

Strengthening capacity in the agriculture and land-use as well as energy sectors in Solomon Islands for enhanced transparency in implementation and monitoring of Solomon Island?s Nationally Determined Contribution (NDC)

Part I: Project Information	
GEF ID 10760	
Project Type MSP	
Type of Trust Fund GET	
CBIT/NGI CBIT NGI	
Project Title Strengthening capacity in the agriculture and land-use as venhanced transparency in implementation and monitoring Contribution (NDC)	
Countries Solomon Islands	
Agency(ies) FAO	
Other Executing Partner(s) Ministry of Environment, Climate Change and Disaster Management and Meteorology GEF Focal Area Climate Change	Executing Partner Type Government
Taxonomy	

Focal Areas, Climate Change, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Enabling Activities, Paris Agreement, Capacity Building Initiative for Transparency,

Climate Change Mitigation, Energy Efficiency, Renewable Energy, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, National Adaptation Plan, Small Island Developing States, Mainstreaming adaptation, Climate information, National Adaptation Programme of Action, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Stakeholders, Civil Society, Academia, Non-Governmental Organization, Communications, Awareness Raising, Education, Type of Engagement, Participation, Information Dissemination, Consultation, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Knowledge Generation and Exchange, Capacity Development, Capacity, Knowledge and Research, Learning, Indicators to measure change, Knowledge Generation, Training

Rio Markers Climate Change MitigationClimate Change Mitigation 2

Climate Change Adaptation
Climate Change Adaptation 1

Duration

36 In Months

Agency Fee(\$) 108,035.00

Submission Date

1/13/2021

A. Indicative Focal/Non-Focal Area Elements

Programming Direction	ns Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-3-8	GET	1,137,215.00	2,676,856.76
	Total Project Cost (\$)	1,137,215.00	2,676,856.76

B. Indicative Project description summary

Project Objective

To strengthen Solomon Island's technical and institutional capacity for compliance by 2024 with the Enhanced Transparency Framework (ETF) of the Paris Agreement on Climate Change to track mitigation and adaptation actions of Nationally Determined Contribution (NDC) priority sectors focusing on agriculture, land-use change, energy and waste sectors.

Project	Financin	Project	Project	Trus	GEF	Co-Fin
Componen	g Type	Outcomes	Outputs	t	Amount(\$)	Amount(\$)
t			-	Fun		
				d		

Project Componen t	Financin g Type	Project Outcomes	Project Outputs	Trus t Fun d	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strengthenin g institutional arrangement s and capacities to meet the Paris agreement requirements on ETF	Technical Assistance	1.1 Strengthene d institutional arrangement s to collect, archive, update and report climate transparency data through a centralized information management system	institutional, data collection, analysis, and reporting capacity gaps and needs for meeting ETF requirements. Deliverable 1.1.1.1 Capacity gap assessment report on the National ETF requirement. Deliverable 1.1.1.2 Mapping of monitoring, reporting, and verification (MRV) legal and regulatory framework on climate initiatives to define the roles and responsibilities of stakeholders. Deliverable 1.1.1.3 Guideline and action plan on strengthening the existing legal and regulatory framework on climate initiatives to comply with the ETF requirement.	GET	213,081.00	650,000.00

1.1.2 Upgraded institutional framework for

Project Componen t	Financin g Type	Project Outcomes	Project Outputs	Trus t Fun d	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strengthenin g institutional arrangement s and capacities to meet the Paris agreement requirements on ETF	Technical Assistance	1.2 Strengthene d capacities to regularly monitor and report financing on NDC actions.	1.2.1 Strengthened guidelines on monitoring and reporting of climate financing Deliverable 1.2.1.1 Mapping of national stakeholders with roles and responsibilities for national climate finance focusing on NDC mitigation and adaptation actions. Deliverable 1.2.1.2 Established National climate finance reporting and monitoring body to track		135,230.00	276,000.00
			body to track climate finance under the Climate Change Division of MECDM. 1.2.2 Established systematic and updated database and documentation system on climate financing			

<u>Deliverable</u> <u>1.2.2.1</u>

Focal points

Project Componen t	Financin g Type	Project Outcomes	Project Outputs	Trus t Fun d	GEF Amount(\$)	Co-Fin Amount(\$)
2. Strengthenin g the technical capacity to develop a domestic MRV system.	Technical Assistance	2.1 Strengthene d emissions estimation of sources and sinks focusing on agriculture, land-use change, energy and wastes sectors	2.1.1Strengthene d technical capacity of the Climate Change Division of MECDM with appropriate technical hardware and software to analyze GHG emissions and sinks.	GET	436,555.50	865,231.00
			Deliverable 2.1.1.1 Acquisition and installment of appropriate technical hardware and software for the Climate Change Division of MECDM and other relevant focal points to appropriately			

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sinks.

<u>Deliverable</u> <u>2.1.1.2.</u>

track, collect, assess, storage, document, and report on GHG emissions and

Established and operational GHG inventory working groups for emission and sinks estimation under the Climate Change Division of MECDM involving other government agencies.

Project Componen t	Financin g Type	Project Outcomes	Project Outputs	Trus t Fun d	GEF Amount(\$)	Co-Fin Amount(\$)
3. Strengthenin g capacity to monitor and report adaptation activities	Technical Assistance	3.1 Strengthene d technical capacities for monitoring and reporting to track the progress of NDC adaptation actions	3.1.1. Established national adaptation reporting and monitoring framework. Deliverable 3.1.1.1An assessment prepared for good practices for monitoring and reporting on NDC priority adaptation actions. Deliverable 3.1.1.2 National/sectoral appropriate, gender-sensitive indicators and monitoring and reporting framework developed for NDC priority adaptation actions. Deliverable 3.1.1.3 System infrastructure developed under the Climate Change Division of MECDM involving other relevant national agencies at different levels to mainstream monitoring and reporting NDC adaptation actions. 3.1.2. Established Adaptation actions.	GET	250,000.00	500,000.00

Adaptation information management

Project Componen t	Financin g Type	Project Outcomes	Project Outputs	Trus t Fun d	GEF Amount(\$)	Co-Fin Amount(\$)
			s	ub Total (\$)	1,034,866.5 0	2,291,231.0 0
Project Mana	ngement Cost	(PMC)				
	GET		102,348.50		385,62	5.76
Sı	ub Total(\$)		102,348.50		385,62	5.76
Total Proje	Total Project Cost(\$) 1,137,215		1,137,215.00		2,676,85	6.76

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co- financing	Name of Co-financier	Type of Co- financing	Investment Mobilized	Amount(\$)
Donor Agency	USAID	In-kind	Recurrent expenditures	400,000.00
Donor Agency	USAID	In-kind	Recurrent expenditures	900,000.00
Recipient Country Government	Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM), Solomon Island Government (SIG)	In-kind	Recurrent expenditures	584,000.00
Recipient Country Government	MECDM, Solomon Island Government	In-kind	Recurrent expenditures	450,000.00
Recipient Country Government	MECDM, Ministry of Agriculture and Livestock (MAL), Ministry of Forestry and Research (MFR) and Solomon Islands Meteorological Services	In-kind	Recurrent expenditures	342,856.76

Total Project Cost(\$) 2,676,856.76

Describe how any "Investment Mobilized" was identified

Not Applicable. ?Recurrent Expenditure?: The government identified ongoing projects in the country, including two USAID projects, with components that are aligned with, and adding value to, the objectives of the GEF-CBIT proposal. The salaries of government staff engaged in the project, office rental and other project related contingencies allocated from the government?s treasury annually has been identified as in-kind ?recurrent expenditure? from the Solomon Island Government.

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

Agenc y	Trus t Fun d	Countr y	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Solomo n Islands	Climat e Chang e	CBIT Set- Aside	1,137,215	108,035	1,245,250.0 0
			Total GE	F Resources(\$)	1,137,215.0 0	108,035.0 0	1,245,250.0 0

E. Project Preparation Grant (PPG) PPG Required
PPG Amount (\$)
50,000
PPG Agency Fee (\$)
4,750

Agenc y	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Solomon Islands	Climat e Change	CBIT Set-Aside	50,000	4,750	54,750.00
			Total	Project Costs(\$)	50,000.00	4,750.00	54,750.00

Core Indicators

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

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	45			
Male	105			
Total	150	0	0	0

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

The proposed project will support the Capacity Building Initiative for Transparency (CBIT) of GEF-7 Climate Change Mitigation Focal Area Strategy. After completion of the project Solomon Island will be capable of building institutional and technical capacities to meet the enhanced transparency requirements in the Paris Agreement through: (i) strengthen national institutions, (ii) packaged set of tools for monitoring NDC mitigation, and (iii) enhanced technical capacity to track the progress of NDC actions. The number of beneficiaries are estimated based on the number of staff in different ministries and national agencies in the Solomon Island Government (SIG) such as MECDM, Ministry of Agriculture and Livestock (MAL), Ministry of Forestry and Research (MFR), Solomon Islands Meteorological Services, and National Planning and Development Coordination. The staff will be directly involved in the project implementation and the country will ultimately benefit through technical capacity building of these staff. The number of direct beneficiaries also include those from the Private Sector Organizations, such as Energy Companies (e.g. Solomon Power), and NGOs (in particular those involved and working with communities in Forest Conservation and Carbon Projects in the country).

Part II. Project Justification

1a. Project Description

(1) GLOBAL ENVIRONMENTAL PROBLEMS

1.1 The Paris Agreement and transparency framework

- 1. The 21st Conference of Parties (CoP) in December 2015-the Paris Agreement urge for a worldwide action plan to avoid the devastating consequences of climate change. The action plan calls for taking the meaningful initiative from each nation to limit global warming below 2?C. In response to that, each CoP, or country stated its targeted greenhouse gases (GHG) emissions reduction in the Nationally Determined Contributions (NDC). The ultimate goal of each country NDC is to achieve the target of the Paris Agreement. Article 13 of it calls for an enhanced transparency framework for each participating country to transparently present and report action and support concerning NDC [1].
- 2. The overarching objective of this transparency framework is to ensure an easy and clear understanding of the actions of an individual country for climate change mitigation and adaptation. This objective is also in line with Article 2 of the United Nations Framework Convention on Climate Change Convention (UNFCC)^[2]. In simple, transparency framework of the Paris Agreement, wants to ensure clarity, as well as track the progress of each Parties? individual NDC towards their set goal for climate change mitigation and adaptation. Such actions may cover the good practices, priorities, needs, and gaps to ensure global stocktake under Article 14 of the Paris Agreement^[3]. Most importantly, the transparency framework has built-in flexibility to consider different capacities of the countries around the world and builds upon collective experience.

1.2. National aspiration of Solomon Island towards climate change mitigation and adaptation

- 3. The Solomon Islands Government (SIG) is actively working with the global community to combat global climate change. The country has ratified the UNFCCC in 1994[4]. In 1998, Solomon Islands signed the Kyoto Protocol to the UNFCCC and ratified it in 2003. In 2016 (22 April), Solomon Islands signed the Paris Agreement to the UNFCCC and ratified it in 2016 (21 September)[5]. The country has adopted the Doha Amendment to the Kyoto Protocol. The country deposited its instrument of acceptance on 5 September 2014. The amendment is entered into force after three-quarters of the Parties to the Protocol submit their instruments of acceptance to the Depositary[6].
- 4. The country has also submitted the Intended Nationally Determined Contributions (INDC) to the UNFCCC Secretariat on 30September 2015. No further revisions were undertaken and the same document was endorsed and submitted as the first NDC on 21st September 2016^[7]. In the NDC, SIG has committed to reducing the country?s GHG by more than 50 percent in 2050.

Moreover, the honorable Prime Minister (HPM) of SIG in his statement to the 75th United Nations General Assembly in September 2020 reiterated that the country will continue to reduce GHG emissions. The HPM of SIG also stated that the country will double the NDC mitigation commitment through ongoing mitigation work; and continue to battle with the incremental negative effects of climate change on the livelihood, security, and well-being of the people of Solomon Islands^[8]. The country has no obligations as a non-Annex I party to reduce its GHG emission level. Yet, the country is dedicated to reducing the national GHG footprint. The HPM of the SIG informed world leaders at the 75th United Nations General Assembly in September 2020, the country will double their NDC contributions through the ongoing work on the ?Tina Hydro Power Project?. This project will reduce the reliance of the country on fossil fuel by 70%^[9].

5. The above-mentioned national aspirations towards stabilizing the global GHG concentration is reflected through continuous reporting to the UNFCCC on sources of GHG emission, and national climate change mitigation and adaptation activities. The country has prepared a National adaptation plan for action(NAPA) in 2008. According to NAPA (2008), agriculture, human settlements, water and sanitation, and human health are priority vulnerable sectors requiring urgent support to enhance resilience against the predicted impacts of climate change[10]. The Country has also successively submitted its first, and second National Communications on Climate Change in the years of 2004 and 2017, respectively[11]. Besides, under an Umbrella Programme for Preparation of National Communications and Biennial Update Reports to the UNFCCC funded by the Global Environment Facility (GEF), the country is in the inception phase for the preparation of third national communication and its first Biennial Update Report (BUR). The SIG has also submitted its first National Forest Reference Level (FRL)to the UNFCCC in December 2018, and revised version in July 2019[12].

1.3. Root causes and barriers to be addressed

- 6. Based on the gaps and barriers identified in the two national communications, NDC, and National Capacity Self-Assessment to meet the UNFCCC reporting requirement[the root causes and barriers are:
- (i) Absence of mitigation and adaptation activity data and information system.
- (ii) Lack of integrated and systematic coordination and institutional mechanism for data and information sharing on mitigation and adaptation activity.
- (iii) Lack of technical expertise and knowledge of measuring, reporting, and verification.
- (iv) Lack of technical expertise and knowledge on monitoring, evaluating, and report on adaptation actions

These root causes and barriers are further elaborated in section 2.9.

[1]National Capacity Self-Assessment: Solomon Islands 2015. https://www.sprep.org/att/IRC/eCOPIES/Countries/Solomon_Islands/57.pdf

2.1 Country Context

7. Solomon Island is located between Latitude: -9? 13' 34.86" S, and Longitude: 159? 11' 14.61" E. The country is a sovereign state covering six major islands (Choiseul, New Georgia, Santa Isabel, Malaita, Guadalcanal, and Makira), and a scattered archipelago of 994 islands. The country is a combination of mountainous islands and low-lying coral atolls within a tuna-rich and potentially mineral-rich maritime Economic Exclusive Zone (EEZ) of 1.34 million square kilometers (Figure 1). This mountainous island country is of volcanic origin, is also covered with coastal forests, and surrounded by fringing reefs and lagoons. Mt Makarakomburu is the highest point (2447 m above sea level) in the country, and also is the highest peak in the insular Pacific[1]. The climate of the country is tropical, and due to cooling winds blowing off the surrounding seas temperatures are not so extreme. Temperature varies between 25 to 32oC during the daytime. The mean annual rainfall is 3,000 to 5,500 mm with two-peak rainfall during a year. Flooding of most river systems due to high rainfall intensity during tropical storms is often recorded. During 2009, destructive flooding and loss of lives were observed due to the highest recorded rainfall of 281mm over 12 hours [2].

Figure 1: Map of Solomon Islands (Source: National Energy Policy 2014, Solomon Island[1]).

(2014).https://policy.asiapacificenergy.org/sites/default/files/volume1_solomon_islands_national_energy_policy.pdf

^[1]Second National Communication, Solomon Island, National Communication submissions from Non-Annex I Parties. https://unfccc.int/non-annex-I-NCs

^[2]Solomon Islands Government. Intended Nationally Determined Contribution. https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOL OMON%20ISLANDS%20INDC.pdf

^[1]Solomon Island National Energy Policy



8. According to the United Nations (UN) data, as of July 1, 2020, the population of Solomon Islands is around 692,000[1]. The annual population growth rate is 2.3% per annum. The capital and largest city is Honiara, with a population estimated at 67,000. Around 80% of the population lives in rural areas. Most of the people depend on the subsistence economy and income from agriculture, forestry, and fishery, and remittances from relatives working off-island. Around 80% of the national population live in low lying coastal areas. The capital city of Honiara is the only major area of economic activity and the main source of employment and income^[2]. The status of Solomon Island concerning the first six Sustainable Development Goals (SDGs) is presented in Table 1, and the trend of life expectancy, education, gross national income (GNI) per capita as a component of HDI over 18 years is presented in Figure 2.

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

Indicators description	Sustainable Development Goals (SDGs)	Year	Indicators value
The proportion of Population Living below the National Poverty Line		2013	12.7%

^[1]https://worldpopulationreview.com/countries/solomon-islands-population

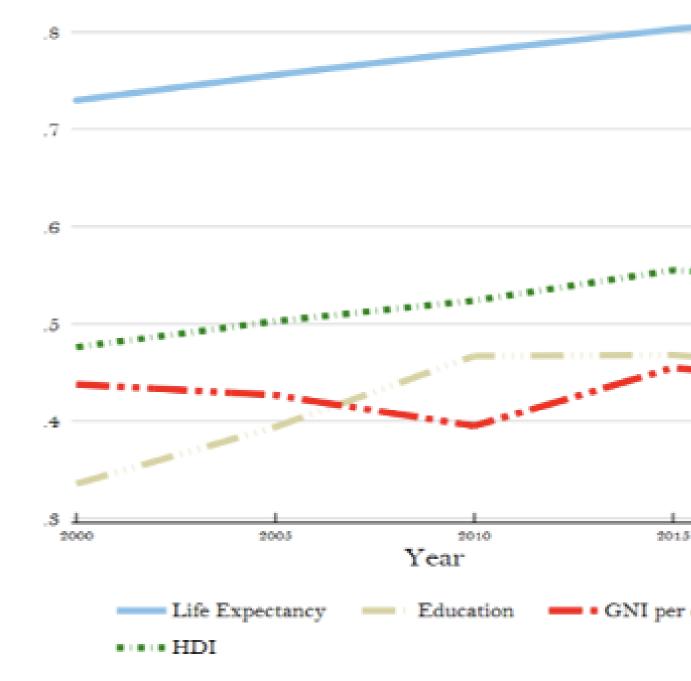
^[2]UNFCCCForest reference levels and forest reference emission levels submission. https://redd.unfccc.int/submissions.html?country=slb

Indicators description	Sustainable Development Goals (SDGs)	Year	Indicators value
The proportion of Population below \$1.90 Purchasing Power Parity (PPP) a Day		2013	25.1%
The proportion of Employed Population below \$1.90 PPP a Day		2019	17.7%
Prevalence of Undernourishment Prevalence of Stunting among Children under 5 Years of Age	-	2016-18	8.9% 31.7%
Maternal Mortality Ratio (Per 100,000 lives birth)		2017	104
Under-5 Mortality Rate (Per 100,000 lives birth)		2018	20
Neonatal Mortality Rate	1	2018	8
Participation Rate in Organized Learning (1 year before the official primary entry age)		2018	60.1%
The proportion of Teachers Who Have Received at Least the Minimum Organized Teacher Training		2018	76.1%
The proportion of Seats Held by Women in National Parliaments		2019	4.1%
The proportion of Population Using Safely Managed Drinking Water Services		2015	82.5%
The proportion of Population Using Safely Managed Sanitation		2015	30.7%

Source: Basic Statistics, Asia, and the Pacific. Asian Development Bank^[18].

The Human Development Index (HDI) of the country in 2018 was 0.557, and the country in the medium human development category, placing the country at 153 out of 189 countries. The HDI value of the country increased from 0.476 to 0.557-an increase of 17.2 percent between 2000 and 2018^[19]. Women have comparatively less access than males to secondary and tertiary education. 12.7% of the population in the country lives below the national poverty line in 2013, and 62.9% of the population has access to electricity in 2017^[20]. The status of Solomon Island concerning the first six Sustainable Development Goals (SDGs) is presented in Table 1, and the trend of life expectancy, education, gross national income (GNI) per capita as a component of HDI over 18 years is presented in Figure 2.

Figure 2: The trend of life expectancy, education, gross national income (GNI) per capita as a component of HDI between 2000 and 2018 (Source: Solomon Island Human Development Report 2019^[21]).



2.2 Greenhouse gas emission reported in National Communications and Forest Reference Level

9. The First National Communication (FNC) of Solomon Islands was submitted to the UNFCCC in 2004^[27], and the Second National Communication (SNC) was in 2017^[28]. As of October 2020, the country is in the inception phase of the preparation of the Third National Communication (TNC) and the first BUR. The country has also submitted its first National Forest Reference Level (FRL) to the UNFCCC in December 2018, and revised version in July 2019^[29].

10. 1996 IPCC Revised Guidelines were followed to prepare the FNC for the Solomon Islands. It was prepared with the support and technical assistance of the UNDP/GEF-funded Pacific Islands Climate Change Assistance Program (PICCAP) and the Secretariat of the Pacific Regional Environment Program (SPREP). As per the FNC, the national greenhouse gas inventory (GHGI) undertaken in 1999 using the base year of 1994. FNC GHGI covers only energy sector CO2 emission, and GHG emission from other sectors are not presented (Table 2). This is because energy sector is the key source of GHG emissions, and there is unavailability of representative data from other sectors. IPCC default emission factors (Tier 1) were used along with the activity data collected through national statistical surveys. External consultants as an ad hoc basis were engaged to prepare the FNC with the close engagement of line ministries and Deputy Prime Minister⁽³⁰⁾.

Table 2: GHG Inventory (Gg CO_{2e}) for the Solomon Islands as reported in the First and Second National Communications.

	Gg CO2e			
Sector	FNC	SNC		
	1994	2000	2005	2010
Energy	322.60	192.22	235.03	350.64
	(294.38)*			
Industrial Processes	NR*	-	-	-
Solvents and Other Products Use	NR	NR	NR	NR
Agriculture	NR	70.35	73.66	76.39
Land Use Change and Forestry	NR	NR	NR	NR
Waste	NR	159.71	184.33	191.58
Total GHG Emissions, excluding	322.60	422.28	493.02	618.61
removals	(294.38)			

Note: *322.60 Gg CO_{2eq} represent the GHG inventory based on top-down approach, and 294.38 Gg CO_{2eq} is based on bottom-up approach. **NR- Not Reported.

11. The SNC of the Solomon Islands was submitted in 2017 with 2010 as the baseline year. Activity data were used from the national annual statistics, statistical reports, and studies from government agencies, and private companies. Default emission factors from IPCC were used, and in absence of national activity data, proxy data from similar paced countries were used. Tier 1 methods as adopted based on the 1996 IPCC Revised Guidelines. No formal uncertainty analysis was undertaken. The SNC also covered emissions from two additional direct GHGs (CH4 and N2O), as well as estimated indirect GHGs from NOx, CO, NVMOC, and SO2. The GHG emissions reported in the FNC are presented in Table 2. The subsector level emissions as reported in the SNC are also presented in Table 3. The key limitation mentioned in the SNC is data unavailability across all sectors, lack of comprehensive information, and proper data archiving, and the lack of country-specific emission factors. The SNC highlighted the importance of country-specific emission factors, and the need for adequate training and capacity building to provide more detailed and accurate information in future GHGIs[31].

Table 3: GHG Inventory (Gg CO_{2e}) of the sub-sectors for the Solomon Islands as reported in the Second National Communication.

Sector	Gg CO2e			
Sector	1994	2000	2005	2010
Energy Industries (Electricity production)	53.26	44.76	48.29	59.41
Transport (Road)	192.8	88.68	112.59	176.91
Other Sectors (Commercial, Industrial & Residential)	48.33	8.78	74.15	114.32
Industrial Processes (Food & Drink)	NR*	0	0	0
Enteric Fermentation (Animal Waste)	NR	19.61	20.39	20.96
Manure Management (Animal Waste)	NR	32.09	33.83	35.36
Agricultural Soils (N20 from animal waste)	NR	8.65	19.44	20.07
Solid Waste Disposal on Land (Domestic)	NR	20.22	138.75	144.21
Wastewater Handling (Domestic)	NR	39.49	45.58	47.37
Total GHG Emissions, excluding removals	294	422.28	493.02	618.61

Note: *NR- Not Reported.

12. The first National Forest Reference Level (FRL) of the Solomon Island was submitted to the UNFCCC in December 2018, and revised version in July 2019[32]. The scope of REDD+ activities for the FRL covers (i) Deforestation, and (ii) Forest degradation. The scope of carbon pools for the FRL covers (i) Above-ground Biomass (ABG), and (ii) Below-ground Biomass (ABG).CO2 is the only GHG included in the FRL. Other gases related to fire and the drainage of organic soils (CH4 and N2O) are currently not included because of the unavailability of reliable data. The scale of the Solomon Islands Forest Reference Level is the national level. Activity data were obtained from an annual historical time series analysis of land use, land-use change, and forestry (LULUCF) for the period of 2000 ? 2017, using the Collect Earth. Activity data were generated based on IPCC Approach 3 according to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and tier 1 emission factors were used. The reference period is 2001 to 2017, and the resulting period is 2018 to 2021^[33]. The estimated forest emissions level is presented in Table 4.

Table 4: Estimated annual forest emissions in the Solomon Islands during the results period 2018-2021.

Year	Estimated Emissions (t CO2e)
2018	15,359,822
2019	16,207,233
2020	17,054,643
2021	17,902,053

2.3 Climate change Vulnerability of Solomon Island

13. More than nine hundred volcanic and coral islands of Solomon Islands, and its geographic location in the Pacific Ring of fire and cyclone zone makes it very vulnerable to natural disasters and extreme events. This vulnerability is exacerbated by its low socio-economic status. More than 80% of the population reside in vulnerable coastal rural areas depending on subsistence agriculture and fishing for food and income. Most these locations do not have access to electricity, drinking water, sanitation, roads and government services^[34].

- 14. Projections for all emissions scenarios indicate that the annual average air temperature and sea surface temperature will increase in the future in the Solomon Islands. By 2030, under a high emissions scenario, this increase in temperature is projected to be in the range of 0.4?1.0?C. Average annual and season rainfall is projected to increase over the course of the 21st century. Wet season increases are likely due to the expected intensification of the South Pacific Convergence Zone and the Western Pacific Monsoon. As a result, extreme rainfall days are likely to occur more often^[35].
- **15.** Tropical cyclones result in flooding and wind damage in the Solomon Islands. There have been severe floods on Guadalcanal, Malaita, Makira and Santa Isabel in recent years with a number of lives lost, and severe damage to agriculture and infrastructure. Tropical cyclones affect the Solomon Islands between November and April. In the 41-year period between 1969 and 2010, 41 tropical cyclones passed within 400 km of Honiara, an average of one cyclone per season. In the Solomon Islands? region, projections tend to show an increase in the proportion of the more intense storms^[36].
- **16.** Sea level is expected to continue to rise in the Solomon Islands. By 2030, under a high emissions scenario, this rise in sea level is projected to be in the range of 4-15 cm. The sea-level rise combined with natural year-to-year changes will increase the impact of storm surges and coastal flooding. The acidity level of sea waters in the Solomon Islands region will continue to increase over the 21st century. The impact of increased acidification on the health of reef ecosystems is likely to be compounded by other stressors including coral bleaching, storm damage and fishing pressure^[37].
- 17. Solomon Islanders are being forced to change their food production and consumption habits due to climate change. Poor soil in some areas of the country, brought about by the changing climate, are among the causes affecting the production of traditional crops. Communities that have mainly depended on sweet potato as their staple crop are having to diversify to produce more sustainable food sources^[38]. Periodic flooding is already damaging the Cocoa farms. Heavy rainfall that damages flowers and subsequent levels of fruiting on the trees, and also causes damaging (?black pod?) fungal disease outbreaks ? annual rainfall and associated humidity is often high enough for the fungal outbreaks to be severe, and heavy rainfall and humidity promotes the spread of fungus between cocoa pods^[39]. For rice, sweet potato, and, in most cases, taro, yield losses due to climate change are significant. The decline in the financial value of sweet potato output for the period 2008?2050 is nearly \$10 million in Solomon Islands^[40].
- **18.** Vulnerability to climate change extends to ecosystems and water resources as a result of the relatively high exposure of parts of the country to increasing intensity of tropical cyclones, earthquakes, tsunamis and generally poor governance over use of natural resources. This is more pronounced in the forestry sector. Fisheries resources play a major role in the national economy and to food security in Solomon Islands. Climate change is likely to have a substantial impact on fish production that can lead to a fragile food security condition in the country^[41].

19. The Pacific island countries are particularly vulnerable to the environmental changes wrought by global climate change such as sea level rise, more frequent and intense extreme weather events and increasing temperatures. The projected changes to rainfall patterns are expected to exacerbate current difficulties associated with the control of mosquito breeding and thus the distribution and density of disease vectors. Similarly, the increasing use of vehicles for transport and reliance on wood stoves for cooking has the potential to affect both indoor and external air quality, especially exposure to particulate matter^[42].

2.4 Nationally Determined Contribution (NDC) of Solomon Island

- 20. The NDC of the Solomon Island portraits the transition pathways of GHG emission mitigation and enhancement of climate resiliency. The NDC describes the enhanced actions and necessary enabling environment for Five-year periods, starting in 2020, concerning 2025, and ending in 2030. Such actions will enable the country for more ambitious goals beyond 2030 to work together with the global community to keep the global average temperature increase below 20C.
- 21. All commitments in the NDC of the country are premised on (i) fair and ambitious agreement being reached, reflecting common but differentiated responsibilities and respective capabilities; and (ii) timely access to international climate change financing, capacity building, and technology. The emissions reduction covers fossil fuel consumption, and forest sequestration because fossil-fuel use covers more than 95% of the reported national GHG emissions. Imported fossil fuels combustion in the energy sector for (i) electricity generation, (ii) sea transport; and (iii) land transport is the key GHG emitter; As per the NDC of the country [43]:

The Solomon Islands will reduce emissions by-

- o 12% below the 2015 level by 2025; and
- o 30% below the 2015 level by 2030 compared to a BAU projection.

The country with international assistance, contribute a further-

- o 27% reduction in GHG emissions by 2025; and
- o 45% reduction in GHG emissions by 2030 compared to BAU projection.
- **22.** The targeted sectors are the Energy sector (Power-39%, Transport-61%) covering Renewable and EE, Land use, Land Use Change, and Forestry. In addition to the carbon storage in the forest and ocean ecosystem, estimated, quantified emissions reduction impact will be 8,300 t CO₂e annually (unconditional commitment); and 18,800 t CO₂e annually by 2025, and 31,125 t CO₂e annually by 2030 (conditional contribution with international assistance).
- **23.** The policy framework for adaptation as mentioned in the NDC is linked to the Climate Change Policy (2012-2017)^[44], and National Development Strategy (NDS) (2011-2020)^[45]. The priority sectors and adaptation actions of the NDC are in line with the NAPA (2008)^[46]. The priority sectors and adaptations are:
- o Agriculture and Food Security
- ? Improve and conserve soils; and

- ? Develop new crops;
- o Water Resources
- ? Increase water supply, e.g. by using groundwater, building reservoirs, improving or stabilizing watershed management, desalination; and
- ? Improve or develop water management
- o Coastal Zones and Marine Ecosystems
- ? Protect, including building sea walls, and beach nourishment

Adaptation needs and priorities are highlighted as (i) subsistence and commercial agriculture, (ii) coastal environments and systems, (iii)human health, (iv) freshwater resources, (v) marine resources, (vi) human settlements, and (vii) education and awareness.

24. SIG has already taken steps for NDC implementation. Under energy generation solutions, the country indicated the intention to focus on renewable energy from hydropower and solar projects. For example, Fiu Hydropower and Tina Hydropower development to reduce emissions from the energy sector[47]. Table 5 presents the NDC commitment and unconditional mitigations actions emission reduction impact. Currently, in the country, there are no projects specifically designed and aligned to the NDC targets focusing on emission reduction from forestry and land-use sectors. The country is working on the REDD+ program, but currently, the scope of activities is limited to raising awareness, demonstration activities, and capacity-building. The country does have a sustainable logging regulation that has already passed in the cabinet. Mitigation actions focusing on Energy and Land use, Land Use Change, and Forestry are seen as key elements of the Government?s future program to implement the NDC, and the country initiatives are progressing through policies and measures on Energy and National REDD+ program. The proposed Capacity-building Initiative for Transparency (CBIT) project would be one of the first projects in Solomon Island designed to specifically support the implementation of core elements of the NDC.

Table 5: Emission reduction target and mitigation action of the Solomon Island NDC.

Emission reduction target and mitigation actions	Unit	2025	2030
NDC target			
Unconditional emission reduction quantity and percentage in parenthesis	tCO2e	240,00 0 (12%)	600,000 (30%)
Unconditional emission reduction quantity and percentage in parenthesis	tCO2e	540,000 (27%)	900,000 (45%)
NDC mitigation actions			
Fiu hydro	tCO2e	12,220	24,440
Solar farm	tCO2e	2,037	4,073
Tina hydro	tCO2e	91,244	319,355
Solar homes	tCO2e	1,697	3,395
Mini hydro	tCO2e	1,304	4,562
Energy usage	tCO2e	1,629	3,258

Source: Solomon Island NDC^[48].

2.5Existing institutional arrangements on national climate change policies and relevant ministries

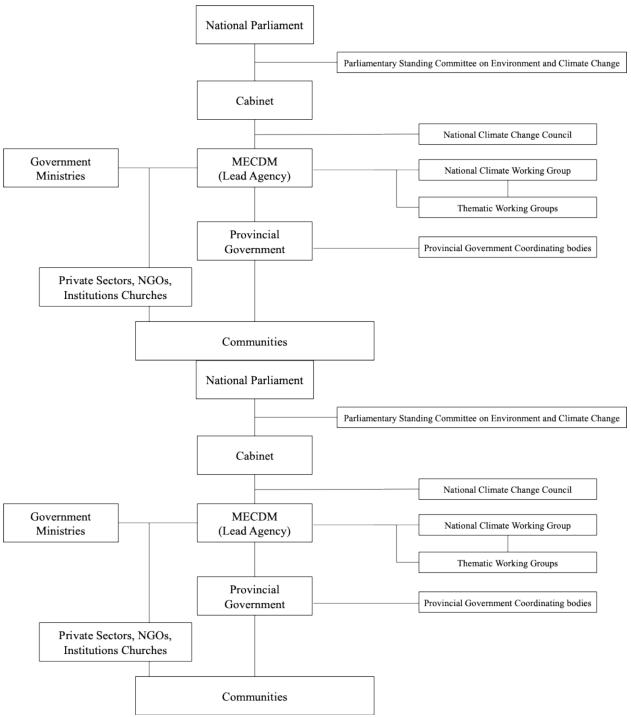
- 25. Ministry of Environment, Climate Change, Disaster Management, and Meteorology (MECDM) is the responsible entity in the country to manage the environment, climate change, disaster management, and meteorology related matters. The MECDM is the focal point for the UNFCCC, Kyoto Protocol, together with a host of Multilateral Environmental Agreements (MEAs) including the Hyogo Framework on Disaster Risk Management. The Minister is responsible for ensuring the establishment, implementation, and monitoring and evaluation of matters focusing on the environment, climate change, disaster management, and meteorology. It has eight Provincial Offices to carry out the assigned functions. In 2008, the government established the Climate Change Division and in 2011 the National Disaster Management Office (NDMO) became part of the MECDM and providing a strong platform for strengthening the integration of Vulnerability and Adaptation Assessment (V&A) and Disaster Risk Reduction (DRR) at the operational level. National coordination of climate change programs and projects is overseen by the National Climate Change Country Team (NCCCT) chaired by the Permanent Secretary of MECDM. Now, MECDM is carrying out its operation through 5 technical Divisions and 1 corporate service division as mentioned below:
- (i)Environment & Conservation Division;
- (ii) Climate Change Division;
- (iii) Disaster Management Office;
- (iv) Meteorological Services Division;
- (v) Programme Management and Coordination Unit and
- (vi) Corporate Services Division.

The Designated National Authority (DNA) is established in the MECDM supported by the National Clean Development Mechanism (CDM) Committee, an interdepartmental committee of senior officials from across government and mandated by the Cabinet of Solomon Islands Government as overseeing body to issue binding recommendations for the DNA^[49] under the first commitment period of the Kyoto Protocol (2008 ? 2012). There is a second commitment period of the Kyoto Protocol(CP2) that lasts until 2020. The future of the CDM is quite unknown at this stage as attention has now shifted to the Paris Agreement and its NDCs that outlines countries? mitigation and adaptation commitments. Institutional arrangement related to national climate change policy and the program is presented in Figure 3.

- **26.** Several government ministries (for example, Ministry of Forest and Research-MoFR and Ministry of Agriculture and Livestock -MAL) have begun mainstreaming climate change into their sector policies and strategies while NGOs and churches have also begun implementing climate change programs. A brief description of the institutional arrangement of the relevant ministries focusing on the sectors related to NDC mitigation and adaptation activities is presented below.
- 27. The Ministry of Forestry and Research (MoFR) is responsible to sustain the beneficial aspects of the forest to the economy, environment, and the livelihood of the people, resource owners, and custodians of the forest. The key services of the MoFR are: (i) implementation of the Forest Development and Reforestation program Planning and management of forest resource; (ii) monitor all logging operations, (iii) implement the Government Forest policy, (iv) promote

sustainable forest resource management, and (v) research studies into timber, logs, flora and fauna; and improvement of botanical gardens and safekeeping of vital specimens. The MoFR carryout its services through six Divisions: (i) Corporate Services Division, (ii) Forest Development and Reforestation Division, (iii) Forest Resource Management & Technical Service Division, (iv) Forest Industries Division, (v)National Herbarium & Botanical Garden Division, (vi) Timber Utilization Division. National REDD+ Program is currently implementing in the country under the Forest Resource Management & Technical Service Division^[50].

Figure 3: National institutional arrangement on climate change policy and program in Solomon Island (Source: Solomon Islands National Climate Change Policy: 2012 - 2017^[51]).



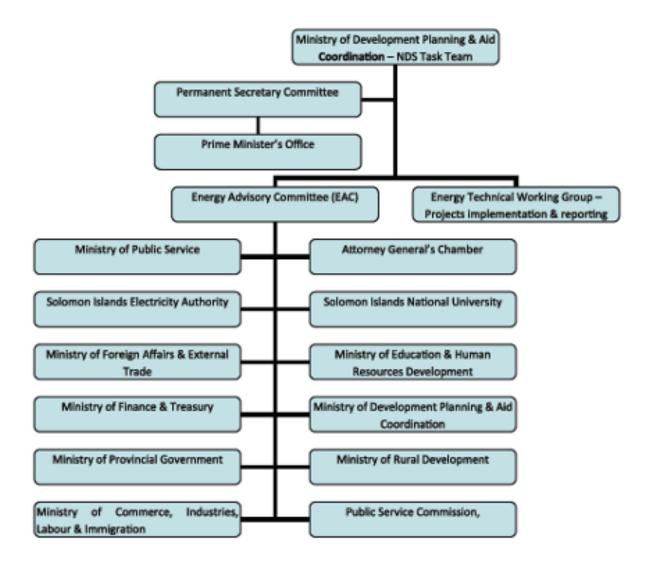
28. The Ministry of Agriculture and Livestock (MAL) is responsible for formulating, executing, monitoring, and coordinating the agricultural policies of the country. To manage natural resources and improve the quality and quantity of production of staple and commodity crops and livestock, MAL continues to work together with government, NGO?s and private sector partners in its service delivery to facilitate and support the development of commercial agriculture and livestock in the country. To achieve its mission, the Ministry of Agriculture & Livestock delivers services through its six departments: (i) Agriculture Planning and Land Use Department, (ii) Agriculture

Extension and Training Department, (iii) Agriculture Research and Development Department, (iv) Livestock Production and Veterinary Services Department, (v) Biosecurity Solomon Islands Department, and (vi) Corporate Services Department^[52].

29. The Ministry of Mines, Energy & Rural Electrification (MMERE) is responsible for developing the minerals sector, petroleum, energy, water resources, and rural electrification. They are also responsible for State-Owned Enterprises (SOEs), namely Solomon Power and Solomon Water. The ministry is dealing with the implementation of National Mineral Policies, Energy Policy, and other policies applicable under the mandated function of the ministry. To achieve its mission, the Ministry is currently operating under five divisions: (i) Geological Survey Division, (ii) Mines Division, (iii) Water Resources Division, (iv) Petroleum Division, and (v) Energy Division.

As per the National Energy Policy (2014), the Energy Division is the leading coordinating agency for implementing, while the administration and oversight of the progress are to be monitored by a high-level multi-sectoral committee to be known as the Energy Advisory Committee(EAC). The Ministry of Development Planning and Aid Coordination, now Ministry of National Planning and Development Coordination (MNPDC), is the key member of the committee and its coordinating role in promoting congruence between government priorities and donors are considered important. The EAC is to be chaired by the Permanent Secretary of the Ministry of Mines, Energy and Rural Electrification, with core members from the 12ministries, as illustrated in Figure 4.

Figure 4: Proposed institutional structure of the National Energy Advisory Committee in National Energy Policy (2014).



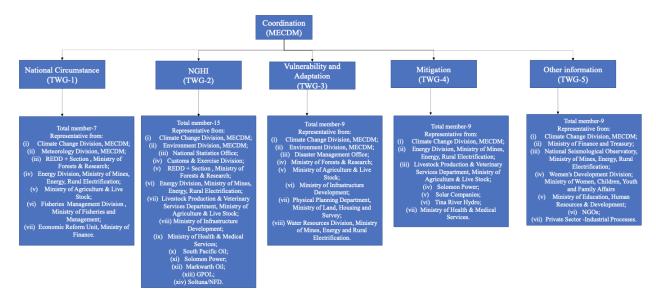
- **30.** The MMERE is the lead agency for planning and coordinating energy use in the Solomon Islands while the MECDM is the focal agency for the UNFCCC and Kyoto Protocol. By way of government political commitment in the area of climate change mitigation, the government has established in its Policy Translation and Implementation document (2011) a range of goals and strategies which should contribute to climate change mitigation such as expanded reforestation, preparations for carbon trade, promote and implement renewable energy programs, establish a national energy balance database^[53].
- 31. The national GHGI for the SNC was coordinated by the MECDM, with support and data provision made available through agencies such as Customs and Excise, the Solomon Islands Ports Authority (SIPA), and Solomon Islands Electricity Authority. Thematic Working Groups (TWG) were established as GHGI teams to collect and analyze data to develop inventories. The establishment of TWGs to support the implementation of the SNC has also strengthened linkages and collaboration between the government and other stakeholders. The overall institutional arrangement for the SNC are as follows:

- o Thematic Working Groups Formation to work on Inventory.
- o Thematic Working Groups Capacity Building/Training
- o Data Collection for sectors covered under the Inventory
- o Identification of Gaps
- o Documents / Data Review for quality assurance
- o Report (inventory) writing

Sectorial data for GHG estimation was compiled from various sources primarily using national data collected from annual reports, statistical reports, studies, concerns private and government divisions, and brochures of related departments/institutions. Where no formal data were available, they are not considered in the study. Data was collected from government bodies mandated to monitor imports - Statistics and SIPA. Electricity provision data were then obtained from The Solomon Islands Electricity Authority. Due to poor data archiving by government departments and the fear of compromising business activities in the private sectors, detailed emissions for the respective fossil fuel types could not be noted. However, the energy division has taken an extra step to make this an ongoing activity and has liaised with the SOPAC Petroleum Section to continually monitor yearly fuel imports to the country and supply necessary data to the Division. This means that until a system is in place Solomon Islands will continue to retrieve information on fuel consumed in the country using a Top-Down Approach.

In addition, the proposed TWG composition is presented in Figure 5. Different TWGs are proposed consisting of staff from sectoral/line ministries. They also represent a link to sectoral policies and national priorities, as outlined in the national objectives of the National Development Strategy (NDS).

Figure 5: The proposed composition of the Thematic Working Groups (TWG) for national communication preparation.



32. Overall, the need for action to address climate change mitigation focusing on energy and land use, and land-use change from forestry is of particular importance in Solomon Island, because they are the key source of GHG emissions as mentioned in NDC. Besides, adaptation activities focusing on Water, Agriculture, Food security, Forestry, Urban areas, Health, Tourism is significant, due to their contribution to the national economy. Yet, these sectors are facing considerable threats from climate change. Significant progress has been made in reporting GHG emissions by the country through the preparation of two national communication (NC) and one FRL. However, the country needs to establish harmonized systems synchronized with the institutional coordination to track progress in achieving NDCs mitigation actions across priority sectors of energy, forestry, and land use; as well as adaptation actions covering priority sectors of agriculture and food security, water resources, and coastal zones and marine ecosystems. Improved institutional coordination and a robust system in place through the proposed CBIT project will help the country to monitor progress in achieving NDC mitigation and adaptation goals across sectors and sub-sectors. This is needed to comply with the transparency framework of the Paris Agreement concerning NDC implementation. Such institutional coordination and the robust system will help the Solomon Island to capture precise data and information for ensuring accuracy and credibility in GHG inventories reporting by sources and sinks.

2.6Legal and Regulatory Framework on Climate Change:

2.6.1 Mitigation

- **33.** National Climate Change Policy: 2012 2017^[54] states the need for strengthening the capacity of the Climate Change Division as the government lead agency overseeing climate change to lead, guide, and coordinate national programs and actions addressing climate change and coordinate preparations and participation in international climate change negotiations. Besides, the establishment of national Thematic Working Groups (TWG) to provide technical and strategic support and advice to the lead agency and the National Climate Change Council on climate change issues is also mentioned. The working groups shall oversee the climate change thematic areas: Vulnerability, disaster risk reduction and adaptation; Mitigation & Greenhouse gas inventory; Research, Systematic Observation and Technology Transfer; and Education, awareness, and capacity building.
- **34.** The National Energy Policy (2014)^[55] includes policies and strategies that can contribute to climate change mitigation including;
- o Partnerships are established and strengthened at local, national, regional, and international levels for the development of energy programs and projects.
- o Develop a national energy balance database.
- o Develop and implement energy efficiency and conservation in all sectors.
- o Install renewable energy technologies for demonstrations (head office and solar farm).
- o Establish an appropriate, reliable, affordable, and sustainable renewable energy-based power supply.
- o Assess, cost, promote, and enhance the potential for renewable energy resources.
- o Increase productivity in rural communities with the use of renewable energy services.
- o The monitoring and regulation of petroleum prices are done through transparent and coordinated ways.

- o Promote energy conservation and efficiency measures in government, residential, commercial, and business sectors.
- o Encourage energy efficiency in appliances, equipment, and technologies.
- 35. The country?s basis for progressing its REDD+ agenda and supporting mitigation efforts focusing on the forest sector is the Solomon Islands REDD+ Readiness Roadmap 2014?2020. It is further supported by a National Forestry Bill (2017). Given the importance of forest resources and ecosystems for livelihoods and ecosystem services, the roadmap and forestry bill are key components of climate change mitigation and adaptation. Because, deforestation exacerbating the impacts of natural hazards, so forest must be protected to ensure resiliency and climate change adaptation.
- **36.** The National Agriculture and Livestock Sector Policy (2015-2019)^[56] includes a policy objective for ?Sustainable Management of Natural Resources and the Environment? and includes policy statements and focused activities. Such as:
- o Farmers shielded from the impacts of natural disasters and climate change through disaster and risk management and climate change mitigation.
- o Soil conservation and management are enhanced.
- **37.** The National Agriculture and Livestock Sector Policy (2009-2014)^[57]includes a policy objective to ?mitigate the effect of climate change? and includes policy statements and focused activities. Such as:
- o Developing mitigation plans.
- o Conservation farming such as agro-forestry.
- o Discourage slash and burn methods (shifting agriculture).
- **38.** The National Solid Waste Management Strategy and Action Plan (2009-2014)^[58] include actions to establish proper sanitary landfills to minimize burning on-site and provide the opportunity for methane capture.
- **39.** The National Development Strategy (NDS) (2016-2035)^[59] specifically highlights the strategies towards a sustainable environment, contributing to climate change mitigation. The NDS Objective Four is related to ?Resilient and environmentally sustainable development with effective disaster risk management, response and recovery? Under the objective Four, Medium Term Strategy 10 is related to ?Improve disaster and climate risk management, including prevention, risk reduction, preparedness, response, and recovery as well as adaptation as part of resilient development? Under the objective Four, Medium Term Strategy 11 is related to ?Manage the environment in a sustainable resilient way and contribute to climate change mitigation?

2.6.2 Adaptation

- **40.** The NDS (2011-2020)^[60] makes explicit reference to climate change as a threat to the livelihood of Solomon Islanders. Consequently, the NDS has a policy objective aimed at holistically integrating national environmental issues to adapt to climate change and variability, halt the deterioration of the eco-systems, restore damaged ecosystems and ensure their survival in the long term to benefit Solomon Islanders.
- **41.** The Environment Act (1998)^[61] lists logging as a prescribed development activity that can be subjected to Environmental Impact Assessments (EIA). This is also supported by the Wild Life Protection and Management Act (1998)^[62], River Waters Act (1978)^[63], and the Protected Species Regulations (2012)^[64].In 2010 the national parliament passed the Protected Areas Act which provides the legal framework for establishing protected areas in the country^[65].
- **42.** The Solomon Islands Agriculture and Livestock Sector Policy 2015?2019 cover detailed inclusions of climate change adaptations aspect compared with most other sector policies and plans to date. Climate Change Adaptation and Disaster Risk Mitigation are specific focus areas considering cross-sector policy areas. These include engaging in cross-sectoral work aligned with both the National Climate Change Policy and National Disaster Management Plan, as well as mainstreaming the issue across strategies and programs related to forestry and fisheries.^[66]
- 43. Different community-based forest protection activities leading the way in forest conservation as a means of climate change adaptation. For example, the Tetepare Conservation area (Tetepare Island), West Bauro Conservation (Makira Island), West Rennell Heritage site (Rennell Island), and Kolombangara forest conservation programs are based on community-based forest protection activities. There has been a steady growth in conservation initiatives targeting marine ecosystems^[67].
- **44.** The National Water Resources and Sanitation Policy^[68] has been in draft form since 2013 and has not yet been approved. The development of the policy was based on the principles of integrated water resource management in island counties, water use efficiency, and adaptation to climate change.
- **45.** There is no overarching policy on climate change adaptation-related health issues (such as dengue fever). Only has a cursory alignment with MECDM and the Government?s response to climate change. The current Ministry of Health National Strategic Plan 2016?2020 does not include mention of climate change adaptation^[69]. However, a Health and Climate Change Policy is apparently in the initial stages of development to address this gap^[70].
- **46.** Solomon Islands Rural Water Supply, Sanitation and Hygiene Policy^[71], and the Rural Water Supply, Sanitation and Hygiene Strategic Plan 2015?2020^[72] outlines climate change adaptation as a cross-cutting issue. This includes incorporating climate change adaptation and disaster preparedness references in both the Solomon Islands Rural Water Supply and Sanitation Design and Construction Standards, and the Solomon Islands Rural WASH Community Engagement Guidelines. These national documents acknowledge the impact of climate change on freshwater

availability and reiterate the policy outcomes around sustainable water and sanitation services within the context of climate change adaptation.

- 47. The Ministry of Fisheries and Marine Resources' corporate plan 2015?2018^[73]makes no mention of climate change adaptation. The ministry?s Corporate Plan 2012?2014 included climate change under Priority 3: ?improve the health of our fisheries and marine resources? and as a specific strategy in 3.3, ?Climate change impacts on fisheries sector considered in planning and management of SI fisheries?. The Solomon Islands National Plan of Action for Fisheries (2010)^[74] hasa focus on climate change adaptation and adaptive capacity for the fisheries sector considering community-based management initiatives. Climate change adaptation was one of five overall goals committed to at the regional level as part of this initiative.
- **48.** The National Transport Plan 2017?2036^[75]recognizes the importance of climate change resilience in transport infrastructure design. As such, a Climate Change Adaptation in the Transport Sector Guidance Manual has been developed, as well as a Climate Change Manual for Reducing Risk and Design of Mitigations. Climate change risks are also outlined as key environmental impacts and risks in the Ministry?s Safeguards Procedures Manual.
- 49. National Education Action Plan 2013?2015^[76] makes no mention of climate change adaptation. The Ministry of Education and Human Resources Development (MEHRD) has developed specific disaster management plans including the Guidelines for Preparing School Disaster Management Plan and the Policy Statement and Guidelines for Disaster Preparedness and Education in Emergency Situations. These both cover preparedness, response, and recovery for disaster management and risk reduction considering climate change adaptation. The Policy Statement and Guidelines for the Development and Implementation of the National Curriculum in the Solomon Islands includes a section on environmental education, in which climate change adaptation, environmental management, and conservation are included.
- **50.** The Solomon Islands National Tourism Policy 2015?2019^[77] considered climate change adaptation in Key Policy Area 2? Transport and Infrastructure. The impact of climate change on the sector and tourist destinations are highlighted, along with the need for collaboration and communication between the tourism sector, and associated inter-ministerial agencies.

2.7. Baseline initiatives of the Solomon Islands towards ensuring transparency in Climate Change

51. As part of the implementation of Article 13 of the Paris Agreement, Solomon Island is committed to adopting an Integrated National Transparency framework, through Solomon Islands National Climate Change Policy: 2012 - 2017^[78]. The ?8.8.1 Policy Directive and Strategies? of this national document clearly states ?The government will ensure that technical assistance and financial resources to support climate change programs and projects in the country is mobilized, managed and accounted for in an efficient, participatory, and transparent manner?. To achieve this national aspiration towards climate transparency, the nation will:

- (a) Make provision in its national and provincial development and recurrent budget to implement corporate plans, programs, and projects that address climate change;
- (b) Strengthen coordination with donor partners to effectively mobilize financial resources to support implementation of the NDS, the climate change policy, and other related national and provincial level through Ministry of Development Planning and Aid Coordination (MDPAC) Donors Aid Coordination mechanisms;
- (c) Strengthen coordination and consultation between government Ministries and Provincial governments to ensure that climate change funding via the government or NGOs support the implementation of this policy and includes provincial government, Honiara City Council, and community representatives in the project cycle stages, and also ensuring that the requirements of the MDPAC are met;
- (d) Strengthen capacity within MECDM, with the support of MDPAC, to coordinate and monitor the performance of climate change programs and projects and their effectiveness in supporting the implementation and achievement of national and provincial adaptation, disaster risk reduction, and mitigation strategies;
- (e) Build capacity and develop a long-term programmatic approach for implementing adaptation, disaster risk reduction, and mitigation strategies;
- (f) Provide training and build capacity in climate change funding and project cycle management to all stakeholders, in line with government and donor requirements; and
- (g) Establish a transparent process for financial and technical assistance resource allocation and utilization.
- 52. Solomon Island has developed an Environmental Data Portal (https://solomonislands-data.sprep.org/) in 2018 through a project facilitated by the Secretariat of the Pacific Regional Environment Programme (SPREP). The national environment portal is an online database providing a centralized data management system housing information and data on the environment for informed decision-making. The key purpose is to provide easy access and safe storage of environmental datasets to be used for monitoring, evaluating, and analyzing environmental conditions, and trends to support environmental planning, forecasting, and reporting requirements at all levels. The database can be stored and accessible in excel, word, PDF, GIS shapefiles, and any other file type including non-environmental datasets. This database currently archived 543 datasets (in excel, word, PDF, GIS shapefiles) covering build environment (169 datasets), coaster and marine (130 data sets), land (43 datasets), biodiversity (42 datasets), culture and heritage (28 datasets), atmosphere and climate (25 datasets), and inland waters (19 datasets)^[79].
- 53. Considering the above national aspiration towards climate transparency, the main focus of this CBIT project with the support from FAO will be to strengthen the technical and institutional capacities in the Solomon Island to meet the PA?s Enhanced Transparency Framework (ETF) requirement. Previous projects on National Communication development and FRL submission provided an important starting point related to capacity development on institutionalized GHG inventory and MRV system including modeling and impact analysis. While the proposed CBIT will strengthen the existing capacities focusing on institutionalized transparency mechanism, the quality of data and information related to the GHG inventory, and MRV for achieving a successful tracking of NDC mitigation and adaptation activities.

54. Solomon Island has implemented, or in the process of implementing the below initiative related to MRV and transparency:

Table 6: The baseline initiatives in Solomon Island contributing to MRV and climate transparency

Name of Initiative	Implementing and executing agency	Linkages with the CBIT project
1. The First National Communication to UNFCCC Donor: GEF Timeframe: 1997-2000	Under the Pacific Islands Climate Change Assistance Project (PICCAP) with the assistance from UNDP (Implementing Agency-IA), and Ministry of Culture, Tourism, and Aviation (Executing Agencies-EA)	The CBIT project will build on data and coordination mechanism.
2. The Second National Communication to UNFCCC Donor: GEF Timeframe: 2013-2017	UNDP (IA) &MECDM (EA)	The CBIT project will build on data and coordination mechanism.
3. The Third National Communication and Biannual Update Report to UNFCCC Donor: GEF Timeframe: 2019-2022	Under the umbrella Programme for Preparation of National Communications and Biennial Update Reports to the UNFCCC, and with the assistance from UNEP (IA) &MECDM (EA)	The CBIT project will closely work with this initiative for data and institutional arrangement. Lessons learned and experiences from the activities will also be considered. Opportunities for exchange and joint capacity building will be sought with these projects.
4. Formulation of a National Adaptation Programs of Action (NAPA) for the Solomon Islands Donor: GEF Timeframe: 2005-2013	UNDP (IA) & Solomon Islands Meteorological Service, Department of Communication, Aviation and Meteorology, Ministry of Culture, Tourism and Aviation (EA)	The CBIT project will build on data and coordination mechanism.
5. National Capacity Needs Self-Assessment (NCSA) for Global Environment Management Donor: GEF Timeframe: 2004-2015	UNDP (IA) & Department of Forestry, Environment and Conservation (EA)	The CBIT project will build on data and coordination mechanism.
6. Mainstreaming climate change and ecosystem-based approaches into the sustainable management of the living marine resources of the WCPFC Donor: GEF Timeframe: Concept approved in 2020	UNDP (IA) &Pacific Islands Forum Fisheries Agency (EA)	Lessons learned and experiences from the activities will also be considered. Opportunities for exchange and joint capacity building will be sought with these projects.

Name of Initiative	Implementing and executing agency	Linkages with the CBIT project	
7. Climate Resilient Urban Development in the Pacific Donor: GEF Timeframe: Concept approved in 2019	UNDP (IA) & Ministry of Finance and Treasury(EA)	Lessons learned and experiences from the activities will also be considered. Opportunities for data and information exchange, and joint capacity building will be sought with these projects.	
8. EREPA - Ensuring Resilient Ecosystems and Representative Protected Areas in the Solomon Islands Donor: GEF Timeframe: Concept approved in 2017	International Union for Conservation of Nature (IUCN) (IA) &MECDM, MOFR, MAL (EA).	The CBIT project will build on the coordination mechanisms, capacity, knowledge management and M&E systems.	
9. Building National and Regional Capacity to Implement MEAs by Strengthening Planning, and State of Environment Assessment and Reporting in the Pacific Islands Donor: GEF Timeframe: 2016-2020	UNEP (IA) and Secretariat for the Pacific Regional Environment Programme (SPREP).	Lessons learned and experiences from the activities will also be considered. Opportunities for data and information exchange, and joint capacity building will be sought with these projects. The CBIT project will build on the coordination mechanisms, capacity, knowledge management and M&E systems.	
10. Community Resilience to Climate and Disaster Risk in Solomon Islands Project Donor: GEF Timeframe: 2016-2020	The World Bank (IA), and MECDM, MDPAC (EA)	Lessons learned and experiences from the activities will also be considered. Opportunities for data and information exchange, and joint capacity building will be sought with these projects. The CBIT project will build on the coordination mechanisms, capacity, knowledge management and M&E systems.	
11. Integrated Forest Management in the Solomon Islands Donor: GEF Timeframe: Project Approved for Implementation in 2016 (5- year project)	FAO(IA) & MECDM, MOFR, MAL (EA).	Lessons learned and experiences from the activities will also be considered. Opportunities for data and information exchange, and joint capacity building will be sought with these projects.	

2.8 Climate Change and Gender

55. It is already reported that the effects of climate change are not gender-neutral, and due to pre-existing inequalities women are disproportionately affected in the Pacific Islands communities[80]. Firstly, women and girls are at a higher risk of physical impacts of disasters and extreme climatic events. Women also suffer secondary impacts due to pre-existing and incredibly high rates of gender-based violence in the Pacific, which increases post-disaster and in times of stress. Secondly, women, unlike men, have a higher dependence on natural resources. The majority of women in the Pacific work in agriculture, often at subsistence level which increases their exposure to climate change^[81]. The situation is more threatening on Solomon Island. For example, as shown in Table 7, the female mortality rate is highest in Solomon Island due to recent extreme climatic events in the Asia-Pacific region.

Table 7: Female mortality in Asia-Pacific disasters.

Year	Disaster/Country	Female Mortality
1991	Cyclone 0B2/Bangladesh	90
2004	Tsunami/Aceh Indonesia	77
2004	Tsunami/Tamil Nadu, India	73
2008	Cyclone Nargis/Myanmar	61
2009	Tsunami/Samoa, Tonga	70
2014	Plash floods/Solomon Islands	
2016	Cyclone Winston/ Fiji	50

Source: Aipira et al., (2017)[82].

- 56. Since the agriculture sector in the Pacific Island communities is the hardest hit by climate change, women?s resilience is gradually declining. Agriculture activities are becoming less productive, water, and fuel are difficult to find. That is why, women are spending more time on subsistence production and household activities, rather than activities that are leisure- or income-related. Due to such ?time poverty?, and unequal access to resources women are less able to adapt to and cope with climate change, and are unable to develop a reliable and independent source of income on the pacific island^[83]. For example, the weaving of mats and baskets from pandanus leaves is an integral part of women?s culture in the Pacific and a source of income. Cyclone Ian in 2014 destroyed the pandanus tree crop in the Pacific Island, and it takes up to two years for leaves to grow long enough for harvesting, women?s ability to generate income was affected long after the cyclone^[84].
- 57. Women in the Pacific Islands play an important role in climate change adaptation because they can use traditional knowledge to preserve and store food and seeds ahead of disasters helping their families to recovery. Women in the Pacific Islands also hold critical knowledge on safe water sources, and how to grow climate extremes resistant crops. They also know how to manage household finances to assist their families to adapt and respond to climate effects^[85].
- **58.** In the Initial and Second National Communication of Solomon Island, gender issues and women?s roles (participation) in climate change were not addressed in detail. The gender issue is not even

mentioned in the Initial National Communication, and the Second National Communication referred to NAPA to identify the urgent adaptation needs based on established criteria including ?Equity-gender and resources?. Effective cross-sectoral coordination between the inter-ministerial agencies on gender and climate change in the future can turn policy commitments into effective action. For example, the Solomon Islands Climate Change Policy is supported by specific provisions that articulate the involvement of women in operations and decisions. The Ministry of Women, Youth, Children and Family Affairs (MWYCFA) is included in the National Climate Change Council and its thematic working groups are articulated in the Climate Change Policy^[86].

- 59. Women are the most vulnerable groups to the effects of climate change, and they do not have sufficient adaptive capacity due to the lack of access, control, and participation in climate change policies. So, gender mainstreaming should be done in the development of climate change policies. There has been a focus on considering gender equality related to climate change adaptation, while gender equality in climate transparency is absent^[87]. The Paris Agreement calls for a ?country-driven, gender-responsive, participatory and fully transparent approach to foster climate resilience and reduce vulnerability?^[88]. So, the outcomes of the Paris Agreement offer new impetus to consider gender dimensions considerably on climate change transparency.
- **60.** Hence, the different roles and responsibilities of women in climate transparency should be considered in CBIT through gender analysis in Solomon Island. The project will, where possible, account for and apply a gender-sensitive approach to data and information collection and analysis, which will be reported in project findings and relevant publications.

2.9. Barriers and Gaps

- **61.** The Initial National Communication^[89] presented several gaps and barriers as mentioned below:
- ? There is a need for developing local skills and expertise and the strengthening of institutions which will be involved in ongoing climate change-related activities;
- ? There is a need for capacity building focusing on the establishment of institutional linkages, monitoring and verification, and information and data acquisition;
- ? Understanding and documentation of land-use practices and change throughout the Solomon Islands;
- ? Information on forest and mangrove cover and their present conditions;
- ? Detailed information about optimum climatic conditions for subsistence crops (e.g. taro) and cropping systems;
- **62.** The Second National Communication^[90] presented several gaps and barriers as mentioned below:
- ? The lack of national activity data and emission factors;
- ? Absence of data archiving system in relevant government departments;
- ? The GHG emissions and sink from land use, land-use change, and forestry (LULUCF) were not estimated due to the uncertainty/unavailability of data.
- ? There is a growing amount of data from the national census, surveys, and assessments that need to be digitized and geo-referenced;

- ? Serious institutional weaknesses related to GHG inventory preparation and data sharing;
- ? Lack of education, training, and public awareness; and
- ? Absence of GHG emission database management systems focusing on data collection, harmonization, archiving, updating, and utilizing the data.

63. The NDC^[91]presented several gaps and barriers as mentioned below:

- ? Institutional challenges relating to high staff turnover rates in senior executive positions;
- ? Limited sector-specific training, and a lack of clarity on internal roles and responsibilities;
- ? Lack of adaptation knowledge sharing, coordination, and collaboration among ministries as well as with non-governmental organizations (NGOs), the private sector, faith-based organizations and development partners; and
- ? Lack of consistent and regular collection of data as well as data-sharing arrangements.
- **64.** Based on the gaps and barriers identified in the two national communications, NDC, and National Capacity Self-Assessment to meet the UNFCCC reporting requirement^[92]; the key barriers that should overcome to ensure the National MRV system can comply with the requirement of Enhanced Transparency Framework in the Paris Agreement are follows:
- ? Barrier 1- Absence of mitigation and adaptation activity data and information system: The majority of the activity data for the previous GHGI are collected indirectly from expert sources and statistics. Sometimes it is also approximated. Focusing on direct measurement and reporting is crucial to ensure quality activity data because insufficient activity data can lead to incomplete emissions estimates. Default IPCC values were used for second national communication. Developing country-specific emission factors will improve the estimates of GHG emissions. Use of outdated IPCC methodologies, and a lack of comprehensive tools, methodologies, and best practices to comply with ETF requirements.
- Rarrier 2-Lack of integrated and systematic coordination and institutional mechanism for data and information sharing on mitigation and adaptation activity: There is a lack of sharing, archiving, and regular update of data related to national GHGI. The REDD+ MRV system is in the process of development through the submission of the forest reference level. Yet, coordination and institutional arrangement for a national MRV system focusing on NDCs and other green development activities are absent. Lack of institutional capacity to ensure data and information-driven decision-making affecting the efficient monitoring of NDC actions. Also, there is a lack of awareness among the stakeholders regarding the Paris Agreement, the ETF, and the actions needed to monitor and tracking of mitigation and adaptation activities. Limited coordination is also prominent among the national stakeholders by sharing data and information to ensure transparency in NDC actions. Overall, there is an absence of knowledge-sharing platforms to access lessons learned and good practices.
- ? Barrier 3-Lack of technical expertise and knowledge of measuring, reporting, and verification (MRV): There is a lack of expertise and knowledge on the detailed calculation on the uncertainty of emissions to know factors contributing to the highest uncertainty. Similarly, there area lack of information on the quality of estimates, and data quality issues. This is critical to ensure the

comparability of estimates between years. So, Quality Assurance (QA)/Quality Control (QC) and verification processes are also limited. In summary, there is a low technical capacity of national experts to develop domestic MRV systems.

•Barrier 4- Lack of technical expertise and knowledge on monitoring, evaluating, and report on adaptation actions: The government agencies have limited capacity for systematic collection, monitoring, reporting, and evaluating adaptation actions. There is a lack of harmonized indicator and monitoring systems for prioritized national adaptation activities. Insufficient data and information to assess the immediate climate change adaptation action are another major lacking. Limited technical capacity and resources for prioritizing and monitoring the NDC adaptation actions progress. That is why NDS^[1]specifically highlighted the need of increasing risk awareness and adaptation knowledge at all levels.

[1]https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf

(3) THE PROPOSED ALTERNATIVE SCENARIO

65. The GEF alternative scenario is developed to strengthen Solomon Island's technical and institutional capacity for compliance by 2023 with the Enhanced Transparency Framework (ETF) of the Paris Agreement on Climate Change to track mitigation and adaptation actions of Nationally Determined Contribution (NDC) priority sectors focusing on agriculture, land-use change, energy and wastes sectors as explained in Figure 6-Theory of Change. The CBIT project will ensure efficient and comprehensive mitigation and adaptation-related information system through building technical and human capacities. Thus, under the Climate Change Division of MECDM, each relevant sector will have a cell/working group responsible for collecting, archiving, and updating relevant data. These cell/working group will consist of the national stakeholders hosted by the Climate Change Division of MECDM. This CBIT project will enable Solomon Island to generate updated and consistent inventories of emission sources and sinks using advanced IPCC methodologies to track the progress of NDC actions. Indeed, the actors who will carry the process will be trained in inventory modules but also monitoring of the actions implemented in the context of the NDC actions. Strengthening institutional and technical capacities will lead to the generation of harmonized and quality data at the national level, enabling data and information-driven climate change mitigation and adaptation decision making.

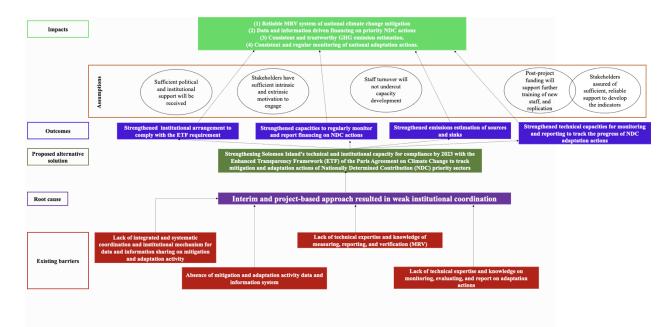


Figure 6: Theory of change of the proposed CBIT project in Solomon Island.

Component 1: Strengthening institutional arrangements and capacities to meet the Paris agreement requirements on ETF

- **66.** This component will help strengthen the capacities of national and local institutions helping Solomon Island to place proper political and institutional structures to ensure transparency in the MRV system. This component will establish clear institutional roles and responsibilities for line ministries, departments, and divisions for domestic MRV system by distinguishing high-level coordination and technical functions, and by establishing linkages at the institutional level. This institutional strengthening will involve a broad range of stakeholders, from ministerial staff to policymakers, civil society, academia, and the private sector.
- 67. Outcome 1.1 of this proposed CBIT project will focus on GHG inventory and NDC mitigation action tracking aspects of ETF requirement. It will be achieved through the institutional, data collection, analysis, and reporting capacity gaps and needs for meeting ETF requirements (Output 1.1.1). The project is expected to strengthen the institutional requirement for ETF through strategies that consist of (i) capacity gap assessment report on National ETF requirement (Deliverable 1.1.1.1); (ii) mapping of MRV legal and regulatory framework on climate initiatives to define roles and responsibilities of stakeholders (*Deliverable 1.1.1.2*), and (iii) guideline and action plan on strengthening the existing legal and regulatory framework on climate initiatives to comply ETF requirement (Deliverable 1.1.1.3). Deliverable 1.1.1.1, 1.1.1.2, and 1.1.1.3 will help (1) a detailed gender equality gap analysis, (2) initiating a long-term strategy for financial resources access, capacity building, and technology transfer, and (3) data, information, and knowledge sharing. The above strategies will help Solomon Island to develop a long-term action plan on climate transparency, and to switch away from a project-based approach to MRV toward a full institutionalization of the ETF. By defining long-term and mid-term actions, which will not be impacted by political change, Solomon Island will be able to accelerate transparency actions over the next decades.

68. The CBIT project will upgrade the institutional framework for meeting ETF requirements (Output 1.1.2) through strategies that consist of: (i) identified focal points in NDC climate change priority sectors with roles description for data collection, archiving, and sharing to comply with ETF requirement (Deliverable 1.1.2.1); and (ii) establishment of a mechanism (through datasharing agreement, and MoU) between the stakeholders for collection, generation, archiving, and dissemination of activity and emissions data to prepare GHG inventories (Deliverable 1.1.2.2). The focal points from relevant sectors will be the key to ensure the proper functioning of the GHG inventory and adaptation information system to be put in place. Each sector will be asked to propose nominal and substitute focal points and will be appointed by ministerial decree. They will be of different thematic areas (i.e. GHG inventories, mitigation, vulnerability and adaptation, financing, technology transfer, and capacity building). They will be also responsible for transferring the training knowledge gathered under this project to their colleagues to ensure the sustainability of project achievements. to ensure the smooth operation of domestic MRV and climate transparency there should be regular exchange of data and information. So, considering the exiting inter-institutional barriers, through memoranda of understanding (MoU) between stakeholders the exchange of data and information will be formalized. Such MoU will define the generation, storage, access, and use of data and information terms. The aim is to ensure that all stakeholders will work simultaneously to ensure the smooth operation of the system to be put in place.

69. The CBIT project will establish a national ETF reporting and monitoring framework building on previous efforts on UNFCCC reporting (Output 1.1.3). The project is expected to contribute towards this output through strategies that consist of: (i) National ETF roadmap is prepared and adopted (Deliverable 1.1.3.1); and (ii) established and operational National ETF body under the Climate Change Division of MECDM involving relevant ministries and entities at the national and provincial level by ensuring gender equality approach for national ETF reporting (Deliverable 1.1.3.2). The proposed National ETF body will have two roles. First, it will support the coordination and communication among transparency actors focusing on NDC climate change mitigation and adaptation actions. Second, it will provide strategic advice and orientation to the transparency mechanism to national stakeholders for a sound and innovative climate transparency action. It will play a central role in data gathering, national inventories and reports, and other MRV functions arrangement. In the long run, it will play a statutory function for the evaluation and development of climate policy and regulation.

70. The CBIT project will strengthen guidelines on monitoring and reporting of climate financing (Output 1.2.1). The institutional arrangement around climate finance tracking is treated separately, as under the proposed TWG structure (Fig 5) it is included under 'other information (TWG 5)' consisting of representatives from MEDCM and ministry of finance and treasury under the overall coordination of MEDCM. It is also treated separately to represent 'climate finance tracking' as a national tool to track climate finance resources (financial, technology and expertise support) both from domestic and international sources and how they are allocated in priority sectors and identified in NDC. This approach will provide information for both national and international reporting through the relevant TWG and Climate Change Core Working Group. The project is expected to contribute towards this output through strategies that consist of: (i) mapping of national stakeholders with roles and responsibilities for national climate finance focusing on

NDC mitigation and adaptation actions (*Deliverable 1.2.1.1*); and (ii) established National climate finance reporting and monitoring body to track climate finance under the Climate Change Division of MECDM (*Deliverable 1.2.1.2*). The proposed National climate finance reporting and monitoring body will play a central role in data gathering, updating, and managing through coordination with the stakeholders identified under *Deliverable 1.2.1.1*.

71. The established institutional mechanism will be in charge of managing each component of the domestic MRV system for enhanced transparency, focusing on national communications, and biennial update reports. This mechanism will be developed based on the previous institutional arrangement for national communications, forest reference level submission, and a key part of the institutional arrangements mentioned in the National Climate Change Policy. Besides, the project will ensure coordination with the ongoing Third National Communication, and BUR to avoid duplication and enhance synergies about institutional coordination mechanisms. The institutional framework will build on existing data management systems and initiatives like Solomon Island Environmental Data portal to ensure a coherent approach to MRV between sectors. Also, the proposed institutional framework will be linked to the existing National Environment Council to coordinate high-level climate change activity (e.g. legislative and policy direction, supervision, oversight, and guidance) across different levels. Such approaches will ensure the preparation of GHG inventories, and tracking of NDC actions will gradually be supported by government staff and the national budget.

Component 2: Strengthening technical capacity to develop domestic MRV system

72. The project will develop a robust MRV system for mitigation actions, and monitoring the progress of NDC mitigation actions focusing on Agriculture, Forestry and Other Land Use (AFOLU), and energy sectors on a pilot basis. This is because the country recently submitted FREL to UNFCCC, and a number of forestry related initiatives are currently implemented by the government, including, REDD+, Integrated Forest Management in the Solomon Islands (GEF), JICA project on Sustainable Forest Management. Solomon Islands REDD+ project is engaged in establishing forest measurement and reporting capacity building at national level and Integrated Forest Management project has contributed in developing FRL and NFMS. Component 2 will help in strengthening the new forest policy goals on MRV and capacity development. In addition, the energy sector is the highest GHG emitting sector in the country. Most importantly, the mitigation commitments of the NDC are focused on energy and land use change from forestry sector. Considering the national significance, as a pilot approach this project will focus on AFOLU and energy sectors. This will be achieved by strengthening the technical capacity of the Climate Change Division of MECDM with appropriate technical hardware and software to analyze GHG emissions and sinks (Output 2.1.1). The project will contribute towards this output under different deliverables. Deliverable 2.1.1.1 will focus on acquisition and installment of appropriate technical hardware and software (laptop/desktop based) for the Climate Change Division of MECDM and other relevant focal points to appropriately track, collect, assess, storage, document and report on GHG emissions and sinks. The officials and other relevant focal points that are part of the institutional arrangements/TWGs, as sectoral data provider/sectoral GHG emission analysts, require individual technical hardware and software support for i) installation of IPCC GHG inventory software in laptop/desktop, and ii) installation QGIS or ArcGIS for spatial analysis. This will also enable data flow and storage in digitized form rather than in hardcopy. It will be followed by establishment and operationalization of GHG inventory thematic working groups (the same TWG-2 as indicated in Figure 5) for emission and sinks estimation under the Climate Change Division of MECDM involving other government agencies (Deliverable 2.1.1.2). The TWGs are proposed, but not yet operational. This GHG inventory thematic working groups will also be sub-divided as AFOLU and Energy (it is expected that in future, based on the lessons learned, Waste and Industry sector GHG inventory group will also be developed). Lack of proper infrastructure affects the consistency and quality of climate change mitigation and adaptation data. To meet the transparency commitments under the Paris Agreement, necessary infrastructure will be procured and installed, and dedicated working groups assigned for consistent estimation of emission and sinks using the installed infrastructure.

73. This project will establish and operationalize the GHG information management system (Output 2.1.2). The project will contribute towards this output through a GHG information management system with necessary hardware and software under the Climate Change Division of MECDM. Deliverable 2.1.2.1 will include the procurement of hardware (centralized server, Hubs, Routers, Switches, and other IT equipments) and software (Content management systems, and Operating systems) to host a central data centre in Climate Change Division of MECDM. This will be followed be a data collection, archiving, and update protocol development for regular and systematic collection, documentation and archiving to ensure accuracy, consistency, and reliability of GHG emissions and sinks data (*Deliverable 2.1.2.2*); and activity data and countryspecific emission factors collected and archived for estimation of emissions sources and sinks (Deliverable 2.1.2.3); The final deliverable will be a web-based platform to ensure a transparent GHG information management system with historical GHG emissions and sinks data visualization showing the progress of NDC actions (Deliverable 2.1.2.4). The web-based platform will have two interfaces. One will be for the data providers consisting representatives from MECDM and other ministries covering the proposed TWGs. Another will be the national and international data users with download (both data, and graphs) facility. All the deliverables will help the establishment of an online portal to support MRV system data documentation, archive, and visualization. This will include the development of a GHG inventory database with a reporting system using standard Microsoft products, and internet connectivity. This system will be supported by the system administrator, reporters (emitter sectors), and data providers (e.g. relevant government agencies and academia for activity data and emission factors). The system will be also supported by the installation of a central server with a back-up server or cloud services with internet connectivity and will be also connected with the national environmental data portal.

74. Deliverable 2.1.2.2 will ensure standardized sectoral data templates for gathering emissions data and GHG inventory data (activity data and emission factors). Also, the protocol will specify the data collection, calculation, and reporting process for NCs, BURs and other climate change reports to meet specific guidelines. The protocol will specify the cyclical process for data collection, calculation, reporting, and continuous improvement so that the MRV system develops iteratively. Deliverable 2.1.2.2, Deliverable 2.1.2.3, and Deliverable 2.1.2.4 will ensure close coordination for data and methodologies developed under the ongoing TNC and forest reference

level development under the REDD+. The deliverables under this outcome will be based on the IPCC guidelines, *FAO?s Estimating Greenhouse Gas Emissions in Agriculture: A Manual to Address Data Requirements for Developing Countries* (2015), FAO tools and resources on Mitigation of Climate Change in Agriculture (MICCA) program, and other sectoral guidelines^[94].

75. This project will strengthen the capacity of national climate change stakeholders through training on GHG emissions and sinks estimation, and operation of an established GHG information management system(Output 2.1.3). The project is expected to contribute towards this output through gender-sensitive training modules and capacity building sessions organized focusing on estimation of GHG emissions and removals and reporting using latest tools and methodologies (Deliverable 2.1.3.1). The Deliverable 2.1.3.1 will focus on training of master trainers through training of trainers (ToT) modality to ensure newly recruited officials will be trained by the master trainers even after the project closure. In addition, relevant national research institutes/higher educational organizations will be involved to ensure the development of sufficient master trainers to sustain the process. This will be followed by developing training module proceedings and dissemination of the training knowledge materials through established GHG information management system to ensure replicability and sustainability of the processes (*Deliverable 2.1.3.1*). Under this output, gender-sensitive training programs will be developed on GHG inventory methodologies and tools, national specific climatic and socioeconomic scenarios, emission factors, methodologies, and tools for mitigation assessment of GHG emission.

Component 3: Strengthening capacity to monitor and report adaptation activities

76. This project will establish a national adaptation reporting and monitoring framework focusing on Agriculture and Forestry (Output 3.1.1). The project is expected to contribute towards this output through strategies that consist of: assessment prepared of good practices for monitoring and reporting on NDC priority adaptation actions focusing on Agriculture and Forestry (*Deliverable 3.1.1.1*); national/sectoral appropriate, gender-sensitive indicators and monitoring and reporting framework developed for NDC priority adaptation actions focusing on Agriculture and Forestry (Deliverable 3.1.1.2); and system infrastructure developed under the Climate Change Division of MECDM involving other relevant national agencies at different levels to mainstream monitoring and reporting NDC adaptation actions focusing on Agriculture and Forestry (*Deliverable 3.1.1.3*). Nationally appropriate indicators will be developed considering existing SDGs and national indicators, as well as Tracking Adaptation in Agricultural Sectors: Climate Change Adaptation Indicators of FAO. This will be integrated with Output 1.1.2. The Adaptation information management system (AIMS) (Output 3.1.2) will be integrated with the GHG information management system (Output 2.1.2); and both systems will be linked with the national environmental data portal^[95] to ensure easy access of the data for the users. Finally, a gender-sensitive training program will be implemented supporting relevant institutions at different levels to adopt and mainstream monitoring and reporting processes for NDC priority adaptation actions focusing on Agriculture and Forestry (Deliverable 3.1.3.1); and dissemination of the training knowledge materials through established AIMS (*Deliverable 3.1.3.2*).

(4) INCREMENTAL COST REASONING

- 77. The GEF Focal Area ?CCM-3-8: Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through capacity building initiative for transparency? supports the proposed CBIT project. GEF investment for this proposed project will enhance national and sectoral institutional and technical capacities to track the progress of national NDC actions on climate change mitigation and adaptation. Most importantly, it will ensure the transparency, accuracy, consistency, compatibility, and clarity of data and information related to climate change mitigation and adaptation. The technical challenges this CBIT proposal will deal with will likely persist if Solomon Island is not assisted in this process.
- **78.** Solomon Island has shown some technical and institutional capacities in monitoring and reporting GHG emissions and removals over recent years through two national communications and forest reference level submission. There are still several barriers hindering the achievement of national aspiration of climate transparency system as mentioned in the Solomon Islands National Climate Change Policy: 2012 ? 2017[96]. Such barriers will create hindrances, in the long run, to provide clearer inputs and track the NDC action progress.
- 79. Hence, without this project, the national, as well as international aspiration of enhancing climate transparency, will be difficult to achieve. As a small island nation, climate change constitutes one of the political priorities; yet existing technical and institutional capacity barriers affecting the execution of priorities to visible actions. Therefore, Solomon Island needs to focus on defining and implementing coordinated actions focusing on data and information analysis, and systematization of NDC actions. This project will give this opportunity to Solomon Island, and at the same time, the mechanisms and tools, gradually to make them more efficient and transparent.

Table 8 present how the existing barriers and constraints will be addressed by the expected output of the project with proposed GEF finance.

Table 8: Proposed CBIT project contribution to address the existing barriers and constraints

Barriers and constraints	outputs	Expected contribution

Barriers identified in barrier 2 of section 2.9. Lack of awareness among the stakeholders regarding the Paris Agreement, the ETF, and actions needed to monitor and tracking of mitigation and adaptation activities Absence of knowledge-sharing platforms to access lessons learned and good practices	1.1.1 1.1.3 2.1.2	Increased awareness and understanding of ETF requirements
Barriers identified in barrier 1 and 2 in section 2.9 Lack of comprehensive tools, knowledge, methodologies, and best practices to comply with ETF requirements. Limited coordination among the national stakeholders by sharing data and information to ensure transparency in NDC actions. Lack of institutional capacity to ensure data and information-driven decision-making for NDC actions.	1.1.2 1.1.3 2.1.1 2.1.2 2.1.3	Enhanced knowledge sharing and coordination to comply with the transparency requirement of ETF.
Barriers identified in barrier 2 of section 2.9 Lack of coordination amongst relevant Ministries in the gathering of data, sharing, and information needed to comply with the ETF requirement to track the progress of NDC actions.	1.1.2 1.1.3 2.1.1 2.1.2 2.1.3	Robust institutional arrangements with coordination mechanisms and knowledge management structures for gathering, coordinating and ensuring sector-specific information for ETF monitoring and reporting exercises.

Barriers identified in barrier 1 and 3 of section 2.9. Lack of activity data and local emission factors. Not using the updated IPCC methodologies. Low technical capacity of national stakeholders on domestic MRV systems. Quality Assurance (QA)/Quality Control (QC) and verification processes are also limited Lack of expertise and knowledge on the detailed calculation on the uncertainty of emissions	2.1.1 2.1.2 2.1.3	Strong technical capacity and robust data generation system to establish MRV systems for tracking mitigation contributions.
Barriers identified in barrier 4 of section 2.9. Government agencies have limited capacity for systematic collection, monitoring, reporting and evaluating adaptation actions Lack of harmonized indicator and monitoring systems for prioritized national adaptation activities Lack of data and information to assess the immediate climate change adaptation action. Limited technical capacity and resources for prioritizing and monitoring the NDC adaptation actions progress	1.1.2 1.2.1 1.2.2 3.1.1 3.1.2 3.1.3	Strong technical capacity and robust information to establish M&E systems for tracking adaptation actions.

(5) GLOBAL BENEFITS

- **80.** The CBIT project will have a real impact on the low carbon development of Solomon Island. The global benefits will be derived through this project in the form of capacity development focusing on GHG inventories and emission reductions. This project will create a coordination and monitoring framework at the institutional level for GHG inventory, and NDC mitigation and adaptation actions involving key national stakeholders. Without this project, there will be a sporadic project-based approach of NC and BUR development and probable duplication of international donor funding towards NDC mitigation and adaptation actions.
- 81. The operational, robust, and functional MRV system of the proposed project will strengthen the capacity of the Solomon Island to implement the NDCs and the Paris Agreement using high-

quality GHG data. This will ultimately provide benefits considering the environmental level at the national and global levels. This MRV system will enable the design and prioritization of cost-effective project proposals to reduce GHG emissions, and will avoid duplication.

82. The project will strengthen the technical and operational capacity of national experts focusing on data collection and analysis, quality assurance/quality control (QA/QC), GHG inventory methodologies, and adaptation progress.

(6) INNOVATION, SUSTAINABILITY, AND SCALING UP

- 83. Innovation: The proposed project is innovative as the activities and expected results will solve the gaps highlighted in previous NCs, and NDC of the country. A comprehensive coordination mechanism for enhanced transparency focusing on GHG inventory, mitigation action and support received will be developed with regard to ETF reporting. The project will ensure investment in dedicated climate change knowledge management and information system, which is innovative in the country. Besides, FAO will deploy the deeply rooted technical expertise in climate change issues bringing together best practices, tools and lessons learned. For example, FAO tools forestry sector (e.g. Open Foris and SEPAL) will be used for the forestry sector GHG inventory data.
- Sustainability: The project benefits will be sustainable in the long term by addressing the current weaknesses of the national GHG inventory system and partnering with relevant institutions. The proposed activities will not be implemented alone by the project, rather it will be a close partnership of relevant institutions. Hence, the activities of this project will be institutionalized since the start of the partners? needs, and it will be continued based on the technical and infrastructural expertise developed under this project. Through the project, the country will strengthen collaboration among the national institutions, and also with other global platform (e.g. global CBIT platform, and two FAO CBIT global projects). Through these mechanisms, the country is expected to sustain the developed capacity and activities even after the project ends.
- 85. Scaling up: The involvement of national key stakeholders will enable to manage adequate exit points of the project, avoid disruption, and will ensure scaling up from AFOLU and Energy to other sectors like Industry. Results from the project will also be disseminated widely at the national and regional levels through the established information-sharing networks and forums. Also, the knowledge materials will be available through the proposed GHG information management system. The master trainers through ToT program, the nominal and substitute focal point of the key national stakeholders will disseminate their acquired knowledge through the established institutional mechanism. Therefore, long term scaling up of the project benefits will be ensured through the institutional arrangement of the project.

https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

^[1] The Paris Agreement.

[2] United Nations Framework Convention on Climate Change Convention (UNFCC).

 $https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf$

[3]The Paris Agreement.

 $https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf/english_agreement.pdf/english$

[4]What is the UNFCCC?http://www.reddplussolomonislands.gov.sb/index.php/rio-

conventions/unfccc.html#:~:text=UNFCCC%20in%20Solomon%20Islands,and%20ratified%20it%20in%202003.

[5]UNFCCC processes in Solomon Islands. https://unfccc.int/node/61199

[6] Solomon Islands Accept KP Amendment.https://unfccc.int/news/solomon-islands-ratify-kp-amendment

[7]Solomon Islands Government. Intended Nationally Determined Contribution.

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOM ON%20ISLANDS%20INDC.pdf

[8]Sunday Isles Newspaper.?Despite COVID-19, We Must Not Lose Sight of the Need to Address

Climate Change?: PM. https://sundayislessolomonislands.com/despite-covid-19-we-must-not-lose-sight-of-the-need-to-address-climate-change-pm/

^[9]Sunday Isles Newspaper.?Despite COVID-19, We Must Not Lose Sight of the Need to Address Climate Change?: PM. https://sundayislessolomonislands.com/despite-covid-19-we-must-not-lose-sight-of-the-need-to-address-climate-change-pm/

[10] Solomon Islands National adaptation programmes of action (NAPA).

https://unfccc.int/resource/docs/napa/slb01.pdf

[11] National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs [12] UNFCCCF orest reference levels and forest reference emission levels submission.

https://redd.unfccc.int/submissions.html?country=slb

[13] Second National Communication, Solomon Island, National Communication submissions from Non-Annex I Parties. https://unfccc.int/non-annex-I-NCs

[14] Solomon Islands Government. Intended Nationally Determined Contribution.

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOMON%20ISLANDS%20INDC.pdf

[15] Solomon Island National Energy Policy

(2014).https://policy.asiapacificenergy.org/sites/default/files/volume1_solomon_islands_national_energy_policy.pdf

[16] https://worldpopulationreview.com/countries/solomon-islands-population

[17]UNFCCCForest reference levels and forest reference emission levels submission.

https://redd.unfccc.int/submissions.html?country=slb

[18] Basic Statistics, Asia and the Pacific. Asian Development Bank. https://data.adb.org/dataset/basic-statistics-asia-and-pacific

[19]Solomon IslandHuman Development Report 2019.

http://hdr.undp.org/sites/all/themes/hdr theme/country-notes/SLB.pdf

[20]Basic Statistics, Asia and the Pacific. Asian Development Bank. https://data.adb.org/dataset/basic-statistics-asia-and-pacific

[21] Solomon IslandHuman Development Report 2019.

http://hdr.undp.org/sites/all/themes/hdr theme/country-notes/SLB.pdf

[22] World Development Indicators database, World Bank

https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2019&locations=SB&start=1990

[23] National Capacity Self-Assessment: Solomon Islands 2015.

https://www.sprep.org/att/IRC/eCOPIES/Countries/Solomon Islands/57.pdf

[24] World Development Indicators. http://data.worldbank.org/indicator/AG.LND.FRST.ZS

[25] The Solomon Islands Quality Copra Oil Value Chain for the Domestic Market: The Chottu Coconut Products Case Study. https://lrd.spc.int/publications/doc_download/2484-solomon-islands-coconut-value-chain-study

[26] Statistical Bulletin: No: 02 /2019-visitor arrivals statistics.https://www.statistics.gov.sb/sinso-documents?view=download&format=raw&fileId=665

[27] First National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[28] Second National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[29]UNFCCCForest reference levels and forest reference emission levels submission.

https://redd.unfccc.int/submissions.html?country=slb

[30] First National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[31] Second National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[32]UNFCCCForest reference levels and forest reference emission levels submission.

https://redd.unfccc.int/submissions.html?country=slb

[33] Forest reference levels, Solomon Island. https://redd.unfccc.int/submissions.html?country=slb

[34] Second National Communication, Solomon Island, National Communication submissions from Non-

Annex I Parties.https://unfccc.int/non-annex-I-NCs

[35]Current and future climate of the Solomon Islands.

https://www.pacificclimatechangescience.org/wp-

content/uploads/2013/06/13 PCCSP Solomon Islands 8pp.pdf

[36] Current and future climate of the Solomon Islands.

https://www.pacificclimatechangescience.org/wp-

content/uploads/2013/06/13 PCCSP Solomon Islands 8pp.pdf

[37] Current and future climate of the Solomon Islands.

https://www.pacificclimatechangescience.org/wp-

content/uploads/2013/06/13 PCCSP Solomon Islands 8pp.pdf

[38]https://www.abc.net.au/news/2013-04-18/an-climate-change-changes-food-in-

solomons/4636602#:~:text=Solomon%20Islanders%20are%20being%20forced,the%20production%20 of%20traditional%20crops.&text=He%20says%20sweet%20potato%20is%20the%20most%20affected %20crop.

[39]https://www.pacificclimatechangescience.org/wp-content/uploads/2018/04/Dev-CC-info-SI-case-study-report-16pp-WEB.pdf

[40]https://www.adb.org/sites/default/files/publication/175046/climate-change-food-security-pacific.pdf

[41] Second National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[42]https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4825488/

[43] Solomon Islands Government. Intended Nationally Determined Contribution.

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOM ON%20ISLANDS%20INDC.pdf

[44] Solomon Islands? National Climate Change Policy (2012-2017). https://www.adaptation-undp.org/resources/naps-least-developed-countries-ldcs/solomon-islands%E2%80%99-national-climate-change-policy-

2012#:~:text=The%20National%20Climate%20Change%20Policy,path%20of%20low%2Dcarbon%20 development.

[45]Solomon islands National Development Strategy (2011-

2020).https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf

[46] Solomon Islands National adaptation programmes of action (NAPA).

https://unfccc.int/resource/docs/napa/slb01.pdf

[47] Solomon Islands Government. Intended Nationally Determined Contribution.

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOMON%20ISLANDS%20INDC.pdf

[48] Solomon Islands Government. Intended Nationally Determined Contribution.

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOM ON%20ISLANDS%20INDC.pdf

[49]http://www.mecdm.gov.sb/

[50]https://mofr.gov.sb/index.php

[51] Solomon Islands National Climate Change Policy: 2012 ? 2017.

https://www.refworld.org/pdfid/5b430f4c4.pdf

[52] https://solomons.gov.sb/ministry-of-agriculture-and-livestock/

[53] Second National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs

[54] Solomon Islands National Climate Change Policy: 2012? 2017.

https://www.refworld.org/pdfid/5b430f4c4.pdf

[55]Solomon Island National Energy Policy

(2014).https://policy.asiapacificenergy.org/sites/default/files/volume1_solomon_islands_national_energy_policy.pdf

[56] https://pafpnet.spc.int/images/articles/policy-bank/solomon/Solomons-Islands-

NALSP Final%20Draft_151118.pdf

 ${}^{[57]} https://pafpnet.spc.int/pafpnet/attachments/article/solomon-islands/National-Agriculture-and-agriculture-agricultu$

Livestock-Sector-Policy.pdf

^[58]http://www.mecdm.gov.sb/resources/ministry-documents/national-solid-waste-management-strategy-2009-2014.html

[59]https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf

[60] https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf

[61]http://www.parliament.gov.sb/files/legislation/Acts/1998/The%20Environment%20Act%201998.pdf

- [62]http://www.paclii.org/sb/legis/num_act/wpama1998317.rtf#:~:text=AN%20ACT%20TO%20PROVIDE%20FOR,WILD%20FAUNA%20AND%20FLORA%20AND
- [63]https://www.sprep.org/attachments/Publications/EMG/sprep-legislative-review-solomonislands.pdf
- [64]http://www.spc.int/CoastalFisheries/CFM/Document/ShowDocument/5e1508b5-450e-4884-a46c-3d88ea2acf9a?attachment=True
- [65]http://www.parliament.gov.sb/files/legislation/Acts/2010/Protected%20Areas%20Act%202010.pdf [66]https://pafpnet.spc.int/images/articles/policy-bank/solomon/Solomons-Islands-

NALSP Final%20Draft 151118.pdf

- [67] https://earthmind.org/sites/default/files/2016-03-Tetepare-Proposal 0.pdf
- [68]https://www.pacificclimatechange.net/sites/default/files/documents/SOLOMON%20ISLANDS%20 DRAFT%20Nat%20W%26S%20PLAN%202013%2006%2015.pdf
- [69]https://daisi.com.au/wp-content/uploads/2016/09/Strategic-Plan-for-Solomon-Islands-2016-2010.pdf
- [70]https://apps.who.int/iris/rest/bitstreams/1147666/retrieve
- $\label{lem:com_uploads_4_2_7_6_42764129} In the property of the property of$
- [73]https://fisheries.gov.sb/corporate-plan
- [74]http://macbio-pacific.info/wp-content/uploads/2017/08/CTI-NPOA-2010.pdf
- ^[75]https://www.theprif.org/sites/default/files/documents/solomon-islands-public-investment-management-web2.pdf
- [76]https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/solomon_islands_national_education action plan 2016-2020.pdf
- [77]http://mecdm.gov.sb/index.php?option=com_edocman&view=document&id=130&Itemid=156
- [78] Solomon Islands National Climate Change Policy: 2012 ? 2017.

https://www.refworld.org/pdfid/5b430f4c4.pdf

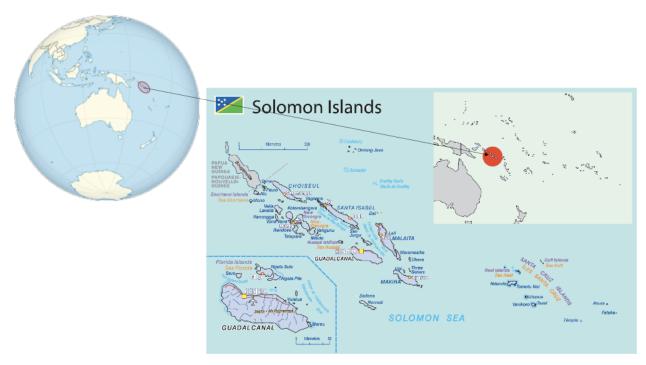
- [79]https://solomonislands-data.sprep.org/search/type/dataset
- [80] Aipira, C., Kidd, A., & Morioka, K. (2017). Climate change adaptation in Pacific Countries: fostering resilience through gender equality. In Climate Change Adaptation in Pacific Countries (pp. 225-239). Springer, Cham.
- [81] Asian Development Bank. (2014). Gender-based violence in Asia and the Pacific. Retrieved October
- 29, 2020 from http://www.adb.org/news/infographics/gender-based-violence-asia-and-pacific
- [82] Aipira, C., Kidd, A., & Morioka, K. (2017). Climate change adaptation in Pacific Countries: fostering resilience through gender equality. In Climate Change Adaptation in Pacific Countries (pp. 225-239). Springer, Cham.
- [83] Aipira, C., Kidd, A., & Morioka, K. (2017). Climate change adaptation in Pacific Countries: fostering resilience through gender equality. In Climate Change Adaptation in Pacific Countries (pp. 225-239). Springer, Cham.
- [84] Live and Learn. (2010). Navigating false seasons: A research of aspirations and perceptions toward climate change adaptation for food security in Western Pacific Island communities. Honiara: Live and Learn Environmental Education.
- [85] Morioka, K. (2012). A climate for change: Understanding women?s vulnerability and adaptive capacity to climate change from ActionAid?s rights-based approach?case studies from Papua New Guinea and Solomon Islands. Sydney: Action Aid

- [86] Government of Solomon Islands. (2012). National Climate Change Policy 2012?2017. Honiara: Government of the Solomon Islands.
- [87] https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf
- [88]https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pd f
- [89] First National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs
- [90]Second National Communication, SolomonIsland, National Communication submissions from Non-Annex I Parties.https://unfccc.int/non-annex-I-NCs
- [91] Solomon Islands Government. Intended Nationally Determined Contribution.
- https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Solomon%20Islands%20First/SOLOM ON%20ISLANDS%20INDC.pdf
- [92] National Capacity Self-Assessment: Solomon Islands 2015.
- https://www.sprep.org/att/IRC/eCOPIES/Countries/Solomon Islands/57.pdf
- [93]https://www.adb.org/sites/default/files/linked-documents/cobp-sol-2015-2017-sd.pdf
- [94]http://www.fao.org/3/a-i4260e.pdf and http://www.fao.org/in-action/micca/resources/tools/en/.
- [95]https://solomonislands-data.sprep.org/
- [96] Solomon Islands National Climate Change Policy: 2012 ? 2017.

https://www.refworld.org/pdfid/5b430f4c4.pdf

1b. Project Map and Coordinates

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



2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations No

Private Sector Entities No

If none of the above, please explain why:

During the Project Identification Phase (PIF), consultations were held with staff and representatives from the Ministry of Agriculture and Livestock (MAL), Ministry of Forestry and Research (MFR), Solomon Islands Meteorological Services, Ministry of Mines, Energy and Rural Electrification. Due to COVID 19 restrictions, consultations were limited, and it was not possible to involve private sector entities, and sufficient number of representatives of Civil Society Organizations (CSOs). But, during the PPG phase participatory and exhaustive virtual consultation will be done, if social isolation is needed due to COVID19 restrictions.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

- 1. The stakeholders representing Civil Society Organizations (CSOs), and private sector entities, along with the government agencies will be involved directly during the process of the project identification phase through the validation workshop. The project executing entity, and FAO will use previously collected data/information through previous national communications and forest reference level submission, that involved the Indigenous Peoples, local communities, CSOs, private sector entities, etc. To strengthen the process and progress, this project will establish a domestic MRV at national and local levels by involving government agencies, private sector, academia (for example, Department of Agriculture, Department of Forestry, and Department of Environmental Studies of the Solomon Islands National University), and Civil Society Organizations (CSOs). The project will invite the stakeholders, including CSOs, academia, and indigenous people in the validation and inception workshop, national consultation, training, working group discussions during the project proposal grant (PPG), and implementation stage.
- 2. The key stakeholders and a brief description of their engagement will be as follows:

Table 9: Stakeholders and Their Responsibilities

Name of key stakeholders	Responsibility/expertise	
1. Ministry of Environment, Climate Change,	? National Focal Point for UNFCCC	
Disaster Management, and Meteorology (MECDM)	? Project Executing Entity	
	? Liaising with other inter-ministerial	
	agencies.	

Name of key stakeholders	Responsibility/expertise
2. Other associated ministries important for the domestic MRV system and tracking the progress of NDC actions: 2.1. Ministry of Forestry and Research; 2.2. Ministry of Mines, Energy and Rural Electrification 2.3. Ministry of Fisheries and Marine Resources 2.4. Ministry of Agriculture and Livestock Development 2.5. Ministry of Provincial Government and Institutional Strengthening 2.6. Ministry of Infrastructure Development 2.7. Ministry of Culture and Tourism 2.8. Ministry of Commerce, Industry, Labor, and Immigration 2.9. Ministry of Foreign Affairs and External Trade 2.10. Ministry of Education and Human Resources 2.11. Ministry of National Development Planning and Aid Coordination 2.12. Ministry of Finance and Treasury 2.13. Ministry of Health and Medical Services 2.14. Ministry of Women, Youth, Children and Family Affairs	 ? Focal persons and capacity building of relevant government officials. ? Institutional arrangement. ? Data collection, archiving, and analysis ? Decision-making and national investment ? Sectoral expertise
3. Provincial offices (government agencies)	 ? Data collection and analysis ? Decision-making and local investment ? Capacity building at regional and local levels
4. Civil society organizations/Private organizations/ Oil and Gas companies/ Electricity company/ other major industries that have a responsibility to report GHG emissions and involved in Climate Change actions	? Data collection? Capacity building
5. Local/ national and international NGOs related to Climate Change actions	? NGOs will be engaged in the implementation of the project, including the best practice analysis and validation and appraisal of the data/GHG information management system/AIMS.
6. National Research institutes and universities	 ? Activity data collection. ? Emission factors development. ? Data quality. ? Training and curriculum development. ? Reporting and Q/A

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

- 1. The proposed CBIT project of Solomon Island will conduct a gender analysis focusing on the different roles and responsibilities of women and men in climate transparency of the nation. As an example, the women's contribution towards inquiries on data related to cooking fuel and waste generation considering the mitigation aspect can provide much-added value. Such participation will allow refining the emission factors and can help the nation to move from tier 1 to tier 2 emission factors to be used for the IPCC 2006 GHG inventory guideline. The proposed CBIT project will develop gender-responsive results-based indicators based on GEF?s Gender Equality Action Plan (GEAP). This will ensure women?s participation in project design, implementation, and evaluation. Also, the project will ensure the representative women?s participation during the validation, and inception workshops, as well as in national consultation. Hence, this project will ensure wherever possible to account and apply a gender-sensitive approach for data and information collection and analysis. Such analysis and evaluation will be presented and highlighted in project findings, annual and biannual reports, project publications, and knowledge materials.
- 2. The gender-sensitive approach for the implementation of the project will ensure the representative participation of women in the project team and for project activities execution. This project will ensure that women will be given representative access to project capacity building and institutional strengthening activities. Agender-responsive results-based indicator focusing on mitigation and adaptation will allow this project to address appropriate responses to national efforts towards NDC mitigation and adaptation activities. This project will utilize different gender toolkit for national communications, and MRV developed by the Global Support Programme funded by GEF[1].

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

closing gender gaps in access to and control over natural resources;

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

^[1]https://www.un-gsp.org/documents

Will the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

- 1. The private sector considering GHG emissions in Solomon Island can be from forestry and land use change sector, energy, and agriculture sectors. This project will involve major industries having a connection with GHG emissions, and removals, such as oil and gas, electricity production, forestry operation, etc.
- 2. Shell, and a local company Markworth, import petroleum fuel. Both have storage depots in central Honiara. Apart from this, there exist private entities and entrepreneur in renewable energy sector. During the previous national communication, fuel data has been collected form the fuel importer. During the PPG phase opportunities will be explored to involve the private sector for data sharing, capacity building and institutional arrangement.

In addition, during the PPG phase opportunities will be explored to involve the stakeholders of AFOLU sector including: Logging industry, Solomon Islands Forest Association (SFA), Commercial Forest Plantation Owners, Commercial Agriculture Companies, and Small Holder Community Based Forest Plantation Owners.

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

- 1. The project implementation may face difficulties due to limited capacities and lack of adequate GHG inventory data, and lessons and good practices. To overcome such problem FAO will work closely with international initiatives, such as the CBIT Global Coordination Platform, and will deploy FAO?s long-standing expertise in agriculture, forestry and land-use change, institutional coordination, database development, and information management system development. Additionally, through the relevant Global Support Program, Solomon Island will work closely with teams in other countries working on transparency. Such collaboration will be instrumental for data and information exchange, lessons learned, and the sharing of good practices. The collaboration within the pacific island, south-south cooperation, and the peer to peer support within the Pacific Regional Environment Programme (SPREP), will also help to strengthen the capacity of the national stakeholders.
- 2. In addition, ongoing COVID-19 and future pandemic can hinder the technical capacity building process, inception, validation, national consultation, and technical group meeting, as well

as day to day project activities. To overcome that type of obstacles, the project will ensure the use of online platform like Zoom/MS Team to conduct the day to day project activities, technical capacity building process, inception, validation, national consultation, and technical group meeting.

1. The potentials risks and associated mitigation approach are as followed:

Table 10: Risks to CBIT project implementation and mitigation approaches to address them

No	Description of risks	Types of Risks	Probability and impact (1-5)	Measures to address the risks
1	Possible government change resulting in a lack of political will to support the project activities	Political	P=4 I=5	Combining the decision-makers for awareness-raising through a strong stakeholder involvement plan.
2	Lack of coordination among ministries and local government.	Political	P=2 I=4	Specifying the roles and responsibilities of the national institution supported by the project guideline and arrangements.
3	Limited cooperation on data and information sharing among stakeholders	Organizational	P=2 P=3	MoU and data-sharing agreement among key national stakeholders to collect, archive, and manage the data and information.
4	The incapability of the government after the project cycle to fund the ETF related activities	Financial	P=4 I=4	Utilize the resources available with baseline projects, and exploring the South-South cooperation for potential investment.
5	Gender mainstreaming hindered by resistance from local and national stakeholders	Cultural	P=3 I=2	Informing the key national stakeholders at the beginning regarding gender equality/representativeness as one of the key indicators of the project progress.

No	Description of risks	Types of Risks	Probability and impact (1-5)	Measures to address the risks
6	COVID-19/other pandemic can slow down/non-progress of the project activities.	Global	P=4 I=5	Day to day project activities will be conducted considering work from home modality. In addition, the project will ensure the use of virtual platform, such as Zoom/MS Team for technical capacity building process, inception, validation, national consultation, and technical group meeting. Technical capacity building (e.g. training) activities will be recorded, uploaded and disseminated through information management system under this project.

7	Climate change impacts on the NDC priority sectors, including agriculture, land-use, energy and waste sectors and the capacity to monitor and report under the Paris Agreement.	Natural	P=3 I=1	This is a capacity building project that aims to develop Solomon Island?s institutional and human capacities to comply with reporting requirements of the Paris Agreement. As such, climate change impacts do not pose a risk to the project interventions or implementation. Nonetheless, established protocols and guidelines of the government and national institutions will be followed in case of any adverse climatic events.
8	High staff turnover affecting the developed capacity and sustainability of the project.	Organizational	P=3 I=4	The project will focus on building capacity of a broad spectrum of stakeholders including government agencies, research institutions, and academia. This will help to mitigate the risk of high staff turnover. The ToT program, coordination mechanism, data management system, and protocols will be institutionalized to ensure sustainability of the project interventions. Further, the training, knowledge materials, including audio visual recordings will be disseminated through the established GHG information system. Hence, new staff will continue to be trained even after the project completion.

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

- 1. FAO will be the GEF Implementing Agency for this project. The Ministry of Environment, Climate Change and Disaster Management (MECDM)will be the Lead Executing Agency and will be responsible for the overall coordination and execution of the project, including monitoring and evaluation. Other stakeholders will be involved in the project implementation as described in Table 9.
- 2. A Project Steering Committee (PSC) will be established to provide strategic guidance and take decisions related to the project implementation including approval of project plan, budget, and revisions. The PSC will meet twice a year, or more frequently, if deemed appropriate at the start-up phase, to build common understanding and to ensure that the project is initiated and implemented properly. The PSC members will be represented by project implementing partners and will be detailed in PPG.
- **3.** A Project Management Unit (PMU) will be housed within the Climate Change Division of the MECDM. It will be supported by thematic national and international experts, and a project admin and accountant. The PMU will be tasked with the day-to-day management of the project activities, as well as with financial and administrative reporting.
- 4. The proposed CBIT project will also coordinate with the ongoing third national communication and first biannual update report. Through the completion of this project, several challenges mentioned in previous national communications and NDC (e.g. data quality management, use of updated IPCC methodology, and institutional arrangement) will be addressed. This proposed CBIT project will also coordinate with the National REDD+ program, and will maintain close connection the ongoing national REDD+ initiatives.
- 5. The proposed project will coordinate with the global CBIT project: (i) to identify needs and gaps in national transparency systems, (ii) to share lessons learned through regional and global meetings, (iii) enabling knowledge sharing to facilitate transparency enhancements, and (iv) access to emerging practices, methodologies, and guidance on transparency of climate action and support. In addition, the project will also coordinate with the two FAO global CBIT projects: (i) Global capacity-building products towards enhanced transparency in the AFOLU sector (CBIT-AFOLU), and (ii) Building global capacity to increase transparency in the forest sector (CBIT-Forest). The coordination will be in the form of access to emerging practices, methodologies, and guidance on transparency of AFOLU and Forestry sector.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions?

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

- 1. The project is consistent with the national strategies, and National Communications as mentioned in section 1.2, and national strategies and regulatory framework as mention in section 2.5. The Government of the Solomon Island is committed to ensuring the progress of NDC Climate Change mitigation and adaptation, and continuously working since its ratification of the Climate Change Convention. Such national aspiration is reflected in the national climate change policy and national development strategy. The ?8.8.1 Policy Directive and Strategies? of the National Climate Change Policy: 2012 2017[1] clearly states the necessity to strengthen the greenhouse gas inventory and national commitment to ensuring climate transparency. Therefore, the current project is consistent with national strategies, plans, and reports.
- 2. This project is consistent with the NDC of the Solomon Island. The CBIT project will directly support the implementation of NDC by building institutional and technical capacity for monitoring and reporting on its mitigation and adaptation commitments. For example, the country has GHG emission reduction commitments covering energy and land use change from forestry. These are (i) 12% emission reduction below 2015 level by 2025, and 30% below 2015 level by 2030, compared to BaU projection, and (ii) based on international support (financial and technical resources), a further 27% reduction in GHG emissions by 2025; and 45% reduction in GHG emissions by 2030, compared to a BaU projection. Through the completion of this project, several challenges mentioned in the NDC, such as data quality management, use of updated IPCC methodology, and institutional arrangement will be addressed. This project also in line with the National Strategy on REDD+, and will maintain close coordination with the National REDD+ initiative.

[1]Solomon Islands National Climate Change Policy: 2012 ? 2017. https://www.refworld.org/pdfid/5b430f4c4.pdf

8. Knowledge Management

Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

1. The outcome of this project will be disseminated through existing global CBIT information-sharing networks, and at the national level through established GHG information management system, and AIMS. Also, climate change mitigation and adaptation data, and climate finance information will be disseminated through a national environmental portal. The project will also collaborate, wherever possible to South-South Network on MRV, and any other relevant scientific, and policy-based climate change networks in this region. Besides, the knowledge

materials generated from the project will be disseminated through the GHG information management system and AIMS. This will help to materialize the benefit of the project implementation through lessons learned, even after the project period. Thus, the sharing of lessons learned will be beneficial for similar future projects design and implementation in Solomon Island, or a similar paced nation in the region.

9. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

CEO
Endorsement/Approva
PIF I MTR TE

Low

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

The project has been categorized as ?low risk? when screened against FAO?s Environmental and Social Safeguards Screening Checklist?s safeguards criteria. Since this is a capacity building project that aims to strengthen Solomon Island?s institutional and individual capacities to comply with the reporting requirements of the Paris Agreement, there are no anticipated environmental or social risks as a result of project intervention.

Supporting Documents

Upload available ESS supporting documents.

Title Submitted

Title Submitted

FAO ES Screening Checklist Solomon Islands_CBIT 28Jan21[1]

Solomon Islands - Climate Risks Screening

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name Position		Ministry	Date	
Chanel Iroi	Deputy Secretary and GEF Operational Focal Point	Ministry of Environment, Climate Change, Disaster Management and Meteorology	8/11/2020	

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

