector by 2030 (translate into 73Gg of reduce emissions in the energy sector). Reduction of emissions from BAU in the electricity sub-sector by 100% and in the energy sector as a whole by 30%.
ii. Reduce emissions in all sectors, except agriculture and forestry, by 15%. Emission reductions in agriculture will be pursued with cooperative programs. The forestry sector mitigation will be attended to as part of the existing REDD+ program.

<table>
<tr><th>Mitigation measures</th><th>Budget required (million $)</th></tr>
<tr><td>Key planned mitigation interventions 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</td><td>180</td></tr>
<tr><td>National Energy Road Map</td><td>210.5</td></tr>
<tr><td>Rural Electrification Nationally Appropriate Mitigation Action (NAMA)</td><td>5</td></tr>
<tr><td>Off grid renewable energy projects under Scaling Up Renewable Energy in Low Income Countries Program</td><td>34.2</td></tr>
<tr><td>Energy efficiency measures to be pursued across the board to enable 15% savings in the energy sector.</td><td>N/A</td></tr>
<tr><td>Forestry sector measures to reduce deforestation and promote good land care to accepted mitigation practices according to REDD+</td><td>N/A</td></tr>
<tr><td>Planned cooperation with New Zealand and other nations interested in mitigating methane (CH4) and associated emissions for ruminant and pasture management</td><td>N/A</td></tr>
</table></td><td>429.7 million</td></tr>
</table>

Unconditional	Vanuatu outlined national targets and mitigation aspirations in the several plans, roadmaps, and frameworks (see below). Considering the least developed country (LDC) status of Vanuatu and the small historical contribution to global greenhouse gas emissions, the country intents to reach all self-declared targets while counting on support from the international community.	N/A

Regional Engagement

The CCDRR Policy calls for international climate change and disaster risk reduction obligations to be met by:

i. Commencing the UNFCCC National Adaptation Plan process building on other UNFCCC work programmes and actions outlined in this policy.
ii. Comprehensively capturing integrated adaptation and risk reduction progress in regular completion and submission of UNFCCC National Communications, Biennial Update Reports, National Adaptation Plans and Intended Nationally Determined Contributions.
iii. Advocating and lobbying for increased international support and action at major international and regional meetings (e.g. UNFCCC COPs, inter-sessional meetings and bodies, World Conference on Disaster Risk Reduction, Regional CCDRR Platform).
iv. Continued engagement with and strengthening participation in negotiation blocs or mechanisms such as but not limited to Alliance of Small Island States (AOSIS), G77 and China, Least Developed Counties (LDC) Group, and the Melanesian Spearhead Group (MSG).
v. Engaging with and reporting to regional and sub-regional agencies on its adaptation and risk reduction activities.
vi. Continuously building capacity in international and regional adaptation and risk reduction engagement and negotiation.
vii. Government and CSOs allocating human resource positions, officers and budget towards the fulfillment of international obligations and activities, including forming gender balanced delegations.

The Government of Vanuatu has provided leadership and are actively engaged in a wide range of regional initiatives:

- Vanuatu is member of The Pacific Community (SPC),Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific Island Forum Secretariat (PIFS), the University of the South Pacific (USP) and the Melanesian Spearhead Group (MSG); these regional organizations initiate and organize coordinated climate change response strategies, as well as to enable South-South Knowledge exchange. SPREP is the Direct Access Entity to the GCF.
- Vanuatu is part of the Association of the Small Island Developing States (AOSIS) climate change negotiations group. The AOSIS group consist of "51 small island developing states that [...] share similar economic and sustainable development challenges including low availability of resources, a small but rapidly growing population, remoteness, susceptibility to natural disasters, excessive dependence on international trade and vulnerability to global developments"[102]. They are particularly vulnerable to climate change, especially to impacts such as sea-level rise, changing frequencies and intensities of weather extremes, coastal flooding and erosion, and ocean acidification[103]. Vanuatu is also a member of LDC group, the G77+ China and the V20 (CVF) groups
- The SPC-GIZ Regional REDD+ Project has supported the Department of Forests to design and train its offices on a new forest inventory protocol, which includes climate adaptation assessments. The program has also supported the finalization of the Vanuatu REDD+ Readiness

102 United Nations Framework Convention on Climate Change. (2015). Paris agreement. UNFCCC. Retrieved from http:// unfccc.int/resource/docs/2015/cop21/eng/l

103 Nurse, L. A., McLean, R. F., Agard, J., Bringuglio, L. P., Duvat- Magnan, V., Pelesikoti, N., ... Webb, A. (2014). Small islands. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. In V. R. Barros, C. B. Field, D. J. Dokken, K. J. Mastrandrea, T. E. Mach, M. Bilir, ... L. L. White (Eds.), Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (pp. 1613–1654). Cambridge: Cambridge University Press

proposal, and worked to assess the climate adaptation and mitigation costs of several possible REDD+ sites on the island of Santo. The SPC-GIZ Regional Coping with Climate Change in the Pacific Island Region project has enabled Vanuatu to engage with other Pacific countries around adaptation policy, planning and climate change finance.

Vanuatu 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. These are briefly outlined below:

Pacific Plan for Strengthening Regional Cooperation and Integration (PPSRCI): Endorsed by Pacific Island leaders in October 2005, the PPSRCI 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): Approved by Pacific island leaders in June 2005, the PIFACC includes regional activities aimed at contributing to global greenhouse gas reduction. Expected mitigation outcomes by 2015 include: 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.

Framework for Resilient Development in the Pacific (FRDP) and associated Resilience Partnership: The development of the Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) is led by a Steering Committee whose members are representatives from the Secretariat of the Pacific Regional Environment Programme (SPREP) Meeting, the Pacific Community (SPC) Committee of Representatives of Governments and Administrations (CRGA), the Regional Disaster Managers' Meeting, the Pacific Climate Change Roundtable, the Pacific Meteorological Council, the Forum Economic Ministers Meeting, the French Territories, the Pacific Islands Alliance of NGOs and the Pacific Islands Private Sector Organisation (PIPSO). The Steering Committee provides strategic guidance and leadership on the development of the FRDP. A Technical Working Group provides technical advice to the Steering Committee and supports Pacific Island countries and Territories (PICTs) in the development of the FRDP. The Technical Working Group consists of representatives from SPC, SPREP, the United Nations Office for Disaster Risk Reduction (UNISDR), the United Nations Development Programme (UNDP), the Pacific Islands Forum Secretariat (PIFS) and the University of the South Pacific (USP). These organisations initially worked in partnership with regional advisors on the engagement process and drafting of the FRDP, then continued engagement and drafting in consultation with PICTs to finalise the text.

Pacific Resilience Facility (PRF)[104]: The PRF is designed on the principles of: Regional ownership; Affordable and contextualised financing; Additionality and complementarity; and investment in preparedness. The PRF seeks to serve four strategic objectives: i) Strengthen the collective financial resilience of Forum Island Countries (FICs); ii) Provide cost-efficient and contextualised financing options for resilient development; iii) Strengthen strategic partnerships with key development partners; and iv) Encourage capacity development in national disaster risk budgeting and financing.

Pacific Islands Climate Change Insurance Facility (PICCIF)[105]: Established under the Paris Agreement calls for "cooperation and facilitation on risk insurance facilities, climate risk pooling and other insurance solutions" (Art 8.4(f)). PICCIF seeks to address Climate Change impacts and not "natural disasters" under Sendai DRR. Proposed initial phase includes: Level 1: i) Parametric Weather Index for Initial Payout; ii) Cyclone: Wind speed, storm surge height; iii) Drought: Number of days since rain; iv) Floods: Amount of rain per period of time; v) Coral Bleaching: Number of days with water temperature above certain level. Level 2: i) Assessed Damage: Pay out due to assessed damage. Other possible insurance arrangements to include Health Insurance for climate change related diseases and Fish stock losses. Proposed second phase to cover long term and permanent damage: i) Sea level rise; ii) Ocean acidification; and iii)

104 https://www.forumsec.org/2018-femm-the-pacific-resilience-facility/

105 https://devpolicy.crawford.anu.edu.au/sites/default/files/events/attachments/2016-07/pacific_islands_climate_change_insurance_facility_anu.pdf

Population displacement.

Pacific Financial Inclusion Programme (PCIP)[106]: The Pacific Financial Inclusion Programme (PFIP) is a Pacific-wide programme that has helped over 1.78 million low-income Pacific islanders gain access to financial services and financial education. It achieves these results by funding innovation with financial services and delivery channels, supporting policy and regulatory initiatives, and empowering consumers. PFIP operates from the UNDP Pacific Office in Suva, Fiji and has offices in Papua New Guinea, Samoa and Solomon Islands. It is jointly administered by the UN Capital Development Fund (UNCDF) and the United Nations Development Programme (UNDP) and receives funding from the Australian Government, the European Union and the New Zealand Government. PFIP's objective is to increase the number of low-income Pacific Islanders who adopt formal financial services. PFIP achieves this objective by supporting financial service providers (FSPs) to innovate with products and services for mass market customers, supporting governments to create an enabling policy environment for financial innovation, and empowering consumers.

Pacific Nationally Determined Contributions (NDC) Hub: The overall objective of Pacific NDC Hub is for Pacific Island Countries to enhance and implement their NDCs, driving sustainable and resilient development and a transition to a low carbon development pathway. The NDC Hub will provide technical and facilitate partnerships to enhance and implement the region's NDCs. The NDC Hub builds upon existing networks and mechanisms in the region. It contributes and aligns to national climate change policies and frameworks, including the Framework for Resilient Development in the Pacific and the Regional Technical Support Mechanism. The Regional Pacific NDC Hub is a collaborative effort by Pacific Island Countries and the Deutsche Gesellschaft für Internationale Zusammenarbiet (GIZ) GmbH, the Global Green Growth Institute (GGGI), the NDC Partnership Support Unit (NDCP SU), the Pacific Community (SPC), and the Secretariat for the Pacific Regional Environment Programme (SPREP), with initial funding of 2.1 million Euros from the UK, Australia, and Germany.

Pacific Islands Meteorological Strategy: National Meteorological Services (NMSs) underpin economic growth and sustainable development in the Pacific Islands region. The weather and climate services provided by NMSs significantly contribute to the safety and well-being of Pacific people and communities and support key economic areas including agriculture, aviation, forestry, fishing, water resources, energy industries, transportation and tourism. In addition, these services are crucial to enhancing resilience to and reducing vulnerability from natural hazards and the effects of climate variability and climate change. The Pacific Meteorological Council (PMC) has adopted the Pacific Islands Meteorological Strategy to ensure that NMSs have the capacity to fulfill their responsibilities over the next decade. Its Vision is: National Meteorological Services of the Pacific Island Countries and Territories (PICTs) are able to provide relevant weather and climate services to their people to make informed decisions for their safety, socioeconomic well-being and prosperity and sustainable livelihoods. The Strategy identifies four priority areas for action: Improved weather services, in particular aviation, marine and public weather services; Improved end-to-end Multi-Hazard Early Warning Systems (MHEWS); Enhanced infrastructure (data and information services) for weather, climate and water; and Improved climate services. The Strategy sets out priority areas in a Matrix of Pacific Outcomes and Activities that can be undertaken at national, regional and international levels. The priorities and actions are supported by a set of institutional partnerships that bring together PICTs and development partners to support meteorological (weather and climate) services in the Pacific Islands region.

Pacific Islands Energy Policy: Adopted in November 2004, the policy includes a number of important goals relevant to mitigation such as efficient power generation, environmentally clean and efficient transportation, development of renewable energy and improved energy efficiency.

Solid Waste Management Strategy for the Pacific Region: Developed by SPREP and adopted by Pacific Island countries and territories in 2005, the Strategy does not make specific references to GHG emissions. Its implementation, however, may help promote recycling and reduce the amount of waste

106 https://devpolicy.crawford.anu.edu.au/sites/default/files/events/attachments/2016-07/pacific_islands_climate_change_insurance_facility_anu.pdf

going to landfills, which in turn may contribute to GHG abatement.

Promoting Energy Efficiency in the Pacific - Phase 2 Project (PEEP2): The PEEP2 project is sponsored by the ADB in cooperation with the GEF and the Government of Australia. The objective of this four year program (2011-2015) is to promote and implement energy efficiency in the use of electrical power for consumers in five Pacific Developing Member Countries (PDMCs) - the Cook Islands, Papua New Guinea (PNG), Samoa, Tonga, and Vanuatu - through demand-side energy efficiency improvements in the residential, commercial, and government sectors of each country. The project components include; development of energy use database, development of energy efficiency policies and procedures, implementation of energy efficiency programs, information dissemination and public awareness. The project focuses on reducing the energy intensity of the PDMCs economies and thereby enhancing energy security, making energy services more affordable to end-users, and reducing GHG emissions. The Department of Energy, Mines and Minerals of the Ministry of Lands and Natural Resources is the designated PEEP2 implementing agency for Vanuatu.

The GCF Structured Dialogue with the Pacific: Since 2015, Vanuatu has participated in all 3 structured dialogues that seek to bring together key stakeholders to strengthen the involvement of Pacific island countries and their partners with GCF and accelerate the implementation of GCF projects and programmes approved in the Region. It provides an opportunity for all NDAs to learn more about the GCF and from each on different approaches to engaging with the Fund and associated key stakeholders including AEs, Executing Entities, Delivery Partners and other development partners. The Structured Dialogue for the Pacific often involve up to 150 participants from 14 Pacific countries, including Ministers for a High-Level Session, and representatives of National Designated Authorities, Accredited Entities, Delivery Partners, civil society organisations, the private sector and development partners. As of July 2018, the Pacific has successfully had nine full funding proposals approved (eight from public sector and one from private sector), 19 Readiness Proposals and had Direct Access Entities accredited. The dialogue will provide an opportunity to share and exchange lessons learned towards: strengthening and streamlining implementation; exploring further investment opportunities including with the private sector; fostering sustainable country ownership and programming; and building effective partnerships. The dialogue is seen as a critical part of GCFs efforts in supporting Pacific Island Countries to achieve their low carbon, climate resilient sustainable development goals.

Access to Finance

Vanuatu, among the world's most vulnerable countries to climate change and disasters, has a significant and immediate need for investment in climate change mitigation and adaptation. The amount of climate finance approved and disbursed to date fulfils only a small portion of actual needs. As an example, the Nationally Determined Contribution commitments are conditional on receiving adequate finance. A study carried out by the Stockholm Environment Institute revealed that Vanuatu had received roughly USD 49.4 million of climate finance from 2010-2014, with the majority (57.2%) supporting mitigation activities[107]. The Vanuatu Climate Change Finance Review of 2018 found that from 2013-2017, Vanuatu has received USD200 million of which 63% derived from multilateral sources and 37% from bilateral channels. With a mix among grants (majority), concessional loans and TA, 89% was dispersed for adaptation with 9% for mitigation initiatives. Sectorally, 56% of the overall finance went towards Infrastructure-related response to TC Pam like repairs of roads and wharves, 27% to agriculture, water resources, biodiversity and conservation and 8% energy. Importantly, the 2018 review found that 58% of the finance flows were "off budget" and not tracked through Government financial management information systems, while only 42% flowed through government systems. It is unknown how much finance was dispersed through civil society, private sector or other specific stakeholder groups.

107 Canales, Nella, and Aaron Atteridge. "Climate Finance in the Pacific: An Overview of Flows to the Region's Small Island Developing States." Stockholm Environment Institute, Stockholm Environment Institute, Apr. 2017, www.sei-international.org/publications?pid=3083

Photo by Kurt Cotoaga on Unsplash

The NAB has developed a climate finance Roadmap to guide strategic investments in climate finance in Vanuatu, it is the coordinating document for projects and cooperation with development partners and includes access, private sector, direct accreditation, stakeholder engagement, public finance management and other issues. The NAB's Climate Finance Working Group is the body responsible for administering and allocating projects funds towards the fulfilment of the six Roadmap strategic areas:

1. **Access to Climate Change Finance:** Vanuatu has access to direct and indirect new sources of climate and disaster finances to adapt to and mitigate the impacts of climate change.
2. **Capacity Building:** National, provincial and community capacity strengthened to manage the impacts of climate change and disasters through new tools, systems, knowledge and approaches
3. **Prioritisation:** Ensuring allocation of resources is based on real vulnerabilities, gaps and needs
4. **Awareness and Communications:** Increased awareness on accessing and implementing climate (and disaster) finance at the national, provincial and community levels
5. **Coordination:** Enhanced coordination with NGOs, CSOs and local communities to access and implement multi-sectoral, innovative approaches in addressing climate and disaster risks.
6. **Project Management:** Project Management capacity at the national and provincial levels are strengthened to address multi-sector and sectoral responses to climate change and disaster risks by end of 2020

The NAB has also developed a climate finance directory to help connect climate funds with those who needs it. Climate finance refers to financing channelled by national, regional, and international entities for climate change mitigation and adaptation. The directory details known climate finance sources available to individuals, communities, organisations, government bodies, and the private sector in Vanuatu. Financing amounts, eligibility requirements, and focus areas vary widely depending on the source. This NAB directory is divided into five sections:

1. **Small-Scale Funds:** small funding sources (< VUV 15 millon), typically grants, with open applications for individuals, communities, and civil society/non-profit organisations;
2. **Large-Scale Funds:** large funding sources (> UVU 15 million) characterised by diversified financing mechanisms and generally for government, international/regional organisations, civil society/non-profit organisations, and the private sector;
3. **Private Sector Financing:** financing sources or networks exclusively for private sector stakeholders;
4. **Bilateral Funding Sources:** bilateral funding provided by national development aid organisations, national development banks, diplomatic missions or foreign consuls; and
5. **International Agencies:** international (including non-governmental, regional, and inter-governmental) organisations.

Under **Finance actions** (see Table in Annex 4.1 for details), the CCDRR Policy calls for ensuring that adequate funding is made available for climate change and disaster risk reduction by:

- Allocating funding in budgets for climate change and disaster risk reduction by development partners, donors, national and provincial governments, area councils, CSOs, and industry sectors.
- Advocating for funding to be provided directly to the national government by donor partners and in line with national government policies and plans.
- Ensuring external funding is channeled through existing government financial systems.
- Progressing establishment of a national trust fund for climate change and disaster risk reduction.
- Exploring opportunities for partnering with the private sector for investment in climate change and disaster risk reduction, including in renewable energy and waste management.
- • Exploring options for a climate change and disaster risk reduction insurance or risk sharing scheme.
- Ensuring financial accountability mechanisms are in place and operating effectively, including transparency of decision making in allocation of funding.
- Facilitating arrangements within Vanuatu and with the international community to ensure timely access to disaster response and recovery funds as needed.

Under the **Accreditation of Implementing Entity**, the CCDRR Policy seeks to establish and build on robust financial systems including facilitating implementing entity accreditation by December 2017, through:

- Making measurable improvements in climate and disaster budgeting, financial statements, reporting, audit processes, procurement practices, project management, and transparency policies.
- Lobby regional and international partners for support on obtaining NIE status.

Furthermore, under the **Small Grants Schemes**, the CCDRR Policy calls for improvement in the access and disbursement of small grants schemes for climate change and disaster risk reduction initiatives by:

- Establishing new and refining existing small grants schemes that expand on and align with current arrangements, ensuring coordination and consistency.
- Making schemes accessible through development of a simple, easy to use manuals and proposal templates targeted to the local level, and including training for users.
- Ensuring existing small grants schemes prioritise climate change and disaster risk reduction and align with national policies.
- Basing allocation of small grants on equity, vulnerability and needs-based criteria.

- Ensuring rigorous monitoring and evaluation of small grants scheme outcomes for resilience.

Climate Public Expenditure and Institutional Review (CPEIR): This report for Vanuatu provides a review of the country's policies, institutional arrangements, and public expenditure on activities related to climate change and disaster risk reduction (CC/DRR). It has been undertaken as part of a wider Risk Governance Assessment rather than as a stand-alone project. The Review found that CC and/or DRR activities accounted for 2.9% of Vanuatu's GDP (and 13% of Budget expenditure) in 2012. This comprised 1,870 million VT in expenditure from the Operating Fund and 194 million VT from the Development Fund (most of which has been contributed by development partners).

It is notable that Vanuatu has been receiving a lower share of funding for climate change adaptation than most other Pacific Island countries - and that Pacific Island countries have only received about 1.5% of world-wide funding. This is despite the fact that Vanuatu is considered to be the country most vulnerable to climate change and disasters in the Pacific and in the world. In coming years, greater levels of donor funding are likely to be available for climate change adaptation as the economies and budgets of Developed Countries recover from the Global Financial Crisis. To adequately adapt to the impacts of climate change, starting now, the annual cost is estimated to be 1.5% of a country's GDP (NDC). For Vanuatu, this equates to an investment of USD 9.5million per year. This is substantially higher than the amount of development funding currently being spent on projects that have Adaptation as their principal objective.

As well, as a Least Developed Country, Vanuatu is likely to benefit from the United Nations goal of promoting at least half of these countries to 'Developing Country' status by 2019. (However, becoming a Developing Country will also stop Vanuatu's access to the Global Environment Fund's Least Developed Climate Fund.)

To be in a better position to take advantage of CC/DRR funding that will become available, it is important for Vanuatu **to establish strong, efficient and sustainable governance arrangements, and to demonstrate a track record in maintaining these arrangements.** Vanuatu can do this by targeting NIE accreditation, which will also give it direct access to funding from the GCF, Adaptation Fund and potentially other sources of funding for climate change. This report finds that the most logical candidate for NIE is the newly-established Ministry of Climate Change (4) and sets out how it can gain NIE accreditation. The Government has also recently prioritized NIE accreditation for the Ministry of Finance & Economic Management. In doing so, it recommends that Vanuatu seek assistance to design, resource and implement the required actions in the Ministry of Climate Change, the Ministry of Finance and the Office of the Auditor-General.

The report also recommends that the Office of the Prime Minister classify projects with CC/DRR objectives and publish details in the Annual Development Report. This will provide transparency to policy makers and development partners on how the funding allocated to the various types of CC/DRR projects and activities aligns with the Government's priorities. At the same time, the review recognises the need to clarify these priorities and the associated plans. This involves updating and refining the various Government plans to set out its development priorities in more detail and the crosscutting CC/DRR strategies that link to these.

According to the CCDRR policy, although Vanuatu is one of the most vulnerable countries in the world to climate change and disasters risks, it receives little funding for climate change adaptation and disaster risk reduction actions. Over the next decade, industrialised countries are expected to provide increasing amounts of funding for adaptation, mitigation and disaster risk reduction actions in developing nations. To obtain its share of this funding, it is important that Vanuatu demonstrates efficient and effective systems of governance and financial management. In the past, many donors have bypassed government systems and set up stand-alone units to manage projects. This practice does little to develop and strengthen systems of national governance and is wasteful in duplicating efforts. A priority of this policy is to strengthen the current system of governance and financial management so that development partners and Vanuatu communities have confidence that available funding is used efficiently and cost-effectively. In line with this objective, this policy sets the specific target of achieving implementing entity accreditation under the Adaptation Fund and Green Climate Fund. This accreditation will help maximise

the resources available to adapt to climate change and reduce disaster risks, and deliver a significant upgrade to Vanuatu's systems of governance and financial management. This will enable the country's development and resilience building needs to be met more effectively.

Vanuatu Climate Change Finance Review (September 2018): The range and scale of global climate change funding sources are substantial for small island developing states like Vanuatu, and the administrative requirements to access and manage these funds can be a challenge. However, Vanuatu is quite advanced as one of a few Pacific Island countries (PICs) to have already tapped into both readiness and project funding from the Green Climate Fund, as well as other sources.

Seven thematic areas under the key pillars of the Pacific Climate Change Finance Assessment Framework (PCCFAF) were analysed, namely: (i) Policies and Plans; (ii) Funding Sources; (iii) Public Financial Management and Expenditure; (iv) Institutions; (v) Human Capacity; (vi) Gender and Social Inclusion; and (vii) Development Effectiveness. In line with these seven key pillars, the review came up with a number of findings and recommendations.

The report concluded that the Government of Vanuatu is taking leadership in progressing climate change-related actions, and is already accessing climate change finance from a variety of sources, including the GCF. Going forward, there will be an increase in the volume of climate change finance flowing through the Pacific Islands region, including to Vanuatu. That increase will be accompanied by additional complexity for reporting and the need to coordinate different partners and players that wish to engage with Vanuatu. This review facilitates a comprehensive, consultative and validated baseline of information on the national climate change finance landscape for Vanuatu, which can inform policy decisions. It also provides opportunities to strengthen country systems, policies and plans, institutions and human capacity to be able to effectively access and manage climate finance. The Action Plan in the following section presents a tool to assist the Government of Vanuatu to be strategic in undertaking a whole-of-government approach towards improved climate finance readiness. It is linked to the Climate Finance Roadmap.

Gaps and Opportunities

Based on the analysis sections above, it can be concluded that the GoV is already taking proactive steps to address climate change in their development planning and some degree of budgeting, both on national and sub-national levels. However, there are still many barriers and gaps (policy, regulatory, institutional, technical, financial, business, social and cultural in nature) that need to be addressed in order to be able to shift the paradigm to transform the development and address climate change into tangible solutions, pragmatic actions, investments and inclusive business opportunities on the ground in driving towards a resilient and low carbon economy, community, and nation. The constrained financial resources of the country and limited absorptive capacity in and coordination between government agencies and with the private sectors create additional challenges to successfully mainstream climate change and align development aspirations with climate change response strategies.

Vanuatu continues to face a multitude of barriers for the scaling up of effective climate adaptation and mitigation solutions for achieving the climate and development goals and for meeting its UNFCCC and Kyoto Protocol obligations. The various obstacles as reported in the SNC include insufficient institutional and financial resources; lack of research data; information management problems and; inadequate human resources and infrastructure. More need to be done to build awareness both within the Government and the community about Vanuatu's vulnerability to climate change. There is also an apparent need to feed information, knowledge and technologies to enable improved decision-making and environmental management. The major institutional, policy, research, data and Information gaps are discussed below.

The key issues, barriers and opportunities are summarized in Table 7 and are discussed below:

- The capacity building and public awareness program and activities need to be focused and relevant in the local context. Efforts should be focused on making reliable and accurate climate-change information available to a wider audience.
- Topics related to global climate change needs to be incorporated in the curricula of primary and secondary schools and appropriate training of teachers in environmental education.
- Provide incentives to the students for choosing technical, vocational and higher education in environment, climate change and related development studies.
- Creating easy access to climate change information (e.g. the excellent NAB portal central database at www.nab.vu.) and make this information available in local languages.
- Periodic assessment of impact and effectiveness of current awareness programmes should be undertaken.

Several weaknesses identified in the SNC include:

- There are inconsistencies in the engagement of senior officials.
- Lack of transparency in climate change decision-making.
- A need to position climate change governance institutions as value-adding entities within the broader development agenda.
- Inadequate climate governance reporting.
- The major observations in relation to the consultations included:
- A number of legislative changes are required to reflect the current climate and disaster governance arrangements and clarify the full range of climate and disaster risk responsibilities.
- The current Corporate, Strategic and Business planning process of different Ministries and Departments remain weak with many agencies not having plans.
- **The new Corporate Plan of MOCC directly aligns with the NSDP and could serve as a template for developing such plans for other ministries and agencies.**
- No systematic assessment has been carried out to understand the required skills set, existing skills set and the gaps for implementing CC/DRR initiatives. No human resource development

plan has been developed. Most training is ad hoc in nature and not linked to a formal professional development strategy
- M&E systems are weak or non-existent in most agencies. Therefore the CC/DRR achievements may not be adequately highlighted in the Government Annual Development Report prepared by the Prime Ministers Office (PMO).
- Information and knowledge management systems are lacking within the NAB and most agencies make information sharing and the concept of "lessons learnt" almost impossible.
- The view of Climate Change in isolation and not fully integrating it across disciplines, particularly environmental and planning

Main issues and constraints in the planning and implementation of mitigation measures are:

- Insufficient institutional and financial capacity, lack of staffing and resources to properly develop, coordinate and implement the climate change measures.
- Low energy demand and distributed community with large distances between consumers.
- Vanuatu consists of many islands and has inadequate transport facilities to reach remote rural villages.
- Low population density and limited outreach.
- Limited cash availability in rural areas to pay for high cost options and services.
- Limited technology know-how and very limited technical capacity in rural areas.
- Limited private sector development and limited capacity for rural energy businesses.
- Lack of standards and specifications.
- Infrastructure limitations and very limited market development.
- Land disputes hamper potential site development for renewable energy projects.
- Disputes about ownership and tenure of land, coastline, forests and other resources.
- Institutional weaknesses including shortage of funds hampers the availability and attraction of adequate qualified staff limits further development of skills as well as the implementation of mitigation activities.
- Coordination between public institutions and the private sector is weak to induce sustainable development.
- Knowledge of communities regarding economic and financial opportunities and business management is limited and requires attention and training.
- Lack of experience in formal arrangements (e.g. PPP) between government and the Private sector. Although interest is strong, the lack of experience makes it difficult for the private sector to position itself effectively as a potential climate partner.
- Coordination between the development community and government.

Table 7: Gaps and opportunities for scaling up climate solutions in Vanuatu			
Barriers that impede the scaling up of transformational climate solutions	**Gaps**	**Opportunities**	**Potential proposals**
Policy barrier	• Limited resources and capacity to convert good policy into tangible and pragmatic actions on the ground • Some existing policies need renewal and updating • Monitoring and Evaluation of the development and climate policies remains a challenge • Lack of alignment between implementation of development and climate policies	• Use GCF Readiness to update outdated policies, according to the priorities of the Climate Finance Roadmap • Proposals in this GCF CP offer an opportunity to translate policies into tangible actions with strong Measurable, Reportable and Verifiable (MRV) systems	• Water, Tourism & Communication policies could be updated using the GCF Readiness support window. • Advancing an Enhanced National Adaptation (NAP) Plan Process in Vanuatu • Private Sector Eco-Tourism and CCDRR Risk Planning Project
Regulatory barrier	• Un level playing field for investors to build investor confidence • Lack of clear and transparent Energy standard and label (white goods) and accredited testing facility • Limited Enforcement > stick vs. carrot approach • Lack of resources and capacity to formulate coherent and transparent regulations and standards • Lack of resources and capacity to enforce regulations and standards • Lack of clear land use plans and mapping of customary land boundary for land conflict resolution • CSOs will still need international experts to come and support, but there is an issue to obtain VISAs for CSO TAs. A need to create level playing field for business and CSOs. Government is able to access TA easily but not CSOs. There is not enough local expertise	• Sound M and E strategy • Create investor confidence • Coherent and non burdening Standards and Labelling with incentive • Compliment top down with bottom up business approach • Develop land use plan and map out customary land boundaries and areas council strategic development plans as part of the decentralization initiatives • NGO desk was established under MoIA and has an NGO policy. • Vanuatu Climate Action Network (VCAN) established a focal point for CSOs working on climate issues • Vanuatu Business Resilience Committee (VBRC) established a focal point for private sector agencies working on climate issues	• Readiness support for the development of the National Energy Efficiency Strategy (e.g. Standards and Label programme and Testing facility) • National land use planning and policy environment (e.g. Mapping of Customary Land Boundaries and Area Strategic Development Plan) • Wastewater Management, Standards and Testing Facility (Master Plan, implement Port Vila catchment upgrade; quality and flows of water through flood and wastewater management, monitoring and regulations) • Development and implementation of emission standard for vehicles • Development of satellite comunications joint products to remove cost/regulatory burdens for remote early warning
Institutional barrier	• High institutional memory loss in GoV and CSOs due to high staff turnover, transfer and promotion of staff as 'seasoned experts' • Lack of absorptive capacity to deliver sustainable and long term impact • Limited appetite for implementation of additional projects due too many projects and overload of works • Being open about lack of trust between the business, CSOs, and GoV	• Demand driver/pull initiative > The need to accreditate MFEM or MoCC as Direct Access Entities • Developing a faceless and paperless portal system to engage with stakeholders and GCF • Bottom up project design and meaningful engagement with CSOs/NGOs • Need to strengthen the public private and CSO partnerships to build trust, utilizing the VBRC and VCAN entry points	• Enhance Vanuatu's ability to seek accreditation and direct access to the GCF via the fast-track accreditation process • CSO and Private Sector projects with GoV implementation agreements included

Technical barrier	• Inability to embed long term capacity development progamme as oppose to short term, ad-hoc and piecemeal capacity building programme • Limited understanding on the Theory of Change approach and implementation of adaptive management principles to bring long term transformational impacts and change instead of relying on input based approach • Weak understanding on how to design high quality and competitive concept notes • Weak MRV system	• Conduct training on how to design high quality concept notes with strong exit strategy and MRV system beyond the one off project • Organizations are building capacity internally (CSOs) for locals to do the implementation work. This could be a technical opportunity, and proposals should ensure that there are internal local development plans for human resources to take on work (local people) • - New technologies that enable work in remote islands, e.g. satellite communications	• Strengthening the Capacity of the Executing Entities (EEs) to effective participate in GCF activities (e.g. how to design high quality concept note and Theory of Change approach)
Knowledge and information barrier	• Limited or no baseline data • Available data are inaccurate, scattered and inaccessible • Limited resources and capacity to collect, analyse, manage, monitor and utilize reliable and accurate baseline climatic and project data to calculate and track GHG and for making evidence-based investment decisions and solutions • Limited ability to design and enforce robust a MRV system to measure impact • Limited use of traditional knowledge to promote and scale up climate solutions • Communications to the “last mile” of remote communities, geography and language barriers • Low penetration of high-speed internet to most of Vanuatu; lack of knowledge of nab.vu portal resources	• Promote traditional knowledge • Develop business and project management curriculum at schools to boost business/ management literacy • Incentivizing and empowering value chain actors to protect and conserve their protective assets (land, soil, river, forest, biodiversity) to provide ecosystem services whilst reducing local pollutions and emissions • Climate Resilience courses being offered at Vanuatu Institute of Technology for Cert I and Cert III levels • Climate Courses offered at USP on MRV and post graduate diploma climate change	• Capturing & Promoting Traditional Knowledge for Adaptation • Traditional sailing Canoes for Low Carbon & Sustainable Sea Transportation for remote islands • Climate Change Educational transformation inc Gender responsive training for K-13 teachers on climate change, curriculum upscaling (inc innovative financial and business models for adaptation/mitigation), TVET and tertiary opportunities • Digitalised information and farmer production management systems for the scaling up long-term food security through food production and storage programme for post-disaster response and resilience in Vanuatu (e.g. strategic agro-processing). • Satellite communications for improved early warnig systems and climate extensio services

Financial barriers	• Insufficient access to climate resources, flows do not meet current or future needs • ODA is being relabeled as climate finance, but is neither new or additional • Substantial off budget climate finance flows are not being tracked by GoV financial systems • Projects often do not include budget lines (not allowed by donor) to pay the salaries of the new and additional staff required to address new and additional climate issues • Lack of access to competitive financial products and services (start loan, matching rebate, partial loan guarantee) • Vanuatu is able to attract many bilateral grants and there is danger of crowding out and dampening the appetite of the private sector • Much of the country still functions in a financial vacuum, barter based trade is still prevalent, there is a need to start developing micro finance facilities to allow rural communities access to a more monetarily driven economy	• Training for banks and EEs to understand risks/ returns profile in climate solutions • NAB Climate Finance working Group's coordination mandate • Development of the Aid Management & Coordiation Policy by the PMO	• Readiness support for improved access to financial products and services (financial inclusion, insurance, credit facilities, ditigal products: e-payment, e-wallet, e-saving) •
Business and market barriers	• Lack of trust between the public, private and CSO sectors • Limited business experience and entrepreneurial skills to convert development and climate challenges into inclusive business opportunities e.g. hard (no maintenance) vs. soft (communal ownership) infrastructures, sea defenses, embankment. • Small and scattered market limiting the economies of scale • Low business/management literacy and climate entrepreneurial spirit • Lack of incentive to protect and conserve the ecosystem goods and services so many communities rely on	• There is a need to leverage private sector resources to partake and invest in gender responsive adaptation and mitigation projects through inclusive value chain and market based approaches so that value chain actors (including women, youth and disadvantaged groups and micro, small and medium enterprises) could be trained, empowered, rewarded and incentivised to protect and improve their productive assets (land, soil, water, forest, rivers, marine) whilst generating ecosystem services for the local community and reduce local pollutions and carbon emissions.	• Luganville Infrastructure Development project (coastal defence and flooding/ drainage system) • Readiness support for strengthening engagement with private sector

Social barriers	• Perception of top down supply push interventions that do not meet the need of the nation or community • Lack of inclusive participation of CSOs, private sector, provincial actors in the planning, implementation and monitoring and evaluation of interventions • Lack of local participation in the design and innovation of the solutions • Promotion of solutions that do not cater for the needs of the end users • Rapid urbanization leading to unemployment and food security issues etc.	• There is a need to develop gender responsive and inclusive adaptation and mitigation solutions through inclusive and fully participatory value chain and market based approaches so that value chain actors (including women, youth and disadvantaged groups and micro, small and medium enterprises) could be trained, empowered, rewarded and incentivised to protect and improve their productive assets (land, soil, water, forest, rivers, marine) whilst generating ecosystem services for the local community and reduce local pollutions and carbon emissions	• For all proposals, women, elderly and youths must not be seen as 'mere beneficiaries' but that their full participation and engagement as empowered and trained value chain actors are deemed as critical for the success of the project. • Project developers must meaningfully engage with civil society stakeholders to ensure the voice of the most vulnerable is inncluded from the outset of program design, through to implementation and in program M&E • Traditional values surrounding land, inndigenous knowledge and other cultural factors should form the basis of GCF program design, even for projects that require new and innovative technolgies
Cultural barriers	• Lack of understanding of cultural and traditional practices that hinders the uptake of interventions provided • Lack of understanding of cultural and traditional practices that hinders the uptake of interventions provided	• Assess, record and catalogue traditional and cultural best practices that could be used as climate solutions	• Promote traditional housing that could withstand cyclone

Table 8: Climate Change Mitigation Opportunities	
Energy Sector	• Promotion of Renewable Energy technologies (Grid connected and off grid) i.e. mini and micro hydro, solar, wind, biomass etc. • Small and mini grid for renewable energy electrification • Promotion of Bio-Fuels • Promotion of Renewable Biomass based power generation (Gasifier) • Demand Side energy efficiency measures • Promotion of energy efficient appliances (standardization and labeling of energy consuming appliances) • Green and energy efficient building standards • Promotion of Building Energy Efficiency • Encourage public energy awareness and policy to phase out high energy consuming appliances • Promotion of cleaner fuels, efficient cook stove sand solar lanterns • Efficiency and Emission norm for Generators • Awareness, Training and capacity building programs • Provision of information on low carbon development and clean technologies
Transport Sector	• Promotion of fuel and pollution efficient vehicles, ships and planes • Norms for efficiency & pollution for vehicles • Promote public transportation services • Upgrading of road network and Traffic Management
Agriculture Sector	• Labeling of energy consuming appliances (pumps etc.) • Promotion of Renewable energy technologies (Solar Dryers etc.) • Land use management • Promote climate resilient agriculture and organic farming to reduce N2O emission from soil to improve soil organic matter, fertility and water retention capacity • Awareness, Training and capacity building programs
Waste Sector	• Promotion of waste Management (Reduce, Reuse, Recycle) • Landfill or composting of solid waste along with awareness campaign to reduce the burning of waste • Waste water treatment • Promotion of Biogas technology
Forest Sector	• Stop Forest conversion • Promotion of energy forestry • Reducing deforestation and degradation of forests

Key planned mitigation interventions in the NDC are:

- 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
- 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 (CH4) and associated emissions for ruminant and pasture management

Several key Climate Change Projects registered with the National Advisory Board that may be scaled up as potential full GCF proposals or whose lessons and successes could be incorporated into GCF proposals

Table 9: Baseline Climate Change Projects that are registered with the National Advisory Board		
Project	**Brief Description**	**Funding**
1. Coping with Climate Change in the Pacific Island Region (CCCPIR)	Adaptation support to GoV line Agencies in the components of Climate Governance/Institutions, Policy Mainstreaming, Education, Renewable Energy, Adaptation Trials, Disaster Risk Reduction,	USD 2 million MoCC, German Government, SPC, GIZ
2. Increasing Resilience on Climate Change and Natural Hazards (IRCCNH) Project	Institutional strengthening; Technology investment and transfer; Training; Community capacity building. Implemented by DLA, NDMO, VARTC, Rural Water Supply, and Agriculture. (2013 – 2018).	USD 11.1 million Funding Admin- World Bank Global Environment Facility (GEF), European Union (EU), Global Facility for Disaster Risk Reduction (GFDRR)
3. Managing Disaster Risk Reduction (MDRR)	Institutional strengthening; Technology investment and transfer; Training; Community capacity build. Implemented by NAB / PMU / VMGD. (2013-2015).	USD 2,728,000 Funding Admin- World Bank Government of Japan-Policy and Human Resource Development Trust Fund (PHRD)
4. Global Climate Change Alliance – Vanuatu Project (GCCA-V)	Institutional strengthening; Mainstreaming; Data collection; Policy development. (2012 – 2014).	USD $ 900,000 (approx.) Global Climate Change Alliance
5. Pacific Adaptation to Climate Change (PACC)	The PACC is a regional project developed as a 2nd Phase or follow-up to the CBDAMPIC project implemented in Vanuatu by the NACCC from 2002 to 2005. Focused on Epi island, Varsu Area Council with major focus on resilience of roadways. (2009 - 2014).	USD 750,000 Funding Admin- SPREP UNDP / GEF SCCF
6. Pacific Risk Resilience Programme (PRRP)	Strengthening governance mechanisms for Disaster Risk Management (DRM) and Climate Change Adaptation (CCA). Based on Tanna, Tafea Outer islands, Santo and Emae. (2013-2016).	USD 2 million (approx.) Funding Admin- UNDP / GEF / AusAID
7. Coastal Community Adaptation Project (C-CAP)	Community based CCA, planning and implementation of plans based in Efate offshore islands and on Tanna Island. Implemented by DAI / USP. (2013-2018)	USD 3 million (approx.) Funding Admin- DAI & USP USAID funding.
8. (V-CAP) Adaptation to Climate Change in the Coastal Zone in Vanuatu	Focus on community based climate change adaptation measures at 6 different sites with Infrastructure resilience, upland management and coastal resource management components. Early warning systems and policy support as well. Implemented by PMU, PWD, Environment, Agriculture, and Fisheries & Forestry. (2014-2019).	USD 8 million (approx.) Implemented by UNDP under GEF
9. A2C2 Climate Change Awareness project	Research, Media Production, Community Awareness, Educational Capacity Building, Mentoring. Implemented by Apidae Development Innovations. 6 secondary schools around Port Vila. Starts July 2014 (6 months).	USD $134,776 over four coun- tries in the Pacific AusAID
10. Natural Solutions to Climate Change in Pacific Islands Region: Implementing Ecosys-tem-based Adaptation (PEBAC)	Education and awareness of ecosystem approaches. Support of ridge to reef and integrated coastal zone management planning. Implemented by Secretariat of the Pacific Regional Environment Programme in collaboration with the SPC- GIZ coping with climate change in the Pacific Island Regional Program (CCCPIR). Port Vila and surrounding areas plus one site in Tafea Province. (2014 – 2019).	USD 2.9 million International Climate Initiative (German Government)
11. AECOM Pacific Aus-tralia Climate Change Science and Adaptation Planning (PACCSAP) Program	Infrastructure - Economic analysis of climate change adaptation options to protect low-lying settlements and critical infrastructure. (2014).	USD 93,176 Australian Aid - Pacific Australia Climate Change Science and Adaptation Planning (PACCSAP) Program
12. Restoration of ecosystem services and adaptation to climate change (RESCCUE)	Community-based coastal resource management and monitoring, waste management and conservation trust based in 37 communities of North Efate. Implemented by Opus, C2O, Landcare Research, Live & Learn (2015-2018)	900,000 Euro (approx.) Administered by the Pacific Community (SPC) with FFEM and AFD funding
13. Climate information services for resilient development in Vanuatu	Provide people and organisations with timely, tailored climate-related information and tools to use to reduce the impacts of climate change on lives, livelihoods and property. (2018-2022)	USD 20.4 million Implemented by SPREP and VMGD under GCF

Transformational success factors for Vanuatu's GCF pipeline

Key success factors and lessons learned from the above baseline projects in Table 9 relevant for designing future funding proposals and key findings derived from stakeholder consultation are:

i. **Top down supply push vs. demand driven/pull bottom up approach:** There is great concern that some of the implemented projects were based on top down and supply push approach where the needs of the local community were not met. There is an urgent need to develop proposals that are demand driven/pull so that the needs of the local community are fully met through consultation and planning with the help of the local CSO partners. The GCF CP provides a timely opportunity to ensure that the proposals to be developed must allow for the full participation of the local community and CSO partners.

ii. **A strong robust exit strategy:** There is danger that some of the solutions provided (especially technology options) are not working properly due mainly to the lack of after sales services and poor maintenance and failing into disrepair. To avoid repeating similar mistakes, strong exit strategy must be developed whereby the beneficiaries will be able to pay for the cost to operate and maintain the products and services provided e.g. using the Build Own, Operate and Transfer business model (BOOT). The tenders could be designed as a call for Inclusive Business Plan Competition to attract the most viable and cost effective proposals with strong inclusive business case.

iii. **Leveraging private sector expertise:** Although some roll-out programmes were showcased as a success, creating sustainable after-sale services and maintenance to ensure long-term financial sustainability remains a key challenge. This is particularly relevant for public service buildings like schools or hospitals. There is a need to develop viable business models and normative documents (such as PPP policies) involving strong private sector participation, execution and investment, together with civil society (end-users) involvement in order to avoid collateral damage (i.e. danger of diverting scarce national budget to maintain facility not planned for). The private sector has long-term implementation experience in remote and highly vulnerable locations, with a focus on efficiency and impact.

iv. **Fit-for-purpose and demand driven solutions with no unintended, high-emissions or maladaptive consequences:** Grant-based methods could lead to perverse incentives and unforeseen outcomes such as oversized equipment and no focus on energy efficiency. Simple measures and activities, including the monitoring of consumption and usage-patterns, realistic estimations of the energy demand (based on number of users and equipment consumption) and energy efficiency and saving actions, are required to minimize these risks. On the other hand, including appropriate solutions such as solar water pumps could make great impact in addressing hygiene and health issues. Community interventions must be designed and agreed with the beneficiaries, wholesale package solutions must be considered against local contexts.

v. **Transparent selection of project beneficiaries: T**here is a need to select in an open and transparent manner the beneficiary (e.g. community, schools, health centers, hospitals) for GCF projects; the selection process should follow the NAB vulnerability assessment framework and undergo official NAB project screening and appraisal processes.

   The above will ensure that the project design will factor in meaningful and effective engagement with local communities to generate buy-in and project ownership. Projects should also partner with local community service organisations (CSOs/NGOs) to improve local governance systems and demand for mutual accountability. The creation of economic opportunities for the population, especially for the most vulnerable, is crucial to ensure buy-in from the public and sustainability in the long run e.g. recycling could be a good opportunity as another mean of increasing income for urban and peri-urban dwellers. Project design should also take into consideration the absorptive and implementation capacity of local authorities and the stakeholders e.g. taking grid constraints and development plans into account for solar project, including possibilities for future grid-connection if off-grid (or mini-grid development in the area).

vi. **Transparent selection of Accredited Entities & Delivery Partners** There is a need to select in an open and transparent manner the delivery partners and accredited entities for GCF projects; the selection process must undergo official NAB screening processes. In the past, large projects have been "pre-allocated" to certain AEs, and after substantial time has elapsed, no outputs of proposals have been forthcoming. To overcome this, in the future, an AE must commit to time-bound deliverables and commit resources to developing proposals. The NAB will request expressions of interest from suitable AEs/DPs and decisions will be made in a transparent and objective manner.

vii. **Integrated sectoral programmatic approach:** Vanuatu's NDC, NSDP and CCDRRP are designed in line with sector policies, plans and programmes making them inter-sectoral. The NDC is also incorporated into Vanuatu's development plans. Thus, all projects must seek to integrate multiple sector solutions and ensure alignment with sector plans, strategies and policies.

viii. **Capacity building:** Training and capacity building in adaptation and mitigation solutions (energy management, waste management and maintenance of related installations and infrastructure) and empowering value chain actors are key step to ensure project sustainability. Projects must dedicate enough means and embed long-term training to strengthen skills and capabilities e.g. embryonic development of waste to energy needs a learning-by-doing approach. Lessons learned from these baseline projects could be adopted and scaled up as potential GCF proposals.

ix. **Community Based, Small and Medium Enterprises:** Where feasible the project should work closely with CBEs SMEs on adaptation and mitigation projects (energy management systems, ESCO companies, maintenance and reparation of systems, waste collection and management, agribusiness, eco tourism) and on how to make use of the project outputs and to create new and more resilient value chains (e.g. organic fertiliser, recycling).

x. **Communication and outreach activities:** To showcase successful adaptation and mitigation solutions through study tours, site visits and peer to peer exchange of experiences (e.g. to demonstrate on how to generate clean energy from solar PV and biogas as viable business model whilst protecting the environment, promoting and avoid local emissions). Communication and outreach should operate at all levels, local, national, regional and international.

xi. **Meaningful engagement with CSOs/NGOs:** Execution of CCDRR projects requires a cross-sector and cross-stakeholder execution process. CSOs/NGOs play an invaluable role in designing, implementing, monitoring and scaling up successful CCDRR interventions. Projects that engaged with CSOs/NGOs from the outset, through meaningful and equitable engagement, were more successful than those that included NGOs as an afterthought or insignificant partner. CSOs/NGOs bring valuable expertise and expertise and must be a core component of any project development and delivery process. Essential guiding principles should be:
    - Projects must demonstrate, with evidence and supporting documentation, that the success factors have been well integrated, before a proposal is approved and endorsed
    - As accessing climate finance can be bureaucratic and resource intense, guidelines should demonstrate how the process can be made less onerous
    - Gender and protection Policy should be highlighted

xii. **Integrating GCF and other climate finance into the Mid-term and Annual Development Programme and Recurrent Budgetary System:** = It is critical for projects to identify the entry points for integration into the Mid-Term and Annual Development programme under the national recurrent budgetary system for the systematic tracking, coding and tagging of climate finance. Budget tracking and alignment issues should be build into the design of each project.

xiii. **Make greater use of Regional and Sub-regional agencies (e.g. CROP agencies) that already have capacity to support activities.**

xiv. **Integrating GCF and other climate finance into Prime Minister's Office Planning and Policy processes** (GIP Process).

1. Departments Submit climate Project Proposals (GIP Form) to DSPPAC & NAB
2. NAB to technically scrutinize and DSPPAC Analyze and approves Project Proposals
3. Aid Coordination and NDA should send pipeline GCF Projects to other donors (in addition to GCF) for their information and alignment;

Paradigm Shift via Vanuatu's Private Sector

Leveraging private sector expertise and resources: The Vanuatu Climate Change and Disaster Risk Reduction Policy[108] (CCDRR) and Vanuatu National Sustainable Development Plan[109] both acknowledge the vital role of the private sector in contributing to national climate change adaptation and mitigation goals. Government policy aims to encourage participation of the private sector at all levels of CCDRR planning, including in governance and collaboration, integrating climate and disaster considerations in business plans and aligning private sector activities to national targets.

Increasing involvement by local private sector entities in key climate relevant industries, such as banking, solar, agriculture, shipping, logistics and telecommunications will be necessary to ensure robust and successful implementation of national policy goals. While there is already considerable private sector involvement in these sectors, there is a deficit of joint initiatives with Government. Partnerships between public and private sector actors, as well as between private sector companies, would result in the total sum benefits to all parties being greater than the sum of the parts. In order to address these gaps, the Vanuatu Business Resilience Committee (VBRC) of the Vanuatu Chamber of Commerce & Industry is the focal point for climate-private sector issues.

There is a need to leverage private sector expertise and resources to partake and invest in gender responsive adaptation and mitigation projects through inclusive value chain and market based approaches so that value chain actors (including women, youth and disadvantaged groups and micro, small and medium enterprises) could be trained, empowered, rewarded and incentivised to protect and improve their productive assets (land, soil, water, forest, rivers, marine) whilst generating ecosystem services for the local community and reduce local pollutions and carbon emissions.

For example, subsistence farming is the default livelihood for many people in Vanuatu. It remains a challenge to provide a good quality of life for families, but there are few established alternatives (e.g. rural enterprise support centres could provide a gateway to business development for people with high-potential ideas). Vanuatu's ecology means that subsistence farming is difficult and precarious. By fostering new ways to make a living, viable climate solutions could provide a path to financial security for both microenterprises and their potential employees, and could even help stem the tide of rural-urban migration. Rural enterprise support centres could act as champions of economic initiative, helping entrepreneurs move from ideas to sustainable businesses through the provision of incentivised support. The climate solutions could tap into the corporate sector, with private service providers playing a key role, mentoring and empowering social entrepreneurs with technical and basic financial and business skills and easy to use tools to build their ideas into businesses.

Developing strong public private partnerships: There is a need to forge a strong public private partnership to complement top down upstream policy and regulatory de-risking solutions with downstream bottom up financial and viable business approaches for scaling up climate adaptation and mitigation solutions to benefit the local community for generating long term and transformative impacts. This will help to build trust and confidence and break down any unintended 'silo' mentality between the public and private sector.

Access to competitive and inclusive value chain financial products and services: Supporting value chain actors to access and utilise competitive financial products and services efficiently and effectively as start-up loans, matching rebate will enable and empower value chain actors to adopt, purchase and innovate on climate resilient and low carbon solutions. Value chain actors trained and certified in both

108 The Vanuatu Climate Change and Disaster Risk Reduction (CCDRR) Policy 2016 – 2030
109 The Vanuatu National Sustainable Development Plan (NSDP) 2016 – 2030

technical and basic financial and business knowledge and skills will help in weaning beneficiaries away from the 'subsidy' and 'dependency' mentality and their full participation as value chain actors will be deemed as critical to the success of the solutions. Such exit strategy will enable the climate solutions to be scaled up and replicated beyond the life of GCF project. In the case of i**nsurance for farmers**, in some countries there has been a lack of demand for insurance products (in their study countries: Grenada, Jamaica, Fiji, and Vanuatu) meant an undersupply of customized food insurance products, which in turn contributed to a lack of demand for insurance.[110]

Private Sector Engagemet: The private sector plays a significant role in CCDRR activities in Vanuatu and is affected by the impacts of slow-onset changes as well as sudden-onset disasters. Local businesses help communities and organizations across the country mitigate risks, increasing resilience and contributing to disaster response, rehabilitation and reconstruction efforts (e.g. TC Pam).

The private sector is also already meaningfully contributing towards Government national[111] and sectoral CCDRR policy mandates. It should be noted that while there are some past successful Public Private Partnerships initiatives (e.g. IFIRA PPP for the management of the wharf), there is hesitation from many private sector entities to become involved in government initiatives likely due in part to a lack of regular dialogue and engagement. Additionally, many private sector actors experience working with Government following TC Pam was one in which they were engaged in an ad-hoc, inconsistent manner across different sectors. The introduction of the VBRC should serve as a helpful mechanism to improve relations and mitigate future concerns resulting from a lack of information sharing or inclusion.

Benefits of engaging with the private sector:

i. The private sector can contribute to climate change financing requirements: a) Anticipated demand of climate finance is greater than the funding available from the governments of developed countries; b) Failures to invest sufficiently in mitigation, will see adaptation costs increase; and c) Private sector expertise and experience can also improve current investments being made.
ii. With the right incentives, the private sector can contribute to the achievement of mitigation and adaptation objectives. For example, autonomous climate proofing by private sector entities.
iii. The private sector can develop and provide adaptation or mitigation products or services such as climate information services, agricultural services: e.g. climate-resistant seed varieties, irrigation systems, insurance, water treatment products (e.g. desalination/purification) & wastewater reuse, waste management and disposal and climate-resilient building materials.

Barriers to climate change investment faced by the private sector: Potential challenges and barriers that the private sector face include:

- Higher up-front costs for green investments and lack of access to competitive finance.
- Limited capacity/knowledge/awareness about available technologies and market opportunities among key stakeholders and core actors in the investment value chain.
- Lack of proper local regulatory / policy framework, including uncertainty regarding tax regime and longevity of any policy incentives.
- Investment returns are too low.
- Time limitations to accessing funding; private sector often requires rapid financing turn-around times
- Investment risk is perceived as too high, with low levels of investor confidence – includes currency risk, operational risk, construction risk, policy risk (uncertainty of policy incentives), political risk especially in some developing countries, greater technology risks.
- Danger of donor's grant funding crowding out and dampering the appetite for private sector to invest in climate solutions.

Expectations of the private sector: To engage private sector entities, returns have to outweigh costs,

110 Angelucci, F. and P. Conforti, 2010: Risk management and finance along value chains of Small Island Developing States. Evidence from the Caribbean and the Pacific. Food Policy, 35(6), 565-575).

111 Including the National Sustainable Development Plan (NSDP)

based on the individual set of investment criteria used by different sector actors. Different private sector actors will have different expectations[112]. For example:

i. **Banks / institutional investors / investment funds:** commercial rates of return on invested capital; 'secure' investments (e.g. reduce operational or financial risk); marketing, image.
ii. **Large companies:** commercial rates of return on invested capital; reduce operational risk; attractive payback period; legal compliance; marketing, image.
iii. **Small and Medium Entrepreneurs:** secure investments (e.g. guaranteed returns); financial or tax incentives; legal compliance.
iv. **Private households:** financial or tax incentives; legal compliance.

Mechanisms for private sector engagement: There are various mechanisms that can be implemented to create markets with attractive risk-reward, liquidity, scale and transparency to engage the private sector:

i. **Financial instruments:** soft loans - for upfront and ongoing project costs; equity investment (e.g. public-private partnership, seed capital) – builds a project's/company's capital base, allowing it to grow and access other finance; de-risking instruments (e.g. policy risk insurance, government or donor-backed partial guarantees) – help projects/companies to manage specific types of risk; and aggregation instruments - to increase the scale of investment opportunity and reduce transaction costs.
ii. **Support mechanisms:** policy and overarching support (e.g. grants/subsidies for climate-risk assessments or energy-efficiency audits, feed-in tariffs, tax breaks for low-carbon/climate-resilient technologies, technical expertise, removing fossil fuel subsidies) – to correct market failures and create a foundation for low-carbon investment; project-level assistance (e.g. technology accelerators, R&D grants, accelerated/simplified permitting procedures) – transition projects from conception to demonstration to upscaling.
iii. **Information provision and capacity**-building – e.g. best-practice information campaigns tailored to the private sector (including financial sector) to promote climate technologies.
iv. **Creating regulatory / legislative enabling environment**.

UN Capital Development Fund (UNCDF) in Vanuatu[113]: UNCDF has been working in Vanuatu since 2008, improving governance and service delivery through fiscal decentralization and increased local investment capacity. Today, UNCDF offers "last mile" finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development. Through Financial Inclusion Practice, UNCDF is jointly implementing the Pacific Financial Inclusion Programme (PFIP) with the UNDP, which is increasing the number of low-income customers who adopt formal financial services. PFIP will add one million Pacific Islanders to the formal financial sector by 2019 by supporting policy and regulatory initiatives, funding innovation with financial services and delivery channels, disseminating market information, and empowering consumers. Through Local Development Finance Practice, UNCDF is implementing its Local Climate Adaptive Living (LoCAL) programme, which works with governments to channel global climate adaptation financing to local level.

Connecting Business Initiative, UNDP and GIZ are jointly supporting the Vanuatu Business Resilience Committee (VBRC) to design and implement work plans to achieve greater inclusion of private sector actors in the climate space. A major Climate Finance Tradeshow was held in 2018 in which private sector stakeholders demonstrated their capacities to implement climate programs, and made substantial recommendations on best practice for future engagement.

Financial competencies of the vulnerable households: The pervasive low levels of financial competence potentially expose low income households in Vanuatu to several major risks. These include the risk of exploitation by financial predators, the risk of ineffective use of household cash-flows, and the risk of poverty in old age. There is a need to continue to focus on increasing the number of households which have access to the formal financial system. There is also need to increase understanding of the cost of money, through both training and consumer protection. As households become increasingly involved with the money economy, a failure to understand the cost of money and the associated risks of using financial institutions and financial instruments carries significant risks for low income households, in

112 GIZ-Adelphi (2016). Private Sector Investment Criteria
113 http://www.uncdf.org/vanuatu

particular in respect to poor financial choices and vulnerability to predatory practices. Continuing assistance also needs to be provided to households to enable better identification and management of household cash-flows.

Transformative Resilience via Vanuatu's Civil Society Sector

Meaningful participation and engagement with CSOs/NGOs: Girls, boys, women, men, People with disabilities, local community organisations, businesses and government institutions in Vanuatu are facing the daily impacts of climate change. Through a rapidly changing environment they have had to implement locally driven action plans, measures and responses that targets these impacts and enables them to increase the resilience of their communities. Whilst these groups are often capable of finding highly innovative and sustainable solutions to complex challenges, their voices and their experiences insufficiently filter through to inform National or Global climate change decision-making forums. Thus, it is not surprising that climate finance decision-making and funding often fails to acknowledge the most vulnerable voices and as such climate change programs are not always responsive to the actual needs and realities of those that experience climate change impacts first and foremost. Technical solutions developed at a global or regional level often fail to reach the most vulnerable and remote communities unless there are partners experienced in working with those remote communities involved in the program who can help ensure benefits have an impact at the community level.

Benefits of engaging the CSO/NGO community at all stages of proposal development: Vanuatu enjoys a vibrant and inclusive civil society whose multi sector technical skills, experience and geographic coverage is far reaching. The CSO/NGO community is at the frontline of community development and service provision in some of the most remote and climate effected parts of the country.

In collaboration with the GCF, local communities and relevant government Ministries/Departments, the CSO/NGO sector will play an increasingly pivotal role in taking to scale community-based adaptation approaches. This partnership between the GCF, CSOs/NGOs, private sector partners and local communities and governments will help re-imagine the ways in which adaptation is undertaken at the local level – generating the potential for a paradigm shift whilst also supporting country policy aspirations.

The CSO/NGO community works to ensure that community needs, experiences and capacities are considered in how to prepare for, react to and recover from disasters and adapt to longer-term climate changes. In addition to bringing their voices of communities to proposal development, planning for meaningful engagement of civil society as project implementers will help ensure there are delivery partners who can deliver impact and reach at the community level, especially in the most remote areas. CSOs and NGOs also ensure project sustainability by building partnerships and collaborating with children, communities, civil society, local and national governments, and regional and international organisations.

Barriers to meaningful engagement with CSO/NGO's: The Vanuatu CSO/NGO community consists of a diverse range of partners. Ranging from small community/church based organisations right through to large international non government organisations (INGOs). Each agency plays a crucial role to enhance community resilience to climate change. However, no one agency speaks for the collective. Smaller agencies, based in remote islands may have limited opportunities to meaningfully engage and contribute to GCF project design and implementation. It is essential that all GCF project developers conduct vigorous research on which CSO/NGO's have relevant expertise and/or are actively working in the targeted locations of the proposed GCF project and ensure their views and contributions have been sought. CSOs and NGOs are also by definition non profit organisations with limited resources. Projects must be designed to ensure adequate resourcing for CSOs/NGO to engage effectively as implementing partners.

Mechanisms for engagement with CSO's/INGO's: Vanuatu has a number of mechanisms to engage with CSO/NGO's including the Vanuatu Association of Non-Government Organizations (VANGO) the peak body for CSO/NGO's in Vanuatu, the Vanuatu Humanitarian Team (VHT) and Vanuatu Climate Action Network (VCAN). Naturally this is not an exhaustive list, and will require the projects to consult widely in country to determine the right stakeholders to engage with. National level engagement on project design, while important, is not sufficient when beneficiaries of programs must also be engaged.

Photo by Ishan @seefromthesky on Unsplash

SECTION 2
COUNTRY AGENDA AND GCF ENGAGEMENT

Institutional Arrangements

The Vanuatu CCDRR Policy calls for the establishment and strengthening of institutional structures to efficiently and effectively undertake their roles and functions by:

- Strengthening the government and NAB Secretariat's capacity to effectively perform NAB strategic support roles, and CC/DRR PMU to undertake project management functions.
- Establishing and strengthening coordination mechanisms for climate change and disaster risk reduction initiatives at the provincial level via the NAB, particularly through DLA, to guide community based activities.
- Strengthening climate change and disaster risk reduction capacity of provincial, municipal and area council personnel.
- Facilitating the equal and active participation of vulnerable groups in decision-making bodies at all governance levels via all partners and stakeholders.
- Building and strengthening capacity of government and partners to actively engage and participate in major international or regional framework processes.
- Strengthening VANGO, VCAN and VHT capacity through government assistance, in recognition of its key role in representing local CSOs in the climate and disaster sector.
- Strengthening Provincial Disaster and Climate Change Committees (PDCCCs) and Community Disaster and Climate Change Committees (CDCCCs) and municipal committees, such that bottom up planning is acknowledged and considered in national decision-making.
- Strengthening traditional governance systems through partnerships among government, civil society, development partners, academia and the private sector.
- Strengthening faith based governance systems to implement climate change and disaster risk reduction activities via multi-stakeholder collaboration.
- Acknowledging and encouraging CSOs, the private sector and networks including VCAN and VHT in contributing to climate change and disaster risk reduction decision-making and implementation.

Vanuatu's National Advisory Board on Climate Change & Disaster Risk reduction (NAB): NAB is the supreme policy making and advisory body for all disaster risk reduction and climate change programs, projects, initiatives and activities. The NAB develops DRR and CC policies, guidelines and positions, advises on international and regional DRR and CC obligations, facilitates and endorses the development of new DRR & CC programs, projects, initiatives and activities, acts as a focal point for information - sharing and coordination on CC/DRR, as well as guides and coordinates the development of national climate finance processes (Figure 2). Vanuatu's society, environment and economy are highly vulnerable to climate change and disaster risks. The NAB seeks strong collaboration with our partners to plan and prepare for, and respond to, these challenges. The NAB operates an excellent website portal to support CCDRR stakeholders in supporting information sharing, increasing information access on CCDRR. CCDRR Finance tab on the NAB portal is a one stop-shop for stakeholders interested in finding out more on grant sources and CCDRR finance in Vanuatu[114].

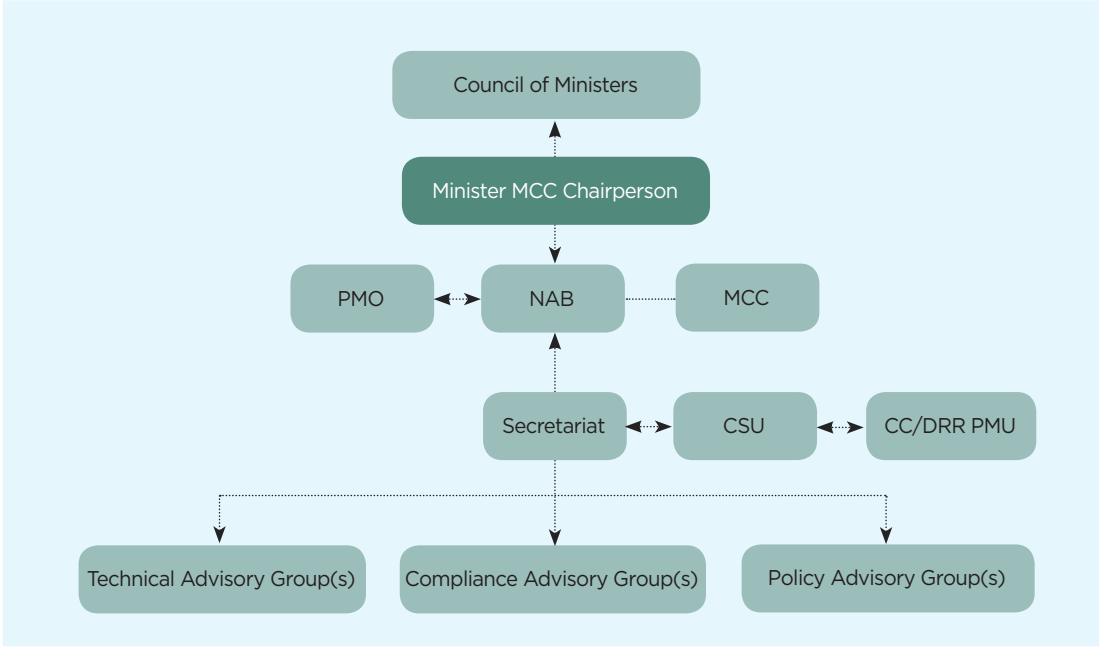
Climate Finance Working Group (CFWG): The CFWG serves as the consultative arm of the NAB Secretariat to progress issues related to climate finance. The CFWG is chaired by the Strategic Manager of the NAB Secretariat and is composed of 15 members representing the Ministry of Climate Change Adaptation, Prime Minister's Office, Ministry of Finance, Ministry of Agriculture, Ministry of Infrastructure and Public Utilities, the National Trade Development Committee Secretariat, non-governmental organisations, development partners, and private sector partners (Figure 3). The primary duties of the CFWG are:

114 http://nab.vu/climatefinance

5. To provide strategic direction on climate finance-related matters for the Ministry of Climate Change Adaptation and the Government of Vanuatu;
6. To progress the DAE Accreditation agenda to provide direct access to multilateral climate funds such as the Green Climate Fund and the Adaptation Fund;
7. To support the NAB as required to facilitate dialogue with partners on climate finance issues; and
8. To support the coordination, steering, and implementation of climate finance programmes and projects.
9. Define GCF Readiness priorities and work with DPs on readiness proposal development

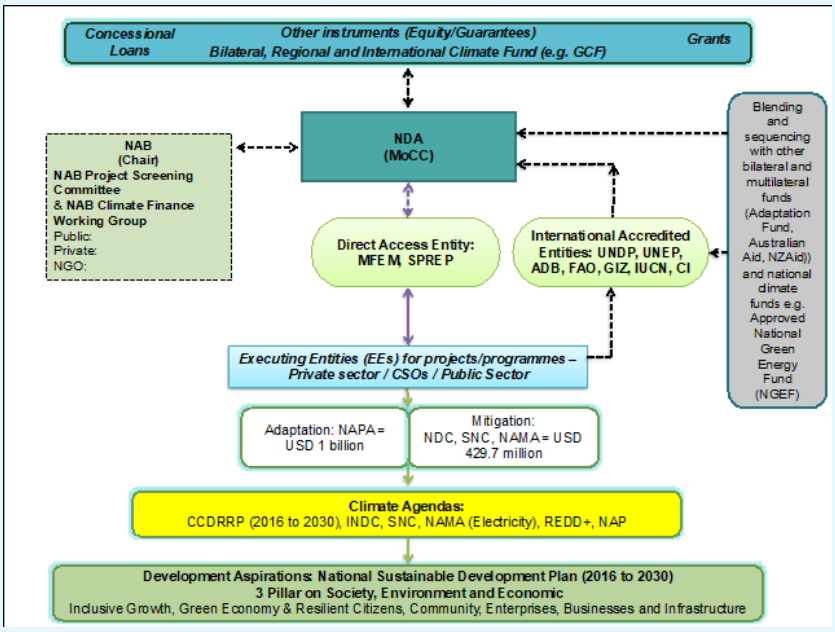
The CFWG generally meets on a monthly basis to achieve its duties as outlined above. The institutional and financial framework to access and utilise bilateral and international climate finances (e.g. GCF) to scale up climate solutions in Vanuatu for achieving development and climate goals is illustrated in Figure 3.

Figure 2: Governance structure of the National Advisory Board on Climate Change and Disaster Risk Reduction[115]



115 Vanuatu CC and DRR Policy 2016-2030, page 4

Figure 3: Institutional and financial framework to access and utilise bilateral and international climate finances (e.g. GCF) to scale up climate solutions in Vanuatu for achieving development and climate goals



Roles and Contributions of Key Stakeholders

Table 10: Exemplary List of some CCDRR stakeholders in Vanuatu		
Group of institutions	**Major areas of Activities**	**Institutions[116] (Example)**
Government	Research and modeling	National Statistics Office, Vanuatu meteorology & Geohazards Department,
	Program planning, implementation, monitoring and evaluation of adaptation and mitigation strategies	Department of Strategic Planning, Policy & Aid Coordination, Monitoring and Evaluation Unit of PMO, Department of Local Authorities, Ministry of Agriculture
	Immediate disaster response	National Disaster Management Office, PMO Disaster Recovery Committee, Clusters
	Climate data inventory, management and generation	Vanuatu Meteorology & Geohazards Department
Local government	Emergency measures, Pre- and post disaster relief and rehabilitation, Food	Vanuatu Meteorology & Geohazards Department,
Civil Society/Think Tanks/ NGOs, CBOs	Socio-Political motivation, Networking, Advocacy, Lobbying Motivation, Promotion, Awareness raising, Training. Accountability	Vanuatu Climate Action Network, Vanuatu Humanitarian Team, Vanuatu Assn of NGOs (VANGO), Save the Children, Oxfam, Wan Smolbag (Vanua Tai Network), World Vision, Red Cross, Care, Live & Learn
Media	Popular investigation, Transparency, Accountability, Awareness raising	Daily Post, FM107, FM98, VBTC, Yumi Toktok Stret Facebook, Vanuatu Climate Change Facebook, Vanuatu Independent, NAB portal: www.nab.vu
Private Sector, Commercial enterprises	CSR activities, Capacity building, Awareness raising, Trade associations (e.g. Vegetable Growers, Construction/Builders association)	Vanuatu Business Resilience Committee, Vanuatu Chamber of Commerce & Industry
Financial institutions	Competitive financial products and services, Micro credits/bank loans	BSP, ANZ, National Bank of Vanuatu, Bred Bank, Reserve Bank
	Use of foreign remittances to cope with adversities	
Community, households	Activities related to DRR and CCA for during, pre- and post-disaster situations	Chiefs, Councils, CSOs, Community Disaster & Climate Change Committees
CROP Agencies and MSG	Regional coordination, capacity development, sources of innovation	SPREP, SPC, PIFS, USP, MSG

116 https://www.researchgate.net/publication/280941110_The_little_handbook_of_disaster_and_climate_change_networked_governance_structure_in_Vanuatu

Vanuatu national government: Vanuatu's national government is responsible for the administration of climate change and disaster risk reduction activities throughout the country, and it has established and legislated for the National Advisory Board (NAB) as its key decision-making and advisory body. The national government through the Parliament enacts legislation, including the Meteorology Act 1989 and National Disaster Act 2000 and many other acts that impact on the areas of climate change and disaster risk reduction. Through the Council of Ministers, the national government endorses policies and plans that implement national priorities. The national government also engages at the global and regional level on negotiation and implementation of multi-lateral agreements, and enters into agreements with international governments and donor partners on the provision of assistance to Vanuatu's climate change and disaster risk reduction efforts (Table 10).

Ministry of Climate Change: The Ministry of Climate Change (MCC) will lead the implementation of this country program as it currently hosts the GCF NDA and the NAB Secretariat. MCC's Corporate Plan and Business Plans include strategies to drive the implementation of the GCF Country Program. MCC departments and agencies, the Department of Climate Change, Department of Energy, Department of Environment, Vanuatu Meteorology & Geohazards Department and the National Disaster Management Office undertake business planning that is aligned with the MCC Corporate Plan. MCC engages with other government agencies, provincial governments, local stakeholders, civil society organizations (CSOs) and the private sector in undertaking climate change and disaster risk reduction activities.

Other national government agencies: A broad range of national government agencies are represented on the NAB and play key roles in developing and implementing climate change and disaster risk reduction policies, plans and initiatives. In view of the cross-cutting nature of climate change and disaster risk reduction, other government agencies lead relevant activities within their own portfolios, including agriculture, forestry, fisheries, infrastructure, tourism, health, education, information technology and others.

Provincial governments and municipal and area councils: Provincial governments, municipal councils and area councils play key roles in implementing and engaging with other players on climate change and disaster risk reduction activities. Provincial plans are increasingly integrating climate change and disaster risk reduction into the business of provinces. Actions need to be implemented with provincial and area councils as major players, in line with the Decentralization Act.

Traditional chiefs: The governance role of customary chiefs is recognised under the Vanuatu constitution and by the National Advisory Board on Climate Change & Disaster Risk Reduction. Chiefs play leadership roles within their communities in engaging with and informing their people on key issues impacting on their wellbeing, including climate change and disaster risk reduction. Chiefs also act as spokespersons for their villages in forums, representing the perspectives and interests of their people. Chiefs play critical roles for program design and implementation at National levels (Malvatumauri Council), island and local lavels.

Communities: Vanuatu's diverse communities are important stakeholders in climate change and disaster risk reduction efforts. They have much to contribute with their existing capacities, governance systems, knowledge of their own contexts, traditional knowledge and coping mechanisms. Communities need to play key roles in drawing on and strengthening their resilience, enabling inclusive participation in decision-making and activities, and engaging with other stakeholders on their needs and aspirations.

Civil society organisations: CSOs play key roles in climate change and disaster risk reduction efforts in Vanuatu. CSOs have developed networks such as the Vanuatu Climate Action Network and Vanuatu Humanitarian Team networks, while non climate CSOs also join in the Vanuatu Association of Non-governmental Organisations network, incorporating councils of churches, chiefs, women and youth. CSOs partner with government and other players to develop and implement climate change and disaster risk reduction programmes and activities. The Vanuatu Climate Action Network and Vanuatu Association of Non-governmental Organisations are members of the NAB, and recognise their roles in advocating and influencing decision-making. They also take roles in other networks such as the cluster system for disaster response and recovery. CSOs need to align their activities with government policies and plans, and ensure that information is shared and endorsements are obtained from appropriate government

agencies and levels on initiatives undertaken. Vanuatu Red Cross plays a unique role in partnering with government on humanitarian efforts in disaster preparedness, response and recovery.

The GCF CP must foster a new approach for "meaningful partnerships" between GoV, Private Sector and CSOs. Projects for GCF must not be designed by AEs externally and then brought to NGOs afterwards to execute insignificant components. Projects must be developed from the ground up, starting with project beneficiaries and local leaders, including civil society and then national agencies. In this way CSOs can positively, and with local knowledge and experience, influence project design from the beginning, and truly bring the needs of the most vulnerable into GCF programs. CSOs support the new NAB Standard Operating Procedures, including the SOP requirements for intensive design discussion and consultation to be adhered to for all GCF projects, before they are endorsed by the NAB and a NOL is given by the NDA.

Donors and development partners: Donors and development partners are essential partners with government and other stakeholders in climate change and disaster risk reduction in Vanuatu, and include international governments (that donate funds), and global and regional organisations (including various agencies of the United Nations). They provide substantial resources to supplement Vanuatu's own resources. This funding should be aligned with Vanuatu's priorities and policy direction, and be appropriate to Vanuatu's context. Programmes and activities should be endorsed through Vanuatu's national government processes. International governments provide assistance to the Vanuatu government for proactive climate change and disaster risk reduction initiatives, as well as for urgent response and recovery efforts when needed.

CROP Agencies: CROP agencies like SPC, PIFS, USP, SPREP and MSG play vital role in providing regional coordination, capacity development and sources of innovation for scaling up proven climate solutions through regional programmatic apporach. SPC nd PIFS are GCF Readiness delivery partners whilst SPREP is a Direct Accrediated Entity.

Private sector: The private sector plays a vital role in the development of Vanuatu. Opportunities exist for the private sector to partner with the Vanuatu government, donors and international development bodies to invest in projects that address climate change and disaster risks. These opportunities include investment in renewable energy, energy efficiency, agriculture, forestry, fisheries, infrastructure, health, education and tourism. The private sector should ensure its development applications and practice are in line with environmental standards, climate-proofing principles, building codes and other government regulation for sustainability. Products and services supplied by the private sector can assist the government in addressing challenges in communications with communities and individuals across the country, including remote areas, and in disaster preparedness, response and recovery efforts.

The relationships of the existing International Accredited Entities and relevant public, private and CSO partners are summarised in Table 11.

Table 11: Relationships with existing Accredited Entities and relevant public, private and CSO partners

Entity/ Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement with GCF
Asian Development Bank (ADB)	The country operations business plan (COBP), 2017-2019 for Vanuatu is aligned with the government's Priorities and Action Agenda, 2006-2015, infrastructure strategic investment plan, and national energy road map. ADB operations support energy, transport, water and other urban infrastructure and services, and public sector management.	ADB has a liaison officer in Vanuatu and has implemented projects mentioned in Table 9.	ADB has submitted one concept note on Luganville infrastructure development
Agence Française de Dévelopement	Urban development, particularly water sanitation and public transport; energy efficiency; renewable energy; sustainability in the RMG sector; blue economy.		AFD has not submitted any concept note

Conservation International (CI)	CI works through science, policy, and partnerships with countries, communities and companies. Over the years, CI has helped support 1,200 protected areas and interventions across 77 countries, safeguarding more than 601 million hectares of land, marine and coastal areas.	CI has no office in Vanuatu and has not yet implemented projects nationally	CI has submitted one concept note to the pipeline on tuna fisheries topics.
Food and Agriculture Organization (FAO)	Food security; agriculture; fisheries; forestry; natural resources assessment and monitoring; land rehabilitation and land conservation; climate resilient communities; bio-energy; climate change adaptation; Climate change mitigation.	FAO has a small office in Port Vila, and works closely with the MALFFB to design and deliver projects in food security, production, market linkages, technology, and community disaster resilience.	FAO has worked with MALFFB since 2016 on an initial Climate Smart Agriculture idea, but has not progressed to CN stage
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmbh	Energy efficiency and renewable energies; rule of law, good governance and human rights; climate change adaptation in urban areas.	Has a full office in Port Vila and works across the climate change adaptation, climate finance and governance space. GIZ has implemented numerous projects mentioned in Table 9	GIZ has served as DP for Readiness for GoV and supported the development of Readiness CNs on national vulnerability assessment and private sector support.
International Union for Conservation of Nature (IUCN)	Human and economic development; nature conservation; protected area management; ecosystem based adaptation; vulnerability assessments and research; capacity development.	IUCN has a seconded staff at DEPC in Vanuatu and has implemented projects mentioned in Table 9	IUCN (along with SPREP) has submitted one concept note to the pipeline
Japan International Cooperation Agency (JICA)	Economic infrastructure development; private sector development; urban development; rural development; disaster risk reduction.	JICA has a full office in Vanuatu and is implementing projects focusing on multiple sectors via different type of schemes such as Loan, Grant, Technical Cooperation and Private Sector Investment	JICA has not submitted any concept note to the pipeline
SPREP	Climate Change Resilience, Environmental Governance, Island And Ocean Ecosystem Services, Waste Management And Pollution Control and Organisational Goals	SPREP has project officers in Vanuatu and has implemented projects mentioned in Table 9	Currently implementing the GCF-funded CIS project.
United Nations Development Programme (UNDP)	Building resilience of most vulnerable; Livelihood Resilience/Adaptation, ecosystem based adaptation; forestry and REDD+; adaptive watershed management; renewable energies and climate smart cities; low-emission transport; capacity building for adaptation and mitigation in development planning, budgeting, and implementation; climate finance readiness.	Has an office in Vanuatu and has implemented projects mentioned in Table 9.	UNDP has submitted one concept note on RE for scaling up solar in partnership with Dept of Energy.
United Nations Environment Programme (UNEP)		Has no office in Vanuatu and has implemented projects mentioned in Table 9.	Is preparing a CN for NAP for Vanuatu
World Bank (WB)	Since joining the World Bank Group in 1981, Vanuatu has received five IDA credits totaling US$18.9 million (all fully disbursed) in the areas of agricultural extension and training (1983), transportation and education infrastructure (1986), primary and secondary education (1988), affordable housing (1991), and a Learning and Innovation Loan (2001).	Has liaison officers in Vanuatu and has implemented projects mentioned in Table 9	WB has not submitted any concept note to the pipeline

Vanuatu GCF Pipeline Principles

The development of the country programme has followed an open, fair, transparent and inclusive approach allowing all key stakeholder groups, outlined above, to actively engage with the NDA in developing project ideas and concept notes and submitting those for potential inclusion into the proposal pipeline (see Section 2.4). The prioritised pipeline were based on the following consultations as illustrated in Figure 4:

i. From Jan 2017 onwards, NAB has been receiving concept notes and project ideas from various national and international implementing partners and these were screened by NAB using the Standard Operating Procedures for project appraisal process and all the various templates are available in Annex 4.3. This has resulted in an initial pipeline of 15 proposals. So far Vanuatu has received approved funding for 4 proposals.
ii. In Sept 2017, NAB launched an online GCF Country Programme survey; multi-sector respondents have participated in the survey and the details are described below.
iii. On-going NAB GCF engagement through Policy Analysis, Tradeshows/Forums, review of projects with potential for scaling up as GCF proposals (see Table 9).
iv. Bilateral and group consultation meetings (private sector and CSO partners) with about 90 public, private and CSO partners from 24 Aug to 14 Sept 2018.
v. First Prioritisation workshop held on the 11 Sept 2018 with about 30 public, private and CSO partners that have yielded an initial pipeline of 46 proposals.
vi. Second prioritisation workshop held on the 13 Sept 2018 with about 23 public stakeholders that has resulted in a pipeline of 42 proposals that were split into Pipeline A (20) and Pipeline B (22). Pipeline A signifies proposals that have received high priority and could be implemented between 2019 to 2020, some has draft concept note and has identified implementing partners.
vii. Validation workshop held on the 14 Sept 2018 that has resulted in a pipeline A of 22 and pipeline B of 20 proposals.
viii. The NAB met and endorsed the final GCF Vanuatu Country Program as shown in Annex 4.6 and 4.7 respectively.
ix. The Vanuatu Council of Ministers (cabinet) officially approved the GCF Country Program

The GCF CP survey was launched in September 2017 to collect data from various stakeholders with regards to Vanuatu GCF investment priorities for 2017 to 2025. As of September 2018, 75 participants from the public, private, academia, development partners, social entrepreneurs and CSO partners have participated in the survey, comprised of 34% female and 65% male and 80% were from Vanuatu and 20% as expatriate residents. The survey has highlighted the following results:

i. Prioritised sectors that scored more than 50% are i) Health, food and water security; ii) Livelihoods of people and communities; and iii) Forests and land use, followed by Energy Access and generation; Ecosystems and ecosystem services; Infrastructure and built environment; Buildings, cities, industries and appliances; and Transport.
ii. Prioritised ministries that scored more than 50% are i) Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity; ii) Ministry of Climate Change; and iii) Ministry of Land, Geology and Natural Resources.
iii. Allocation between adaptation and mitigation – 75% adaptation/25% mitigation came top followed by 50/50 split between adaptation and mitigation.
iv. A 50/50 split between government and NGO/Private Sector was preferred, stressing the need for strong CSO led programming as well as robust public private partnerships (PPPs).
v. A 50/50 split between funds flowing to direct access entities based in the Pacific and reliance on international accredited entities IAEs.
vi. Criteria for the selection of project should be: i) Vulnerability Considerations (71.2%); ii) Lack of current investment / projects (56.1%); iii) High impact potential (greatest benefit to greatest number of people) (54.5%); and iv) Capacity considerations (low or high existing capacities) (43.9%).

vii. Vanuatu aspires to develop Direct Access Entities DAE to enhance direct access, as well as to focus adaptation projects to reflect climate change action needs and the country's international positioning in the climate change negotiations.
viii. GCF represents only one potential source of funding and support to realise their climate change response activities. This country program applies to multiple sources.
ix. All stakeholders were encouraged to continue to proactively consider climate change mitigation and adaption in their operations and continue to engage with the NDA in the future, regardless if their concept note was finally inserted into the CP or not.

Prioritizing the Vanuatu GCF pipeline of Ideas

Throughout the NAB-led CP development process, a range of ideas was elicited by various means since January 2017. Many ideas derived from sector submissions to the NAB, others were developed by accredited entities and others were presented through DSPPAC's ongoing policy and planning processes. Each of the ideas was appraised in 11 and 13 September 2018 using a multi-criteria analysis approach based on the following project screening criteria developed under the SOP (See Annex 4.3):

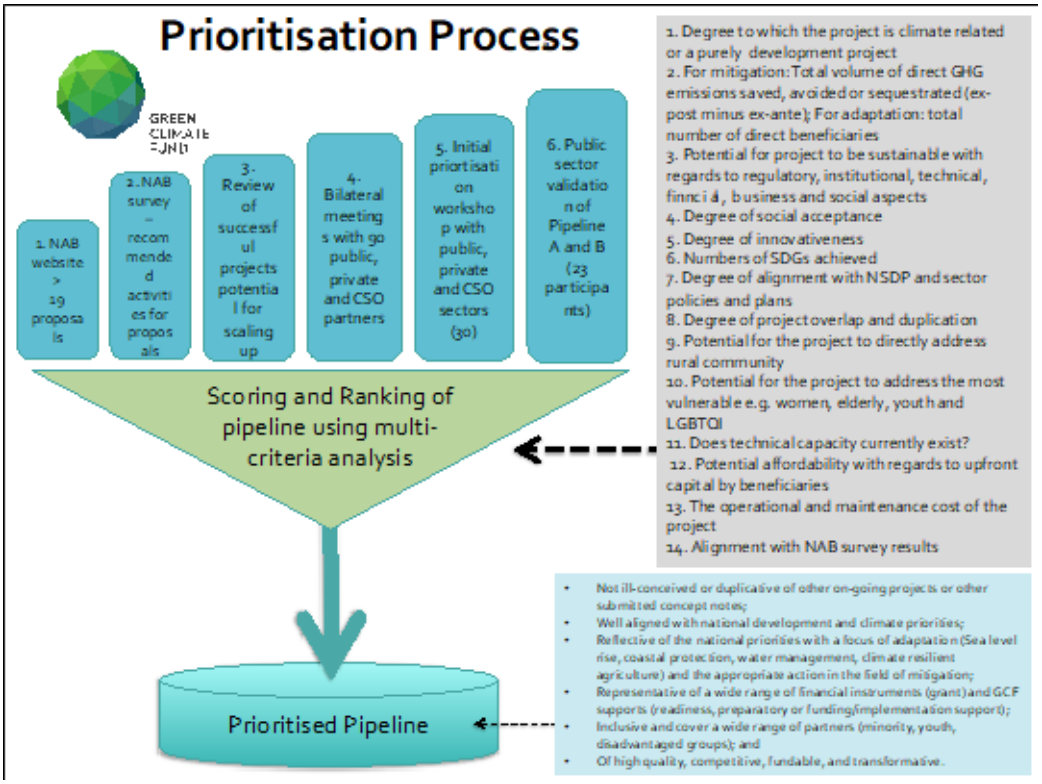
i. Project idea is climate related or a purely development project
ii. Impact potential - For mitigation: Total volume of direct GHG emissions saved, avoided or sequestrated (ex-post minus ex-ante); For adaptation: total number of direct beneficiaries
iii. Sustainability with regards to regulatory, institutional, technical, financial, business and social aspects
iv. Social acceptance
v. Innovativeness
vi. Numbers of SDGs achieved
vii. Alignment with NSDP and sector policies and plans
viii. Project overlap and duplication
ix. Taking the needs of the vulnerable recipients into account
x. Responsiveness to women, youth, disadvantaged group and LGBT
xi. Technical competency to implement the project
xii. Affordability of the upfront cost
xiii. Operational and maintenance cost of the project
xiv. Alignment with NAB survey results

For each of these criteria the concept/idea notes could receive 1 (low) to 3 (high) points. The rating rational, which needed to be matched to receive the different points is provided. A weighting of 0.1 to 1.0 was allocated for criteria (0.1 being less important and 1.0 means highly important). The results of this rating process were the shortlisting of high ranking concept notes (22 ideas and concept notes), which were considered in the final stage of the review and prioritisation process, can be found in pipeline A in Annex 4.6.

In a subsequent step, these concept notes/ideas were transformed into action plan for an initial project idea pipeline (see Annex 4.8) and selected in perspective for ensuring that the ideas of projects/ programmes in the project preparatory pipeline are:

- Not ill-conceived or duplicative of other on-going projects or other submitted concept notes;
- Well aligned with national development and climate priorities;
- Reflective of the national priorities with a balanced focus between adaptation and mitigation solutions;
- Representative of a wide range of financial instruments (grant) and GCF supports (readiness, preparatory or funding/implementation support);
- Inclusive and cover a wide range of key sectors (e.g. agriculture, tourism, meteorological information, access to renewable and efficient energy) and partners (minority, youth, disadvantaged groups); and
- Of high quality, competitive, fundable, and transformative with strong exit strategy.

The prioritised projects/program ideas are presented in Section 2.4.



Inclusion in the Vanuatu GCF Pipeline of Ideas is not a guarantee of finance, nor does it preclude project development requirements at DSPPAC and the NAB. Rather it is intended to give clearer guidance to Line Agencies of Government, CSOs, the Private Sector and Development partner about where additional effort and resources should be invested to develop project concepts and proposals.

SOP Project appraisal process - The National Advisory Board on Climate Change and Disaster Risk Reduction (CCDRR): The NAB is housed by the Ministry of Climate Change's (MoCC) Corporate Services Unit (CSU). It was mandated by the Council of Ministers (COM) in 2012 and Climate Legislation in 2015 to provides strategic direction and oversight on all matters related to climate change and disaster risk reduction. The Board meets bimonthly (i.e. once every two months) and is composed of Directors of a range of relevant government line agencies and a Civil Society Representative. The NAB has a legal mandate under the Meteorological and Geo Hazards Act, governing its composition as well as its responsibilities.

It is compulsory for all projects related to Climate Change and Disaster Risk Reduction that are undertaken in Vanuatu to be reviewed and endorsed by the NAB, regardless of whether the project has been given approvals or permits by other government process. The Board makes the final decision on whether a project can or cannot be implemented, as well as place conditions on program implementation

An increasing number of national and regional stakeholders are seeking project endorsement from the Vanuatu Green Climate Fund's (GCF) National Designated Authority (NDA)[117]. The NOL process outlined below provides clear guidance on the processes and criteria that will be followed by the NAB and its committees when reviewing Green Climate Fund concepts and proposals. Specifically, these documents may be considered the Standard Operating Procedure and appraisal template to support the **Project Screening Committee of the NAB** that will be used alongside the standard NAB project brief

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and other assessment documentation. The overall aim of this process is to ensure that project appraisal is fair, transparent and of greatest benefit to the people of Vanuatu by funds to which Vanuatu is entitled to under the Green Climate Fund.

- Project Profile form, Appraisal guidelines, Criteria: here https://www.dropbox.com/sh/4is0alsuqdnaphx/AAD9wnqnCYIEnn98gAzSsRIAa?dl=0
- NAB Project Profile form: here
- NAB SOP Project Appraisal Process Final: here
- NAB SOP Code of Conduct: here
- NAB SOP FGRM: here
- NAB Project Reporting Template: here
- NAB SOP Project Screening form: here

Funding windows under the GCF: This document supports the appraisal of GCF projects seeking funding under the following funding windows of the GCF: i) Readiness Support Programme; ii) Project Preparatory Facility; and iii) Pipeline Project.

Country Portfolio of GCF Ideas

The breakdown in the total number of proposal ideas under pipeline A and B and the volume of GCF grants, GCF Readiness support and PPF support needed are summarized in Table 11. The details of the proposal ideas for pipeline A and B are shown in Annex 4.7 and 4.8.

A prioritization workshop held on the 12 Sept 2018 with 30 public, private and CSO partners, worked on a initial pipeline of many proposal ideas derived from NAB-led consultations since January 2017. After much debate and discussion, these were reduced to 43 and resulted in pipeline A and B.

Under pipeline A, there are 12 adaptation and 4 mitigation proposal ideas and 7 GCF readiness proposal ideas. These ideas have been prioritised at the prioritization workshop held on the 14 Sept 2018 with public stakeholders and the validation workshop, and will be further endorsed by NAB and approved by the Council of Ministers

Table 12: Summary of proposal ideas for Pipeline A and B based on Annex 4.6 and 4.7 respectively

Breakdown of CNs	Number of proposal ideas				Total GCF Grant (US$)	Total PPF (US$)
Type of support	Pipeline A	Pipeline B	Total	Percentage of adaptation and mitigation project idea numbers		
GCFRPS- Readiness	7	3	10		6,312,106	
Adaptation	12	13	25	75%	414,000,000	6,247,388
Mitigation	4	4	8	25%	290,000,000	4,500,000
Total	23	20	43		710,312,106	10,747,388

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SECTION 3
MONITORING AND EVALUATION OF COUNTRY PROGRAMME IMPLEMENTATION

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The Vanuatu Country Programme is deemed as a 'living' document that establishes clear and country-owned priorities for GCF, includes a pipeline of GCF project ideas that the Vanuatu would like to further consider and develop, identifies practical entry points and guidance for accredited entities to design and implement these priorities, provides an action plan that details how project and programme ideas are to be developed, the type of entity to partner with, and the readiness and project preparation support needed.

Monitoring and Evaluation under CCDRR Policy

The CCDRRP calls for integration of M&E into project and program design across government and stakeholders through:

- Government, CSOs, development partners and the private sector strengthening and enhancing M&E of climate change and disaster risk reduction activities at national, provincial and area council levels.
- Government, led by the Department of Strategic Policy, Planning and Aid Coordination (DSPPAC) under the Primate Minister's Office, collaboratively developing an M&E framework to ensure accountability and provide guidance and consistency around climate and disaster resilience.
- Undertaking training on climate and disaster monitoring and evaluation with relevant officers within government and other agencies.
- Utilizing the results of M&E activities to improve planning, **evidence-based decision-making** and implementation of further initiatives **through knowledge management, sharing and dissemination.**

At the project/programme level, Vanuatu's CP is well aligned with CCDDRP to embed robust and transparent M & E framework into local, national, regional and international climate projects/programmes for ensuring accountability; monitoring and evaluation of the delivery of short term outputs, medium term outcomes and long term impacts; for tracking ex-ante and ex-post GHG emissions; and tracking and tagging of climate finance within the financial framework.

NDA will continue to source for funding (e.g. GCF or bilateral) to develop baselines for and update the CP in 2022. Thus, this first version of the CP is supposed to provide strategic guidance for upcoming project proposals to the GCF for the upcoming years, while being updated in 2022. This will allow an adjustment of the CP to changes in new developments of the economic circumstances; new information on adaptation and mitigation needs, priorities and targets; new information on changing viability or costs of various adaptation and mitigation measures and options. The long-term revision cycle of the CP will be determined in 2020, whereas the nature of the document will remain flexible.

Vanuatu's CP will be monitored and evaluated using the results logical framework presented in Table 12 with SMART performance indicators developed and baselines to be compiled at a later stage by the NAB at the overall goal, outcomes and outputs levels. A review on the effectiveness, performance, and accuracy will be conducted in 2020 to provide the NDA and relevant stakeholders with relevant information on insights into its functionality as a guiding document and if it reflects countries' needs. Vanuatu's NDA will be responsible to update the CP in partnership with the DSPPAC and possibly with external support.

The revision of the CP, post evaluation of its effectiveness, in 2020 will build upon the positive experiences of the inclusive preparation of this first version of the country program that attracted a range of actors through the survey to submit simplified concept notes (based on the GCF concept note template) to the NDA for consideration to be prioritised and included into the project proposal development pipeline. This high level of resonance and sensitisation of the involved parties reflected the high level of interest and ability of local stakeholders to actively engage in climate change actions and to gain direct access to the GCF resources. Thus, this process can be considered as being a valuable exercise to mainstream climate change, increase awareness and, ultimately, support a paradigm shift towards considering potential climate change impacts or arising opportunities in the operation and planning process of the involved entities.

Table 13: Results Logical Framework to monitor and evaluate Vanuatu GCF CP				
	SMART Indicators	Target	Verification	Assumptions
Overall goal of the GCF CP: To overcome the policy, regulatory, institutional, technical, financial, business and social barriers for the scaling up of climate adaptation and mitigation solutions to achieve the development and climate goals in driving towards to a resilient and low carbon community, businesses and infrastructure and nation	• Number of resilient beneficiaries • Volume of fund applied and mobilized (USD) • Volume of GHG avoided/ saved (tCOe/year) • USD/beneficiary • USD/tCO2e saved or avoided	TBD	• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal reports	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity
Outcome				
A. Scaling up Adaptation solutions				
Outcome 1: Resilient communities with access to safe food, high quality nutrition, clean water and healthy living through sustainable and inclusive livelihoods	• Number of resilient beneficiaries • Volume of fund applied and mobilized (USD) • USD/beneficiary	TBD		
Output 1.1: Resilient communities with access to long term food, nutrition and water security achieved	• No of Climate resilient agriculture, water and health programme proposed, implemented and completed • No of beneficiaries disaggregated by age, ,gender and sex	TBD	• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal reports	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity
Output 1.2: Resilient communities with access to competitive, gender responsive and inclusive financial and business models developed to scale up climate solutions	• No of social entrepreneurs trained, certified and still in business/management disaggregated by gender and sex • No of financial products and services developed and promoted • No of bank staff trained and certified on climate risk/return profile • Volume of fund disbursed and rate of defaults	TBD	• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal reports	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity
Output 1.3: Long term gender responsive development capacity programme developed and embedded to empower and train value chain actors to scale up climate solutions	• No of knowledge and communication products and services developed and endorsed • No of value chain actors including national and provincial and area council extension staff trained and certified disaggregated by gender and sex	TBD	• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal reports	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity

Outcome 2: Resilient communities with access to climate proof public and private infrastructure and utilities	• No of climate proof public and private infrastructure and utilities developed and maintained • Volume of fund mobilized	TBD		
Output 2.1: Climate proof roads, river crossings, public buildings (schools, hospitals, aid posts) and private facilities (tourism) developed and completed and maintained	• No of climate proof roads, river crossings, public buildings (schools, hospitals, aid posts) funded, completed and maintained • Volume of funding mobilized (USD) • No of climate proofing engineers trained and certified		• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal reports	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity
Outcome 3: Resilient communities sensitised, empowered and incentivised to protect and conserve their environment and productive assets (land, soil, rivers, marine, forest, biodiversity) to provide ecosystem services whilst reducing local pollutions and GHG emissions	• No of beneficiaries trained and certified disaggregated by age, gender and sex • No of islands/communities reached with sensitization			
Output 3.1: Resilient land custodians, farmers and citizens incentivized to protect and conserve their fragile productive assets to provide ecosystem services	• No of ecosystem protected (coastal, marine, forest, watershed) • Volume of fund mobilised	TBD		
B. Scaling up Mitigation solutions				
Outcome 4: Resilient communities with access to clean energy and energy efficient technology as inclusive businesses	• Volume of GHG saved/ avoided • Volume of fund mobilized • USD/tCO2e saved/avoided		• NAB and CFWG reports • GCF reports • Annual reports • Project mid-term and terminal	• Strong government buy in • Strong appetite for implementation and absorptive capacity of value chain actors • Strong technical capacity
Output 4.1: Scaling up RE and EE solutions and businesses to improve energy access and to decouple energy consumption with productivity and outputs	• No of RE and EE programme scaled up • No of beneficiaries disaggregated by age, gender and sex • Volume of GHG saved/ avoided • Volume of funding mobiised. • No of social entrepreneurs trained, certified and still in business disaggregated by gender and sex • No of financial products and services developed and promoted	TBD	• Annual re	• Annual re

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SECTION 4
ANNEXES

Findings and Recommendations from the Vanuatu Climate Change Finance Review (June 2018)

I. Policies and Planning Analysis

1. Utilise the Vanuatu's National Sustainable Development Plan (NSDP) M&E framework to guide the development of an aligned M&E framework for the Climate Change and Disaster Risk Reduction (CCDRR) policy, as a project management tool that includes and recognises the role of all actors and ensures all stakeholders are informed of the process.
2. As part of the CCDRR Policy Framework, ensure a process to track the integration and implementation of relevant CCDRR activities within other sectoral policies.
3. Strengthen sectoral policy inclusion of CCDRR to mainstream CCDRR as a cross-cutting priority issue.
    a. Future updates to and development of new policies should also include actions, targets, indicators and costings as standardised components.
    b. Policies should specifically highlight the linkages with other sectoral policies and with the NSDP to ensure a coordinated approach.
4. Progress with the development of a data management system within MCCA to provide necessary support for developing M&E processes and more efficient reporting.
5. Ensure consideration of the Climate Public Expenditure and Institutional Review (CPEIR) recommendations relevant to the development of a National Adaptation Plan (NAP). In particular, the need to ensure community engagement and identification of local level adaptation priorities within national processes, as well as comprehensive gender and social inclusion processes. The NAP process must be inclusive and be transparently led by the NAB and build on other planning processes such as the Nationally Determined Contributions (NDC), Vulnerability Assessment Framework (VAF) and Country Program under the Readiness Program and provincial strategies and plans.

II. Funding Source Analysis

1. Have a clear definition of 'climate finance' for budget tagging and ensure that this is understood by all stakeholders.
2. Support Government aspirations that a larger share of climate change-related funding and climate change funding information are channelled to the government financial system by donors and development partners in alignment with national policies and plans. Where funds are directly accessed by NGOs, private sector, community-based organisations or line ministries, ensure that the information is reported to inform the national budget planning process.
3. Develop tracking, monitoring and reporting instruments to account for off-budget finance flows (e.g. direct technical assistance to line ministries to supplement Government capacity in areas that require specialized expertise, or direct implementation by civil society in vulnerable communities).
4. Improve coordination and information sharing between central line agencies, such as the Aid Coordination Unit within the Prime Minister's Office (PMO), Ministry of Finance and Economic Management (MFEM) and the Ministry of Climate Change Adaptation.
5. Strengthen and develop capacity of existing staff handling climate change finance in the key central agencies at the national and sub-national level, in accordance with the overall public service human resource development plan.
6. Progress with a climate change financing tracking tool to better monitor the receipt and

disbursement of climate change finance.

7. Strengthen existing financial accountability systems to ensure that these systems are operating effectively and efficiently to support decision making relating to climate change financing.
8. Explore potential financing opportunities for new climate change project proposals with non-traditional donors and the private sector through public-private partnership.
9. Develop and strengthen existing systems to ensure that all stakeholders, including the communities are aware of the processes for developing climate change proposals to be externally funded.
10. Incorporate climate change finance issues in the proposed Aid Policy for Vanuatu and strengthen existing development assistance database to be able to effectively record all climate change-related funding.
11. Set up a national climate change fund for Vanuatu as a mechanism for pooling all climate change funds to add value and help reduce the burden of recording, disbursing and reporting to the already limited capacities that exist in the central agencies of Government. The proposed national green energy fund is a good step in that direction.

III. Public Financial Management and Expenditure Analysis

1. Review and update the National Implementing Entity (NIE) accreditation roadmap to identify gaps for further readiness support from the Green Climate Fund (GCF) to achieve accredited entity status.
2. The updated NIE roadmap should build on key aspects of the Public Financial Management (PFM) Roadmap and the Climate Finance Roadmap and address certain aspects of GCF accreditation not currently identifying specific reforms. These would include:
    a. **Basic Fiduciary Criteria**:
        - Code of ethics
        - Disclosure and conflict of interest
        - Capacity to prevent or deal with financial mismanagement and other forms of malpractice
        - Investigation function
        - Anti-money laundering and anti-terrorist financing
    b. **Specialized Fiduciary Criteria** (depending on type of accreditation sought):
        - Transparent eligibility criteria and evaluation
        - Grant award decision and procedures
        - Public access to information on beneficiaries and results
        - Transparent allocation and implementation of financial resources (if not addressed by improvement to procurement regulations)
        - Good standing with regard to multilateral funding
        - On-lending and/or blending
3. Use the budget circular more proactively to ensure that climate change issues are reflected in annual policy settings and to instruct all Ministries, even those not normally associated with climate change impacts, of the need to consider and reflect climate change issues in the formulation of ministry and departmental budgets. An improved climate change chart of account is needed.
4. The Government should incorporate climate change finance considerations into the Medium-Term Expenditure Framework (MTEF) (under development), to harness the different sources of finance from Government, Official Development Assistance (ODA) and private resources to address national climate change priorities.
5. Development and implementation of a debt management policy to manage, oversee and monitor debt obligations of the Government and government business enterprises where they provide material risk to the fiscal stability of the Government. If needed, enshrine these policies in regulations or through legislative amendment.
6. Ministry of Finance and Economic Management (MFEM) should use the pending Aid Policy as an opportunity to ensure greater coverage of aid funding and reduction of "off-budget" aid by strengthening the budget process to ensure aid funding identified by Department of Strategic Planning, Policy and Aid Coordination (DSPPAC) is reflected in the national budget.

IV. Institutional Analysis

1. A communication campaign targeting all levels of Government on the role of the NAB may help to clarify some misunderstanding around the functions of the NAB and help to re-emphasise the need for consistent cross-sectoral representation for its effectiveness.
2. **The NAB's project brief form should also include information capture on the gender and social inclusion components of proposed projects. This would also assist with the NIE accreditation process and demonstrating processes in place to monitor gender and social inclusion within climate change activities.**
3. Harmonise processes between DSPPAC and NAB where possible and ensuring strong channels of communication between the two entities so that relevant information is shared.
4. Establish a broad set of criteria (could be similar to the expenditure weighting methodology used in this review) for NAB to provide some clarity on what could be counted as climate change finance.
5. **Ministry of Climate Change Adaptation, Meteorology and Geo-hazards, Energy, Environment and Disaster Management (MCCA) utilise criteria to also provide technical expertise to assist Department of Finance and Treasury (DoFT) in correctly identifying and coding climate change-related finances for better tracking of these flows through the existing Chart of Accounts.**
6. Increase training in technical aspects of climate change to sub-national institutions, as well as promote Community Disaster and Climate Change Committees (CDCCCs) as key structures for capturing traditional knowledge relevant to preparedness and climate change adaptation.
7. Look at the options for increasing representation of sub-national representatives on the current or newly established NAB technical working groups.
8. Look at opportunities for undertaking readiness programs for local NGOs and Civil Society Organisations (CSOs), to ensure these institutions are also better able to manage and absorb climate change financing **as well as to act as custodians to demand for accountability.**
9. Longer term, consideration of other mechanisms to ensure funds are channeled to the community level, including small grants arrangements, would also be recommended.
10. Strengthen International Non-Governmental Organisation (INGO)/NGO and private sector engagement with the NAB or within the NAB's technical working groups, to further the dialogue and exchange of information between the Government and these partners.
11. Vanuatu to consider an NIE accreditation model that utilises the capacity and processes of a number of entities. This would require nominating either MCCA or MFEM as the entity, but developing processes and working arrangements (through a Memo of Understanding (MoU) or similar) with other key entities.
12. If MCCA is put forward as the recommended entity for accreditation, it is recommended that the National Designated Authority (NDA) function be shifted to another entity (possibly DSPPAC).
13. MCCA and MFEM to consider the GCF self-assessment tool as an immediate priority to determine current progress towards NIE accreditation and outstanding areas that needs to be addressed.
14. Consider updating or revising the Climate Finance Roadmap with dedicated actions for achieving accreditation, as per the results of the above GCF self-assessment.
15. Once a nominated entity is chosen, request assistance through GCF for an institutional gap assessment and action plan.

V. Human Capacity Analysis

1. Capacity building **(long term and embedded programme to avoid ad-hoc and piecemeal approach)** and supplementation for climate change should remain a national priority for Vanuatu. It is recommended that all future climate change projects accessed by Vanuatu must have an embedded component related to capacity development and transfer of knowledge **(compliment technical with often neglected basic financial and business skills)**. This can also be considered for future assistance of climate change-related incubator posts within ministries to ensure the position is absorbed into a government agency. This will ensure external consultants provide an added value to Government.

2. MCCA to strengthen its staffing capacity in the NAB Secretariat so the Project Management Unit (PMU) is able to efficiently and effectively coordinate, share information, monitor and evaluate projects and develop project pipelines. The operationalisation of the proposed Department of Climate Change will enhance this.
3. MCCA to develop a strategy on how to fully maximise and coordinate the range of technical expertise that sit in different line ministries, building on the NAB mechanism.
4. The NAB Secretariat to coordinate with the PMU, to serve as a 'one stop' for capacity-building training sessions and support to line ministries, provincial administrators and community representatives on grant writing for climate change funding **and to guide the development of high quality national development proposals. (understand the Theory of Change approach for long term impact).**
5. Recognise and support the role of NGOs and private sectors in providing capacity-building initiatives to build the readiness of communities to access and absorb climate change project resources, and to raise on-going awareness.
6. Fast-track the Public Service Commission (PSC) reforms to provide additional incentives for public servants to attract the best expertise and retain existing human capacity.
7. Donors that provide direct scholarship opportunities to Vanuatu citizens must coordinate closely with the Ministry of Education and the Public Service Commission to ensure their support is tracked and aligned to the human capacity needs of the Government of Vanuatu. Donors are also encouraged to include climate change and disaster resilience as part of their scholarship priorities.

VI. Gender and Social Inclusion Analysis

1. Strengthen representation at regional and international high-level forums on Gender and Social Inclusion (GSI) and CCDRR by aligning and linking objectives to the NSDP and existing corporate plans of government departments to track achievements over time for future reporting.
2. Continue strengthening of partnerships between key government agencies and non-government stakeholders to re-enforce commitments to the implementation of national plans and policies to support GSI in CCDRR and to ensure clear accountability.
3. Department of Women Affairs (DWA) to coordinate the link between government agencies to maximise on available resources but to also align to achieving government priority policies and action plans on GSI integration in CCDRR. This would allow for a more streamlined view of areas that require attention to better target resources but also to improve compliance with GSI criteria to access climate change finance.
4. Support the development of specific indicators to align the GSI action plans for CCDRR and the Gender Policy Action Plan to be included in the M&E framework for the NSDP.
5. Support DWA in the development of the strategic policy area 'Building a Foundation for Gender Mainstreaming' to allow for a national 'pool of experts' to undertake gender analysis and integrate GSI to all national planning and implementation processes.
6. The DWA to strengthen partnership with the consortium of partners, such as the Cluster System and Vanuatu Climate Action Network (VCAN) to pool resources for joint implementation of the GSI action plans of the CCDRR Policy.
7. Support DWA's role in Gender Mainstreaming between key government agencies, such as DWA, DSPPAC of PMO, MCCA and NAB with the consortium of partners.
8. Develop a guideline to support gender mainstreaming through the Gender Responsive Planning and Budgeting process in CCDRR
9. Establish a systemic process to collect, evaluate and report on GSI benefits/impacts recorded through project implementation. This would require the active role of the Prime Minister's Office in collaboration with DWA, MCCA and NAB to coordinate and administer this process to collect, assess and report on GSI information in CCDRR.
10. The NAB approval process for proposals in CCDRR to include a GSI criteria for implementation to be part of the design and estimated budget. A succession plan should also be included on skills transfer to local counterparts for sustainability purposes of project outcomes.
11. The M&E reporting template on projects submitted by agencies to DSPPAC on progress of

projects to also include a section to report back on status of GSI benefits/impacts from the project.

12. The NAB portal to be used more effectively and efficiently to diffuse information on best practices and knowledge products in support of GSI integration. This can increase awareness for coordination and resource pooling.

VII. Development Effectiveness Analysis

1. The Government should maintain its leadership on climate change at the national, regional and international levels. Where necessary, speeches by Director Generals, Ministers, the Honourable Prime Minister and H.E the President should have some reference to climate change.
2. There will be a growing influx of new players and non-traditional partners wanting to support Vanuatu on Climate Change and Disaster Risk Management (CCDRM) initiatives. Continuing the national Climate Finance Forum between the Government and its partners, every two years, will strengthen coordination between the Government and its donors on climate change.
3. All climate change support should be communicated to the NAB Secretariat and DSPPAC to ensure tracking and reporting. A streamlined reporting template will be needed and should be used by both NAB Secretariat and DSPPAC.
4. A donor-to-donor coordination mechanism will be useful to reduce duplication for small grants projects to communities or provincial governments.
5. Government must remain flexible and not limit its options on the kind of instruments that it can access for climate change. Building the capacity of government officials to write project proposals will be vital.
6. Due to capacity limitations, partners and regional organisations that wish to engage with the Government must consider joint missions and approaches. Missions should not be approved during critical periods of budget planning.
7. Government to enhance the M&E capacity of DSPPAC and line ministries to be able to measure, process and report on the tangible impacts and outcomes of all climate change support.
8. The Ministry of Climate Change Adaptation, in particular, the GCF National Designated Authority to engage with the private sector entities to raise awareness on access procedures for the GCF private sector facility.

Summary of the National and Sectoral Climate Policies, Acts and Regulations

A. Climate change acts, plans, and national targets

The following section provides an overview of the key climate change related national plans and frameworks.

The Environmental Management and Conservation Act No. 12 as amended by The Environmental Management and Conservation (Amendment) Act No. 28 (2011): The initial 2002 Act, which was amended in 2011, is the most important environmental legislation in the country. It, particularly, addresses regulations in the four areas: (i) biodiversity; (ii) environmental impact assessments; (iii) administration; (iv) bio-prospecting laws and community conservation areas (CCAs). The initial act was revised in 2011 (into the Amendment Act No. 28). The revised act directly addresses the climate change related challenges and also provides a definition of the term, reflecting common IPCC terminology (p. 3): "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods". It, furthermore, requests that climate change adaptation and mitigation issues need to be considered during decision-making and policy formulations associated to the terms of the Act. It moreover demands the inclusion of a climate change database in the Environmental Registry. The Amendment Act also makes a direct reference to Vanuatu's obligations under the UNFCCC, for both adaptation and mitigation, and enables the Minister to enact regulations to meet the country's obligations.

Forestry Rights Registration and Timber Harvest Guarantee Act No. 28 (2000): This is another important act in perspective to climate change mitigation in Vanuatu. The Act regulates the classification, registration, transfer, and granting of forestry rights. The Act also defines a carbon sequestration right as: "a right conferred by agreement or otherwise to the legal, commercial or other benefit (whether present or future) of carbon sequestration by any existing or future tree or forest on the land". The initial Act was amended in 2012 to include some regulations on sandalwood products and is now referred to as the Forestry Rights Registration and Timber Harvest Guarantee (Amendment) Act No. 8.

Intended Nationally Determined Contributions (INDC): INDC (now National Determined Contributions - NDC), lays out adaptation and mitigation strategies to increase climate resilience (see Table 4). The Government of Vanuatu highlights that it belongs to the Small Island Developing States, which recognised by the UNFCCC and IPCCC as most vulnerable countries towards climate change impacts, while having contributed marginally to global greenhouse gas emissions. Regardless, Vanuatu's NDC sets aims to achieve an ambitious mitigation contribution with a transitioning to close to 100% renewable energy in the electricity sector by 2030. This contribution would reduce emissions in the energy sector by 72Gg by 2030. Emissions in this sector were around 130 Gg in 2010 but are expected to rise to 240 Gg by 2030 (3% per annum). Furthermore, it aims to reduce emissions in all sectors, except agriculture and forestry, by 15%. The forestry sector mitigation will be attended to as part of the existing REDD+ program and the mitigation in the agriculture sector will depend on cooperative programs with other nations. This contribution is based on using the best available data.

The outlined adaptation targets in the NDC resemble the adaptation priorities and related project ideas, outlined in Vanuatu's NAPA (2007) and Vanuatu Climate Change and Disaster Risk Reduction Policy 2016 – 2030

National Sustainable Development Plan (NSDP) 2016 - 2030[118]: Vanuatu's NSDP, also referred to as "Vanuatu 2030: The People's Plan", serves as the country's highest-level policy framework. Developed through a comprehensive three-year consultative process across the whole country, the NSDP provides an inclusive and holistic vision of a stable, sustainable, and prosperous for Vanuatu. The ownership of the plan by the people was a leading principal for the development of the plan. The Prime Minister of Vanuatu, Charlot Salwai, noted that "this is the first time Government is consulting with communities in its national development plans."

The plan builds on its predecessor development plan, the Priority Action Agenda, which predominantly focused on economic development. The NSDP follows a more holistic approach and acknowledges the importance of a balance the 'three pillars' of sustainable development, encompassing society, environment, and the economy. In line with the three pillars, the plan outlines 15 national sustainable development goals:

Society pillar – to maintain a vibrant cultural identity underpinning a peaceful, just and inclusive society that is supported by responsive and capable institutions, delivering quality services to all citizens.

i. Vibrant cultural identity;
ii. Quality education
iii. Quality health care
iv. Social inclusion
v. Security, peace, and justice
vi. Strong and effective institutions

Environment pillar – to ensure a pristine natural environment on land and at sea that continues to serve our food, cultural, economic and ecological needs, and enhance resilience and adaptive capacity to climate change and natural disasters.

i. Food and nutrition security
ii. Blue-green economic growth
iii. Climate and disaster resilience
iv. Natural resource management
v. Ecosystems and biodiversity

Economic pillar – to ensure a stable economy based on equitable, sustainable growth that creates jobs and income earning opportunities accessible to all people in rural and urban areas.

i. Stable and equitable growth
ii. Improve infrastructure
iii. Strengthen rural communities
iv. Create jobs and business opportunities

The third target of the environment pillar (ENV 3) addresses the climate change links stating that they seek to build "A strong and resilient nation in the face of climate change and disaster risks posed by natural and man-made hazards". In addition to the NDSP, the government of Vanuatu published a monitoring and evaluation framework in which they outline on how they want to measure progress towards reaching the development goals. The document provides information on the baseline situation of each indicator and the aspired measurable target by 2030. Some objectives for the ENV 3 goal are, for example a 100% mainstreaming of CC and disaster risks in public policies, budgets, and legislation by 2030, as well as a 100% coverage of all provinces by a multi-hazard warning system.

National Adaptation Programme of Action (NAPA) 2007: The objective of the NAPA was to develop a country-wide programme of immediate and urgent project-based adaptation activities in priority sectors, in order to address the current and anticipated adverse effects of climate change, including extreme events. Vanuatu's NAPA proposed five priority projects in the fields: (i) agriculture and food security (preservation/ processing/ marketing, modern & traditional practices, bartering); (ii) water management policies/ programmes (including rainwater harvesting); (iii) sustainable tourism; (iv)

118 https://www.gov.vu/attachments/article/26/Vanuatu2030-EN-FINAL-sf.pdf

community based marine resource management programmes (modern & traditional, aqua-culture); and (v) sustainable forestry management. For the forestry sector, the NAPA highlights the importance of forests to local communities and for their significance to the country's cultural heritage.

National Adaptation Plan (NAP): A GCF proposal has been developed by UNEP to develop the NAP for Vanuatu for a grant funding of USD 3 million. This proposal is added as part of the pipeline A in Annex XY.

Vanuatu National Energy Roadmap (2013): The roadmap, developed by the Department of Energy proposes a long-term development plan for the energy sector to achieve the overall vision: "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 roadmap sets tangible targets (by 2015, 2020, or 2030) for five energy sector priorities (some targets included in several priorities were only included once in this summary):

i. **Access** – Access to secure, reliable and affordable electricity for all citizens by 2030.
   - Within concession areas; 75% household connected by 2015, 90% by 2020 and 100% by 2030;
   - Close to concession areas; 33% household connected by 2015, 90% by 2020 and 100% by 2030
   - Off-grid grid areas; 100% households having access to modern electricity via individual homes systems and basic power products by 2020; and
   - Public Institutions; 90% having access by 2015 and 100% by 2020.

ii. **Petroleum Supply** - Reliable, secure and affordable petroleum supply throughout Vanuatu
   - Reduce the cost of distributing all petroleum products in Vanuatu by 5% in 2015 and 10% in 2020;
   - Improvements in Health, Safety and Environmental Standards. All Operators to meet new standards by 2020.

iii. **Affordability** - A more affordable and low cost of energy services in Vanuatu.
   - 40% renewable energy generation by 2015 and 65% by 2020.

iv. **Energy Security** - An energy secure Vanuatu at all times.
   - 10% improvement in diesel efficiency by 2015 and 20% by 2020.

v. **Climate Change** - Mitigating climate change through renewable energy and energy efficiency.
   - Comprehensive data collection established to set realistic targets and begin energy efficiency initiatives.

Priorities and Action Agenda 2006-2015: The Action Agenda focuses on achieving the national vision of "an educated, healthy and wealthy Vanuatu". It outlines overall development aspirations for Vanuatu and identifies seven areas of priority: (i) private sector development and employment creation; (ii) macroeconomic Stability and Equitable Growth; (iii) good governance and public-sector reform; (iv) primary sector development (natural resources and the environment); (v) provision of better basic services, especially in rural areas; (vi) education and human resource development; and (vii) economic infrastructure and support services. Climate change is identified as a challenge under the priority (iv), primary sector development. The Agenda notes that insufficient resources create a barrier to the implementation of the Environmental Management and Conservation Act. The agenda, further, stresses the need to mainstream climate change issues into National Development Plans. **These old priorities and action agendas are now replaced by the new National Sustainable Development Plan (2017 to 2030).**

Vanuatu Strategic Tourism Action Plan 2014-2018: This strategic plan provides a high-level analysis of and guidance to tourism in Vanuatu with the vision that "tourism celebrates Vanuatu's culture and environment, empowers its people and captivates its visitors throughout its islands". The plan identifies 5 key priorities and incorporates an action plan that outlines 44 actions categorized into 6 key areas. Climate change is acknowledged in the plan, but specific risks posed to tourism are not described in detail and climate change issues do not appear to be fully mainstreamed. Climate change is mentioned in one proposed activity, namely to "develop and implement a Sustainable Tourism Development Policy that includes Environmental Management, Climate Change, Eco-Tourism Cultural Tourism and managing social impacts". **The Ministry of Trade has developed a new proposal to update this action plan and to develop the provincial sustainable development plan as detailed in pipeline A in Annex XY.**

B. Policy and regulatory framework

The following section provides an overview about key policies and regulatory frameworks of importance to climate change response in Vanuatu.

Vanuatu Climate Change and Disaster Risk Reduction Policy 2016 - 2030: This flagship policy document is the key strategy of Vanuatu to cope with and mitigate risks, including climate change induced risks. It was jointly developed by the government and the Secretariat of the Pacific Community in 2015. The strategic Goal outlined in the document is to achieve 'resilient development', which is further described to incorporate "activities that enable and strengthen capacities to absorb and quickly bounce back from climate and/or disaster shocks and stresses". This overarching goal intents to drive planning, decision-making, programming and project delivery across government and its partners.

The document consists of a range of measures based on sustainability, accountability, collaboration, equity, community focus, and innovation. It addresses the six strategic priorities of: (i) governance; (ii) finance; (iii) knowledge and information; (iv) climate change adaptation and risk reduction; (v) low carbon development; and (iv) response and recovery.

The objectives of these strategic priorities, which are further specified by proposed actions in the document, are:

i. to enhance strategic frameworks and institutional structures to deliver effective climate change and disaster risk reduction initiatives in a coordinated, integrated and complementary manner;
ii. to ensure that adequate resourcing is available for climate change and disaster risk reduction activities, build financial capacity to manage resources, and enable access to increased international funding;
iii. to meet stakeholders' needs for climate change and disaster risk knowledge and information, and improve communication-related interventions that empower appropriate climate and disaster risk management actions;
iv. to integrate and strengthen climate change adaptation and disaster risk reduction initiatives across national, provincial and local levels, and across all sectors;
v. to expand sustainable development opportunities that reduce carbon emissions and simultaneously contribute to resilient livelihoods and wellbeing; and
vi. to strengthen and build capacity in the areas of disaster preparedness, planning, response and recovery.

The document, further, outlines options and pledges to enable a gender and socially inclusive process in delivering the outlined actions and reaching the objectives. Despite the long initial time-frame of the plan until 2030, it is perceived as being a living document with a periodic review every three to five years in order to reflect changing framework conditions and developments.

Vanuatu Framework for Climate Services (VFCS) (2016): The framework was developed by the Vanuatu Meteorology and Geo-Hazards Department, under the Ministry of Climate Change. The goal of the VFCS is to ensure climate services for Vanuatu are of world-class standard, sustainable, are reaching all end-users, and are effectively helping people manage and adapt to climate variability and change in Vanuatu. The framework is consistent with Vanuatu's NAPA, Vanuatu's Climate Change and Disaster Risk Reduction Policy 2016 to 2030, and the Pacific Islands Meteorological Strategy.

The VFCS maps out information requirements and users of climate services, and highlights gaps and needs that should addressed in the short- and medium term. To address these identified gaps, the framework proposes a list of 18 recommended activities (see Table 5). It, further, proposes a roadmap on when each measure could be implemented, prioritises them, and provides an estimated required budget.

Recommended prioritised activities of the Vanuatu Framework for Climate Services with proposed budget			
Recommended activities	**Priority**	**Proposed time**	**Expected budget (US$)**
1. Develop and carry out a survey of observers and rainfall collectors in order to identify their additional training requirements and opportunities for capacity building. In addition, determine whether observations could be rationalised (e.g. are data on cloud cover and cloud type useful and therefore required?).	Medium	2018	40,000
2. Regular surveys of principal users' capabilities and needs (pertaining to climate information) should be performed, perhaps every three to five years.	Low	2017, 2020, 2023	60,000
3. All Government Strategic Policies should be reviewed and if necessary revised to include strategies and actions linked to the provision of climate information from VMGD. A follow-up recommendation is the establishment if necessary of inter-departmental Memoranda of Agreement (MoAs) and the integration of climate information into Standard Operating Procedures (SOPs), Service Level Agreements (SLAs) and extension officer job descriptions.	High	2017-2023	160,000
4. Provincial Government should work with the VMGD to tailor climate information so that it best meets their needs and directly informs their action and response plans.	High	2017-2020	120,000
5. VMGD to hold a 'Climate and Business' workshop hosted by the Vanuatu Chamber of Commerce and Industry to develop climate services for Vanuatu business owners.	High	2017	60,000
6. VMGD should work with key sectors and Provincial Government to develop tailored provincial Climate Watches. These should be accompanied by, where possible, suggested actions that are tailored to the capacity of the end-user. Suggested actions will be informed by ongoing stakeholder engagement and incorporate traditional knowledge where appropriate.	High	2017-2020	200,000
7. The Vanuatu Monthly Climate Summary (VMCS) bulletin should be enhanced to make more use of observed climate information and products, and include impact assessments.	Medium	2018-2019	120,000
8. Baseline and current climate maps should be produced.	Medium	2019-2020	120,000
9. As part of an operational Climate Early Warning System (CLEWS), tailored climate bulletins issued to specific end users and mobile phone apps should be developed. All products and the VMGD website need to be consistently branded.	High	2017-2020	200,000
10. VMGD should perform an assessment of the optimal use of the existing networks for the dissemination of climate information to Provincial communities.	High	2017	80,000
11. Climate Briefing attendees should be asked to complete a questionnaire on how they use and disseminate the information they receive at the Briefing.	Low	2017, 2020, 2023	40,000
12. A communications strategy and action plan should be developed to formalise the use of the existing networks.	Medium	2019-2020	120,000
13. VMGD to consider options for pre-recorded broadcasts of up-to-date climate information using TV and a phone messaging system.	Low	2018-2019	80,000
14. Invite officials from higher levels of government to attend annual NCOFs to discuss policies for strengthening the ability and authority for agencies to act on the climate information provided.	High	2017	-
15. Talk to the Pacific International Training Desk (PITD) about the potential for developing training courses for the provision and interpretation of climate information.	Low	2018	-
16. Feedback on the use and usefulness of climate information should be encouraged, particularly with respect to any community-scale risk-reduction activities that have occurred as a result of receiving the information.	Medium	2017, 2020, 2023	80,000
17. In addition to RECOMMENDATION 3, consider establishing MoUs/MoAs, SLAs and SOPs with all agencies in the climate information network.	High	2017-2023	120,000
18. Consider a top-down Ministerial-led model for initiating standard operating procedures and enabling the authority for actions.	High	2017-2019	120,000

Box 1: Climate Information Services for Resilient Development in Vanuatu. (Total fund = US$ 26,767,947 [GCG Grant = US$ 22,953,000 (Grant) + US$ $132,947 (GCF Readiness support) and co-funding of US$ 3,682,000).

This GCF approved project has been developed on the basis of the Vanuatu Framework for Metrological Services (and the Global Framework for Metrological Services) and validated through a series of in-country consultations at national, provincial and sectorial levels. This 5 years project (2017 to 2021) us being implemented by VMGD in partnership with SPREP to support the paradigm shift to strengthen and apply Climate Information Services in five targeted development sectors: tourism; agriculture; infrastructure; water and fisheries. The project seeks to overcome information and knowledge gaps and address the priorities of target beneficiaries at national, provincial and local community levels across the five priority sectors through: i) Enhanced capacity and capability of national development agents, to understand, access and apply CIS; ii) Enhanced CIS communications, knowledge products, tools, and resources for practical application to development processes; iii) Enhanced reliability, functionality, utility and timeliness of underlying CIS delivery systems and data collection infrastructure; and iv) Enhanced scientific data, information and knowledge of past, present and future climate to facilitate innovated and resilient development. The project is expected to directly enhance the resilience of 60% of the population of Vanuatu, with 30% of the population benefitting directly through delivery of the project activities.

Proposals in the pipeline that require climate information could be solved and absorbed into the current GCF-funded CIS project i.e. CIS could adjust the project to meet the needs identified in the proposal e.g. i) Digitalised information and farmer production management systems for the scaling up long-term food security through food production and storage programme for post-disaster response and resilience in Vanuatu (e.g. strategic agro-processing) and ii) Enhancing Early Warning Systems to Build Greater Resilience to Hydrological and Meteorological Hazards in Pacific Small Island Developing States (SIDS).

This once again highlights the value of the GCF CP to laying out clearly the needs of Vanuatu and how other on-going or planned initiatives could be adjusted to meet these needs to avoid overlaps and duplications.

Vanuatu Forest Policy (2013-2023): Guided by Vanuatu's Department of Forestry, this Forest Policy 2013-2023 was developed building up on and updating the 1997 National Forestry Policy. The policy was developed in an integrative manner, involving a range of stakeholders in its development. The Forest Policy also draws clear linkages towards climate change mitigation and adaptation through presenting clear directives and implementation strategies. The policy, for example, targets to: "Integrate climate change adaptation issues into forestry sector planning and activities". The strategies outlined to achieve this directive include:

- Develop forestry-related climate change 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.
- Identify and seek financing for novel and promising forestry adaptation projects and programs.
- 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.
- Develop and regularly update a database of climate change adaptation information in the

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

REDD+: The SPC-GIZ Regional REDD+ Project has supported the Department of Forests to design and train its offices on a new forest inventory protocol, which includes climate adaptation assessments. The program has also supported the finalization of the Vanuatu REDD+ Readiness proposal, and worked to assess the climate adaptation and mitigation costs of several possible REDD+ sites on the island of Santo. **A REDD+ proposal has been put forward by the Department of Forestry under "Increasing climate change resilience of Vanuatu by implementing forest sector mitigation (REDD+)" in pipeline A in Annex 4.6.**

National Water Strategy 2008-2018: The National Water Strategy calls for sustainable and equitable access to safe water and sanitation for the people of Vanuatu 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. **At the request of Department of Water Resources, UNICEF has developed a Simplified Approval Process proposal on "Enhancing Adaptation and Community Resilience through Water Security Planning and Supply System Up-scaling' that is included in pipeline A in Annex 4.6.**

Vanuatu National Fisheries Sector Policy 2016-2031: This policy provides a high-level framework to fulfil the vision to promote a "healthy and sustainable fisheries sector for the long term economic, social and food security for the current and future generations of the Republic of Vanuatu. One (objective Nr.5) out of eight identified priority objectives of the policy address "climate change and disaster risk reduction" and intents to investigate the impacts of environmental and climate change on fisheries resources and habitats. To achieve this objective the policy outlines three strategic actions for the fishery sector in the field of or relevant to climate change adaptation: (i) undertake baseline assessments marine environment for long term climate change monitoring; (ii) implement mitigation and adaptation and disaster risk reduction activities in readiness for natural disasters; and (iii) strengthen community-based management through co-operative approach. **Department of Fisheries at the MALFFB has proposed a project on "Scaling up of Climate Resilient Fisheries best practices (e.g. FADs) and businesses to enhance the resilience of vulnerable fisher folks in Vanuatu" under pipeline A in Annex 4.6.**

National Ocean Policy 2016: Vanuatu's maritime jurisdiction comprises 98% of the nation and includes living and non-living marine resources that contribute significantly to the country's economy, that are fundamental to the wellbeing of its citizen. This policy acknowledges the nations dependency on its ocean and intents "to conserve and sustain a healthy and wealthy ocean for the people and culture of Vanuatu, today and tomorrow". The policy outlines actions for six thematic areas, namely: (i) marine spatial planning and marine protected areas; (ii) fisheries management; (iii) marine tourism; (iv) marine transport; (v) deep sea mining; (vi) climate change and disaster risk reduction. The actions identified under the last category six on climate change include to: (i) promote and support efficient, effective Climate Change & Disaster Risk Reduction efforts using Ecosystem-based Approaches; (ii) facilitate and enhance appropriate measures to manage Climate Change & Disaster Risk Reduction knowledge & information; and (iii) promote and support an efficient, effective Low Carbon & Mitigation Approaches & Strategies to ensure safety, security and protection of the marine environment.

Very recently, in June 2018, the Department of Environmental Protection and Conservation (DEPC) published the Vanuatu National Biodiversity Strategy and Action Plan (NBSAP). This strategy and action plan is based on an impressive survey recording over 600 potential Community Conservation Areas (CCAs). A second round of prioritization, conducted by DEPC, led to build a short list of 113 priority areas. This achievement was completed while the MACBIO regional project was finishing public consultations related to MACBIO regional bioregion survey and biophysically special unique marine areas survey. This promising business as usual scenario presents significant opportunities for further GCF investment to expand Vanuatu's protected area coverage, the effectiveness of its management and its longer term sustainability. Most notably there is an opportunity to provide the additional technical resources required to support a strategic shift towards a more structured ecologically representative protected area system

across the entire archipelago, with particular and new opportunities in offshore marine areas e.g. Ensuring the sustainability of traditional kastom conservation and management efforts; The establishment of coral reef monitoring; Greater protection of Vanuatu's ocean; Improved capacity and collaboration at all levels; Improved management effectiveness and financial sustainability; Improvement of information and evidence-based decision making. **The Ministry of Foreign Affairs has proposed that hydrographic surveys should be included in the proposal "Safe havens for ships during cyclones and disaster (e.g. haul out facilities + cyclone moorings throughout islands and hydrographic survey)" under pipeline B in Annex 4.6.**

Agriculture Sector Policy 2015-2030: This agriculture sector policy is in line with other key planning frameworks and aspires that: "The nation's agricultural resources are managed in an integrated and sustainable manner to provide food and improved incomes as well as contribute to environmental and social services to enhance wellbeing of all people in Vanuatu." The policy outlines clear linkages of other key economic sectors, such as tourism and gives directives under 13 thematic areas – one of which is 'climate variability, climate change, and disaster risk reduction'. The climate change related directive is to "mainstream climate variability, climate change and disaster risk reduction using adaptation and mitigation strategies in all agriculture initiatives and developments." **Director of Agriculture under the MALFFB has proposed a programme to "Scale up Climate Resilient Agriculture including diversified farming best practices and business models to enhance the resilience of the vulnerable farmers in Vanuatu" in under pipeline A in Annex 4.6.**

National Livestock Policy 2015-2030: This Policy framework will guide the development of the livestock sector to realise the vision that "the livestock sector is modern, sustainably managed to 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 policy identifies a lack of knowledge of climate change and adaptation options a constraint and dedicates chapter 8 of the policy to outline desired progress in the field of climate change adaptation and disaster reduction for the livestock sectors. **Director of Livestock under the MALFFB has proposed a programme to "Scale up Climate Resilient Livestock best practices and business models to enhance the resilience of the vulnerable farmers in Vanuatu" in under pipeline A in Annex 4.6.**

Gudfala Kakae Policy 2017-2030: This policy intents to promote a healthy and locally sourced nutrition/food supply for Vanuatu's citizens. To influence the production and availability of aelon kakae (island food) in Vanuatu, the policy comprises six policy objectives, namely: (i) improve access to affordable, nutritious diet through a sustained increase in production of aelon kakae; (ii) promote aelon kakae as a key part of a sustainable nutritionally balanced diet; (iii) improved access to nutritious, convenient aelon kakae through increased access to appropriate technology, knowledge and skills in food production, preservation, marketing, and storage; (iv) facilitate a reduction in consumption of food imports contributing to poor health outcomes; (v) improve resilience of agricultural production systems through the adoption of sustainable and climate smart agricultural practices; and (vi) improved multi-sector co-ordination, implementation and monitoring of action to address food and nutrition security, and food safety. **It is crucial that all bilateral and multilateral proposals (e.g. GCF and Adaptation, GEF) that seek to strengthen the food and nutrition security in Vanuatu must seek to increase the business opportunities to promote and scale up the concept of aelon kakae by identifying, adopting, promoting and enhancing the traditional kastam knowledge in food, housing and cultural heritage to strengthen resilience without disrupting and alienating traditional values and culture.**

National Environment Policy and Implementation Plan (NEPIP) 2016–2030: The NEPIP is an overarching policy for the sustainable conservation, development and management of the environment of Vanuatu, and aims to: i) provide for the co-ordination of related activities; ii) promote the environmentally sound and safe management and conservation of the natural resources and environment of Vanuatu; and iii) outline the operational matters necessary to implement i) and ii) above. The NEPIP outlines 5 key goals of which one is directed to climate change: "[to build] a strong and resilient nation in the face of climate change and disaster risks posed by natural and man-made hazards." The associated policy objective is to support the implementation of 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016 – 2030'.

National Waste Management and Pollution Control Strategy and Implementation Plan 2016-2020: In line with other development plans, this waste management and pollution strategy intents to promote "an environmentally sustainable Vanuatu, in which all types of wastes generated are reduced, collected, reused, recycled and treated by environmentally sound technologies suited to local conditions and waste going to landfill is minimized to the lowest possible amount." To achieve this, the strategy outlines nine objectives under seven thematic areas. **The GCF CP offers an opportunity to translate the Waste Management strategy and plan into tangible actions on the ground through the development of a Wastewater Masterplan with standards supported by a transparent compliance system and updated testing laboratory for effluent monitoring and enforcement.**

National Gender Equality Strategy 2015-2019: The mission of the policy is "to promote equal rights, opportunities and responsibilities among men and women and to eliminate all forms of discrimination and violence against women and girls." The strategy clearly highlights in one paragraph the differentiated vulnerability of women to climate change due to the fact that more women than men (49% and 41% respectively) 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. **The GCF CP will ensure that the climate solutions proposed are demand driven, sensitive and responsive to the needs of the women, youth and disadvantaged group where they are not considered only as beneficiaries but that their full participation are deemed as critical to the successful implementation of the climate solutions.**

Biosecurity Policy: The Mission of the National Biosecurity Policy is: "To protect Vanuatu's borders against the introduction and spread of foreign and invasive pests and diseases that could affect crops, animals, humans and the environment and, to enhance trade of Vanuatu's products". The policy gives a list of concrete prioritized actions categorized into 16 thematic areas, of which one is climate change. The directive for the thematic area of climate change is: "a collaborative effort by all stakeholders is required to mitigate against damages caused by pests due to pest-favoured climatic conditions." **This potential risk will be considered under the Environmental and Social safeguards in the design of funding proposals for the GCF CP.**

GCF Readiness Activities

GCF Readiness Activities	Documents / links
1) Strategic Frameworks, country programmes & pipeline development	
Country programme survey was launched in September 2017, from which public opinions were collected with regards to Vanuatu GCF priorities	Survey: http://bit.ly/2eQucPK
On-going stakeholder engagement in pipeline project development	Pipeline of Ideas: https://drive.google.com/open?id=1DFr8gFMk8ddkrZeQTblclRWW3ajEZamf
2) National stakeholders engagement processes	
a) Workshops & consultation	
GCF Public Forum (March 2017)	Workshop documents: http://nab.vu/event/public-forum-green-climate-fund
GCF Readiness Programme Summit (September 2017)	Workshop documents: http://nab.vu/event/vanuatu-green-climate-fund-readiness-program-summit
GCF Readiness Workshop on Standard Operating Procedure for Project Appraisal Process (November 2017)	http://nab.vu/event/gcf-readiness-programme-workshop-sop-project-appraisal
GCF Readiness Workshop on Vulnerability Assessment Framework (December 2017)	Workshop documents: http://nab.vu/event/gcf-readiness-programme-workshop-vulnerability-assessment-framework
Private Sector Tradeshow (2018)	Tradeshow Report available at this link: http://www.nab.vu/event/vanuatu-private-sector-climate-finance-tradeshow Link to the Tradeshow Highlights Video: https://youtu.be/LgKtR3guUiw Link to the Tradeshow Photos & Presentations: https://drive.google.com/open?id=11dPnsLH8NDEhNOnSjpe9U0hLeAML1v-K
b) Engagement mediums / Awareness materials	
CCDRR Finance tab on the NAB portal has been revised. Attempt to be a one stop-shop for stakeholders interested in finding out more on grant sources and CCDRR finance in Vanuatu	CCDRR Finance Tab: http://nab.vu/climatefinance
Several informational materials developed	GCF Booklet: http://nab.vu/document/vanuatu-and-green-climate-fund-information-booklet List of Accredited Entities: http://www.nab.vu/document/green-climate-fund-accredited-entities-vanuatu-and-pacific-region List of Grant Sources: http://www.nab.vu/document/directory-climate-finance-sources-vanuatu CCDRR Matrix: http://www.nab.vu/document/policy-search-tool-beta
NAB portal guide for stakeholders is currently being developed and is in draft form. This is to support CCDRR stakeholders in supporting information sharing, increasing information access on CCDRR on the national CCDRR portal	https://www.nab.vu/node/26814

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Prioritised Pipeline of Ideas A

Pipeline A signifies proposal ideas that have i) been fully endorsed by NAB and approved by the Council of Ministers; ii) draft concept notes already developed; iii) project ideas could be implemented between 2019 to 2020; and iv) has identified the appropriate implementing partners.

Note on Proposal idea ID code > "AA1" – first "A" denotes pipeline A, second "A" denotes Adaptation, "1" project number. A 'tick' in the stakeholder column denotes playing an active and meaningful role in the design, implementation and monitoring of the proposal idea.

ID no.	Pipeline of Ideas A for Potential adaptation and mitigation proposals	Sector	GCF Grant (US$)	PPF (US$)	Public	Private sector	CSO	Adaptation				Mitigation				Status
								Livelihoods of people and communities	Health, food and water security	Infrastructure and built environment	Ecosystems and ecosystem services	Energy generation and access	Transport	Building cities, industries and appliances	Forest and Land use	
AA1	Enhancing Adaptation and Community Resilience through Water Security Planning and Supply System Upscalling	Water security	10,000,000	500,000	1	1	1	1	1	1						SAP template already developed by UNICEF. To be aligned with other projects
AA2	Vanuatu National Community-based Climate Change Adaptation Project	Community based adaptation	30,000,000	500,000	1	1	1	1	1	1						SAP template already developed by UNICEF. To be aligned with other projects

AA3	Scaling up Climate Resilient Agriculture including diversified farming best practices and business models to enhance the resilience of the vulnerable farmers in Vanuatu	Agriculture	10,000,000	-	1	1	1	1	1		1				1	Idea - potential for SAP. To be aligned with other projects.
AA4	Scaling up Climate Resilient Livestock best practices and businesses to enhance the resilience of vulnerable farmers in Vanuatu	Livestock	10,000,000	-	1	1		1	1							Idea - could be combined with CRA above
AA4	Scaling up Climate Resilient Livestock best practices and businesses to enhance the resilience of vulnerable farmers in Vanuatu	Livestock	10,000,000	-	1	1		1	1							Idea - could be combined with CRA above
AA4	Scaling up Climate Resilient Livestock best practices and businesses to enhance the resilience of vulnerable farmers in Vanuatu	Livestock	10,000,000	-	1	1		1	1							Idea - could be combined with CRA above
AA5	Building resilience through the prevention of climate-induced diseases: Assessing and addressing economic burden and promoting adaptation strategies	Health	10,000,000	-	1		1		1							Idea. To be aligned with other projects.
AA6	Digitalised information and farmer production management systems for the scaling up long-term food security through food production and storage programme for post-disaster response and resilience in Vanuatu (e.g. strategic agro-processing).	Farm production data and food security	10,000,000	0	1	1	1	1	1		1					Idea - could be absorbed by Climate Information System for Resilient Development (CISRD) project. NZAID is also funding a project with Department of Agriculture to develop a whole-of-farming farmer support system.
AA7	Climate Change Educational transformation including gender responsive training for K-13 teachers on climate change, curriculum upscaling (inc innovative financial and business models for adaptation/mitigation), TVET and tertiary opportunities	Education	10,000,000	-	1		1	1	1	1	1	1	1	1	1	Idea

AA8	Scaling up of Climate Resilient Fisheries best practices (e.g. FADs) and businesses to enhance the resilience of vulnerable fisher folks in Vanuatu	Fisheries	10,000,000	-	1	1	1	1	1										Idea - Links to Pathways, ADB, and JICA projects plus other donors currently funding fisheries best practice. Needs to align with the national strategy and CEAFM at a regional scale
AA9	Climate Proofing Roads & River Crossings	Roads and Bridges	10,000,000	-	1	1				1			1						Idea - Possible links to CISRD project and NZAID project to develop Climate & Disaster Risk Standards for infrastructure
AA10	Coastal & Marine Ecosystem Resilience to Climate Change Programme	Ecosystem (Regional)	10,000,000	1,232,000	1		1	1	1			1							CN by IUCN/ SPREP
AA11	Implementing the National Sustainable Tourism Plan, inc provincial sustainable tourism development plans and scaling up off grid solar technologies for rural tourism operators	Sustainable tourism and decentralisation	10,000,000	-	1	1		1	1	1	1				1		1		Idea by D of Tourism
AA12	Enhancing Early Warning Systems to Build Greater Resilience to Hydrological and Meteorological Hazards in Pacific Small Island Developing States (SIDS).	EWS (Regional)	46,000,000	515,388	1	1	1	1	1	1	1								CN developed by SPREP/WHO
AM1	Operationalizing The National Green Energy Fund in Vanuatu (NGEF)	National Climate Fund	10,000,000	1,500,000	1	1							1	1	1	1			CN by GGGI
AM2	Building Resilience and Accelerating Off-Grid Rural Electrification through Renewables in Vanuatu	RE	30,000,000	-	1	1	1						1		1				CN by UNDP
AM3	Increasing climate change resilience of Vanuatu by implementing forest sector mitigation (REDD+)	REDD+	10,000,000	-	1	1	1	1	1								1		Ide by DoForestry

AM4	Promotion of circular economy (e.g. micro plastic recycling, glass as alternative aggregates, paper recycling) to enhance resilience	Waste recycling	10,000,000	-	1	1	1	1	1		1				1		Idea by Waste Corporation
AR1	Enhance Vanuatu's ability to seek accreditation and direct access to the GCF via the fast-track accreditation process	MFEM as Direct Access Entity	650,000	-	1			1	1	1	1	1	1	1	1	1	CN by GIZ, GGGI & NDA
AR2	Advancing an Enhanced National Adaptation (NAP) Plan Process in Vanuatu	National Adaptation Plan	2,412,106	-	1	1	1	1	1	1	1						CN by UNEP
AR3	Readiness support for strengthening engagement with private sector	Private Sector	350,000	-		1		1	1	1	1	1	1	1	1	1	CN by GIZ, GGGI & VBRC
AR4	National Vulnerability Assessment Rollout	Vulnerability assessment tool	1,000,000	-	1	1	1	1	1	1	1	1	1	1	1	1	CN by GIZ
AR5	Strengthening the Capacity of the Executing Entities (EEs) to effective participate in GCF activities (e.g. how to design high quality concept note and Theory of Change approach)	Capacity Development for Executive Entities	400,000	0	1	1	1	1	1	1	1	1	1	1	1	1	Idea work with PIFS
AR6	Capturing & Promoting Traditional Knowledge (TK) for Adaptation	Traditional Knowledge	300,000		1			1	1	1	1	1					Idea - There is a component of this in the CISRD project, with a TK officer being recruited to document and promote the use of TK for climate information and adaptation
AR7	National land use planning and policy environment (e.g. Mapping of Customary Land Boundaries and Area Strategic Development Plan)	Land use planning	400,000	-	1	1	1	1	1	1	1	1	1	1	1	1	Idea by Customary Land and Port Vila Municipality
	Sub-total Pipeline of Ideas A		**241,512,106**	**6 ,247,388**	**22**	**17**	**18**	**19**	**20**	**12**	**14**	**8**	**8**	**10**	**10**		

Pipeline of Ideas B

Note on Proposal Idea ID code > "BA1" – "B" denotes pipeline B, "A" denotes Adaptation, "1" denotes proposal idea number.

ID no.	Pipeline of Ideas A for Potential adaptation and mitigation proposals	Sector	GCF Grant (US$)	PPF (US$)	Public	Private sector	CSO	Adaptation				Mitigation				Status
								Livelihoods of people and communities	Health, food and water security	Infrastructure and built environment	Ecosystems and ecosystem services	Energy generation and access	Transport	Building cities, industries and appliances	Forest and Land use	
BA1	Community Conservation & Protected Areas Reach and Effectiveness for Local Resilience by upscalling best practices	Ecosystem	38,000,000	1,500,000	1		1				1				1	CN by UNEP - GCF project
BA2	Promotion of Blue Economy to strengthen coastal community and business resilience (coral reefs, mangrove and seagrass protection)	Blue economy	10,000,000	-	1	1	1	1	1		1	1				Idea -Could be absorbed by regional Blue Carbon project
BA3	Restore, conserve and manage primary and secondary forests degraded by invasive species, Cordia alliodora, Leucaena leucecephala (Cassis) and Merramia peltata, (Vine)	Forestry, Invasive Species, conservation	10,000,000	-	1	1	1	1	1		1				1	Idea
BA4	Traditional sailing Canoes for Low Carbon & Sustainable Sea Transportation for remote islands	Sustainable Sea Transport	10,000,000	-	1	1	1			1			1			Idea
BA5	Scaling up Climate Resilient Aquaculture best practices and businesses to enhance the resilience of vulnerable farmers in Vanuatu	Aquaculture	10,000,000		1	1		1	1							Idea

BA6	Private Sector Eco-Tourism and CCDRR Risk Planning Project	Tourism Planning	20,000,000	-	1	1				1			1			Idea
BA7	Safe havens for ships during cyclones and disaster (e.g. haul out facilities + cyclone moorings throughout islands and hydrographic survey)	Safe haven	20,000,000	-	1	1				1		1				Idea
BA8	Luganville Infrastructure Development project (coastal defence and drainage/ flooding resilience)	Coastal defence and drainage/ flooding resilience	10,000,000	-	1	1	1	1	1	1						Idea
BA9	Wastewater Management, Standards and Testing Facility (Master Plan, implement Port Vila catchment upgrade; quality and flows of water through flood and wastewater management, monitoring and regulations)	Wastewater	60,000,000	-	1	1	1	1	1	1	1		1			Idea
BA10	Coastal protection to enhance the resilience of coastal communities and marine ecosystem (e.g. prevention of sand mining, soft and hard defences)	Coastal protection	10,000,000	-	1	1	1	1	1	1	1					Idea
BA11	Pacific Tuna: Climate change adaptation to maintain the vital contributions of tuna to economic development and food security in the Pacific Islands	Fisheries (Regional)	20,000,000		1	1	1	1	1							Idea by CI– regional. Could be linked to FFA and SPC proposals
BA12	Implementing building codes and scaling up of cyclone proof buildings (houses, community centers, aid posts, schools) in remote communities	Resilient housing	20,000,000		1	1	1			1			1			Idea
BA13	Deployment of cutting edge communications and satellite technology and training for enabling adaptation	communications / IT	10,000,000		1	1	1	1	1	1						Idea
BM1	Promotion of Energy Efficient Appliances, Lighting and Equipment in Pacific Island Countries (Regional)	EE	10,000,000	-	1	1							1			CN
BM2	Promotion of green building design and certification for public (e.g. schools, hospitals) and private sector (e.g. hotels, offices)	Resilient housing	10,000,000		1	1	1			1			1			Idea

BM3	Geothermal for RE generation (e.g. Exploration and production feasibility study)	RE	200,000,000	1,500,000	1	1						1					Idea
BM4	Development and implementation of emission standard for vehicles	Emission standard	10,000,000		1	1							1				Idea
BR1	Readiness support for the development of the National Energy Efficiency Strategy (e.g. Standards and Label programme and Testing facility)	Energy Efficiency	400,000	0	1	1	1							1			CN by D of Energy/GGGI
BR2	Readiness support for improved access to financial products and services (financial inclusion, insurance, credit facilities, digital products: e-payment, e-wallet, e-saving)	Financial products and services/ Banks	300,000	-	1	1		1	1	1	1	1	1	1	1		Idea - work with PIFS
BR3	Vanuatu Engineered Lumber Plan Feasibility Study	Demand side Timber	100,000	-	1	1		1								1	Idea by D o Forestry
	Sub-total pipeline of ideas B		**573,800,000**	**4,500,000**	**19**	**18**	**10**	**9**	**8**	**9**	**6**	**3**	**4**	**7**	**4**		

Sample Descriptive Table for Prioritised Pipeline A Project Ideas

To be completed once the Pipeline A of Ideas has been fully endorsed by NAB and the COM.

Country Project Idea Proposal for Pipeline A	
Project Title: AA1 - Enhancing Adaptation and Community Resilience through Water Security Planning and Supply System Upscalling	
Description	Objective: The project aims to improve community adaptation to climate change, by improving long-term water security through a technical assistance programme (TAP) and a capital assistance programme (CAP). In addition, these activities are supported by planning, information sharing and monitoring at the national level. Outcome 1: The TAP: The first stage of the programme involves i) training facilitators on how to use the DWSSP methodology; ii) engaging with communities to build demand for DWSSP; iii) helping communities to understand the value of maintaining a safe and secure drinking water supply; iv) work with communities (or the members of the community WASH committee) over several days; v) mapping the water supply system for the community, then they identify the possible risks to the safety or security of the water supply; and vi) submitting DWSSP to the provincial government for registration, who share it with DOWR for approval. Outcome 2: The CAP: To fund technology or infrastructure as grant or loans to insure water safety and security. Applications for support would be submitted via provincial government, and final approval would be granted by central government. Funding for infrastructure upgrades under the CAP would be taken directly from the GCF grant for this project. Outcome 3: National level planning: There are over 2,000 community water supply schemes throughout the six provinces of Vanuatu that require support to develop a DWSSP before 2030, and will require on-going support to implement and regularly review and update these. Activities at the national level will include setting targets, setting priorities, information sharing, as well as monitoring and updating plans.
Accredited Entity, IE, Partner	IAE: EE: D o Water Resources Partners: CSO
Submission timeframe	2019
Thematic areas	1,2,3
Total financing (US$????)	GCF (US$): SAP for USD 10 M Other (US$):
Status	CN by UNICEF
Action | Lead | Timeilne	SAP CN Development | UNICEF | SAP Template Completed in 2018 Full proposal development | UNICEF | 2019

Project Title: AA2 - Vanuatu National Community-based Climate Change Adaptation	
Description	Objective: To scale up National Community-based Climate Change Adaptation best practices to enhance the resilience of vulnerable communities by: Outcome 1. Supporting scalable, locally-appropriate adaptation actions that build resilient livelihoods and increase food & water security. Outcome 2. Embedding forward-looking climate risk analysis and resilience building in inclusive local and provincial planning processes. Outcome 3. Supporting Provincial Government and Area Council capacity for responsive, participatory implementation of national climate and disaster polices in local communities. Outcome 4. Facilitating enhanced dialogue and engagement between local, provincial and national structures.
Accredited Entity, IE, Partner	IAE: Save the Children EE: Partners:
Submission timeframe	2019-2020
Thematic areas	1,2
Total financing (US$????)	GCF (US$): USD 30 million Other (US$): Possible PPF 1.5 M
Status	CN by Save the Children
Action | Lead | Timeilne	CN Development | Save the Children | 2018 Full proposal development | Save the Children | 2019-2020
Project Title: AA3 - Scaling up Climate Resilient Agriculture including diversified farming best practices and business models to enhance the resilience of the vulnerable farmers in Vanuatu	
Description	Objective: To overcome the policy, regulatory, institutional, technical, financial, business and social barriers for the scaling up of climate resilient agriculture and diversified farming best practices to enhance farmer's resilience in Vanuatu. The objective will be achieved through three outcomes: • Outcome 1: Enabling environment enhanced to scale up CRA through policy, regulatory and institutional frameworks • Outcome 2: Scaling up of CRA business (e.g. agroforestry, conservation agriculture, permaculture, inter-cropping, mulching, contour farming for erosion control, rain water harvesting, integrated pest management) in selected provinces using viable business and financial models (e.g. start up loan, matching rebate, loan guarantees) • Outcome 3: Strengthening the capacity development of value chain actors to scale up CRA through farmer field schools, peer to peer learning, study tour, site visit)
Accredited Entity, IE, Partner	IAE: IE: Partners: CSO
Submission timeframe	2019-2020
Fund level strategic impacts	1,2
Total financing (US$ M)	GCF (US$): SAP 10 M Other (US$):
Status	Idea Note by FAO to be refined by MALFFB
Action | Lead | Timeilne	CN Development | - | 2019 Full proposal development | - | 2019 - 2020

Project Title: AA4 - Scaling up Climate Resilient Livestock best practices and business models to enhance the resilience of vulnerable farmers in Vanuatu	
Description	Objective: To overcome the policy, regulatory, institutional, technical, financial, business and social barriers for the scaling up of climate resilient livestock to enhance farmer's resilience in Vanuatu. The objective will be achieved through three outcomes: • Outcome 1: Enabling environment enhanced to scale up CRA through policy, regulatory and institutional frameworks • Outcome 2: Scaling up of CR livestock business (e.g. stocking rate, feed formulation, environmental health, water and fodder management, rain water harvesting, integrated pest management) in selected provinces using viable business and financial models (e.g. start up loan, matching rebate, loan guarantees) • Outcome 3: Strengthening the capacity development of value chain actors to scale up CRA through farmer field schools, peer to peer learning, study tour, site visit)
Accredited Entity, IE, Partner	IAE: Local Partners: MCCA, MLA, MALFFB, MIA Regional Partners:
Submission timeframe	2018-2020
Fund level strategic impacts	1,2
Total financing (US$ 50M)	SAP 10 M Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | 2019 Full proposal development | - | 2019
Project Title: AA5 - Building resilience through the prevention of climate-induced diseases: Assessing and addressing economic burden and promoting adaptation strategies	
Description	Objective: The objectives of this project are: i. To generate and synthesize policy-relevant evidence on the impacts of climate variability and change on the seasonality and severity of pathogen-specific and vector-bourne diseases; ii. To estimate the associated economic costs (both direct and indirect); iii. Implement effective measures/interventions - those which have worked so far as well as new options - to adapt to climate-induced fluctuations of seasonal trends of vector bourne diseases; and iv. Demonstrate the economic viability of adaptation strategies – both in terms of reducing the economic burden of the community as well as in generating community response, and the extent to which they may function to build societal resilience.
Accredited Entity, IE, Partner	IAE: Local Partners: MoH Other Partners:
Submission timeframe	2019 - 2020
Fund level strategic impacts	2
Total financing (US$ 50m)	GCF (US$): SAP 10 M Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | - Full proposal development | - | -

Project Title: AA6 - Digitalised information and farmer production management systems for the scaling up long-term food security through food production and storage programme for post-disaster response and resilience in Vanuatu (e.g. strategic agro-processing)	
Description	Objective: To address the institutional, technical, informational, knowledge, financial, business and social barriers for the scaling up of food production and agro-processing to enhance long term food security and resiliency in Vanuatu. The objective will be achieved through three outcomes: • Outcome 1: Enabling environment enhanced to scale up food production and agro-processing centres through a clear institutional and financial frameworks • Outcome 2: Scaling up of local food production and agro processing businesses (e.g. solar dryers, vacuum packaging, value adding) in selected strategic areas using innovative business and financial models (e.g. start-up loan, matching rebate) • Outcome 3: Strengthening the capacity development of value chain actors to scale up information systems and agroprocessing through field schools, peer to peer learning, study tour, site visit)
Accredited Entity, IE, Partner	IAE: Local Partners: MALFFB
Submission timeframe	2020 - 2021
Fund level strategic impacts	1,2
Total financing (US$ 14M)	GCF (US$): SAP 10 M Other (US$):
Status	Idea only. Could refinne existing FAO plans
Action | Lead | Timeilne	CN Development | - | 2020 Full proposal development | - | 2021
Project Title: AA7 - Climate Change Educational transformation inc Gender responsive training for K-13 teachers on climate change, curriculum upscaling (inc innovative financial and business models for adaptation/mitigation), TVET and tertiary opportunities	
Description	**Obje**ctive: To train teachers on how to educate students on climate change and basic financial and business skills for building resilience. Outcome 1. Gender responsive knowledge and communication products, services and curriculum on climate change, finance and business developed to train teachers Outcome 2: Long-term capacity development developed to train teacher Outcome 3: Expanded Primary, Secondary TVET and tertiary learning on CC and DRR
Accredited Entity, IE, Partner	IAE: Local Partners: MoET, VIT
Submission timeframe	2020
Fund level strategic impacts	1,2,3,4
Total financing (US$ 70M)	GCF (US$): 10 M Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | - Full proposal development | - | -

Project Title: AA8 - Scaling up of Climate Resilient Fisheries best practices (e.g. FADs) and businesses to enhance the resilience of vulnerable fisher folks in Vanuatu	
Description	Objective: To overcome the policy, regulatory, institutional, technical, financial, business and social barriers for the scaling up of climate resilient fisheries best practices to enhance fisher folks' resilience in Vanuatu. The objective will be achieved through three outcomes: • Outcome 1: Enabling environment enhanced to scale up CR fisheries through policy, regulatory and institutional frameworks • Outcome 2: Scaling up of CR fisheries business (e.g. FADs, reef management, equipment, access to data on fishing stocks and movement) in selected provinces using viable business and financial models (e.g. start up loan, matching rebate, loan guarantees) • Outcome 3: Strengthening the capacity development of value chain actors to scale up climate resilient fisheries through fisher field schools, peer to peer learning, study tour, site visit)
Accredited Entity, IE, Partner	IAE: Other Partners: Local Partners: MALFFB, VFD
Submission timeframe	2019-2021
Fund level strategic impacts	1,2
Total financing (US$ 60M)	GCF (US$): 10 M Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | 2019 Full proposal development | - | 2021
Project Title: AA9 - Climate Proofing Roads & River Crossings	
Description	Objective: To design, implement and maintain climate proof roads and river crossings Outcome 1. Mapping of roads and river crossings vulnerable to climate enable evidence-based decision making. Outcome 2: To design, implement and maintain climate proof roads and river crossings Outcome 3: Demonstrate the economic viability of infrastructure adaptation strategies – in terms of reducing the economic burden of climate change on community, local and national government budgets
Accredited Entity, IE, Partner	GCF (US$): 10 m Other (US$):
Submission timeframe	2020-2021
Fund level strategic impacts	3
Total financing (US$ 100M)	GCF (US$): 10 m Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | 2020 Full proposal development | - | 2021

Project Title: AA10 - Enhancing Coastal & Marine Ecosystem Resilience to Climate Change (Ecosystem-Based Adaptation)	
Description	Objective: To scale up eco-system-based adaptation (EBA) to enhance Coastal & Marine Ecosystem Resilience using an innovative and transformational grant financing mechanism for vulnerable communities. Outcome 1. Strengthen enabling environments for EBA: legal, regulatory, planning, and technical capacity Outcome 2: Establish agrant making mechanism (Blue Impact Finance Facility Component) to finance coastal/marine ecosystems at various (local, provincial, sectoral, national and regional) scales. Outcome 3. A Knowledge Management and Capacity Support for generating and providing new knowledge and information and technical capacity to ensure all initiatives adopt best-practice approaches and are based on context specific data and information, and principled advice.
Accredited Entity, IE, Partner	IAE: IUCN, SPREP IE: Local Partners: DEPC, MoCC
Submission timeframe	2021-2022
Fund level strategic impacts	
Total financing (US$ 63M)	GCF (US$): 10 M Other (US$):
Status	CN by SPREP/IUCN
Action | Lead | Timeilne	CN Development | - | - Full proposal development | - | -
Project Title: AA11 - Implementing the National Sustainable Tourism Plan, inc provincial sustainable tourism development plans and scaling up off grid solar technologies for rural tourism operators	
Description	Objective: To update the national sustainable tourism plan, the development of the VSTC and VTPAP 5 year road map and development of provincial sustainable tourism development plan and scale up solar businesses for rural tourism operators (solar refrigeration and lighting)
Accredited Entity, IE, Partner	IAE: Local Partners: Dept. of Tourism, MTTCNVB
Submission timeframe	2022
Fund level strategic impacts	1,3
Total financing (US$ m)	GCF (US$): 10 M Other (US$):
Status	Idea only
Action | Lead | Timeilne	CN Development | - | 2021 Full proposal development | - | 2022

Project Title: AA1 - Enhancing Adaptation and Community Resilience through Water Security Planning and Supply System Upscalling	
Description	Ecosystem
Accredited Entity, IE, Partner	Blue economy
Submission timeframe	Forestry, Invasive Species, conservation
Thematic areas	Sustainable Sea Transport
Total financing (US$????)	Aquaculture
Status	CN by UNICEF
Action | Lead | Timeilne	Aquaculture