



GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project

TYPE OF TRUST FUND: Capacity Building Initiative for Transparency

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PART I: PROJECT INFORMATION

Project Title:	Strengthening capacity in the agriculture and land-use sectors for enhanced transparency in implementation and monitoring of Nationally Determined Contributions (NDCs) under the Paris Agreement in Papua New Guinea		
Country(ies):	Papua New Guinea (PNG)	GEF Project ID: ¹	9833
GEF Agency(ies):	FAO (select) (select)	GEF Agency Project ID:	644099
Other Executing Partner(s):	Climate Change Development Authority (CCDA); Forest Authority (PNGFA), and; Department of Agriculture and Livestock (DAL)	Submission Date:	15 May 2017
GEF Focal Area(s):	Climate change (CBIT)	Project Duration (Months)	36 months
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	[if applicable]	Agency Fee (\$)	82,008

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
(select) (select) CBIT OI 3: MRV systems for emissions reductions in place and reporting verified data	CBIT	431,621	775,000
(select) (select) CBIT OI 7: Number of countries meeting Convention reporting requirements and including mitigation contributions.	CBIT	431,621	775,000
Total Project Cost		863,242	1,550,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: By 2020 PNG is preparing reports to the UNFCCC under the Paris Agreement Enhanced Transparency Framework (ETF) with strengthened agriculture and land use sector components including inventories of emissions by sources and sinks, and information necessary to track progress against priority actions identified in PNG's NDC for these sectors.						
Project Components	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
<i>Component 1.</i> Institutional arrangements to coordinate preparation of ETF reports for agriculture, land use and other relevant sectors enhanced.	TA	1.1 Institutional arrangements for coordinating information and data from the agriculture and land use sectors into ETF processes and reports enhanced.	1.1.1 Coordination mechanism strengthened integrating relevant authorities from agriculture and land-use sectors into national UNFCCC reporting processes. 1.1.2. Assessment prepared (in PPG,	CBIT	119,985	500,000

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#) and [CBIT guidelines](#).

³ Financing type can be either investment or technical assistance.

			<p>building on anticipated submission of BUR) on institutional, data collection, analysis and reporting capacity gaps and needs for meeting the requirements of the ETF with specific focus on the priority NDC actions for the agriculture and land use sectors</p> <p>1.1.3. Guidelines for tracking NDC progress incorporating baselines, business-as-usual scenarios and targets prepared and adopted.</p> <p>1.1.4. PNG's engagement strengthened in agriculture and land use sectors with international transparency-related processes under the UNFCCC.</p> <p>1.2 Best practices on ETF reporting processes, information gathering, system infrastructure, and methodologies in the agriculture and land use sectors disseminated to relevant priority sectors (e.g. energy, mining, industry/trade, transportation).</p> <p>1.2.1 Multi-sectoral strategy and coordination mechanism strengthened integrating relevant authorities, data and information systems into national UNFCCC reporting processes.</p> <p>1.2.2 ETF lessons learned from agriculture and land use sectors captured, up-scaled and shared to enhance wider national, regional and global programming and reporting.</p> <p>1.2.3. Technical working groups for peer exchanges</p>			
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			established for relevant priority sectors.			
<p><i>Component 2.</i> Capacity to assess and report emissions and removals from the agriculture and land use sectors and to design and monitor related emission reduction activities strengthened</p>	TA	2.1 Reporting on inventories of emissions sources and sinks and emissions reduction activities from agriculture and land-use sectors strengthened	<p>2.1.1. Regular and systematic data collection, documentation and archiving process established to ensure accuracy and sustainability of the inventory, including quality assurance and quality control, in the agriculture and land-use sectors.</p> <p>2.1.2. GHG information management system (MIS) and infrastructure upgraded by integrating data from diverse sources in the agriculture and land use sectors.</p> <p>2.1.3. Capacity and system hardware upgraded for relevant institutions at different levels to adopt and mainstream latest tools and methodologies to develop country-specific emissions factors, improve activity data and better quantify the impact of mitigation policy measures in the agriculture and land-use sectors (inter-face w/ 3.1.4).</p> <p>2.1.4. National reports prepared, verified and submitted on inventory of emissions sources and sinks and emissions reduction activities from agriculture and land use sectors consistent with latest UNFCCC guidance and with</p>	CBIT	316,780	800,000

			improved consistency and accuracy of agriculture and land use data.			
<i>Component 3.</i> Capacity to monitor and report adaptation activities in the agriculture and land use sectors strengthened	TA	3.1 Monitoring and reporting of selected NDC priority adaptation actions in the agriculture and land use sectors strengthened	<p>3.1.1 Assessment prepared of good practice methodologies and frameworks for monitoring and reporting NDC priority adaptation actions in the agriculture and land use sectors.</p> <p>3.1.2 National/sectoral appropriate indicators and monitoring and reporting framework developed for NDC priority adaptation actions in the agriculture and land use sector.</p> <p>3.1.3 Adaptation information management system (MIS), system infrastructure and capacity for data analysis and dissemination improved ensuring free and open access to adaptation information for the agriculture and land use sectors.</p> <p>3.1.4 Capacity and system infrastructure developed supporting relevant institutions at different levels to adopt and mainstream monitoring and reporting processes for NDC priority adaptation actions in the agriculture and land use sectors (interface w/ 2.1.3).</p> <p>3.1.5 Adaptation chapter included in the national reports and</p>	CBIT	348,000	250,000

			submitted on selected priority adaptation activities in the agriculture and land use sectors consistent with latest UNFCCC guidance.			
			Subtotal		784,765	1,550,000
			Project Management Cost (PMC) ⁴	CBIT	78,477	
			Total Project Cost		863,242	1,550,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ()

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Climate Change Development Authority	In-kind	400,000
Donor Agency	Japan International Cooperation Agency	In-kind	200,000
GEF Agency	United Nations Environment Programme	In-kind	150,000
GEF Agency	Food and Agriculture Organization – FCPF and NFI	In-kind	800,000
Total Co-financing			1,550,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS ^{a)}

GEF Agency	Trust Fund	Country/Regional/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
FAO	CBIT	PNG	Climate Change		863,242	82,008	945,250
Total GEF Resources					863,242	82,008	945,250

a) Refer to the [Fee Policy for GEF Partner Agencies](#).

E. PROJECT PREPARATION GRANT (PPG)⁵

Is Project Preparation Grant requested? Yes No If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: \$50,000					PPG Agency Fee: 4,750		
GEF Agency	Trust Fund	Country/Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
FAO	CBIT	PNG	Climate Change		50,000	4,750	54,750
Total PPG Amount					50,000	4,750	54,750

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

⁵ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁶ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>Hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>Hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>
	20 percent of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	<i>metric tons</i>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries: 1</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries: 1</i>

PART II: PROJECT JUSTIFICATION

1. *Project Description.* Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects; 3) the proposed alternative scenario, GEF focal area⁸ strategies, with a brief description of expected outcomes and components of the project; 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling-up.

1.1 The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

1. Papua New Guinea (PNG) is situated in the South West Pacific and comprises the eastern half of New Guinea including the islands of New Ireland, New Britain, Bougainville and 600 smaller nearby islands and atolls. PNG is largely mountainous, and much of it is covered with tropical rainforest—it is ranked as the third largest tropical forest area in the world after the Amazon and Congo basin. Terrestrial habitats range from extensive lowlands with rainforest, savanna, grassland, and freshwater swamps to upland montane rainforests and alpine

⁷ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF, SCCF or CBIT.

⁸ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

grassland. PNG has a surface area of 462,840 km² (the largest Pacific island state), a coastline of 5152 km² sheltered by 40,000 km² of coral reefs, and 820 km land border with the Indonesian province of West Papua⁹.

2. PNG is a developing country that still faces multiple development challenges. Approximately 87 percent of the total population of 6.7 million people are employed in subsistence based and/or informal economy activities including agriculture, fishing, community forestry, and artisanal and small-scale mining¹⁰. The formal economy is dominated by large-scale resource-based activities, mainly mining and fossil fuel extraction. PNG has struggled to translate recent achievements gained in its' extractive industrial sector into broad-reaching and more equitable socio-economic development outcomes. Chronic law-and-order and land tenure issues, as well as marked constraints of state institutions impede growth¹¹. Domestic and international surveys reveal widespread illiteracy, malnutrition, poor health and vulnerability to natural hazards, many of which are expected to escalate with climate change¹².
3. Climate change poses significant threats to PNG's natural environment, jeopardizes the critical and vital services of its functioning ecosystems, economy and rural based subsistence livelihoods. Based on historical disasters between 1900-2011, PNG is highly vulnerable to rising sea levels, floods, and storms¹³. Climate hazards, including coastal flooding and drought have taken a severe toll on the country, its' people and the economy. Current climate change projections predict an up-tick in event-driven hazards, and may also induce new hazards due to gradual shifts in climatic conditions, e.g. prominently, with increased malaria penetration in the highlands, alongside changed agricultural yields, damaged coral reefs and fisheries. Throughout the country, natural disasters driven by climatic conditions - as well as more gradual shifts in climatic conditions - disrupt daily life, cause damage to critical assets and infrastructure, destroy livelihoods, endanger cultural treasures and ecological services, and increase risks to economic growth¹⁴.
4. 'Agriculture' comprises a significant part of PNG's economy: it accounted for an average of 36 percent of total GDP between 1995 and 2010, providing income, employment, and livelihood to approximately 70 percent of the country's economically active population in 2015. However, agriculture's contribution to GDP has declined in recent years, and is reportedly due to slow sector growth stemming from: (i) domestic markets geographically distant from production areas, and lack of market information; (ii) poor transport and road infrastructure, and high costs of transport; (iii) a complicated land tenure system (lands are mostly under customary ownership and unregistered); (iv) weak research-extension-farmer linkages, exacerbated by limited political support and budget at national and provincial levels; and (v) vulnerability to natural disasters, including tsunamis, droughts, frost (in the Highlands), and volcanic eruptions. These factors have discouraged farmers from investing in their farms, which leads to poor agricultural production and, in some cases, a complete move out of the agriculture and land use sector¹⁶.
5. The majority of PNG agriculture systems are fallow systems, or systems which have evolved from forest fallow systems. Fallow systems involve clearing and cutting forest, some burning of felled vegetation, cultivation of crops, and abandonment of the site to natural processes of regeneration. Most commercial crops are exported, although the domestic vegetable market is growing rapidly. Agricultural products make up 18 percent of the country's exports¹⁷. The main export crops grown by smallholders are cocoa, oil palm, Robusta and Arabica coffee, tea and copra. Around 80 percent of coffee production is carried out by smallscale farmers¹⁸.

⁹ World Bank, GFDRR and Climate Investment Funds. 2011. "Climate risk and adaptation country profile for Papua New Guinea."

¹⁰ Ibid.

¹¹ Government of Papua New Guinea. 2016. *PNG's Nationally Determined Contributions (NDC) to the UNFCCC*.

¹² Ibid.

¹³ Asian Development Bank and International Food Policy Research Institute. 2015. "Climate Change, Food Security, and Socioeconomic Livelihood in Pacific Islands".

¹⁴ Government of Papua New Guinea. 2016. *PNG's Nationally Determined Contributions (NDC) to the UNFCCC*.

¹⁵ Food and Agriculture Organization of the United Nations (FAO). 2011. FAOSTAT. <http://faostat.fao.org/>

¹⁶ IFPRI/ADB, 2015, *op. cit.*

¹⁷ Downloaded March 2017 from the *New Agriculturalist*: <http://www.new-ag.info/en/country/profile.php?a=2924>

¹⁸ Ibid.

6. *Vulnerability to climate change in agriculture and land-use sectors:* The agriculture and land-use sector is most vulnerable to extreme weather conditions including excessive rainfall, drought and frost conditions associated with drought in particular in areas higher than 1800 meter above sea level¹⁹. PNG experienced an intense El Niño Southern Oscillation (ENSO) event in 1997 that caused prolonged drought that seriously disrupted food production nationwide, and led to food insecurity of nearly 1 million²⁰.
7. *Projected changes and associated vulnerability of agriculture and land-use sectors in PNG:* Projected changes in rainfall and temperature based on Global Climate Modelling suggest that PNG will face ‘hotter days and drier dry seasons in 2000-2050’²¹. Higher temperatures resulting from climate change will likely result in more heat stress and associated crop pests and post harvest losses, creating negative consequences for food security. Such changes may significantly impact the yields of important staples, and engender food security. Projected yield losses of staple crops such as sweet potatoes are in the range of 6-13 percent as compared with 2000 (Table 1). Some of the responses and mitigating actions developed by PNG agriculturalists have resulted in the development of farming techniques, such as mounding, terracing, mulching, ditching, draining, and irrigation systems, many of which have developed independently of the major agricultural areas of the world²².

Table 1: Percentage change in crop yields projected in 2050 as compared with 2000 crop yields in PNG²³

Crops	Low fertilizer application				High fertilizer application			
	2000		2050		2000		2050	
	Worst case	Best case	Worst case	Best case	Worst case	Best case	Worst case	Best case
Sweet potato	-7.4	-4.5	-4.7	-1.2	-10.9	-6.0	-9.0	-5.6
Taro, irrigated	-4.2	-2.2	-0.5	4.5	-8.1	-5.6	-2.3	0.3
Taro, rainfed	-9.6	-4.4	0.1	3.6	-13.0	-6.7	-4.5	-1.7
Wheat, irrigated	-28.5	-20.2	-26.0	-18.4	-31.6	-21.4	-29.4	-19.5
Wheat, rainfed	-45.5	-21.0	-23.8	-19.5	-30.0	-22.4	-27.2	-20.5

8. *Fisheries:* PNG has some of the largest fisheries among all Pacific islands, and fish is an important source of income and diet for Papua New Guineans²⁴. The fisheries sector spans from inland freshwater aquaculture to coastal, near shore areas, and from household and community fisheries, to large scale commercial tuna fisheries for export.²⁵ Coastal subsistence catch is considered one of the most valuable livelihood activities of PNG’s fishing industry, both by volume and by value, with a large portion of the population engaged in this work²⁶. Large scale fishing operations are dominated by international tuna fleets operating within PNG’s exclusive economic zone (EEZ). In 2010, the country landed 750,000 tonnes of tuna - 17 percent of the world’s catch - making it the third largest tuna industry in Asia²⁷. The large ocean territory has made it difficult to prevent unlicensed fishing boats encroaching on PNG’s EEZ. The damage to water resources from a projected two to

¹⁹ Government of Papua New Guinea. 2014. *PNG’s Second National Communication submitted to UNFCCC*.

²⁰ Allen and Bourke. 2009. *The 1997-98 drought in Papua New Guinea failure of policy or triumph of the citizenry? Policy Making and Implementation. Studies from Papua New Guinea*. ANU Press. Australian National University.

²¹ IFPRI/ADB, 2015, *op. cit.*

²² <http://archive.unu.edu/unupress/unupbooks/uu03pe/uu03pe08.htm>

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ FAO 2010.

²⁶ ADB/IFPRI, 2015

²⁷ Downloaded March 2017 from the *New Agriculturalist*. <http://www.new-ag.info/en/country/profile.php?a=2924>

four degree Celsius rise in temperature has been estimated to potentially cause economic losses of US\$1 billion per year²⁸.

9. *Forestry*: Forests are also a vital resource for the local population particularly in the remote rural areas of PNG. They provide food, fibre, building materials, and support a variety of wildlife, ecosystem services such as carbon sequestration, watershed protection, water supply, soil stability and fertility. PNG has a total of about 46.2 million hectares of land area of which over 70 percent is forested with natural forests and plantations²⁹. PNG forests harbor important plant and animal species with large degree of diversity and conservation value. However, PNG’s forests are under serious threat - deforestation has occurred through the conversion of primary and degraded forest land into cropland by commercial companies and smallholders estimated over 4 million hectares over the 30 years prior to 2009³⁰.

10. *Land tenure*: Unclear land ownership and boundaries pose serious challenges to agriculture and land-use sectors in PNG. Approximately 97 percent of land in PNG is held under customary ownership³¹. Customary land law derived from social systems are complex and dynamic, and they often reflect ongoing and evolving arrangements of power and authority. There is a growing concern with an increase of landless people and associated migration due to the introduction of the *Land Act 1996* that allowed the lease of customary land for Special Agricultural and Business Leases (SABLs). Growing demands in agricultural commodities such as oil palm combined with weak law enforcement and the absence of land-use planning and monitoring systems, SABLs tend to increase the pressure on forest conversion and deforestation in PNG ³².

11. *Papua New Guinea’s Nationally Determined Contribution*: PNG was the first country to ratify the Paris Agreement and submit a NDC to the UNFCCC. Reflective of their importance to the national, economy agriculture, forestry and land-use sectors feature prominently in the NDC. Forestry and land use are highlighted as key sectors for mitigation action with specific reference made to the need for MRV and data quality. Food insecurity more broadly was highlighted as a priority for adaptation action including activities to identify, coordinate and monitor projects that address climate risks to food security³³. The table below summarizes the key areas of PNG’s NDC with respect to agriculture, forestry and land use and how CBIT can support NDC implementation in PNG.

Table 2. Key areas for agriculture and land-use sectors within PNG’s NDC:

Category	Key areas for agriculture and land-use sectors in PNG’s NDC	How CBIT can support NDC implementation
Mitigation	GHG emissions from agriculture and land-use sectors are excluded in the NDC due to data uncertainty.	<ul style="list-style-type: none"> • Enhancing the accuracy and consistency of agriculture and land-use sector data year to year for the ease of comparison will help improve country’s ambitions and priority mitigation investment, decision making and action. • As noted in the NDC, emissions from agriculture and land-use sectors are expected to rise in the future. CBIT support will help PNG with accurate emissions projections based on accurate baseline data, and prepare effective strategies to address it.
	PNG will develop national REDD+ strategy over the next two years.	<ul style="list-style-type: none"> • CBIT activities will contribute to more accurate estimation of the potential emissions reductions and enhanced removals from

²⁸ *Ibid.*

²⁹ Downloaded at PNG Forest Authority. 2017. Downloaded at <http://Forestry.gov.pg>.

³⁰ *Ibid.*

³¹ Karigawa et al. 2016. *Sustainability of Land Groups in Papua New Guinea*, doi:10.3390/land5020014.

³² The Forest Trends. 2014. “Consumer goods and deforestation.”

³³ PNG NDC 2016.

		forests and land-use. <ul style="list-style-type: none"> • Lessons learned from forestry sectors with regards to measuring, reporting and verification of GHG emissions will be shared with other sectors through CBIT.
Adaptation	Identifying measurements to address the following nine (09) hazards prevalent in PNG: <ul style="list-style-type: none"> • Coastal flooding and sea level rise • Inland flooding • Food insecurity caused by crop failures due to droughts and inland frosts • Climate induced migration • Damage to coral reefs • Malaria and vector borne diseases • Water and sanitation • Landslides 	CBIT support will contribute to the development of comprehensive adaptation strategies by providing centralized data management system that pulls adaptation data relevant to agriculture and land-use sectors with national and local level policy makers and planners.

12. The implementation of the above actions requires improved institutional coordination and a robust system for capturing precise data and information that is accurate and credible in reporting on GHG inventories (e.g. by sources and sinks). PNG needs to have systems in place to track progress in achieving NDCs across priorities covering the full range of mitigation and adaptation actions in the agriculture and land use and related sub-sectors (e.g. livestock, field crops, water and forestry).
13. The Government of PNG has started taking steps to prepare for NDC implementation. The NDC indicates that the Climate Change (Management) Act 2015 will facilitate the implementation of the identified mitigation contributions in collaboration with sectors. The Act also provides for the development of Emissions Mitigation Plans by sectors to support the reduction of emissions and/or enhance capture of greenhouse gases by sector in accordance with the NDC. At the moment work on implementing the Act has stalled due to a number of reasons including financial and technical/legal support.
14. The Government of PNG intends to develop detailed sector implementation roadmaps for PNG's NDC which will include concrete delivery mechanisms and measures linked to existing and planned mitigation activities and potential needs for policy and regulatory development/change/reforms to ensure timely and effective implementation for all sectors. Detailed resource and investment plans will be elaborated based on these roadmaps in order to understand what resources in terms of capacity building, technology and finance are required to implement the PNG's NDC.
15. For the Land Use and Forestry sectors the policies and measures approved in the National REDD+ Strategy (described in further detail below) are seen as key elements of the Government's future program to implement the NDC. The proposed CBIT project would be one of the first projects in PNG designed to specifically to support preparation for and implementation of core elements of PNG's NDC.
16. In summary, the need for action to address climate change in the agriculture and land-use sectors is of particular importance in PNG. The agriculture and land-use sectors are also a key source of greenhouse gas emissions in PNG.³⁴ The sectors' contributions to national economy is significant yet the sectors are facing considerable threats by climate change. Meanwhile climate actions in agriculture, forestry and land-use sectors are identified as key opportunities by PNG NDC. Addressing the capacity gaps and needs identified above will require improved institutional coordination and a robust system in place to monitor progress in achieving NDC goals across sectors and sub-sectors.

³⁴ FAO. 2011.

1.2 The baseline scenario or any associated baseline projects

17. According to PNG's *Second National Communication to the UNFCCC in 2014*, the agriculture and LULUCF sector was responsible for 11,754 GgCO₂-eq of emissions in 2000 representing around 83 percent of total emissions at the national level. As for emission types within the agriculture and land-use sectors, burning of grassland was the largest source of GHG emission in 2000, followed by field burning of sugarcane residues. However, land use change and forestry was the largest carbon sink removing 190,620 GgCO₂-eq from the atmosphere, which exceeded total national emissions in 2000. The net emission after accounting for the removal was -178,866 GgCO₂-eq from the agriculture and land-use sectors. The Second National Communication argues that PNG was still a net carbon sink for the period 2000-2008.
18. Understanding PNG's rapidly changing GHG emissions profile in the past decade would require capacities at national and local level to collect, archive and analyze activity data with improved MRV and quality control and assurance systems. According to more recent data on emissions collected and compiled by FAO from both agriculture and land-use and forestry sectors may have grown. For example, in 2013, it was estimated that the agriculture and land-use sectors were responsible for 5,620 Gg CO₂-eq and 54,420Gg CO₂-eq of emissions respectively³⁵. Collectively these sources represent a major portion of PNG's emissions at the national level and it may change the country's GHG emissions profile considerably.
19. Table 3 outlines baseline initiatives that address transparency-related activities in PNG, and their areas of synergies with the proposed CBIT project:

Table 3: Existing baseline initiatives and areas of synergies with CBIT project

Baseline initiatives	Areas of Synergies with CBIT Project
<p>Mitigation of Climate Change in Agriculture (MICCA)</p> <p>Agency: FAO Timeframe: 2010-2017</p> <p>Objectives:</p> <ul style="list-style-type: none"> Enhancing countries' capacity to report to the United Nations Framework Convention on Climate Change on greenhouse gas emissions for the Agriculture, Forestry and Other Land Use sector Development of country specific data collection and data estimation tools and methods 	<p>FAO, under the global programme "Mitigation of Climate Change in Agriculture (MICCA)", has produced a suite of tools to support countries: to enhance the technical capacity to prepare the national GHG inventory (from the data collection to the emissions estimates) and to assess its accuracy and quality in order to prepare an improvement plan for the next inventory cycle; to design Nationally Appropriate Mitigation Actions (NAMAs), to put in place an MRV system.</p> <p>With the application of FAO tools under the CBIT project, PNG national institutions will have enhanced capacity to develop a sustainable GHG inventory and MRV system and consequently measure progress, eventually achieved through NAMAs, toward NDC priorities in agriculture and land-use sectors.</p>
<p>GEF-6 Enabling Activities</p> <p>Partner: UNEP Timeframe: 2015-2018 Amount: 852,000 USD</p> <p>Objectives:</p> <ul style="list-style-type: none"> Facilitation of the 3rd National Communication (TNC) and First BUR submission by the end of 2017 Stakeholder mapping and NDC roadmap to be developed under the support of the EA project Climate change vulnerability and adaptation assessment. 	<p>The GEF EA project aims to support the preparation and submission of BUR and TNC, however this initiative does not include capacity building activities supporting improved data collection, systematic data archiving, or dissemination of data.</p> <p>Necessary capacity development activities required for the preparation and submission of BUR and TNC will be provided by GEF CBIT. GEF CBIT will integrate key adaptation data collected throughout the Vulnerability & Adaptation assessment exercise into a centralized database for consistency and the ease of access in decision making and investment planning.</p>

³⁵ FAO. 2014. *FAOSTAT Emissions Database*. Downloaded at CAIT Climate Data Explorer. 2015. Washington, DC: World Resources Institute. Available online at: <http://cait.wri.org>.

<p>FCPF top-up proposal (currently under formulation)</p> <p>Partner: UNDP Timeframe: 2017-2020 Estimated Amount: \$ 800,000 USD (FAO-led component)</p> <p>Objectives:</p> <ul style="list-style-type: none"> • Support to improvements in FRL and NFMS • Support to improved forest data for accurate GHG reporting and monitoring of REDD+ safeguards 	<p>The first output of this project will provide PNG with technical support to address the questions from Technical Advisory Panel and take follow up actions to improve the quality of the Forest Reference Level as part of FRL development. The second output addresses the data shortfall in number of areas related to the collection of zoological information and the development of detailed emission factors for different forest types, as well as for different levels of forest degradation. The FCPF top-up proposal builds upon UN-REDD National Programme’s achievements in particular with technical capacity at national and regional levels, strengthening knowledge and methodologies for data collection, monitoring and reporting that meet international standards.</p> <p>The CBIT project will expand lessons learned in developing MRVs from forestry sector to additional sectors including agriculture and other related areas, going beyond the intervention of FCPF top-up proposal. MRV system will be further improved through CBIT interventions by using the latest methodologies and advanced datasets. And agriculture expansion models and projection maps will be created under the support of the GEF CBIT.</p>
<p>NFI Phase 2</p> <p>Partner: FAO Timeframe: 2013-2017 Amount: 6 million Euros</p> <p>Objectives:</p> <ul style="list-style-type: none"> • NFI phase 1: Conduct remote sensing based assessment to determine the most appropriate stratification and number of plots per strata for the actual field measurement to be conducted at Phase 2. • NFI phase 2: Improve assessment data from phase 1 by collecting field data on timber Volume, non-timber forest products, soils and liter as well as providing training for field sampling methods and tree identification. 	<p>Both phases support to provide forest activity data for the purpose of the National Forest Monitoring System (NFMS) and the LULUCF under PNG greenhouse gas inventory. The NFI project phase 2 builds on the achievements from phase 1 to improve the accuracy of GHG estimations in the LULUCF sector, and provide essential information related to REDD+ safeguards in PNG. In addition, NFI phase 2 will continue to provide technical and human capacity building activities with regards to forest inventory and GHG emissions inventory, including both hardware and software.</p> <p>The PNG CBIT project will expand lessons learned in establishing forest inventory to relevant sectors such as agriculture and mining, going beyond the intervention of NFI. GHG emissions data from agriculture and adaptation related data collection will be further improved through CBIT interventions, and will be integrated into the existing data management system. Satellite Land Monitoring System (SLMS) will be improved through more effective integration of two different geospatial methodologies (point sampling and wall-to-wall mapping) which will eventually enhance the quality of the national ETF reporting. Moreover, the existing SLMS software and hardware will be further upgraded by integrating mitigation and adaptation data from agriculture and land use sectors not only limited to geospatial data as the system currently displays.</p>
<p>Capacity building for national GHG inventory project (currently under formulation)</p> <p>Partner: JICA Time: 2017-2021 Estimated Amount: 4 million USD</p> <p>Objectives:</p> <ul style="list-style-type: none"> • <i>Strengthening capacity.</i> Software establishment for emissions/removal estimation Emissions/removal estimation and uncertainty analysis for the following key categories assessment: energy, 	<p>The JICA project aims to assist PNG with two cycles of inventory submission, including inventory report and a series of excel spreadsheets with a completed software for emission estimation/removal. JICA’s work, however, will only support the compilation of data that’s already been collected by line ministries, and preparation of the final inventory reports.</p> <p>As such, the GEF CBIT will provide critical support enhance data accuracy on GHG emissions from the agriculture and land use sectors using latest IPCC guidelines and tools and methodologies to estimate GHG emissions from agriculture and land use. Moreover, activity data will not be collected by the</p>

<p>industrial processes and waste.</p> <ul style="list-style-type: none"> • <i>Institutional arrangements.</i> Support for enhancing partnerships through MoUs with relevant sector stakeholders; and relevant guidelines/regulations/legal documents. 	<p>JICA project intervention; as such, FAO’s current and recent past work collecting activity data from agriculture and land use will be complimentary to the JICA project, and will support establishing a more rigorous ETF reporting system by integrating diverse sources of data which are also useful for cross checking purposes.</p> <p>An open collaboration with JICA and other GHG Inventory related work in the country will be ensured by CBIT project. Lessons learned from the agriculture and land use sectors will be shared and further disseminated through the sectoral coordination platforms for GHG inventory through MoUs and/or MoAs with the relevant sectors providing data, benefitting other relevant sectors with its efficiency and accuracy of GHG estimation. All necessary information, estimation methods, reporting guidelines and formats/templates will be shared and discussed in transparent manner, among relevant organizations and institutions. Agriculture and land use sector reporting will be fully integrated in and prepared in harmony with the overall national GHGi reporting processes.</p>
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20. PNG faces serious challenges in meeting the required institutional and human capacity to monitor and report the progress of NDC implementation for priority activities within agriculture and land-use sectors. Key capacity gaps, needs and commitments have been addressed and communicated through through the following channels:
- a. **PNG’s Nationally Determined Contribution (NDC, 2016):** PNG NDCs were submitted in 2016, and noted a significant lack of robust measures for required data collection;
 - b. **PNG’s Second National Communication (2014):** Highlighted that an enabling environment for transparency in climate change reporting was required. As also noted, the capacity to report progress on climate related activities at national level is primarily available to (only) the PNG Climate Change Development Authority (CCDA). Despite its effort to implementing capacity building projects, national capacity building efforts are not yet based on a programmatic approach, but are rather considered and delivered on an ad-hoc basis.
21. Although some progress has been made since the above recommendations were made, most capacity gaps and needs still remain unresolved. To address the first and foremost concern of the absence of national climate change strategy, the *Papua New Guinea Climate Change (Management) Act 2015* was introduced. However, a comprehensive national adaptation strategy that covers actions at national and provincial levels is still missing. And there is a strong need for clear communication strategies to implement the PNG Climate Change Act. In PNG, such capacity constraints create barriers to reporting, hence the need for additional and expedited capacity-building support related to transparency.
22. The quality of MRV systems tracking results of NDC targets and National Climate Change Act requires significant improvement in PNG. The result of FAO’s initial assessment on PNG’s MRV capacity for tracking progress for agriculture and land-use sector targets indicates that the current MRV status is assessed at the *Rating 3 - “Measurement systems are in place for a few activities, improved data quality and methodologies, but not cost or time efficient; wider access to reporting is still limited and information is partial; verification is rudimentary/non-standardized”* (see GEF/C.46/07/Rev.01)³⁶.
23. MRV status for agriculture and land-use sectors was determined at Level 3 due to poor data measurement and collection and a lack of verification systems. The forest sector’s MRV system is the most advanced to date, due

³⁶ Assessment criteria adopted from the Programming Directions for GEF-6 included in the Summary of Negotiations of the Sixth Replenishment of the GEF Trust Fund (see GEF/C.46/07/Rev.01).

largely to support from the REDD related baseline programs noted above. Yet, limited capacity and knowledge hinder the CCDA to coordinate and efficiently collect and report critical data. Activities for agriculture data collection and compilation are conducted by a limited number of CCDA staff and the support of local Department of Agriculture and Livestock (DAL) staff. Data collection of these staff requires significant travel, cost and time. Due to such constraints, CCDA and DAL have been collecting data from commercial agriculture operations and estates only, leaving unaccounted the vast majority of highly decentralized on-farm smallholder agricultural activities. Lastly, to date, the government of PNG has not taken a standardized measure for verification of information other than the national consultation on the reports, and third party verification has yet been undertaken. Key stakeholders do not fully participate in the verification process from the beginning except for the final consultation workshop for national greenhouse gas reports.

24. Without the support of the GEF CBIT, transparency-related data in agriculture and land-use sectors will continue to be collected in an inefficient and non-standardized manner, leaving few possibilities for improvement on accuracy and completeness of data. Without CBIT, the possibility of including agriculture and forestry sectors in the updated NDC is very low or such inclusion may be further delayed.
25. Although PNG has made a significant progress by introducing national law on climate change and conducting national vulnerability and adaptation assessment, it has pronounced and outstanding needs for enhancing institutional capacity on transparency-related issues. CCDA has been authorized to coordinate the implementation of transparency activities as mandated by the PNG Climate Change Act, however the Act needs to be operationalized, and with support policy and guidelines. In addition, both CCDA and related government agencies such as Department of Agriculture and Livestock (DAL) and PNG Forest Authority (PNGFA)--who are key stakeholders of -- lack sufficient knowledge and technical capacities to carry out data collection, measurement and reporting activities. External support to enhance institutional capacities on climate change related transparency work are present in PNG (*see Table 3*), but there has been limited exchange of knowledge/skills between those projects and sharing more broadly within government departments.
26. According to the CBIT Programming Directions, the qualitative assessment of the institutional capacity for transparency-related activities under Article 13 of the Paris Agreement can be measured on a scale of 1-4 rating. As far as the institutional capacities for transparency with limited to agriculture and land-use sectors, PNG can be rated at *Rating 2 - "Designated transparency institution exists, but with limited staff and capacity to support and coordinate implementation of transparency activities under Article 13 of Paris Agreement. Institution lacks authority or mandate to coordinate transparency activities under Article 13"*. CCDA is relatively new and is still undergoing training and talent acquisition processes to perform DNA function for UNFCCC fully. Meanwhile, the agency has been assigned to become the Nationally Designated Authority (NDA) for Green Climate Fund (GCF). Without the support of GEF CBIT, the institutional capacity gaps with respect to transparency will persist.
27. Some progress has been made on enhancing transparency on climate change adaptation related activities, however data collection processes at local and national levels and centralized data hardware are not present yet for adaptation in agriculture and land-use sectors. An analysis of the anticipated impacts of climate change has been conducted that resulted in nine (09) key climate vulnerabilities encompassing natural resources, agriculture, forestry, cities, health and sanitation in the PNG's NDC submission to the UNFCCC. In addition, PNG is in the process of preparing the vulnerability and adaptation assessment for the first time with the support of UNEP through GEF Enabling Activity (EA). While understanding vulnerability and prioritizing key vulnerability areas are one of the key activities of the adaptation strategies, specific actions to address these drivers and impacts of climate change in agriculture and land-use sectors need to be defined further through detailed plans for implementation and tracking.
28. Without the support of GEF CBIT, collection of activity level data for adaptation will continue to lack, and the ability to implement recommendations/key findings of vulnerability assessments and adaptation studies will remain limited in PNG.

29. A synthesis of the baseline scenario above and review of PNG’s National Capacity Self-Assessment (NCSA) for Global Environmental Management and Action Plan, which assessed capacity required for PNG to fulfil its commitments under the UNFCCC, CBD and CCD, highlights remaining gaps that need to be addressed to enable PNG to produce more timely and accurate reports for UNFCCC processes; particularly the reporting requirements under the Paris Agreement ETF. The NCSA identified UNFCCC-specific and cross-cutting capacity development needs for reporting to the UNFCCC that would benefit from additional support to the agriculture and land-use sectors under CBIT. These are detailed by level in Table 4. The proposed CBIT project will work to address the priorities identified as part of the NCSA assessment to strengthen institutions and capacity required for enhanced monitoring and reporting under UNFCCC processes over the long-term with a technical focus on the unique needs of the agriculture and land-use sectors.

Table 4: PNG NCSA capacity gaps/needs related to agriculture and land-use sectors that can be addressed by CBIT

Focus	Description	Related sector-specific gaps/needs that can be addressed by CBIT	Relevant Project Outputs in alternate CBIT scenario
UNFCCC	Absence of a national climate change policy for PNG including guidance for the prioritization of adaptation and mitigation actions	<ul style="list-style-type: none"> Capacity to clarify reporting against mitigation and adaptation targets through improved baselines and BAU projections covering projections for agricultural output Capacity to understand national emission scenarios and adjust national sector-specific mitigation planning processes accordingly 	Output 1.1.2; Output 1.1.3;
UNFCCC	Absence of National Adaptation Strategy including capacity building for climate change vulnerability and adaptation assessments and mapping and monitoring vulnerable areas	<ul style="list-style-type: none"> Preparation of national sector specific adaptation indicators and systems capable of measuring progress against NDC adaptation priorities Preparation of systems to aggregate adaptation monitoring and reporting to capture progress toward NDC adaptation priorities 	Output 3.1.1; Output 3.1.2;
UNFCCC	Lack of a Climate Change Communication Strategy including making policy makers aware of vulnerability and adaptation assessments in key sectors and strengthening institutions involved in climate change related studies	<ul style="list-style-type: none"> Capacity to understand national climate-risk scenarios and adjust national sector-specific adaptation planning processes accordingly Support to engage in sub-national, national, regional and global peer-to-peer exchange on ETF reporting requirements 	Output 1.2.3; Output 3.1.4
Cross-Cutting	Limited coordination of national strategies for MEA implementation including provision of an effective enabling environment that empowers national stakeholders to engage in implementation of the Conventions and facilitates engagement of development partners and international research and technological institutions with people, institutions and the national sustainable development agenda of PNG	<ul style="list-style-type: none"> Support for multi-sectoral strategy and coordination integrating relevant authorities, data and information systems 	Output 1.2.1; Output 1.2.2

Focus	Description	Related sector-specific gaps/needs that can be addressed by CBIT	Relevant Project Outputs in alternate CBIT scenario
Cross-Cutting	Limited knowledge and information management including improved information sharing between government agencies and with other stakeholders; support for coordination and establishing an effective enabling environment	<ul style="list-style-type: none"> Preparation of PNG specific emission factors for key agriculture and land-use sector activities Development of sector specific GHG inventory and mitigation knowledge management systems for the agriculture sectors Development of sector specific adaptation data management systems 	Output 2.1.2; Output 2.1.3; Output 3.1.3;
Cross-Cutting	Limited resource mobilization and project management including developing resource mobilization strategies to support the implementation of the Convention	<ul style="list-style-type: none"> Capacity to assess and adjust NDC ambition levels to attract international support 	Output 2.1.4; Output 3.1.4; Output 3.1.5
Cross-Cutting	Limited involvement in MEA negotiations and reporting including support for wider stakeholder involvement and awareness on the processes prior to and after UNFCCC COP and related meetings	<ul style="list-style-type: none"> Knowledge and resources to better inform PNG Government involvement in UNFCCC processes regarding transparency and sector-based target setting exercises 	Output 1.1.4

1.3 The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project

30. The GEF alternative scenario is to develop and implement a capacity building program that will draw upon the CBIT fund to ensure that by 2020 PNG is preparing reports from the agriculture, forestry and land use sectors consistent with the requirements of the ETF, including inventories of emissions sources and sinks and information necessary to track progress against priority actions identified in PNG's NDC. This program will target capacity building activities under three components, and in three key areas:

Component 1 – Institutional arrangements for transparency:

31. This component will address barriers associated with institutional coordination and awareness to ensure that information and data from the agriculture and land use sectors is coordinated and integrated into national ETF processes and reports. Coordination, education and capacity building activities proposed include: establishment of institutional coordination mechanisms for ETF reporting in the agriculture and land use sectors including technical working groups; preparation of a detailed capacity gaps and needs assessment for transparency based upon PNG's NDC priority actions; and an updated national MRV roadmap for enhanced transparency taking into account Paris Agreement requirements.

32. As noted above, agriculture and land use sectors comprise the most significant source of PNG's economy, is the largest source of GHG emissions, and livelihood source for over 80 percent of the population. The sector—and forestry in particular-- is the most advanced in terms of its reporting processes (e.g. building off MRV and Forest Reference Emissions Levels under UN-REDD). As such, project results/success developed will target and then leverage agriculture and land use sector process and modules to coordinate, mobilize, and improve relevant national and sector accounting (i.e. energy, industrial process, and waste). More detailed activities under the component 1 are described below.

33. *Outcome 1.1* supports the institutional coordination and capacity building for preparation of Enhanced Transparency Framework reports for agriculture, land use and other relevant sectors. Key activities include of this outcome include: establishment of institutional coordination mechanisms for ETF reporting in the agriculture and land-use sectors, including technical working groups and a network of regional advisors (four) responsible for GHG reporting (output 1.1.1). The outcome includes assessment in PPG building upon the anticipated BUR submission and institutional, data collection, analysis, and reporting capacity gaps and needs for meeting the requirements of the ETF with specific focus on the priority NDC actions for the agriculture and land use sectors (1.1.2), and it includes the preparation of guidelines for tracking NDC progress incorporating baselines, business-as-usual scenarios and targets in the sector (1.1.3). Overall, the project will specifically aim to strengthen PNG's engagement with international transparency-related processes under the UNFCCC in agriculture and land use sectors (1.1.4).
34. *Notably*, the project builds upon emerging best practice and lessons learned made through the Reducing Emissions from Deforestation and Degradation (UN-REDD) programme, National Forest Inventory (NFI), and Forest Carbon Partnership Facility (FCPF). The proposed CBIT activities under outcome 1.2 will leverage these experiences to build capacity of national and regional stakeholders involved in all agriculture and land-use sectors, and then expand outward to engage other priority sectors, stakeholders and integrate national authorities into UNFCCC reporting processes for effective coordination.
35. *Existing* interministerial coordination and the capacities and coordination of regional advisors will be further established through strategy and support mechanisms to ensure data and information flows among ministries are strengthened, and will contribute to UNFCCC reporting, and that all ministries relevant for PNG NDC implementation are benefiting from enhanced data and information. The strategy and mechanisms developed will aim to maintain established capacity beyond the lifetime of the project. (1.2.1). The project will also capacitate the country with software and hardware with data connectivity to perform their job functions as key data coordinator and focal point in their respective regions. CBIT activities will complement the efforts of PNG Climate Change Development Authority (CCDA) to scale up support for quality assurance/quality control on data collection and analysis through designing Help Desks for regional and district authorities during collection and preparation of data sheets. Moreover, ETF lessons learned from agriculture and land use sectors will be shared to enhance national reporting and MRV roadmaps with relevant sectors including energy, industrial process and transportation sectors (1.2.2), with improved data, systems and lessons learned shared also to improve regional and global programming (e.g. such as via the FAO Global CBIT programme, and the CBIT Global Coordination Platform). Under this output, lessons learned from agriculture and land-use sectors will be shared with other international and national partners engaged in GHG inventory and data management systems for greater harmonization and coordination. Lastly, technical working groups for peer exchanges will be established for relevant priority sectors to be decided (1.2.3).

Component 2: Transparency for monitoring and reporting emissions and emissions reductions:

36. *Under* this component, activities will be designed to address barriers for improved *emissions* measurement, monitoring and reporting systems of emissions and removals and priority NDC emissions reduction actions in the agriculture and land-use sectors. Targeted investment will leverage the capacity of national and local research institutions to improve national GHG inventories for national sectors and enable enhanced field-level GHG monitoring. This will also support improvement of existing IT hardware and system infrastructure to store and manage existing and projected GHG emissions data and information requirements. These systems will be designed to interface with and—where possible—enhance existing systems by integrating data collected by other interventions and will be made available to public for wider access.
37. *Outcome 2.1* supports establishment of regular and systematic data collection, documentation and archiving processes for GHG inventories in the agriculture and land-use sectors (2.1.1). Under this outcome, a series of capacity building initiatives will be organized both at national and provincial levels including four main administrative regions to ensure guidance on processes and quality assurance and quality control in agriculture and land-use sectors are implemented down to local administrative layer. Secondly, the existing GHG

information management system (MIS) and infrastructure will be upgraded by integrating data from diverse sources (2.1.2). Satellite and Land Monitoring System (SLMS) lab currently hosted at CCDA will expand its data coverage and display to adaptation related data in the whole agriculture and land-use sectors as well as associated socio-economic indicators. The SLMS web portal will be upgraded by integrating spatial and non-spatial data, and national capacity for data analysis and dissemination will be improved by ensuring free and open access of data.

38. *The proposed CBIT project will provide capacity to adopt improved GHG inventory standards and latest tools and methodologies for agriculture and land-use sectors, and enable enhanced field-level GHG monitoring systems (Output 2.1.3). Activities will include training and support for national institutions to develop context-specific emissions factors for key sector activities, and to gradually move from using the IPCC Revised 1996 Guidelines to the later IPCC 2006 Guidelines. In addition, regional advisors will be provided with trainings and hardware where required to collect and compile data from the field, and extension agents will be provided with monitoring equipment and systems that will interface with MIS nodes at sub-national and national levels. The final output under this Outcome is to prepare agriculture and land-use sector's contributions to future National Communications and Biennial Update Reports with latest UNFCCC guidance (2.1.4).*

Component 3. Transparency for monitoring and reporting adaptation:

39. *Under this area of work, project interventions will address barriers for adaptation monitoring and reporting of priority NDC adaptation actions in the agriculture and land-use sectors. Activities will be designed to establish the basic frameworks and infrastructure for enhanced monitoring and reporting adaptation activities. An upgrade in data collection hardware will be made to integrate GHG mitigation and adaptation data from the agriculture and land-use sectors into central web portal which will be used as a basis for the preparation for PNG's first National Adaptation Plan (NAP).*
40. *The component addresses specific bottlenecks for adaptation monitoring and reporting of priority actions in the agriculture and land-use sectors as they specified in the NDC. Based on a review of the NDC priorities and relevant planning documents, sector specific indicators, methodologies, frameworks and interventions will be identified (Outputs 3.1.1 and 3.1.2). Existing national web portal housed by CCDA at SLMS lab will be further upgraded to integrate climate adaptation in agriculture and land-use sectors in order to store and manage existing and projected data and information on adaptation initiatives in support of the NDC (Output 3.1.3). As a result of above mentioned output, the web portal will interface with wherever possible and enhance existing systems for monitoring of field activities and data collection by regional advisors and DAL extension agents. A Help Desk system will also be established to better support regional advisors with field monitoring and data collection activities. And relevant protocols will be implemented to better monitor contributions from development partners and other sources to support implementation of NDC adaptation contributions in agriculture and land-use sectors.*
41. *Capacity building activities under this Outcome will include: assessment of good practices and methodologies for monitoring NDC priority adaptation actions; training adaptation monitoring and reporting at different administrative levels and academic institutions and preparation of adaptation data in agriculture and land-use sectors to feed into the national reports consistent with latest UNFCCC guidance (Outputs 3.1.4 and 3.1.5). The final output under this Outcome will be agriculture and land-use sector contributions to national communications consistent with latest UNFCCC guidance on reporting adaptation contributions.*
42. *As the lead implementing agency of CBIT project, FAO will draw upon its deep technical understanding of the agriculture and land-use sectors and wide range of tools and methods for development of emissions inventories, measuring and monitoring emissions from agriculture, land use and land-use change, agriculture and land-use MRV systems, quality assurance protocols and adaptation planning and monitoring.*

1.4 Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF, CBIT and co-financing:

43. *Without* the project, necessary conditions for meeting the Paris ETF remain unaddressed and unmet in PNG. Although significant progress has been made on the forestry sub-sector through REDD+ and NFI (especially geo-spatial data), necessary activity data and emission factors using latest IPCC guidelines are not available for all agriculture and land sectors for compiling national GHG inventory. PNG is currently finalizing its submission of the first Forest Emissions Reference Level (FREL) to the UNFCCC with the support of UN-REDD, however FREL has adopted IPCC 1996 guideline, and the UN-REDD support has come to an end due to project closure.
44. PNG receives little or no external support on data collection and estimation from the agriculture and land use sectors. The majority of donor funded projects focus on climate change mitigation and adaptation data compilation and reporting only. Due to a lack of systematic archiving and reporting process for GHG emissions, AFOLU data collection will continue to be prepared by a single CCDA officer who travels to each region and meets with agricultural corporations for data collection. District and provincial officers of DAL and PNGFA who are responsible for agriculture and land use data collection will continue to play minor roles in GHG emissions reporting from AFOLU sectors due to limited capacity. Available data on GHG mitigation and adaptation in the AFOLU sector being collected by several divisions and agencies will continue to be stored in individual computers of responsible officers due to lack of communication and IT facility in the government system. Without the support of the CBIT project, the institutional capacity gap on transparency will persist, and the necessary capacities will remain to be locked in a few agencies without much opportunity to transfer such knowledge and skills with regards to transparency in the agriculture and land use sectors.
45. *Technical* rigor of the National Communications has been inconsistent for the agriculture and land use sectors and a BUR has not been submitted to date. The first and the second National Communications to UNFCCC have used different estimation methodologies and sub-sector categories for AFOLU and, as such, a considered comparison of data is not yet possible. At the moment, with the assistance of UNEP supported through GEF Enabling Activity, PNG is preparing its first BUR submission. The BUR expects to provide updated information on PNG's achievements with regards to GHG emissions reductions and needs and supports received from UNFCCC to PNG since the submission of the Second National Communication. For this stand-alone update report the government of PNG has been collecting a range of activity data on GHG emissions removals from relevant sectors, however apart from the forestry sub sector, efforts to collect and compile information on emission reductions and on the activities of climate adaptation actions from the agriculture and land use sectors have been made in an inconsistent and inefficient manner.
46. *Furthermore*, as explained above, through the NDC submission, PNG has prioritized emissions reductions and adaptation actions in agriculture and land use that will need to be monitored and reported under the Paris Enhanced Transparency Framework. The recent past and current experiences with national reporting helped strengthen the national capacity to collect, measure, and analyze GHG emissions from sectors, and possibly lay a foundation for tracking progress of the implementation of NDC priority actions on reducing GHG emissions from agriculture and land use sectors.
47. *With the project*, PNG's outstanding capacity needs as identified at its National Capacity Self-Assessment (NCSA) will be effectively addressed, by improving national capacity to track progress of priority mitigation and adaptation actions from agriculture and land use sectors to fulfill both Paris ETF requirements. National Satellite Land Monitoring Lab currently hosted within CCDA will continue to improve its performance on agriculture and land use data collection and estimation by integrating mitigation and adaptation data with the support of CBIT project. The capacity to collect and estimate agriculture and land use data will be enhanced both at local and national level through annual provincial capacity building workshops and the dissemination of national guidelines for data collection, reporting, and QA/QC. Provincial advisors responsible for GHG data collection will be capacitated with laptops and necessary software, enabling them to collect and report agriculture and land

use data to relevant national authorities. With this enhanced time and cost efficiency in GHG data collection in agriculture and land use sectors, current MRV status rating of PNG will be improved.

48. Secondly, with the support of the project, PNG will improve the quality and coverage of data collected and reported on GHG emissions from agriculture and land use sectors by transitioning from IPCC 1996 to 2006, and from Tier 1 to Tier 2 emission factors. Experts trainings and trainings of trainers will be provided to ensure such knowledge, tools, and methodologies to be sustained. Technical capacities of CCDA, DAL, and PNGFA staffs will be improved with trainings on GHG inventory, estimation tools and methods to improve agriculture and land use data. Satellite Land Monitoring System will be improved through more effective integration of two different geospatial methodologies (point sampling and wall-to-wall mapping) which will eventually enhance the quality of the national ETF reporting.
49. *Moreover*, with an increased national capacity to measure, monitor, and report against the priority actions identified in the NDC, it puts PNG in a better position to increase its level of ambition on including more ambitious emissions reductions activities and priority setting for the agriculture and land use sectors. Lastly, the project intervention will enhance PNG's long term vision for climate change reporting and transparency improvement over time through enhanced institutional capacity and arrangements targeting wider/national sector emissions and adaptation accounting.

1.5 Global environmental benefits (GEFTF), and adaptation benefits (LDCF/SCCF):

50. The global environmental benefits targeted by this proposed capacity building program will flow from the improved *coordination* and capacity to monitor and report action to address the drivers and impacts of climate change in a transparent manner. In the near term, the project will support the upgrading and establishment of systems to provide an evidence-base for more effective mitigation and adaptation in the agriculture and land-use sectors. Over time the systems supported by the project will allow policy makers and planners at national and provincial levels to design interventions to address climate change drivers and impacts based upon a more complete understanding of what works. In the longer-term the improved understanding of mitigation and adaptation potentials made possible through the project will provide the PNG Government with greater opportunity to increase levels of ambition for both mitigation and adaptation in future iterations of PNG's NDC and better articulate the magnitude and types of financial and technical support required to meet national priorities.
51. As a result, global environmental benefits can also be expected in the form of enhanced contributions from PNG to collective global efforts to work towards aggregate emission pathways consistent with holding the increase in the global average temperature to well below 2 °C above pre-industrial levels.

1.6 Innovation, sustainability and potential for scaling-up:

Innovation:

52. The proposed CBIT project will facilitate scientific innovation through investment in infrastructure and systems to update and modernize the measurement and monitoring capacities of the government of PNG and local technical and research institutions. The project will facilitate investment and technology transfer for new and updated equipment at provincial offices and national labs to measure and monitor emissions from a wide range of agriculture and land-use activities. The project will also facilitate upgrade and expansion of a dedicated knowledge management information systems and IT hardware for the more effective management and reporting of data and information related to transparency of both mitigation and adaptation actions. Field monitoring systems will be overhauled under the project through the upgrading of data collection processes with the wider application of mobile telecommunications, app-based data collection platforms and cloud-based data storage and transfer services. Systems upgraded through the project in the CCDA will be replicated in other departments at reduced effort and cost.

53. *These systems will be designed to benefit from recent advances and tools for estimating GHG emissions from the crops, livestock and forestry sectors. Under the MICCA programme, FAO, with partners, has developed or is currently developing a suite of tools for standardizing emissions monitoring and reporting at Tier 2 levels. For example, the Global Livestock Environment Assessment Model (GLEAM) establishes baselines and assesses the impacts of different mitigation and adaptation scenarios at local and national scale. Based on IPCC Tier 2 methodology and GIS based modeling of livestock distribution, GLEAM allows the assessments of all major GHG emissions from livestock and the impacts of all actions to reduce emissions from the sector. Similar tools are under development for field crops based on projects including a global program on Mitigating Agricultural Greenhouse Gases (MAGHG) and support for countries in Southeast Asia to prepare Nationally Appropriate Mitigation Actions for different field crops. With the application of GHG estimation tools such as GLEAM and those developed under MAGHG, PNG national institutions will have enhanced capacity to measure progress toward NDC priorities in agriculture and land-use sectors.*
54. *At the global level, evidence tested and compiled in PNG will facilitate the improvement of scientific knowledge of GHG emissions reduction potential from AFOLU sectors, consequently improving our knowledge to estimate global environmental benefits. These systems once implemented and operational will support the potential for improved understanding of mitigation and adaptation potentials and the possibility for increased levels of ambition and quantification of support required in future iterations of PNG's NDC in the lead up to and during the commitment period of the Paris Agreement.*
55. *In addition, the project adopts an innovative approach that integrates extensive stakeholder consultations and assessments of capacity needs and baseline activities for monitoring the progress. The project interventions have been formulated by taking into account the need to enhance national capacity in monitoring mitigation and adaptation actions for agriculture and land use and relevant sectors as a whole emerging from the representatives of line ministries in PNG at the regional transparency workshop organized in Bangkok, Thailand in June 2016, as well as at the global training workshop on GHG inventory for AFOLU sectors organized in Rome, Italy in October 2016.*

Sustainability:

56. *With the project support, PNG will be able to articulate a clear plan of action with regards to national reporting of its NDC, utilizing the monitoring and reporting roadmap, horizontal and vertical coordination mechanisms, and technical guidelines prepared by the project. All stakeholders will be empowered to access, archive, analyze, and monitor the necessary information and activities with regards to the agriculture and land use sectors, as well as to inform processes by lessons learned in other sectors.*
57. *Through the capacity building activities, the capacities of technical and policy focal points from CCDA, DAL, and PNGFA as well as of relevant national institutions will be improved. The soft skills and knowledge acquired will be retained through the systematic support put in place through the upgrade of climate change transparency database, using the newly established Satellite Land Monitoring System (SLMS) Lab web platform. Although the web platform currently exhibits only geo-spatial land-use data for national forest monitoring purpose, with the CBIT project intervention other key elements of NDC transparency reporting will be integrated into the platform including adaptation data. Such web platform will be made available to general public therefore further enhance the sustainability and continuous improvement of the information collected by the country.*
58. *The core outcome of the project is to establish an enabling institutional coordination mechanisms to ensure greater collaboration among line ministries, in particular, CCDA, DAL, and PNGFA during the project life cycle, at least one Agriculture and LULUCF (IPCC 1996) or AFOLU (IPCC 2006) chapter will be facilitated and improved by the government with technical supervision of FAO with regards to agriculture and land use data collection and estimation. This experience, and in particular enhanced capacity of AFOLU data collection from national to provincial level and associated institutional memory will better prepare the government of PNG to fully take-over the reporting processes in the next reporting cycle from 2020 onwards. Furthermore, the transfer of GHG measurement and estimation technologies supported through improved national capacity in agriculture*

and land use sectors is expected/will potentially help PNG improve its ambitions by including reductions in GHG emissions from the agriculture and land use sectors into its NDC emissions reductions targets.

Potential for scaling-up:

59. The project specifically embeds opportunities to scale-out and scale-up the measures implemented. The relative importance of the agriculture and land use sectors to the PNG’s economy and the significant technical challenges and capacity gaps for enhanced transparency in these sectors in the PNG context necessitate a focused, sector specific approach. The information management systems and infrastructure for monitoring and reporting mitigation and adaptation actions in the agriculture and land use sectors established under the project will be designed in way to allow for easy replication and adoption by other sectors. Hardware, capacity building and training provided to national and local level stakeholders will be developed as modules that they can be adapted to improve data collection methods and analysis across all sectors. By working through and strengthening the institutional mechanisms in place for transparency of climate change actions the project will be able to better facilitate this process of scaling out project-developed systems and processes. The enhanced capacity provided by the project will enable regular national reporting of actions to address climate change drivers and impacts as envisioned under Paris Agreement Article 13.
60. *Outcome 1* of the project will also facilitate PNG’s engagement in international transparency-related processes under the UNFCCC. With the enhanced institutional capacity and engagement with international process, the government of PNG will be capacitated to identify potential partners to further develop scaling-up actions and investment opportunities for further improving transparency over time, as well as to benefit other countries in the region to develop more transparent, accurate, complete, consistent and comparable monitoring and reporting systems.
61. *The* government will locate financial sources to ensure continued application and sustainability of the transparency systems and infrastructure for the other sectors by applying for various international climate finance sources, or using a combination of national budget and international support for fulfilling its reporting requirements to the Convention.

2. *Stakeholders*. Will project design include the participation of relevant stakeholders from [civil society organizations](#) (yes /no) and [indigenous peoples](#) (yes / no)? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

62. The project will be implemented in close cooperation with relevant stakeholders at the national, regional, and district levels as described in the table below:

Table 5 CBIT Project Stakeholders and Roles

Stakeholders	Administrative Levels	Expected roles/responsibilities
Climate Change Development Authority (CCDA)	National	Overall coordination of the project implementation, and coordination among baseline projects; consolidation of data from relevant sectors and preparation of national reports; integration of adaptation data into existing mitigation platform for AFOLU; building capacity of relevant government agencies; and liaising with UNFCCC on global processes.
Papua New Guinea Forest Authority (PNGFA)	National, Regional and District	Forestry sector focal point for GHG inventory technical working group; data collection on greenhouse gas emissions and removals from forestry and land use change; compilation of activity data from forestry sector down to field level; disseminating guidelines and latest tools; building capacity of

		regional advisors and district staffs on improving data accuracy, archiving and documentation for national reporting.
Department of Agriculture and Livestock (DAL)	National, Regional and District	Agriculture sector focal point for GHG inventory technical working group; data collection on greenhouse gas emissions and removals from agriculture and other land use; compilation of activity data from agriculture sector at district level; dissemination guidelines and latest tools; building capacity of regional advisors and district staffs on improving data accuracy, archiving and documentation for national reporting for agriculture.
PNG Conservation & Environment Protection Authority (CEPA)	National	As GEF Operational Focal Point, CEPA ensures the alignment of GEF strategic areas and country priorities as well as performs overall coordination of GEF funded projects.
Other relevant national sectors (e.g. Energy, Industry, Transport).	National	Synergies and collaboration strengthening PNG's climate monitoring, scale up; expansion of best practice and lessons learned.
Development agencies: UNDP, UNEP, JICA	National	Through regular technical meetings among development partners, a harmonized approach for national reporting encompassing all sub sectors will be achieved, including joint decision-making on the choice of methodologies, tools, guidelines and templates.
Research institutes/universities: National Agriculture Research Institute (NARI), University of PNG (UPNG)	National	NARI and UPNG are the main research partners for AFOLU activity data collection and estimation. NARI, as a specialized national institution for agriculture research will provide extension research required for enhancing data quality of agricultural emissions and adaptation activities.
NGOs: TNC, WWF, WCS, FORCERT	National, regional and district	NGOs will be engaged in the implementation of the project, including the best practice analysis and validation and appraisal for AFOLU data. At the moment, the NGO list on the left mainly covers forest conservation work in PNG, however there is a plan to extend this list to broader CSO groups engaged in climate change mitigation and adaptation for AFOLU sectors. The institutional and coordination structure will consider including dissemination strategies for effective data management and reporting processes for CSOs. Moreover, prior to and at the national consultations, NGO partners will be invited to provide feedback on overall transparency reporting arrangement, in particular on stakeholder engagement.
Donors, leaders of other CBIT related initiatives	Nationwide.	Continue to create synergies (e.g. in database development), avoiding duplication—support more efficient allocation of transparency resources/efforts
Private Sector	Nationwide.	Extension of transparency requirements strengthening private sector CBIT identification/ address of gaps/needs.
Non-state actors, including households and communities.	National, regional, district.	Extension of transparency requirements to non-state actors; research, public awareness, training; strengthened capacity of land user groups in climate monitoring.

3. *Gender Equality and Women's Empowerment.* Are issues on [gender equality](#) and women's empowerment taken into account? (yes /no). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

63. *The project will ensure the preparation of the necessary documentation and publications in which principle of gender sensitive and specific data and information are included. Gender concepts, gender equity and issues in agriculture and climate change will be mainstreamed during the implementation, making sure a better participation of women in the project activities. Through cooperation with the government partners, the project intervention will be in line with GEF Gender Equality Action Plan and the existing policy and strategy on women's empowerment in the country specifically including National Policy on Women and Gender Equality 2011–2015. The project will ensure that women's specific needs are met, that women enjoy equal access to project activities from the preparation to implementation and evaluation, and eventually that women benefit equitably from the project's activities.*

64. *In terms of overall socio-economic benefits, the project will benefit Papua New Guinean society and economy by supporting the PNG Government in advancing its INDC implementation, monitoring progress of national mitigation and adaptation priority activities in the INDC. An appropriate transparency framework can generate multiple social, economic and environmental co-benefits such as human capacity, local and national institutions, cost-effective national budgeting and planning, reduced vulnerability of its food systems, and the national resources and ecosystems that the food systems depend upon. Through improved and more transparent data, the project also supports improved and better targeted district, provincial and national investment and decision making.*

4 *Risks.* 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).

Table 6: Risks to CBIT project implementation and measures to address them

No.	Description of risks	Types of risks	Probability and impact (1-5)	Measures to address the risks
1	Lack of political will to support the project activities due to government change	Political	P=4 I=5	Awareness raising among the decision makers combined with a strong stakeholder involvement plan.
2	Lack of coordination among concerned ministries and local government authorities	Political	P=2 I=4	Clear project institutional arrangements that specify roles and responsibilities of those concerned set out by the national guideline to be supported by the project.
3	Limited cooperation on data and information sharing among stakeholders	Organizational	P=2 P=3	MoU with the key stakeholders to collect and hand over required data and information.
4	Inability for the government to fund the ETF related activities beyond the project cycle	Financial	P=4 I=4	Use South-North cooperation as an outreach channel for potential investment; utilize resources available with baseline projects.
5	Gender mainstreaming hindered by resistance from local and national stakeholders	Cultural	P=3 I=2	Clear initial communication on gender equality as one of the key monitoring element for tracking progress of the project.
6	Transparency related work loses momentum as the Paris Agreement is not adopted	Political	P=1 I=4	Put an emphasis on the socioeconomic benefits of transparency work that go beyond the lifetime of the Paris Agreement (no-regrets approach)

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives.

65. The proposed capacity building programme will complement past and ongoing activities to support the Government of PNG to enhance management and monitoring practices in the AFOLU sector in addition to the baseline projects outlined in the Part II 1.2 “the baseline scenario or any associated baseline projects” including the following:

- a. ***Reducing Emissions from Deforestation and Degradation (UN-REDD) PNG National Programme:*** UN-REDD National Programme for PNG was the first official donor assistance provided to the GoPNG as support for the initial Phase of REDD Readiness in PNG and ended in December 2016. The core activities included: Readiness management arrangements; National MRV system; Support for the establishment of RELs and RLs; Monitoring of abatement concepts; and Stakeholders engagement. FAO was responsible for MRV components of the UN-REDD including capacity building for preparation of GHG inventory, Forest Reference (Emission) Level, and National Forest Monitoring System. The proposed activities for CBIT output 2 will directly benefit the MRV components for the REDD+ sub-sector, and vice versa by utilising and upgrading existing data management platforms, tools and methodologies for GHG estimates and measurements. Effective National Management of the REDD+ Readiness Process and ensuring effective stakeholder engagement and improved awareness is one of the four outcomes of the National REDD+ Programme in PNG. This CBIT proposal will ensure greater degree of coordination with PNG’s REDD+ programme on stakeholder engagement by collaborating with existing stakeholders in forestry and land-use sector. Moreover, the proposed project will identify potential linkages between CBIT and other existing UNFCCC reporting related activities that have been supported through UN-REDD programme and the FCPF top-up project.
- b. ***JICA Capacity Development Project for Operationalization of PNG Forest Resource Information Management Systems for Addressing Climate Change:*** JICA has been supporting the establishment of forest resources information management system that have enabled fully digitized and recorded forest resources data in two pilot provinces. Although the database has potential to scale-up to nation-wide scale, it is unlikely that other full cycle forest resources information management systems to be prepared under the project in other provinces. The project also aims to build capacity of field technicians in the logging operations and provinces and enhance their computer literacy. FAO has been in close collaboration with JICA especially on geo-spatial data for NFMS and FREL, and the database for Satellite Land Monitoring Systems (under output 1) will benefit JICA project activities on field data collection and vice versa as JICA forest resources database will be complementary to the centralized AFOLU data management system that will be upgraded by the CBIT project. JICA has also provided trainings to field officers of PNGFA and the CBIT project could adopt their enhanced capacities in forest resources information assessment and computer literacy.
- c. ***MoU between CCDA and Italy on greenhouse gases:*** This agreement will support in facilitating investments in REDD+ activities; building capacity for strengthening GHG inventory; identifying and scaling-up of pilot projects in the forest and agricultural sectors; and facilitating the restructuring of CCDA. The CBIT project will pay special attention to coordination for AFOLU data collection and this activity will be done in a consistent manner with the activities under this MoU with Italy, in particular on cross-sectoral coordination among sectors relevant to AFOLU.
- d. ***ADB Building Resilience in Climate Change:*** ADB project addresses key impediments to mainstreaming climate change, including (i) inadequate resources (human, technical, and financial) at all levels, (ii) inadequate mainstreaming of knowledge and tools in key sectors, and (iii) vulnerability of existing infrastructure. Special attention is paid development investment and infrastructure to be climate proof, with an effort to better understand climate change vulnerabilities and adaptation options. However, necessary processes for tracking progress of adaptation priority

activities through information gathering and data provision will not be addressed by the project intervention. As such, GEF CBIT intervention in particular the *component 3* will be compatible with this initiative.

6. *Consistency with National Priorities.* Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

66. The proposed capacity building program is drawn directly from the priorities outlined in PNG’s INDC, which is based upon existing national laws, regulations, and policies on issues related to climate change and the agriculture and land-use sectors including but not limited to:

Table 7: Relevant laws, regulations and/or policies for CBIT in PNG

Category	Laws, regulation, and/or policies
<i>National development policy and climate change laws:</i>	<p><u>PNG Vision 2050</u>: the proposed activities are consistent with the PNG’s national vision on climate change and environmental sustainability. This pillar includes priority activities such as developing appropriate mitigation & adaptation strategies of, as well as policies and institutional structures for climate change and sustainable development.</p> <p><u>National Climate Compatible Development Management Policy (NCCDMP)</u> endorsed in 2013 includes a national-level Carbon Neutrality goal of 50 percent by 2030 and 100 percent by 2050. This policy highlights ‘information’ as major theme recognizing the importance of data gathering, storing and reporting, and quality control of and capacity building for data and information system on climate change.</p> <p><u>PNG’s first Climate Change law, the Climate Change (Management) Act, 2015</u>, gave prominence to the implementation of the NCCDMP entrenching these objectives within national legislation. It laid out institutional arrangements for climate change management and associated responsibilities of national authorities and institutions.</p>
<i>National reporting:</i>	<p><u>National Capacity Self-Assessment (NCSA)</u>: The project activities address specifically the capacity constraints identified by the NCSA regarding the UNFCCC process by introducing national guidelines and frameworks on AFOLU data collection, sharing and reporting.</p> <p><u>National Adaptation Plan (NAP)</u>: Although PNG is in the process of formulating NAP, the project activities can facilitate the NAP implementation and monitoring and evaluation phase by enhancing AFOLU data collection for selected priority adaptation activities identified in the INDC. The project will also seek possibilities to find key entry points for agriculture sectors and scale this out to sectoral integration e.g. NAP-Ag programme.</p> <p><u>Biennial Update Report (BUR)</u>: The project activities will create synergies with the PNG’s first BUR submission expected by the end of 2017 through open collaboration with UNEP on improving AFOLU activity data and estimation methodologies using the latest IPCC guidelines.</p> <p><u>Nationally Determined Contribution (INDC)</u>: AFOLU sectors are highlighted in the PNG’s NDC. Mitigation options strongly focus on forestry and adaptation priorities specifically lay out food security. As such the project intervention is consistent with the NDC.</p>

67. As a result, the proposed capacity building program is highly consistent with the national priorities of PNG with respect to efforts to tackle the drivers and impacts of climate change.

7. *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.

68. *The project adopts two core knowledge management approaches: 1) Dissemination and maintenance of on-line based database and learning forums; and 2) Promotion of knowledge sharing culture and coordination. To successfully implement these approaches, the project plans to employ a national communication specialist who will produce key knowledge products in locally acceptable formats using electronic materials for webpage, ICT, radios, paper, or other appropriate means. Knowledge products will be fully translated into local languages for better dissemination and integration. Secondly, project aims to promote knowledge sharing culture and coordination for data collection and analysis in PNG. This includes an enhanced coordination among line ministries, local governments, and grass root actors working together towards improved transparency in climate change related data for the agriculture and land-use sectors.*
69. *Cost effectiveness* is developed in this, and where the intervention draws upon the latest tools and methodologies with regards to GHG emissions measurements/estimation and analytical frameworks for assessing the impacts of adaptation actions for the agriculture and land use sectors that have already been developed by FAO and applied to larger national contexts.
70. *The institutional mechanisms for UNFCCC reporting will build on existing national structures and political processes rather than creating new systems. Intuition and technical capacities developed through component 1 to 3 will build on existing national efforts up to date based on comprehensive capacity needs assessment to avoid overlaps. The coordination mechanism will largely depend on existing networks that consist of stakeholders who hold some capacities in climate-related transparency work. Online platforms and MIS will be facilitated to further assist sharing and systematic management of knowledge and information. Although in-person trainings will be conducted in some places, the project aims to increase the use of on-line trainings and e-learning platforms for long-term education purpose. Such archiving, communication, and capacity building efforts will help the project reach out to broader stakeholders and partners with minimal cost.*

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT³⁷ OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [SGP OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Gunther Joku	Acting Director and GEF Operational Focal Point	DEPARTMENT OF ENVIRONMENT AND CONSERVATION	02/22/2017

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies³⁸ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Daniel Gustafson Deputy Director-General (Programmes) and Officer-in-Charge for Investment Centre Division		15 May 2017	Hitofumi Abe (Mr), Chief Technical Advisor, PNG Forest Authority, Forest Policy and Planning Directorate P.O. Box 5055, Boroko, NCD, Papua New Guinea	+675 327 7823	Hitofumi.Abe@fao.org
Jeffrey Griffin Senior Coordinator FAO GEF Unit Investment Centre Division			Aaron Becker, FAO Regional Office of Asia/Pacific Aaron.Becker@fao.org	+39 06 570 55680	GEF-Coordination-Unit@fao.org; Jeffrey.Griffin@fao.org

C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)

For newly accredited GEF Project Agencies, please download and fill up the required [GEF Project Agency Certification of Ceiling Information Template](#) to be attached as an annex to the PIF.

³⁷ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

³⁸ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT