UN-REDD PROGRAMME

National Programme Final Report*

Papua New Guinea

UN-REDD Programme

20th May 2017

NOTE: This National Programme has been completed and is under financial and operational closure, including Final Evaluation as per UN-REDD requirements. Hence the current Final Report is an advanced version: once the Final Evaluation is completed in 2017, a definitive version of the Final Report will be submitted to the MPTF

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Final Report for the UN-REDD National Programmes

The Final Report for the National Programmes (NPs) highlights overall results throughout the implementation of the NP. These results are reported against the consolidated National Programme Document results framework, as approved by the Programme Steering Committee or Executive Board, or as adjusted following a mid-term review or evaluation.

The report includes the following sections: 1.) National Programme Identification; 2.) Progress Reporting; 3.) Lessons Learned; 4.) Warsaw Framework for REDD+ and Associated UNFCCC Decisions; 5.) Financial Delivery; and 6.) Adaptive management.

The lead agency for each National Programme is responsible for coordinating inputs to the Final Reports, and for ensuring all agency and counterpart perspectives have been collected - in particular government and civil society organizations. The reports are reviewed and vetted by the regional agency teams, who provide quality assurance and recommendations to the national teams for a focus on results and adjustments to be made. It therefore follows an iterative process which serves to enhance the quality of the reports and enable a meaningful assessment of progress and identification of key lessons that could be exchanged among partner countries.

The Final Report for the National Programmes should be submitted to the UN-REDD Programme Secretariat (un-redd@un-redd.org).

1. National Programme Identification

Please identify the National Programme (NP) by completing the information requested below. The Government Counterpart and designated National Programme focal points of the Participating UN Organizations are requested to provide their electronic signatures below, prior to submission to the UN-REDD Secretariat.

National Programme Title	UN-REDD PNG National Programme
Implementing Partners[1]	Climate Change and Development Authority (CCDA: former Office of Climate Change and Development)
Participating Organizations	PNG Forest Authority

Project Timeline			
Programme Duration	5 years 9 months	No-Cost Extension	Yes
NPD Signature Date	16th June 2011	Current End Date	31st March 2017
Date of First Fund Transfer[2]	23rd June 2011	Mid-term Review	Yes/No
Original End Date[3]	31st December 2013	Mid-term Review Date	N.A.

Financial Summary (USD)[4]			
UN Agency	Approved Budget[5]	Amount Transferred[6]	Cumulative Expenditures up to 31 March 2017[7]
FAO	4,225,000	4,225,000	4,225,000
UNDP	1,595,920	1,595,920	1,595,920
UNEP	150,000	150,000	149,999
Indirect Support Cost (7%)	306,250	306,250	306,249
Total	6,227,170	6,227,170	6,227,169

Signatures from the designated UN organizations[8]			Signature by the Government Counterpart
FAO	UNDP	UNEP	
[Signature]	[Signature]	[Signature]	[Signature]
Date and Name of Signatories in Full:			
[Date]	[Date]	[Date]	[Date]
[Name]	[Name]	[Name]	[Name]

1 Those organizations either sub-contracted by the Project Management Unit or those organizations officially identified in the National Programme Document (NPD) as responsible for implementing a defined aspect of the project.
2 As reflected on the MPTF Office Gateway http://mptf.undp.org.
3 The original end date as stated in the NPD.
4 The financial information reported should include indirect costs, M&E and other associated costs. The information on expenditure is unofficial. Official certified financial information is provided by the HQ of the Participating UN Organizations by 30 April and can be accessed on the MPTF Office GATEWAY (http://mptf.undp.org/factsheet/fund/CCF00).
5 The total budget for the entire duration of the Programme as specified in the signed Submission Form and NPD.
6 Amount transferred to the participating UN Organization from the UN-REDD Multi-Partner Trust Fund.
7 The sum of commitments and disbursement
8 Each UN organization is to nominate one or more focal points to sign the report. Please refer to the UN-REDD Programme Planning, Monitoring and Reporting Framework document for further guidance.

2. Progress Reporting

This section aims to summarize the results and identify key achievements of the NP. Additionally, the section provides the opportunity to capture government and civil society perspectives and for these parties to provide additional or complementary information.

2.1 Overall Results of the National Programme

Please provide a brief overall assessment of the extent to which the NP has reached the expected outcomes and outputs identified in the National Programme Document. [500 words]
The PNG UN-REDD National Programme (NP) has achieved the outcomes and overall objective set out in the National Programme Document (NPD), as demonstrated by this final report. The Programme aimed to support the Government of PNG to initiate and progress its efforts towards REDD+ readiness, with an emphasis on the development of a Measurement, Reporting and Verification (MRV) system for PNG, as an important complement to the country's domestic climate change efforts. The PNG UN-REDD NP was responsible for establishing the management arrangements for REDD+ in the country, particularly through the establishment of technical working groups (TWGs) and facilitation of their regular meetings. A 'REDD+ network' was established, with the TWGs serving as fora not only for discussing technical issues but also as convening events for all relevant stakeholders; which were supplemented by extensive awareness raising campaigns at national and provincial levels. According to the guidance of the Intergovernmental Panel on Climate Change (IPCC) and the Decisions on REDD+ of the UN Framework Convention on Climate Change (UNFCCC), ultimately outlined in the Warsaw Framework for REDD+, a National Forest Monitoring System (NFMS) for REDD+ should enable a country to conduct MRV of Greenhouse Gas (GHG) emissions from the forest sector by generating Activity Data (AD) and Emission Factors (EFs), leading to the creation of a GHG Inventory. PNG's MRV system consists of two different GIS methodologies (point sampling and wall-to-wall mapping) operated by two government agencies (PNG Forest Authority: PNGFA and Climate Change and Development Authority: CCDA) to monitor AD, and a National Forest Inventory (NFI) to determine EFs. National forest and land use monitoring using point sampling method was conducted twice in 2014 and 2016. Annual land use change between 1999 and 2015 was also assessed. A land use map was produced in 2015. The PNG REDD+ and Forest Monitoring Web-portal was developed, which allows public access to spatially-explicit information on forest and land use, thus enhancing transparency of the REDD+ process in the country. Methodologies for the multipurpose NFI were developed, tested and documented. Numerous trainings in various fields were conducted and the field assessment was commenced. Strong capacity was built for operating PNG's MRV system through trainings and actual implementation. A REDD+ Forest Reference Level (FRL) was established using the data derived from PNG's MRV system and was submitted to the UNFCCC in January 2017. PNG has established a complete MRV system and built capacity to operate the system. Several tools were developed to support REDD+ readiness: National Guidelines on Social and Environmental Safeguards, National Guidelines for Free, Prior and Informed Consent (FPIC), and a REDD+ training manual. Through the development of National Guidelines on Social and Environmental Safeguards, based on regional and provincial circumstances, which were thereafter field-tested in provinces, work on REDD+ safeguards was initiated. Guidelines for FPIC were also

developed, with provisions for gender considerations, and were field tested in collaboration with WCS and ForCert, with results used to further strengthen the guidelines. Similarly, an initial REDD+ training manual was revised and used to conduct trainings in selected provinces. Throughout the duration of the NP, close coordination was ensured with other donors and programmes, particularly then-AUSAID and JICA.

The PNG UN-REDD NP has also initiated steps to effectively take into account the potential social and environmental benefits of REDD+ beyond GHG abatement in the design of PNG's REDD+ strategy, through the use of spatial information.

A practical framework for a benefit sharing and distribution system (BSDS) in PNG was developed with input from an Institutional Context Analysis (ICA) study. A draft national REDD+ Communication Strategy was prepared, providing recommendations for the short and medium term.

A study of National Circumstances in the Context of REDD+ and Identification of REDD+ Abatement Levers was carried out, which included in-depth analyses of the drivers of deforestation and forest degradation in PNG.

2.2 Ancillary results

Please provide a description of results that had not been planned for in the National Programme Document but delivered in the process of implementing the National Programme. [250 words]
The government is proud of what was achieved through the implementation of the UN-REDD National Programme. The results and achievements have been presented on many occasions at national and international levels, including UNFCCC COPs. Such events raised the awareness of REDD+ in the country and of how REDD+ has been framed as an important component of national policy. For example, PNG held a side event on "Promoting Transparency on National Forest Monitoring for REDD+ in PNG" at the Asia Pacific Forestry Week held in Philippines in February 2016 to internationally launch the web-portal. The NFI and the web-portal were launched in-country by the Prime Minister in March 2016. PNG also organized many other national and international events to present their achievements from the National Programme including the MRV system and FRL. Although the UN-REDD NP took time to get started, it ultimately built the foundations for REDD+ readiness in PNG that continue to be built upon through advanced readiness initiatives (such as FCPF, delivered through UNDP, and the EU forest inventory project, delivered by FAO). As such the NP leaves a lasting legacy for sustainable forest and land management in PNG.

2.3 In Focus

Please provide an example of an outstanding achievement made by the NP. [150 words]
PNG developed an accurate and reliable, yet cost-effective and transparent, MRV system. PNG's MRV system, with point sampling and wall-to-wall mapping, contains a comprehensive Quality Control and Quality Assurance (QC/QA) process verifying the data with internationally and locally available Remote Sensing (RS) and Geographic Information Systems (GIS), providing accurate land use information. PNG's MRV system uses only open source software and RS imageries. It makes the system economical (therefore sustainable) and transparent. The Web-portal provides map-based land use information to the public, enhancing the transparency of the REDD+ process of the country. PNG's government built strong ownership and domestic capacity to operate the MRV system and is

proud of the system they have developed, promoting it both locally and internationally through documentation and through the events mentioned in the above section.

PNG was the second NP in the Asia-Pacific region to develop national guidelines for FPIC. The process was widely lauded by government agencies and civil society as inclusive and transparent, while the guidelines were reflective of the challenges faced and strived to provide practicable actions.

2.4 Government Comments

Government counterparts to provide their perspective and additional complementary information not included in the overall progress assessment. [500 words]
[input text]

2.5 Non-Government Comments

Civil society stakeholders to provide their perspective and additional complementary information (Please request a summary from existing stakeholder committees or platforms). [500 words]
[input text]

2.6 Results Framework Matrix

The results framework aims to measure overall results of the National Programme against the outcome and output targets identified in the National Programme document log frame. In cases where there are no achievements or shortfalls in achieving targets, a thorough justification is required. Requirements for the sections include:

- For each outcome, please provide the outcome title and indicate if the outcome was achieved. Please list each outcome indicator, the associated baseline and expected target for the National Programme. Please provide an assessment of whether the target has been achieved and expected outcome met.
- For each output, please provide the output title and list each performance indicator, the associated baseline and expected overall target and delivery against this target.
- Please repeat this for all outputs and outcomes listed in the NP results framework (or revised version after inception workshop or mid-term review).

Outcome 1: Readiness Management Arrangements in Place	
☒ Outcome Achieved	☐ Outcome not achieved
Results against the Outcome: [100 words] This outcome was successfully achieved through the establishment of effective REDD+ management arrangements including TWGs. Throughout the lifetime of the NP, the Project Executive Board (PEB) effectively served as the de facto coordinating body for REDD+ in PNG. TWGs served effectively as vehicles for convening relevant stakeholders to present on the latest status of activities, and are now well known among stakeholders in PNG. Awareness on REDD+ among relevant stakeholders in PNG was greatly strengthened through the NP, an outcome significantly bolstered by the proactive actions of OCCD and PNGFA staff in engaging stakeholders and disseminating information through appropriate channels.	

Output 1.1: Management arrangements between GoPNG and stakeholders strengthened		
Baseline	*Indicator*	*Assessment Against Indicator*
• GoPNG liaises with donors through FCC; REDD+ NGO workshop and whole of government workshop conducted in 2010	• By 12/2011, all donor support on climate change is effectively coordinated and aligned along GoPNG priorities • By 12/2013, at least 1 REDD+ NGO workshop and 1 whole-of-government workshop have been held annually to progress REDD+	• REDD+ activities in PNG are coordinated among all donor agencies. • A functionally operating inclusive national REDD+ "network" was established, in which the relevant government departments, NGO's, CSOs and private and development partners regularly meet and discuss REDD+ development and implementation in PNG. A lessons learned workshop in December 2015 brought together stakeholders from across government, academia, NGOs and the private sector. •

	readiness	

Assessment towards Output:

The management arrangements between the government and REDD+ stakeholders improved during the lifetime of the NP. This is particularly true in the case of OCCD (which in 2016 became the Climate Change and Development Authority – CCDA). The NP supported regular meetings between OCCD and relevant stakeholders. TWG meetings (on REDD+, Safeguards and MRV) have enabled direct interaction and communication between stakeholders, OCCD and PNGFA, and between the national and provincial government. The NP also supported bilateral meetings between GoPNG and international and other REDD+ related donor funded activities. The PMU acted as the secretariat for organising Programme Executive Board (PEB) meetings. The PMU also successfully supported GoPNG in organising a number of national and sub-national workshops, including a national REDD+ Lessons learned Workshop (4-5 November 2015), a National REDD+ Awareness Raising Workshop (11 September 2013), and two regional and five provincial workshops on REDD+ Training and Awareness, FPIC and safeguards.

Output 1.2: National Programme implementation strengthened

Baseline	*Indicators*	*Assessment Against Indicators*
• Project documents (work plans, budgets, reports, TORs etc.) are produced on time.	• Ongoing during NP implementation: Project documents (work plans, budgets, reports, TORs etc.) are produced on time	A PMU was established in CCDA (formerly OCCD), that provided day-to-day support to government counterparts on REDD+ readiness, including integration of FCPF readiness grant activities.

Assessment towards Output:

The PMU provided work and budget planning support for review by the PEB, prepared ToRs for the scheduled international and national advisory work, published the related job advertisements (website and local newspapers), prepared and submitted annual and semi-annual progress reports, prepared the meetings and workshops, including the agenda and the minutes, etc. The CCDA REDD+ Division was supported and trained in taking over certain of the above-mentioned tasks, i.e. the preparation for, and minuting of, the workshops and TWG meetings, and were supported in delivering REDD+ awareness trainings, and FPIC and safeguard validation missions. Frequent knowledge sharing sessions were organised. Several (expert) workshops and meetings were supported by the NP, such as training sessions/workshops on REDD+, BSDS, FPIC, NFI, NFMS. In November 2015, a National REDD+ Lessons Learned Workshop was held in Port Moresby, which identified achievements to date in PNG and facilitated discussion on next steps. Lessons learned will feed into next steps that the country will take towards REDD+ implementation. The NP supported initial work on a National REDD+ Communication Strategy. This strategy intends to support the REDD+ readiness development in PNG through the provision of clear and effective information, targeted and delivered to key national and international stakeholders.

Outcome 2: National MRV system developed	
☒ Outcome Achieved	☐ Outcome not achieved

Results against the Outcome: [100 words]

A Satellite Land Monitoring System (SLMS) has been established to produce Activity Data for the MRV system. The SLMS in PNG consist of Terra PNG (wall to wall mapping) operated by CCDA, and Collect Earth (point sampling) operated by PNGFA. These two systems verify, supplement and improve the data accuracy of each other. These in-house land use spatial information tools, together with extensive information from other national and international sources, are uploaded on the web-portal, which enables the public to observe land use and forest information of PNG, and enhances transparency of the REDD+ process in the country. The National Forest Inventory (NFI) is the primary information source for Emission Factors of the MRV system. Methodologies were prepared and tested in the field. Numerous trainings were conducted, necessary capacity was built and the field assessment was commenced. The national MRV system was thus fully developed and Outcome 2 was achieved.

Output 2.1: National REDD+ Information System developed		
Baseline	*Indicator*	*Assessment Against Indicator*
• No centralized source for information on REDD+ or safeguards	• Information on REDD+ and safeguards is available to all stakeholders through a web-based interface and an annual report • Safeguards have been tested in the field	A web-portal, which provides spatial information on forest and land use to the public, was established. It contains spatial information of land use including forest base map 2012, Terra PNG land use map 2015, Collect Earth point sampling 2013 data, logging concession, protected area, village and population, oil palm plantation, mining concession, Hansen tree cover loss and gain (University of Maryland), roads, rivers etc. The web-portal allows users to overlay these information sources to understand the complex land use of the country. The contents and functions of the web-portal are described in detail in the final draft of web-portal document. National capacity has been developed for the use of spatial planning in decision-making and land-use planning processes, and to support achievement of multiple benefits from REDD+ implementation in PNG. The draft National Guidelines on Social and Environmental Safeguards were field tested in Milne Bay province at the end of 2014. The indicators identified in the current guidelines need further detailing to cater for regional or provincial circumstances.
Assessment towards Output: A demo version of the web-portal, which was run only on individual computers, was created in 2014. The web-portal demonstrations were conducted at numerous meetings with stakeholders and consultation workshops. Since the majority of data to be loaded on to the web-portal belonged to different government agencies and private sector actors including PNG Forest Authority, Conservation and Environmental Protection Authority, Mining and Resources Authority, National Statistics Office,		

Climate Change and Development Authority and PNG Palm Oil Council, it was necessary to show what the web-portal looked like and how the data of each organization would be displayed. After agreement was reached with the various source organizations, the web-portal was uploaded to the internet, with limited access, in 2015 for trial and further consultation purpose. After the trial period, the web-portal was internationally launched by the Managing Director of PNGFA during the Asia Pacific Forestry Week held in Philippines in February 2016. The web-portal (together with NFI) was also launched in the country by the Prime Minister in March 2016 (NFI & web-portal launching event report) and the web-portal became fully available to the public. The web-portal is accessible from the following link (http://png-nfms.org/portal/). Two CCDA officers and the national consultants (GIS and IT specialists) were trained for the management of the Web-portal. It is necessary to continue improving the systems with more information and functions but Output 2.1 was achieved.

Output 2.2: Satellite land Monitoring System set up

Baseline	*Indicators*	*Assessment Against Indicators*
• Fragmented use of GIS systems in GoPNG departments, often relying on outdated data	• By 12/2011, methodological approach, technical system and institutional responsibilities specified • By 12/2013, SLMS provides annual GIS data sets used for MRV and across GoPNG	The SLMS has been fully established, producing Activity Data for the MRV system. SLMS in PNG consist of Terra PNG (wall to wall mapping) operated by CCDA and Collect Earth (point sampling) operated by PNGFA. These two systems form a complete and complementary in-country verification system, which makes the SLMS in PNG accurate and reliable. The capacity for producing the activity data was built within the government. Further improvement of the capacity is needed for more accurate monitoring but it is considered that SLMS in the country has been established and this output was achieved.

Assessment towards Output:

PNGFA conducted national forest and land use assessment using Collect Earth twice in 2014 and 2016. The second assessment was to assess the annual land use change from 2000 to 2015. The data was used for establishment of the REDD+ FRL. CCDA produced a national land use map in 2015 using Terra PNG. The map has been uploaded to the web-portal for public access.

Collect Earth

Collect Earth is GIS point sampling tool developed by FAO. It is open source software using the Google Earth platform. The user-friendly interface of Collect Earth allows operators without previous GIS experience to conduct the assessment. After several training activities, national forest and land use assessment was commenced by PNGFA in October 2013. Collect Earth software itself was not fully developed at that time. New functions and changes were made to the software according to the requests and

suggestions provided by PNGFA operators. The first edition of the Collect Earth manual was produced based on the operation conducted by PNGFA. The development of Collect Earth software was also partly funded by the UN-REDD PNG National Programme.

At the 2013 Collect Earth assessment, historical land use change could not be assessed due to slow internet of PNGFA at that time. Only the current land use at that time was assessed and the 2013 Collect Earth land use assessment report was produced, significantly improving our understanding of PNG forest status with significantly higher forest cover than previously reported. The results were presented and also reported in the local media including newspaper articles. The assessment report was launched in September 2014 by the Minister of Forest, European Commissioner for Climate Action and Energy and FAO Sub-regional Coordinator for the Pacific at the 46th Pacific Island Forum held in Port Moresby (press release).

Computers and fiber optic cable were installed at PNGFA in 2015. National historical forest and land use change assessment for 2000-15 using Collect Earth was conducted in 2016 (implementation report). PNG was the first country to conduct a national forest and land use assessment using Collect Earth and to produce a national FRL based on the data derived from Collect Earth assessment.

Terra PNG

A lab equipped with a computers and fast internet was established in CCDA, with systems based on Terra, an open source GIS software tool developed by INPE (Brazilian Space Agency). PNG experts from both CCDA and PNGFA were sent to INPE for trainings in 2012 and 2014. The system was modified for PNG and called Terra PNG. In country trainings were conducted and a manual was prepared, The assessment was conducted by CCDA and the national land use map in 2015 was produced in 2016 (Terra PNG mapping 2015 report) and the map was uploaded to the web-portal, to be available for public access.

PNG's SLMS consists of two different GIS methodologies (point sampling and wall-to-wall mapping) operated by two different government agencies. Collect Earth point sampling produces statistical data containing very detailed information, which is suitable for national reporting but it does not produce a map. Terra PNG enables the production of historical and updated land use maps relatively quickly at reasonable cost. These two systems verify, supplement and improve the data accuracy of each other. Having two different methodologies make the PNG Satellite Land Monitoring System robust and reliable.

Output 2.3: Multipurpose national forest carbon inventory developed

Baseline	*Indicators*	*Assessment Against Indicators*
• FIMS, FIPS and Persyst in use by PNGFA with limited data on carbon	• By 12/2011, measurement protocols and sampling design for forest carbon survey defined • By 12/2013, GoPNG has capacity to regularly undertake forest carbon monitoring and reporting	National Forest Inventory (NFI) designing Phase 1 NFI assessment (remote sensing based) was completed. Forest stratification and cluster selection based on the phase 1 assessment was completed. Methodologies were prepared and agreed among the key stakeholders including PNGFA, national and international academic institutes and development partners through four major workshops and numerous Technical Working Group meetings. The methodologies were

		tested in the field. Field manuals were prepared for tree inventory, biodiversity and soil. Numerous NFI trainings including remote sensing, data management, species identification, soil survey and biodiversity assessment were conducted to the officers and researchers of PNGFA, PNGFRI, and Unitech. Regional trainings at all four regions in the country were conducted. Required capacity for NFI implementation was built. Field assessment commenced as part of trainings and implementation plan was prepared. Rolling out of NFI fields sampling is about start. This Output was achieved. Implementation of this output has been supplemented by activities under a EU-funded project for NFI implementation, with technical support from FAO.

Assessment towards Output:

For designing PNG's first National Forest Inventory (NFI), national consultation workshops were held October 2012 (NFI preparatory WS 2012 report), in February 2013 and in May 2014 (NFI preparatory WS 2014 report). NFI methodology was also discussed at the NFI inception workshop held in April 2015 (inception workshop report). The NFI design included two phases; forest assessment by remote sensing based to stratify the forest, followed by NFI field implementation in each forest stratum. Accordingly, forest in PNG was stratified into 15 strata according to vegetation type and human disturbance, according to Collect Earth survey carried out in 2013.

After numerous consultations and discussions among national and international experts, NFI protocols were finalized for tree and botanical inventory, zoological (birds, moths, fruit fries and ants) and soil inventory. Methodologies for all the NFI components were documented mostly in manual format (tree inventory, non-tree plant biodiversity, ornithology, entomology, and soil). Considering the limited capacity on zoological survey in PNGFA, collaboration with Binatang Research Centre (BRC, local NGO) was agreed.

NFI capacity building

To build capacity for conducting the multipurpose NFI trainings were undertaken covering a wide variety of scientific aspects, as follows:

Botany

There are over 3,000 tree species in PNG. Accurate identification of tree species is one of the major challenges for implementing NFI. A PNG tree species identification manual was produced and species identification trainings were conducted for each of the four main ecological regions (New Guinea Islands training report, Highlands training report, Momase training report and Southern training report) in PNG between December 2014 and June 2015. A total of 53 officers (50 from PNGFA and 3 from BRC) were trained. Participants were tested at the end of trainings and the results were taken into account for the team selection of NFI field implementation.

Biodiversity

Training on biodiversity survey including non-tree plant diversity, ornithology and entomology was conducted for two weeks in July 2015 in Madang, PNG. National and international experts provided trainings to 19 participants from PNG universities, PNGFA and BRC (training report). Intensive ornithology training was conducted for two months from October to December 2015 by two international experts. Six candidates who passed the screening participated in the training. After two months of bird identification training at different elevation ranges from sea level to 3000 m, five participants were considered capable to conduct NFI ornithological survey independently (ornithology training report).

Soil

One week training was conducted in November 2014 in Lae, PNG. Fifteen PNGFA officers and one academic staff of University of Technology participated in the training (soil training report). An advanced training was conducted at the University of Tasmania, Australia in November 2015. Three participants were trained (advanced soil training report).

Data management

Open Foris is a set of free and open-source software tools developed by FAO, which facilitates flexible and efficient data collection, analysis and reporting. Open Foris was proposed for the management of NFI data in PNG. Several PNGFA officers participated in the Open Foris trainings at FAO HQ in 2012 and 2014. In-country training for Open Foris Collect (data management tool) was conducted in August 2016, for Open Foris Collect Mobile (field data collection tool) in November 2016 (Collect Mobile training report) and for Open Foris Calc (data analysis tool) in February 2017.

Overall NFI

Regional trainings were conducted in each of the four regions in PNG from May to August 2016, with a total of 68 PNGFA officers. Trainings were conducted at actual NFI plot clusters and all NFI components were conducted with the participants (regional training report).

NFI awareness

NFI was launched by the Prime Minister Hon. Peter O'Neil on 9th March 2016. Media statements on NFI was released through various media including TV and newspaper (NFI & web-portal launching event report). Awareness materials were produced (NFI booklet) and nationwide NFI awareness campaign was initiated in 2017.

Output 2.4: National GHG inventory for REDD+ established

Baseline	*Indicators*	*Assessment Against Indicators*
• Preparation of SNC underway with support from UNDP	• By 12/2012, first REDD+ related GHG inventory completed based on PNG's MRV system • By 12/2013, PNG has institutional	Annual GHG emission of LULUCF sector was estimated, using Collect Earth, and this data was used for the establishment of REDD+ FRL, which was submitted to UNFCCC in January 2017. PNG has developed institutional capacity to regularly report GHG emissions from LULUCF sector. This Output was achieved.

	capacity to regularly report GHG emissions from REDD+ related activities	
Assessment towards Output: National forest and land use assessment using Collect Earth was completed in 2014. Although the historical land use change was not fully assessed at that time, it was identified that information obtained through Collect Earth assessment was suitable for GHG inventory of LULUCF sector. The results of the assessment on annual land use change using Collect Earth were used for establishment of REDD+ Forest Reference Level, which was submitted to UNFCCC in January 2017. A GHG inventory working session (session report) to estimate GHGi in AFOLU sector was held in June 2016 with 13 participants from various government agencies and the private sector. This was followed up by a working session at FAO HQ in October 2016, where one CCDA officer was trained. A further working session was held in March 2017 (AFOLU hands-on training report), where three CCDA officers and one officer of Department of Agriculture and Livestock were further trained and the work plan for Biennial Update Report (BUR) for submission in 2018 was prepared. The first REDD+ related GHG inventory was completed based on PNG's MRV system and Forest Reference Level was established. Further capacity building for improving the accuracy of GHGi and the preparation of BUR and National Communications was conducted.		
Output 2.5: Technical advice, capacity building and implementation support provided		
Baseline	*Indicators*	*Assessment Against Indicators*
• Limited and fragmented capacity for elements of a MRV system in GoPNG and non-government stakeholders	• By 12/2011, capacity gap assessment and capacity building plan for MRV elements in place. • By 12/2013, GoPNG and stakeholders have capacity to independently operate PNG's MRV system	As fully described in Output 2.1 to 2.4 sections above, the capacity gap was fully assessed and numerous capacity building activities for addressing the capacity gap were conducted. PNG REDD+ MRV was established and the government of PNG has built capacity to operate it. This output was achieved.
Assessment towards Output: Government of PNG estimated the annual GHG emissions from 1999 to 2015 in the LULUCF sector and established a REDD+ FRL, which was submitted to UNFCCC in		

January 2017. NFI field assessment has commenced. Sufficient and appropriate capacity building activities were conducted. Government of PNG built their capacity to operate the established REDD+ MRV system.

Outcome 3: Establishment of REL/RL supported	
☒ Outcome Achieved	☐ Outcome not achieved
Results against the Outcome: [100 words] Forest and land use change assessment and the study on national circumstances were conducted. National stakeholder consultation workshops were held three times. CCDA and PNGFA officers jointly drafted a FRL submission. The draft FRL submission was finalized through a validation process including a national multi-stakeholder workshop. PNG's FRL was submitted in January 2017. Outcome 3 was achieved.	

Output 3.1: Historical drivers of deforestation assessed		
Baseline	*Indicator*	*Assessment Against Indicator*
• Preliminary assessment of drivers of deforestation and GHG emissions	• By 12/2012, data to develop REL/RL compiled and clear guidance on methodology for REL/RL developed	The Collect Earth assessment of annual forest and land use change between 1999-2015 was used to provide Activity Data for PNG;s Forest Reference Level (FRL). The most appropriate Emission Factors were determined through careful reviewing of published studies in PNG and IPCC Guidelines (2006). PNG's FRL was discussed by a wide variety of stakeholders at three national consultation workshops and a validation workshop. The FRL was finalized and submitted to UNFCCC in January 2017. Output 3.1 was achieved.
Assessment towards Output: The first national consultation workshop for PNG's Forest Reference Emission level/Forest Reference Level (FRL) was held in October 2014 (FRL workshop report 2014). At the workshop, purpose, scope, scale, data and methodology of PNG's FRL was discussed and the work plan was prepared. According to the workshop recommendations, various methodologies including CLASLite and University of Maryland data (Hansen data) were reviewed and a study on proxy measures using log export/extraction data was conducted (proxy approach study report). It was concluded that data obtained using Collect Earth tool was the most appropriate data source for establishment of PNG's FRL. Other information sources were also used for QC/QA of Collect Earth data for improving the accuracy. Annual forest and land use change assessment from 1999 to 2015 using Collect Earth was conducted in 2016 and the data was used for establishment of PNG's FRL. A working/training session on FRL establishment was held in May 2016 where the FRL Technical Working Group (TWG) members sat together with international experts to draft the FRL. A second national FRL stakeholder consultation workshop was held in June 2016 (2nd FRL workshop report) and a third workshop was held in October 2016. Important elements of FRL including scope and scale were discussed and agreed. Another working session was held at FAO HQ in Rome in October 2016 for PNG and		

international experts to jointly finalise the draft FRL. The Draft PNG FRL was presented at the validation workshop held in December 2016 and submitted to UNFCCC in January 2017 (PNG FRL submission, Jan-2017).

Output 3.2: National circumstances assessed		
Baseline	*Indicators*	*Assessment Against Indicators*
• Existing land tenure and macro-/socio-economic research & studies with limited assessment of impacts on REDD+ and emissions	• By 12/2012, national circumstances and their impact on GHG emissions and REDD+ assessed	The study on national circumstances was completed and a long list of PAMs developed that address specific drivers of deforestation and forest degradation.
Assessment towards Output: To estimate projected GHG emissions from land use, land use change and forestry (LULUCF), a review of international approaches on adjusting historical emissions from deforestation and forest degradation, according to national circumstances was carried out. This was achieved through the identification of a clear set of criteria and indicators to analyse the national circumstances in the context of REDD+ implementation. These indicators in particular refer to the specific spatial and environmental characteristics of PNG; its policies, laws and regulations (PLRs; already identified under the Social and Environmental Safeguards study); land use, land tenure and land reform; demographic trends and projections; and PNG's economic development trends and projections. The assessment of national circumstances will feed into the development of appropriate PAMs for REDD+ implementation (to be set out in the National REDD+ Strategy), and will also inform PNG's FREL/FRL. This work involved analytical, qualitative and quantitative assessments of historical land use and policy changes, and extensive national and subnational stakeholder consultations.		

Outcome 4: Monitoring of abatement concepts supported	
☐ Outcome Achieved	☒ Outcome not achieved
Results against the Outcome: [100 words] The drivers of deforestation and forest degradation were identified through the activities under Outcome 2 & 3. Key abatement levers are not determined in the country yet. MRV system developed and the capacity built through UN-REDD NP, will enable the government to monitor REDD+ activities.	

Output 4.1: Capacity for monitoring and implementation of priority abatement levers developed		
Baseline	*Indicator*	*Assessment Against Indicator*
• Priority abatement levers	• By 12/2013, monitoring and	Through the activities under Outcome 2 and 3, drivers of deforestation and forest

identified: only limited experience in implementation	implementation concepts for key abatement levers have been refined	degradation were identified. Capacity to monitor deforestation and forest degradation was built. The REDD+ strategy was endorsed by the government in May 2017. However the specific policies and measures for the national REDD+ strategy, detailing the actions to be taken to reduce emissions from the LULUCF sector, have not yet been determined. Once these policies and measures have been determined, appropriate monitoring methodologies will be determined. The MRV system established through the activities under Outcomes 2 and 3 will enable the government to monitor abatement levers.
Assessment towards Output: Although key abatement levers have not been fully identified yet, the MRV system developed and capacity built under Outcomes 2 and 3 will enable the government to monitor REDD+ activities implemented in the country. A study of the drivers of deforestation and forest degradation was commissioned through the NP that also detailed a long list of potential policies and measures for REDD+ implementation in PNG. However the work under this outcome did not build specific capacity for monitoring of any policies and measures, because a shortlist and final selection was not carried out. (This work will nevertheless be delivered through the FCPF readiness grant now under implementation.)		

Outcome 5: Stakeholders engaged in PNG's REDD+ readiness process	
☒ Outcome Achieved	☐ Outcome not achieved
Results against the Outcome: [100 words] Based on a REDD+ training manual, with a focus on readiness components, the capacitiesof key national and provincial stakeholders were incrementally built through a combination of awareness raising and consultation workshops: two regional and five provincial events on REDD+ Awareness, FPIC and safeguards. Similarly a Communications Strategy and BSDS proposal were drafted. Based on the results from the field tests in Manus Island and Eastern New Britain, revisions of the National FPIC Guidelines were undertaken, and a working version ready to inform REDD+ implementation. Through these activities, an engagement framework at the national level, such as the Technical Working Groups, and at the provincial levels, through provincial authorities, line agencies and civil society, has been established and operationalized.	

Output 5.1: Framework for stakeholder engagement process in place		
Baseline	*Indicator*	*Assessment Against Indicator*
• Consultation work plan for 2011; 4 provinces consulted in 2010	• By 12/2011, consultation plan and stakeholder engagement guidelines in place • By 12/2011, 8 additional provinces	• Based on recommendations from the National Consultation Workshop for the National Guidelines on FPIC for REDD+ in July 2014, specific sections of the guidelines were successfully field tested in 2015. Revisions to the national guidelines were completed early 2016. The Guidelines will subsequently be used

	consulted and consultation process independently reviewed	to design the consultation, participation, and where required, consent process for the development and implementation of the National REDD+ Strategy. • Proposal for PNG's REDD+ BSDS was completed. • Dialogues between national multi-stakeholder groups and development partners were facilitated, and will continue to be strengthened through FCPF during the development of the National REDD+ Strategy. • REDD+ Awareness and Training workshops were delivered to multiple stakeholders. • A draft Communications Strategy was completed.
Assessment towards Output: Based on a REDD+ training manual, with a focus on readiness components, the capacities of key national and provincial stakeholders were incrementally built through a combination of awareness raising and consultation workshops: two regional and five provincial events on REDD+ Awareness, FPIC and safeguards. Similarly a Communications Strategy and BSDS proposal were drafted. However, the training manual, Communications Strategy, BSDS proposal will be reviewed once the options for REDD+, particularly the scale and scope, are clearer. Based on the results from the field tests in Manus Island and Eastern New Britain, in collaboration with WCS and ForCert, revisions of the National FPIC Guidelines were undertaken, and a working version available to inform REDD+ implementation. Through these activities, an engagement framework at the national level, including the TWGs, and at the provincial levels, through provincial authorities, line agencies and civil society, has been established and operationalized.		

2.7 Revisions to the National Programme Document

Please provide a summary of any key changes made to the National Programme Document relating to the results framework, indicators, outcome, outputs, implementing partners or duration of the (NP).

If the **results framework** was revised following the inception meeting or mid-term review, please provide a short narrative outlining the changes. [100 words]
N.A.

If the **NP outcomes or outputs** were revised following the inception meeting or mid-term review, please provide a short narrative outlining the changes. [100 words]
N.A.

If the **results framework indicators were** revised following the inception meeting or mid-term review, please provide a short narrative outlining the changes. [100 words]
N.A.

If the **NP implementing partners** were changed following the inception meeting or mid-term review, please provide a short narrative outlining the changes. [100 words]
N.A.

If the **duration of the NP** was changed following the inception meeting or mid-term review, please provide a short narrative outlining the changes. [100 words]
The National Programme commenced in June 2011 and the original end date was in December 2013. However limited activities were implemented in 2011 and 2012 due to political instability of the government after the national election in 2012 and delays in hiring the staff. Activities of UNDP components started in early 2013 after the international Programme Manager arrived in January, and activities of FAO components started at end of 2013 after the international Technical Advisor was in place in October. A first no-cost extension of the Programme was obtained for two years (till end of 2015). A second extension was agreed in 2015, for the FAO component only, until the end of 2016. A final three-month operational extension was agreed in late 2016, so that the final end date of the Programme was 31 March 2017.

3. Lessons Learned

This section aims to capture the most significant lessons learned in the context of the National Programme, as they relate to the thematic work areas on REDD+ or more generally to the practical aspects of implementation, coordination and communication. The sections below should be completed only as applicable and in case where lessons learned have been identified.

Please provide a narrative of the **most significant lessons** learned during the implementation of the National

Programme. Include explanations of what was learnt, why the lesson is important, and what has been done to document or share those lessons. [150 words]
Government's ownership is the key to success. It is necessary to involve the government at every step of decision-making and implementation processes, even if this sometimes comes at the expense of slowing down project implementation. REDD+ Awareness • Awareness has been raised successfully among a contingent of stakeholders, but broad-based awareness is still missing, particularly at the subnational level • Specific stakeholders should be targeted for awareness raising, once PNG's REDD+ policies and measures have been articulated • An online REDD+ resource is needed (with mobile compatibility) • A clear communications strategy is needed for REDD+ in PNG • Simple language has to be used for awareness raising at the subnational level Institutional arrangements • Within the government, REDD+ readiness activities were limited to CCDA and PNGFA • As PNG moves towards the development of its National REDD+ Strategy, cross-sectoral engagement and coordination must be strengthened • Technical Working Groups (TWGs) have been underused: specific terms of reference should be developed and membership limited to experts • TWG meetings should not be used for awareness raising events but instead for discussing substantive technical and policy issues, to be taken up to higher levels of decision making • Number of TWGs and their membership should be re-evaluated to maximize efficiency and ensure only expert participation REDD+ Coordination • A clearer message regarding how REDD+ can contribute to other sectors and government agencies beyond forestry is urgently needed • There is a need for a stronger ownership and continued commitment of the leading government agencies • A shift is needed from donor-driven to government-driven REDD+ implementation, with stronger ownership and continued high-level commitment of the leading government agencies and ministries • REDD+ focal points in provincial administrations could be useful, in areas where REDD+ activities will be implemented, as part of PNG's National REDD+ Strategy • Clear REDD+ focal points (specific people) are needed in CCDA and PNGFA (as well as in other relevant government departments such as Agriculture and Livestock (DAL), Lands and Physical Planning, National Planning, Finance and Treasury): their names should go on the upcoming website as points of contact National REDD+ Strategy • PNG should move towards developing its National REDD+ Strategy • A national vision for REDD+ (i.e. scope, scale, priority drivers) has not yet been developed,

which has affected the development of other related elements, e.g. FRL

- PNG's National REDD+ Strategy should clearly articulate a vision for REDD+, including how this will evolve over time
- The National REDD+ Strategy should also set out PNG's policies and measures for REDD+ implementation (which should be based on specific drivers of deforestation and forest degradation)
- A clear and comprehensive plan is needed for how the Strategy will be developed, including scope (which REDD+ activities will be implemented) and scale (start sub-national or national?)

National Forest Monitoring System

- NFMS is the area that was most advanced through the UN-REDD National Programme
- The institutional arrangements for PNG's NFMS must be clarified in order to prevent duplication of effort
- Networking between line agencies on NFMS issues is weak; this should be strengthened to increase participation in the NFMS TWG
- Misunderstandings still exist about the purpose and structure of an NFMS: clear/simple messages should be articulated and disseminated
- Greater awareness among relevant stakeholders of NFMS should lead to decisions and clarity on institutional arrangements / responsibilities

Safeguards and SIS

- Only a limited amount of work on safeguards was completed through the UN-REDD NP: more is needed
- Work on safeguards should be developed on the basis of selected policies and measures for REDD+ implementation
- The National Guidelines on FPIC for REDD+ to be endorsed by NEC should be followed by their integration in policies
- It must be made very clear if and when consent is needed and what consent is needed for and who should give it
- The process to develop the National Guidelines on FPIC for REDD+ was widely lauded by government agencies and civil society as inclusive and transparent, while the guidelines were reflective of the challenges faced and strived to provide practicable actions.
- Further work on PNG's Benefit Sharing and Distribution System (BSDS) needs to be carried out in close coordination with the development of PNG's REDD+ policies and measures

Please provide a narrative of the most significant lessons learned relating to **inter-sectoral coordination** during implementation of the national programme: (150 words)

The establishment of inter-sectoral coordination mechanisms takes time. However, coordination between CCDA and other government agencies have significantly improved during the implementation of the UN-REDD National Programme. As CCDA implemented the National programme activities together with other government agencies, communication among the involved

agencies increased. Working together for achieving common targets created a sense of integration among the involved parties. The NP played a very important role as catalyst for inter-sectoral coordination, which has been built upon by other subsequent REDD+ readiness initiatives such as the FCPF readiness project delivered by UNDP.

Please provide a narrative of the most significant lessons learned relating the **technical dimensions** of the national programme during implementation: [150 words]

The PNG UN-REDD NP aimed to establish a MRV system which meets the minimum required standard for future REDD+ implementation. The NP, however, has supported the development of an advanced system using cutting edge technologies and providing very accurate Activity Data. PNG was the first country to conduct national forest and land use assessment using the Collect Earth tool (GIS point sampling software) developed by FAO. PNG conducted this national assessment twice during the NP and these exercises significantly contributed to the development and improvement of Collect Earth itself. PNG developed QC/QA systems making Collect Earth data very reliable and the PNG operators are the most experienced and most knowledgeable on Collect Earth assessment globally. PNG is one of the only a few countries that have produced forest and land use maps using the Terra tool and the only country that integrates the two systems to establish a REDD+ MRV system. PNG's success is owing to the government's strong ownership of the National Programme and their choice of appropriate tools and approaches according to the country's circumstances. PNG's MRV system can also be introduced to other countries with some modifications and the success of PNG provides good lessons for implementing donor projects.

Please provide a narrative of the most significant lessons learned relating to the **REDD+ readiness process** during implementation of the national programme: [150 words]

The REDD+ readiness process in PNG took longer than anticipated, as can be seen from the NP's lifetime being extended into 2017. One reason for this is the time taken to recruit project staff, and losses of time can also be attributed to political instability and changes of government. It was important that the NP worked at the pace of the country in its implementation, which has resulted in all stakeholders being involved and feeling ownership of the REDD+ readiness process. A key lesson from PNG's readiness process is the need to have broader cross-sectoral government involvement, to ensure that appropriate actions are implemented to address the drivers of deforestation that originate from outside of the forestry and environment sectors.

Please provide a narrative of the most significant lessons learned relating to **anchoring REDD+** in the national development process: [150 words]

REDD+ readiness activities built the government's capacity for mapping and remote sensing which can be applied for policy and decision-making processes beyond REDD+ The capacities to produce land use information and maps, delivered through the NP, are also required for land use planning and agricultural development, which is directly related to the primary national policy.

Broader cross-sectoral engagement at the start of the implementation of the NP would have benefitted the closer (and earlier) linking of REDD+ with the national development process, plans and goals.

Please provide a narrative of the most significant lessons learned relating to the **implementation and sequencing** of national programme support: [150 words]
The original plan for completing the National Programme in 3 years was simply impossible. Recruiting processes take time and issuing a working visa for the FAO international advisor took 6 months. It took nearly years before all UN agencies had commenced NP activities. The realities of national administrative and legislative processes should be acknowledged in the development of realistic work plans. As one of the UN-REDD pilot countries, with the NP designed prior to the Warsaw Framework for REDD+, the structure and sequencing of the programme could be improved upon if done again. In particular, an early activity should have been the assessment of the drivers of deforestation and forest degradation, which did not take place until 2015 (towards the end of the NP).

Please provide a narrative of any **other lessons** learned during implementation of the national programme: [150 words]
See comprehensive bulleted list above.

3.1 Unforeseen Benefits or Unintended Consequences

Please provide a summary of any ancillary/unforeseen benefits or unintended consequences that may have become evident during implementation or conclusion of the national programme. [150 words]

Unforeseen Benefits [150 Words]
The Collect Earth GIS point sampling assessment was introduced for forest stratification for NFI design, and the Terra wall-to-wall mapping was introduced for land use monitoring and GHG reporting. However, PNG found that the Collect Earth point sampling produced very detailed information, which was also suitable for GHG inventory. Moreover, integrating the information of the two systems (Collect Earth and Terra) and cross checking with University of Maryland's global tree cover data (Hansen data) produced very accurate forest and land use change information and maps. Such information is very useful not only for GHG reporting and REDD+ implementation but also for land use planning and agricultural development. Towards the end of the NP, PNG began to provide assistance to neighboring countries, including the Solomon Islands, to develop similar MRV systems based on their experience, opening potential avenues for south-south cooperation.

Unintended Consequences [150 words]

3.2 Inter-agency Coordination

This section aims to collect relevant information on how the NP is contributing to inter-agency work and "Delivering as One".

Was the NP in coherence with the UN Country Programme or other donor assistance framework approved by the Government? If not, please explain what measures were put in place to address this. [150 words]
The National Programme was in coherence with the UN Country Programme and other donor assistance frameworks approved by the Government.

Please briefly summarize what types of coordination mechanism and decisions were taken to ensure joint delivery of the NP. [150 words]
Coordination between agencies was ensured at the regional level, between regional technical advisors, as well as at the country level, between UNDP and FAO advisors on the NP. Standard coordination mechanisms were adopted such as regular calls and in-country missions by regional advisors.

Was a HACT assessment undertaken? If yes, to what degree was the HACT being taken up and by which agency? [150 words]
HACT assessment not undertaken.

3.3 Risk Narrative

This section aims to capture the key internal and external risks experienced by the programme during implementation.

Please provide a summary of the key internal risks experienced by the NP as well as responses. [250 Words]
Recruitment processes for international advisors took longer than expected and in some cases had to be re-advertised. Once advisors were recruited, visa issues often ensued, further delaying implementation. The National Programme was extended to compensate the time taken for recruitment and posting processes for international advisors.

Please provide a summary of the key external risks experienced by the NP as well as responses. [250 Words]
Political instability (in 2012) and restructuring of the Government partner agency (CCDA) delayed the Programme implementation.

4. Warsaw Framework for REDD+ and Associated UNFCCC Decisions

This section aims to provide insight and to support a thought process into how countries are progressing against the framework of the convention, namely: 5.1) a National REDD+ Strategy or Action Plan; 5.2) a Safeguards and Safeguards Information System; 5.3) a National Forest Reference Emission Level/National Forest Reference Level; and 5.4.) a National Forest Monitoring System. Only complete the sections that apply to the priorities identified for the country and mark as not applicable (N/A) any criteria that do not apply to the context of the country.

4.1 National Strategy or Action Plan

Supported by (select all applicable and provide details of Other Source): ☐ National Programme; ☐ Targeted Support; ☐ Other Source; ☐ Not Applicable
Please provide a brief description of the achievement made in developing a National REDD+ Strategy or Action Plan (NS/AP) as well as the source of the support provided in this regard: [100 words] The NP did not support the development of a National REDD+ Strategy, but instead supported the development of appropriate management and coordination arrangements for REDD+ implementation, and commissioned a number of studies which will feed into the development of the Strategy,

Indicator	Start[9] (Yes)	End[9] (No)	Qualifier (select all that apply)	Please provide a short narrative describing the reason for selection as well as means/source of verification
Does the country have a National Strategy or Action Plan (NS/AP) to achieve REDD+?	X		Not yet initiated	While work did not start under the NP on PNG's National REDD+ Strategy (NRS), progress was made in 2015 towards the assessment of national circumstances that will feed into and inform strategy options that ultimately will be detailed in the NRS. A study was commissioned on the assessment of the drivers of deforestation and forest degradation in PNG, with the analytical work completed before the end of 2015 and consultation and presentation of the findings in early 2016. The study was accompanied by a long-list of policies and measures (PAMs) that
		X	Under design	
			Drafted, under deliberation	
			Adopted	
			Link to the NS/AP provided on the UNFCCC REDD+ Web Platform Info Hub	
			Implementation in early stages	
			Full implementation of NS/AP	

[9] Mark with an X, the progress indicated by the qualifiers at the start and end of NP implementation.

				address the country-specific direct and indirect drivers of deforestation and forest degradation that will be subjected to a consultative process in 2016 to select priority REDD+ actions. These in turn will form the basis of PNG's NRS, a draft of which was ready by the end of 2016 and which will undergo consultation and finalization in 2017.
Degree of completeness of national REDD+ strategies and/or action plans.			The NS/AP identifies, assesses and prioritizes the direct and underlying drivers of deforestation and forest degradation , as well as the barriers to the "plus" (+)[10] activities on the basis of robust analyses.	N/A
			The NS/AP proposes a coherent and coordinated set of policies and measures (PAMs) for REDD+ that are proportionate to the drivers & barriers, results-oriented and feasible.	N/A
			The NS/AP relates to the scope and scale of the FREL/FRL, taking into account national circumstances.	N/A
			The NS/AP defines the institutional arrangements for REDD+ implementation, including governance measures, participatory oversight and inter-sectoral coordination.	N/A
Degree to which the NS/AP incorporates principles of social inclusion and gender equality.			The NS/AP is developed through a multi-stakeholder, gender-responsive and participatory consultation and dialogue process.	N/A
			The proposed policies and measures for REDD+ integrate gender-responsive actions.	N/A
			The proposed policies and measures for REDD+ consider the realization of land and resource tenure rights (when relevant), as well as the development priorities of indigenous peoples and local communities as well as their development priorities.	N/A
Degree of anchoring of			There is effective inter-ministerial coordination for REDD+ action.	N/A

[10] Plus (+) activities within the context of REDD+ refer to conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks

the NS/AP in the national development policy and institutional fabric.			Endorsement of the NS/AP has been obtained at a high political level, beyond the agency or ministry that led the REDD+ readiness process.	N/A
			REDD+ actions or targets are embedded in the national plan or policy for sustainable development.	N/A
			There is evidence that ministries/agencies outside the forest and environment sectors are committed to implementing REDD+ policies and measures.	N/A
			Financing arrangements to start implementing the NS/AP (or to channel results-based finance) are designed.	N/A

4.2 Safeguard Information System

Supported by (select all applicable and provide details of Other Source): ☐ National Programme; ☐ Targeted Support; ☐ Other Source; ☐ Not Applicable
The draft National Guidelines on Social and Environmental Safeguards were field tested in Milne Bay province at the end of 2014. The indicators identified in the current guidelines need further detailing to cater for regional or provincial circumstances. The Web portal is the major REDD+ information dissemination tool in PNG. The Web-portal with forest and land use maps and REDD+ information was launched online in 2015.

Indicator	Start (Yes)	End (No)	Descriptor (select all that apply)	Please provide a short narrative describing the reason for selection as well as means/source of verification.
Does the country have a Safeguard Information System (SIS) that provides information on how the Cancun safeguards are being addressed and respected throughout implementation of REDD+ actions?	X		No	The national Safeguards guidelines were drafted and the web-portal was launched to support the transparency of the PNG REDD+ process. However, levels of understanding on SIS remained limited and further development of safeguards work would be reliant on definition of policies and measures to be implemented as part of the National REDD+ Strategy.
			SIS objectives determined	
			Safeguard information needs and structure determined.	
		X	Existing information systems and sources assessed.	
			The SIS is designed, building on existing, together with any novel, information systems and sources clearly articulated in a national government-endorsed document.	
			The SIS is functional, building on existing, together with any novel, information systems and sources that are clearly articulated in a national government-endorsed document.	
			Summary of information on REDD+ safeguards, informed by the SIS, has been submitted to UNFCCC.	
Degree of completeness of the design of a country approach to address the social and environmental safeguards for REDD+			Aligns with the NS/AP, covering the social and environmental benefits and risks of the policies & measures for REDD+ being considered by the countries.	N/A
			Defines specific policies, laws and regulations (PLRs), as well as other measures, to address the identified benefits and risks.	N/A
			Have institutional arrangements and/or capacities to implement those PLRs and to monitor the REDD+ safeguards.	N/A

			Transparently provides information on how safeguards are respected and addressed.	N/A

4.3 Forest Reference Emission Level / Forest Reference Level

Supported by (select all applicable and provide details of Other Source): ☒ National Programme; ☐ Targeted Support; ☐ Other Source; ☐ Not Applicable
Please provide a brief description of the achievement made in developing a Forest Reference Emission Level / Forest Reference Level (FREL/FRL)as well as the source of the support provided in this regard (100 words): The National Programme supported the development of PNG's Forest Reference Level (FRL). The assessment on annual forest and land use change in 1999-2015 using Collect Earth provided Activity Data for the FRL. Emission Factors were determined through careful reviewing of published studies in PNG and IPCC Guidelines (2006). PNG established the FRL using the data derived through Collect Earth and Terra applications. The FRL was discussed among stakeholders at three national consultation workshops and a validation workshop in 2016 and was finalized and submitted to UNFCCC in January 2017.

Indicator	Start (Yes)	End (No)	Descriptor (select all that apply)	Please provide a short narrative describing the reason for selection as well as means/source of verification
Has the country established a FREL/FRL?	X		Not yet initiated	Annual GHG emissions and removals between 2000 and 2015 were estimated by the PNG MRV system. PNG FRL submission was drafted and finalized through three national consultation workshops and a validation workshop in 2016. PNG FRL was submitted to UNFCCC in January 2017 (UNFCCC FREL/FRL submission site).
			Capacity building phase	
			Preliminary construction phase	
			Advanced[11] construction phase	
			Submission drafted	
		X	Submitted to the UNFCCC	
Robustness of FREL/FRL submissions	Yes	X	Submission is transparent, complete, consistent and as much as possible accurate and allows reconstruction of the submitted FREL/FRL.	FRL was established using the data derived from PNG's MRV system, which is accurate and transparent. It allows reconstruction of the submitted FRL.
	Yes	X	Includes pools and gases, and REDD+ activities (Scope) and justification for omitting significant pools and/or activities.	PNG's FRL explained why REDD+ activities and carbon pools were included and provides justifications for activities and carbon pools that were excluded.
	Yes	X	Justifies where the submission is inconsistent with previous versions of GHG inventory.	PNG's FRL is not consistent with the country's previous reports such as the first and second National

[11] FREL/FRL elements defined or at an advanced stage (scope, scale, forest definition, methodology and data compilation).

				Communication. Previous reports were prepared based on literature reviews but the FRL was developed based on actual data derived from the newly-developed MRV system. Such inconsistency with the previous reports is fully explained in the submission.
	Yes	X	Includes details of the forest definition used and national circumstances.	PNG's national forest definition is endorsed by theNational Executive Council and the national circumstances are described well in the FRL submission.
	Yes	X	Defines the geographic area covered by FREL/FRL (scale).	PNG chose national scale and this is explained in the FRL submission.

4.4 National Forest Monitoring System

Supported by (select all applicable and provide details of Other Source): ☒ National Programme; ☐ Targeted Support; ☐ Other Source; ☐ Not Applicable
Please provide a brief description of the achievement made in developing a National Forest Monitoring System (NFMS) as well as the source of the support provided in this regard (100 words): The National Forest Monitoring System (NFMS) consists of a monitoring function, to assess the implementation and impact of national policies and measures for REDD+, and a MRV function to estimate and report GHG emissions/removals in the LULUCF sector. The Satellite Land Monitoring System (SLMS) produces Activity Data, using Terra PNG (wall to wall mapping) operated by CCDA, and Collect Earth (point sampling) operated by PNGFA. These two systems verify, supplement and improve the data accuracy of each other. These in-house land use spatial information tools, together with extensive information from other national and international sources, are uploaded on to the web-portal, which enables public scrutiny of land use and forest information of PNG and thus enhances the transparency of REDD+ processes in the country. The National Forest Inventory (NFI) is the primary information source for Emission Factors for the MRV system. Methodologies were prepared and tested in the field. Numerous trainings were conducted, necessary capacity was built and the field assessment was initiated. The national MRV system has thus been completed, but the NFMS monitoring function will be designed once national policies and measures on REDD+ have been determined.

Indicator	Start (Yes)	End (No)	Descriptor (select all that apply)	Please provide a short narrative describing the reason for selection as well as means of verification
Has the country established a NFMS?	X		No	PNG's MRV system was developed and produces information on national GHG emissions in the LULUCF sector. However, REDD+ policies and measures have not yet been determined so the monitoring function will be developed according to the contents of the future REDD+ strategy.
			NFMS capacity building phase	
			Preliminary construction phase	
			Advanced[12] construction phase	
		X	NFMS generating preliminary information for monitoring and MRV	
			NFMS institutionalized and generating REDD+ monitoring and MRV (satellite land monitoring system, national forest inventory, greenhouse gas inventory)	
Degree of completeness of the NFMS in UN-REDD supported countries	Yes		NFMS includes a Satellite Land Monitoring System (SLMS)	PNG's NFMS includes point sampling and wall-to-wall mapping to monitor Activity Data.
	Yes		NFMS includes a National Forest Inventory (NFI)	A multipurpose National Forest Inventory has been

[12] NFMS elements at an advanced stage (satellite land monitoring system, national forest inventory, greenhouse gas inventory).

				implemented.
	Yes		NFMS includes a National GHG Inventory (GHGi)	Annual GHG emissions and removals from 2000 to 2015 were estimated by PNG's MRV system and the information was used for the development of PNG's Forest Reference Level.
	Yes		The NFMS is suitable for estimating anthropogenic forest-related greenhouse gas emissions by sources, and removals by sinks, forest carbon stocks, and forest-area changes resulting from the implementation of REDD+ activities;	PNG's MRV system can monitor forest area change and carbon stack change in the forests owing to anthropogenic activities.
	Yes		The NFMS is consistent with Intergovernmental Panel on Climate Change (IPCC) guidance and guidelines;	It is consistent with IPCC guidance as much as possible.
	Yes		The NFMS enables the assessment of different types of forest in the country, including natural forest.	PNG's MRV system enables assessment of GHG emissions/removals due to anthropogenic activities in 12 natural forest types.

5. Financial Delivery

Comment [EH(1]: This Section 5, 'Financial Delivery' (page 35), is incomplete. Total reported expenditure exceeds total funds transferred. Awaiting clarification before completion of full table.

The table below gathers information on the cumulative financial progress of the National Programme at the end of programme implementation (including all cumulative yearly disbursements). Please add additional rows as needed.

Programme Outcome	UN Organization	Total Funds Transferred[13]	Total Expenditure[14]	Delivery Rate[15] (%)
Outcome 1: [input text]	FAO			
	UNDP	440,000	333,925.95	
	UNEP			
Sub-total				
Outcome 2: [input text]	FAO	3,950,000	3,973,382	100.59
	UNDP	500,000	1,011,842.48	
	UNEP	150,000	149,999	100
Sub-total				
Outcome 3: [input text]	FAO	100,000	139,198	139.20
	UNDP	200,000	26,136.65	
	UNEP			
Sub-total				
Outcome 4: [input text]	FAO	175,000	112,420	64.24
	UNDP	175,000	142,852.05	
	UNEP			
Sub-total				
Outcome 5: [input text]	FAO			
	UNDP	280,920	482,200.03	391037
	UNEP			
Sub-total				
Indirect Support Costs (7% GMS)	FAO	295,750	295,750	100
	UNDP	111,714		
	UNEP	10,500	10,500	100
Indirect Support Costs (Total)				
FAO (Total):		4,520,750	4,520,750	100.01
UNDP (Total):		1,595,920	1,986,957	
UNEP (Total):		160,500	160,499	100
Grand TOTAL:				

[13] Amount transferred to the participating UN Organizations from the UN-REDD Multi-Partner Trust Fund as reflected on the MPTF Office Gateway http://mptf.undp.org.

[14] The sum of commitments and disbursements

[15] Total Expenditure / Total Funds Transferred

6. Adaptive management

Referring to the deviations and delays indicated in the results framework above please provide a short narrative of delays encountered, the reasons for them and what actions were considered to alleviate their impact on the Programme. Please indicate if these were discussed at the Programme Executive Board (PEB) or National Steering Committee (NSC) meetings, between the Programme Management Unit (PMU) and national counterparts and what measures have been proposed to overcome them.

6.1 Delays and Corrective Actions

What delays/obstacles were encountered at country level? [100 words]
Political instability and delays in the hiring of staff caused a slow start to implementation. National Programme implementation officially commenced in 2011 but actually became operational early in 2013. FAO components were further delayed due to slow recruitment process and began at the end of 2013.
Were any of the delays/obstacles raised and/or discussed at the Programme Steering Committee meetings? [100 words]
☒ Yes; ☐ No These delays were discussed at PEB meetings and a total of three years of no-cost extensions were recommended.
What are the delays/obstacles anticipated in terms of their impact on the NP? [100 words]
The delays in NP initiation set back the timeline for completion of outputs, but these outputs were nevertheless successfully completed within the extended timeframe.
How were these delays/obstacles addressed? [100 words]
The National Programme was extended for three years in order to complete all the activities and achieve the Programme Outcomes.

6.2 Opportunities and Partnerships

During NP implementation, have any opportunities that were not foreseen in the design of the programme been identified to help advance efforts on REDD+? [100 words]
A project to support the implementation of PNG's NFI has been initiated with funding from the EU and technical support from FAO, building on the NFI design and capacity and institutional development built by the UN-REDD NP. The Forest Carbon Partnership Facility (FCPF) readiness Project proposal was prepared in 2014 and began implementation in 2015, with UNDP as the delivery partner. This project continues support to REDD+ readiness efforts in PNG with a focus on the development of the National REDD+ Strategy, stakeholder consultations and the safeguards infrastructure. Additional FCPF readiness funds were applied for and secured in 2016/17, which will provide PNG with a further USD 5 million to complete its readiness process and begin the process of transitioning PNG from readiness to implementation. The additional FCPF readiness grant includes support on NFMS, which will be implemented with continued support from FAO under the EU/NFI project. The FCPF grant, with UNDP as delivery partner, will enable UN agencies to continue to support REDD+ readiness to further improve the

capacity developed across government through a cross-sectoral approach, and through increasingly close collaboration with the private sector, NGOs and academia. A proposal for GEF Capacity Building Initiative for Transparency (CBIT) "Strengthening capacity in the agriculture and land-use sectors for enhanced transparency in implementation and monitoring of Nationally Determined Contribution (NDC) under the Paris Agreement in Papua New Guinea" was prepared by CCDA and FAO. This will support further the improvement of the MRV system developed by UN-REDD NP.
How were these opportunities being incorporated into the work of the NP? [100 words]
The work of the National Programme will be further built on through the FCPF/UNDP and EU/FAO projects. For example, the study on drivers of deforestation and forest degradation, and national circumstances, will be used as a basis for consultation on nationally-appropriate PAMs for PNG that will be set out in detail in PNG's National REDD+ Strategy. Another example is the national forest inventory that was designed through the NP, which will be implemented through the EU/FAO project. Also, the MRV system developed under the NP will generate necessary data for GHGi reporting to the UNFCCC, which will be supported by the GEF/CBIT Project.

6.3 Measures to Ensure Sustainability of National Programme Results

Please provide a brief overall assessment of any measures taken to ensure the sustainability of the National Programme results during the reporting period. Please provide examples if relevant; these can include the establishment of REDD+ institutions expected to outlive the Programme and regulations, or capacities that will remain in place after the completion of the programme.

Measures taken to ensure the sustainability of the National Programme. [150 words]
There is a strong ownership of the MRV system developed under the National Programme. The capacity to operate the system was built and institutionalised. The Satellite Land Monitoring System uses only open source software and satellite imageries, which make the system cost efficient and transparent. The PNG government is able to operate the MRV system but financial support is still needed for NFI implementation, which is already committed by EU, FCPF and GEF. The NP created the critical foundations of early REDD+ readiness in PNG that other programmes and projects continue to build upon. The management and coordination arrangements for REDD+ are fully under government ownership and continue to operate. Calling upon the studies commissioned on drivers, national circumstances, and benefit distribution, among others, the government has developed a National REDD+ Strategy, endorsed by the government in early 2017, which will serve as a guide for all future REDD+ developments in the country.

The questions below seeks to gather relevant information on how the National Programme is putting into practice the principles of aid effectiveness through strong national ownership, alignment and harmonization of procedures and mutual accountability.

Are the national implementing partners and UN-REDD focal points involved in the planning, budgeting and delivery of the National Programme?
Programme Executive Board Established: ☒ Yes ☐ No

Date of Last Meeting:

Number of meetings annually:

Please explain what measures are in place to ensure national ownership: [150 words]

[input text]

Are the UN-REDD Programme's Guidelines for Stakeholder Engagement applied in the National Programme process?

☒ Fully ☐ Partially ☐ No

Please explain, including if level of consultation varies between non-government stakeholders: [150 words]

Based on recommendations from a National Consultation Workshop for the National Guidelines on FPIC for REDD+ in July 2014, specific sections of the guidelines were successfully field tested in 2015. Revisions to the national guidelines were completed early 2016, and will subsequently be used to design the consultation, participation, and where required, consent process for the development and implementation of the National REDD+ Strategy.

Programme sustainability depends on the extent to which sectoral counterparts, civil society representatives, private sector relevant to the REDD+ dynamic in the country and other relevant stakeholders are involved in the Programme's activities and ownership of strategic matters. In the box below please select applicable options and provide an indication of how these different sets of stakeholders are involved in and appropriate Programme activities.

☒ Member of the steering committee

As mandated by the UN-REDD National Programme Handbook, Eco-Forestry Forum (EFF) sits as a representative of CSO in the PEB. EFF, as a CSO network, regularly disseminates and consults with its network members to provide input into the operations of the NP.

☒ Member of technical or other advisory committees

TWG memberships represented a broad range of national stakeholders, as reflective of the national readiness focus of the NP. The Safeguards TWG, for instance, was co-chaired by OCCD and WCS, and included members from the forest and oil palm industries. This TWG provided significant guidance in the development of the National Guidelines on FPIC for REDD+, as well as the National Guidelines of Social and Environmental Safeguards. For the former, an ad-hoc expert group was specifically formed to provide detailed input. As a result, most stakeholders view both the product and the process of development as inclusive and transparent.

☒ Implementing partner for some activities of the National Programme

Field-testing of the National Guidelines on FPIC for REDD+ was carried out in collaboration with WCS in their Village REDD+ site in Manus, and ForCert in Tavalo Village, trialling PES in East New Britain. Because both partners had on-going activities, results from the testing helped to ensure guidelines were practicable.

Please explain, including if level of consultation varies between non-government stakeholders: [150 words]

[input text]

6.4 National Programme and/or R-PP Co-Financing Information

If additional resources (direct co-financing) were provided to activities supported by the UN-REDD National Programme including new financing mobilized since start of implementation, please fill in the table below:

Sources of Co-Financing[16]	Name of Co-Financer	Type of Co-Financing[17]	Amount (US$)	Supported Outcome in the NPD	Year Mobilized
Bilateral aid agency	**EU**	**cash**	**6.5m**	**Outcome 2**	**2015**
Multilateral	**FCPF Readiness Fund**	**Cash**	**3.8m**	**Outcomes 1, 2, 3 and 4**	**2014 and 2017**

[16] Indicate if the source of co-financing is from: Bilateral aid agency, foundation, local government, national government, civil society organizations, other multilateral agency, private sector, or others.

[17] Indicate if co-financing is in-kind or cash.

7. Annex – UNDG Guidelines: Definitions

The following definitions for results based reporting from the UNDP Guidelines are to be used for the annual report:

- **Results:** A result is a describable or measurable change that is derived from a cause-and-effect relationship. There are three types of such changes – outputs, outcomes and impact – which can be set in motion by a development intervention.
- **Results Based Reporting:** Seeks to shift attention away from activities to communicating important results that the programme has achieved at output and outcome levels. An effective results-based report communicates and demonstrates the effectiveness of the intervention. It makes the case to stakeholders and donors for continued support and resources.
- **Results Matrix:** An important aid in results-based reporting is the results matrix, which clearly articulates the results at output and outcome level and the indicators, baselines and targets. These items, along the review of indicators, assumptions and risks, should serve as guides for reporting on results.
    - **Outcomes:** Outcomes describe the intended changes in development conditions resulting from UNCT cooperation. Outcomes relate to changes in institutional performance or behavior among individuals or groups as viewed through a human rights-based approach lens.
    - **Outputs:** Outputs are changes in skills or abilities, or the availability of new products and services that are achieved with the resources provided within the time period specified. Outputs are the level of result in which the clear comparative advantages of individual agencies emerge and accountability is clearest. Outputs are linked to those accountable from them giving the results chain a much stronger internal logic.
    - **Indicators**: Indicators help measure outcomes and outputs, adding greater precision. Indicators ensure that decision-making is informed by relevant data.