

UN COLLABORATIVE PROGRAMME ON REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION IN DEVELOPING COUNTRIES JOINT PROGRAMME DOCUMENT

Cover Page

Country: Papua New Guinea

Programme Title: UN-REDD PNG National Joint Programme

Joint Programme Outcome(s): By 2013, PNG has an operational Measurement, Reporting and Verification system that enables the country's participation in international REDD-plus systems to protect its environmental resources and contribute to sustainable livelihood practices of rural communities.

Programme Duration: 36 mon Anticipated start/end dates: Fund Management Option(s): Managing or Administrative Ag	1 January 2011 – 31 December 2013 Pass Through	Total estimated budg Out of which: 1. Funded Budget: 2. Unfunded budget: * Total estimated bu costs and indirect suppo	\$6,388,884 Idget includes both programme
		Sources of funded bu Donor UN-R	udget: REDD Multi-Donor Trust Fund

Names and signatures of national counterparts and participating UN organizations

This joint programme document should be signed by the relevant national coordinating authorities. By signing this joint programme document, all signatories – national coordinating authorities and UN organizations - assume full responsibility to achieve results identified with each of them as shown in Table 1 and detailed in annual work plans.

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1. Executive Summary

The UN-REDD Programme was set up in 2008 to assist tropical forest countries in establishing a fair, equitable and transparent REDD regime. Papua New Guinea (PNG) is one of the nine pilot countries of the UN-REDD Programme's initial phase. The proposed National Joint Programme (NJP) for PNG builds on the 2009 draft NJP which has received approval in principle by the Policy Board. It aims to support the Government of PNG to further progress its efforts towards REDD readiness and places heavy emphasis on the development of a Measurement, Reporting and Verification (MRV) system for PNG, as an important complement to PNG's domestic climate-change efforts.

PNG has taken a global lead in seeking to combat climate change, particularly by proposing measures to realise the carbon abatement opportunity offered by preserving and sustainably managing tropical forests, i.e. by introducing the concept of REDD-plus into international negotiations. Domestically, PNG is also committed to mitigating greenhouse gas emissions. The country's Vision 2050 envisages low-carbon economic development, aiming to increase per capita GDP by a factor of three by 2030, while maintaining an aspirational goal of net carbon neutrality by 2050.

In order to achieve this goal, PNG has made significant efforts in the past year to further the domestic agenda on climate change:

- The newly established Office of Climate Change and Development (OCCD) provides the institutional structure to coordinate action against climate change in PNG. It supports the whole-of-government National Climate Change Committee in steering climate change policy and reports directly to the Prime Minister.
- A Climate-Compatible Development Strategy (CCDS) sets out the strategic direction for PNG's action against climate change domestically, with a strong focus on REDD-plus. The main elements of the draft CCDS and the process for multi-stakeholder consultation have been endorsed by the National Executive Council (NEC). The CCDS is envisaged to be finalised and released in its final form later this year.
- An Interim Action Plan sets out the immediate priorities for action over the next 6-12 months while the CCDS is being finalized.

This progress frames the efforts over the coming months and years, during which GoPNG will move to implement climate-compatible development, specifically including the following actions related to REDD-plus readiness:

- Mitigation from REDD-plus activities need to be incorporated into national development planning and policies will have to be reviewed to ensure they are climate-compatible.
- Further research and analysis will be required in some areas, such as developing a comprehensive greenhouse gas inventory.
- REDD readiness activities will require the development of new capacities in the institutions involved.
- Pilot programs will be required to enhance the knowledge base, identify the most effective institutional arrangements, test the new policies and build capacity.
- A large-scale consultation exercise will need to be launched to involve local communities and landowners in critical elements of the strategy, especially arrangements for benefit sharing.
- A Measurement, Reporting and Verification (MRV) system, fund disbursement mechanism and benefit-sharing models that ensure benefits accrue equitably to resource owners will have to be developed.

2. Situation analysis

2.1. PNG Context

Papua New Guinea is the largest of the Pacific Island nations, both in terms of population, estimated at some 6.1 million, and in terms of land mass, covering approximately 460,000 square kilometres. Around 87 percent of the population lives in rural areas of Papua New Guinea's varied and rugged terrain that supports an extraordinary range of ecosystems and biodiversity, most of which are not accessible by road. The country has a rich and unique cultural and ethnic diversity, with some 830 languages spoken by a population distributed over the mainland and the many islands. The population is forecast to grow to more than 11 million by 2050. Currently 40 percent of the population is under the age of 18.

The country's level of human development remains low and has, in some areas, deteriorated over the recent years. In 2008, Papua New Guinea's Human Development Index (HDI) ranked at 149 out of the 179 countries and territories surveyed.

A large part of the rural population, and to a lesser extent, the urban population relies for their livelihoods on forest exploitation, fishing, hunting, and subsistence agriculture. Weak infrastructure, weak social service delivery mechanisms, marketing difficulties as well as low government and civil society capacity reduce possibilities to improve standards of living.¹

2.2. The forest sector in PNG

Forest inventory and deforestation and forest degradation

Papua New Guinea (PNG) has one of the most significant areas of largely-intact tropical forest in the world, although these forests appear to be facing acute and imminent threats. Forests are also a vital resource for the local population particularly in the remote rural areas of PNG. These forests 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.

Nevertheless, Forest cover data, commercial timber stocks, rate of deforestation and relative contributions of the drivers of deforestation are all subject to some uncertainty and much debate among academics and NGOs interested in forest cover change in PNG.

The Papua New Guinea Forest Authority (PNGFA) estimates that approximately 60 percent of the total area of the country is covered by natural forests, of which 52 percent are considered *production forests* (for timber and other products), and 48 percent are for conservation (not for timber extraction due to inaccessibility or ecological constraints).

There is a long history of debate regarding the forestry sector in PNG in numerous reviews, independent audits and studies of the forestry sector, e.g.:

- IIED 1998 Country Study
- IIED 2001 Report edited by Colin Hunt
- PNG Forest Industry Association <u>analysis</u> 2006

An official assessment of the Forest Resource Base by PNGFA indicates that about 29 million hectares of land are forested of which 15 million hectares are classified as production forest having potentially high quality hardwoods species suitable for commercial development.² The remaining 14 million hectares are classified as Reserve Forests (Exhibit 1).

¹ This section is based on the Situation Analysis in the UN Country Programme Action Plan.

² PNGFA (2009) Parliamentary Brief for Minister for Forests, Nov 2009, Port Moresby

EXHIBIT 1 – PNG's forest resource base



FAO's *State of the Forests Report 2007* reports lower forest coverage. Based on their report, in 1990 primary forests covered 29.2 million hectares, declining to 25.2 million hectares in 2005. The annual change of total forest area declined slightly from -274,800 hectares between 1990-2000, to -250,200 hectares between 2000-2005. This translates into an annual deforestation rate of 1.75 percent between 2000-2005.

Area of Primary Forests		Annual change of total forest area		
(1,000 ha)		(ha/year)		
1990	2000	2005	1990-2000	2000-2005
29,210	26,462	25,211	-274,800	-250,000

Table 1 – Change in the extent of primary forests in PNG (FAO)

More recent estimates by Shearman et al (2008)³ and Shearman and Bryan (2010)⁴ suggest that intact forests covered 33 million hectares in 1972, or 82 percent of PNG's land area. In 2002, PNG's primary forest area is reported to have decreased to 25.3 million hectares, suggesting that 23 percent of the area in 1972 has been cleared or degraded at a rate of 0.79 percent, or 360,000 ha, per annum. The analysis is based on change detection between a forest map derived from aerial photo of 1972 and a forest map derived from Landsat ETM+ satellite data. The cumulative change (which is in line with the annual rate of deforestation reported by PNG to FAO) has been further elaborated with a socio-economic model to support the definition of a forest loss trend which report for 2002 a combined annual rate of deforestation and degradation of 1.41 percent.

³ See Shearman P., Ash, J, Mackey B, Bryan J.E, and Lokes B (2008), The State of Forest in Papua New Guinea: Mapping the Extent and Condition of Forest Cover and Measuring the Drivers of Forest Change in the Period 1972-2002, University of Papua New Guinea, Port Moresby.

⁴ See Shearman, P and Bryan J (2010) A Bioregional Analysis of the Distribution of Rainforest Cover, Deforestation and Degradation in Papua New Guinea, Austral Ecology, A Journal of Ecology in the Southern Hemisphere

Table 2 – The area of primary rain forest in PNG in 1972 and 2002, and change due to deforestation and degradation over this period 5

Area of Primary Forests (1,000 ha)		Change of total forest area 1972-2002 (Percent)		
1972	2002	Deforested area	Degraded area	Total
33,228	26,462	15	9	24

Additional conclusions of the report include:

- Of the 1972 commercially accessible forest areas, it is estimated that by 2021, 83 percent will have been cleared or degraded if current trends continue;
- About 4.7 billion tonnes of carbon were stored in PNG's primary forests in 2002. This does not
 include carbon in forest soils; and
- Between 1972 and 2002 deforestation resulted in the release of a net 926.5 million tonnes of carbon through logging-related forest degradation.

This points to an imminent threat to PNG's forests over the next 2-3 decades. The main drivers of this deforestation and forest degradation are large-scale selective logging and subsistence and commercial agriculture, and to a lesser extent mining and forest fires.

Forest-dependent communities

Over 80 percent of the population is still directly dependent on the local environment for their livelihoods, particularly subsistence agriculture in shifting cultivation. Legitimate land ownership and the right to exploit most natural resources are vested with the people and protected by the constitution. Ownership is mainly governed by traditional law. About three percent of the land, or about 600,000 hectares, held privately under a 99-year State Lease or is government land. It has been argued that the land tenure system is an impediment to rural development because land is owned by clans and can neither be alienated nor used as collateral for business loans. The mobilisation of blocks of land for rural development is constrained by the fragmentation of ownership, the difficulties of identifying the "true" owners where there are disputes, and excessive "compensation" demands. However, proposals to "register" the land to facilitate development have faced vehement public opposition. At the village level, the lack of investment opportunities is a more serious constraint. Poor infrastructure, remoteness from markets, the collapse of government extension services, and the high cost or lack of credit, impede the creation of business enterprise.

Logging is carried out in natural forests by a small number of large private logging companies, generally foreign owned. Companies pay royalties to landowners. Landowners are usually represented by a landowner company formed to look after the owners' collective interests, or to an agent. Many problems occur with such representation. In many cases, royalty payments were received by company representatives or agents but never fully paid to the appropriate landowners, or were reduced by illegal deductions made by the companies.

The landowner share of logging proceeds in terms of timber royalties ranges from a flat royalty of K 10 per m³ up to K35 per m³. Next to this absolute minimum, landowners negotiate separate in kind benefits and price premiums as part of the concession negotiations. These may vary considerably. The Independent Forestry Review Team⁶ argues that royalties and premiums are often not paid in full, are not fairly distributed and contribute little to rural welfare.

⁵ See Shearman et al (2008). Swamp, mangrove, and dry evergreen forest are excluded.

⁶ Established by the PNG Government in 2003 to review issues surrounding a proposed World Bank loan to improve forest management. The loan was not taken and the review was not completed

Given the land tenure system in PNG, determining the opportunity costs of logging and providing appropriate payments is difficult. Most previous efforts to provide conservation alternatives that meet the logging opportunity costs have failed.⁷ Yet at the same time, questions have been raised about the contribution of logging in PNG.⁸

According to PNG's Forest Industries Association, the timber industry provides jobs to some 9,000 people, mostly located in remote areas where few other forms of employment exist. NGOs and the Review Team preparing the 2009 NJP submission, however, assert that these are generally lowly paid jobs which demand little training and contribute little to long-term welfare of the local population. Many of the higher-skilled positions are filled by foreign labour.

In addition to providing jobs, logging operators construct infrastructure, as well as health and education facilities, as part of the concession agreements. There is considerable debate about the sustainability and quality of the infrastructure/services provided. The Review Team describes operator performance as under par, while Rimbunan Hijau has commissioned a number of reports to demonstrate the lengths to which it goes to provide infrastructure and services to the landowners and its employees.⁹ Under the post-1991 Forest Management Agreements, companies pay for the construction of facilities but are no longer responsible for putting them in place.

The Forestry industry

The forestry sector has contributed 3.8 percent to PNG's GDP in 2008, and provided 0.3 percent of employment in the formal sector. In 2009, approximately 2.8 million m³ of logs were harvested. Of the country's total logs harvested, 80 percent is exported as round logs while 20 percent or less is processed locally. Domestic timber processing is not well developed in PNG although considerable tax incentives and current 'zero' tax on export of processed timber is offered. The major domestic export products are sawn timber, plywood, veneer and Balsa wood products.

Year	Volume Harvested (m ³)	Volume Exported (m ³) – Round Logs
2009	2,802,277	2,066,854
2008	2,755,554	2,514,915
2007	3,481,617	2,835,402
2006	3,389,891	2,638,296
2005	2,832,162	2,282,414
2004	2,776,900	2,012,136
2003	2,100,284	2,015,208
2002	2,140,953	1,853,549
2001	1,646,047	1,556,220

Table 3: Log harvest and round log exports, 2001-2009

Source: PNGFA Field Services Division, PNGFA - SGS monthly reports and database

⁷ See Race for the Rainforest: Evaluating Lessons from an Integrated Conservation and Development "Experiment" in New Ireland, Papua New Guinea, by Rob McCallum and Nikhil Sekhran, UNDP, 1997.

⁸ Drawn from www.odifpep.org.uk/activities/environmental_governance/S0153/png_paperthree_issues.pdf

⁹ See www.forestryanddevelopment.com/

Commercial logging operations are permitted under the following categories:

- Timber concessions approved under timber permits;
- Allocation of small timber resource Area under timber Authorities;
- Allocation of large scale forest clearance areas for agriculture development and road construction under the National Agriculture Development Program (NADP).

Commercial Timber Operations

Commercial logging operations are permitted under timber concessions approved under timber permits. A Forest Management Area (FMA) is applied to a natural forest area identified for commercial development by PNGFA, where rights have been acquired from customary landowners for a period of 50 years to manage and commercially develop their forests. This is the current forest management regime employed by the PNGFA. Under this arrangement, the concession holder can operate within the timber concession for 40 years.¹⁰

In total in 2009, there were about 55 approved timber permit operations in the country with a total committed forest area of 9 million hectares of lowland forest.

Allocation of small timber resource areas under timber authorities

A Timber Authority approved under Section 87 of the Act is granted to enable the supply of timber to sustain small-scale sawmilling, and to clear land for small-scale agriculture development at the village level. It is issued by the Chairman of the Provincial Government Committee responsible for forestry matters. Issuance is based on the advice of the Provincial Forest Management Committee. The National Forest Board gives consent for the endorsement of Timber Authorities. As of December 2009, a total of 62 Timber Authority applications were processed by PNGFA and referred to the respective PFMC to approve and issue to the various forest industry participants throughout the provinces, primarily for domestic processing operations.

Agricultural leases

New agriculture leases aim to convert land for cash crops at large scale to foster regional economic development. They are granted to agricultural development companies under a lease-lease back scheme issued by the Department of Lands and Physical Planning (DLPP) as a prerequisite for approval by the Department of Agriculture and Livestock (DAL). The leases are granted to private companies, and frequently include forest areas that have not yet been logged and will have to be clear-felled before agricultural development can happen.

As of August 2010, applications amounting to a total of 2.7-2.9 million hectares (~9-10 percent) of potential forest area have been submitted under these agricultural leases also known as 'agro-forestry' projects approved by DLPP. Of this area, 0.8 million hectares have received a Forest Clearance Authority (FCA) by PNGFA. This area is therefore approved for clear felling for conversion into agricultural land. However, the exact share of forest area of the total FCAs is uncertain.

The majority of leases (55 percent) have been granted for oil palm development. Following the oil palm projects are cocoa, rubber and coffee, and large ruminant livestock. Approx. 15 percent are related to combined reforestation and agriculture projects.

¹⁰ Residual or undersized trees left behind by the initial logging operation will have grown to an acceptable size of more than 50 cm diameter breast height within 40 years (changed from 35 years as of 1 January 2010), thus the resource can be managed and developed in a sustainable manner till the next cutting cycle.

Reforestation

Plantation forestry remains small in PNG, but the development of reforestation is important to PNG as it can ease the pressure on logging of native forests and help to maintain a sustainable forest industry as per GoPNG policy.

Figures for 2004 indicate 52,000 ha of reforested area of which around 60 percent was managed by the private sector and the remainder by GoPNG (Bourke and Harwood 2009).¹¹ In 2004, the volume of plantation timber was 247,214 m³, valued at 46 million Kina. This seems to have slightly grown to 62,000 ha by 2008 (PNGFA 2010).

The largest plantations are in East New Britain, West New Britain, and Morobe Province, Highlands and in Madang Province. These plantations accounted for 70 percent of total plantations in PNG, while the rest was distributed in 13 locations in 10 provinces (Bourke and Hardwood 2009).

The PNGFA (2010) has stated that the future of forests in PNG lies in plantation development as the forest resources that are accessible and commercially viable are diminishing at a fast rate. The PNGFA has also formulated a policy on reforestation that is supported by a Plantation Development Program which aims to establish 240,000 ha by 2030.

There are significant tenure and socio-economic barriers to more rapid expansion of plantation forestry. Particularly hardwood plantations take a long lead time before harvest and customary land owners are reluctant to wait for long periods to generate incomes. Coupled with limited engagement of the forest industry and limited downstream processing facilities to date, this has prevented a rapid growth of this forestry subsector. The PNGFA also claims that a major constraint to expansion of plantation was a lack of capacity and resources within the authority.

Sector regulatory framework

Forestry sector regulations

Over the last 20 years, forest-related laws have evolved toward increasing government control of forest areas. This change has been aimed at enhancing sustainability and overall sector efficiency. However, implementation of the laws and associated codes of conduct often has been difficult because of governance problems resulting from relationships among the industry, politicians, and officials, thereby reducing the transparency in the sector.

Following the Forestry Commission of Inquiry (or Barnett Commission) a considerable amount of new forest policy and legislation have been introduced.¹² These include:

- National Forest Policy: was issued in September 1991 by the National Executive Council and covers the areas of forest management, forest industry, forest research, forest training and education, and forest organization and administration.
- Forestry Act, 1991: was gazetted in June 1992 as a direct result of the Commission of Inquiry, and provided for the establishment of the new and semi-autonomous Forest Authority to replace the old Department of Forests. The Act provides for much tighter controls in the acquisition and allocation of land for forest development.
- *Forest Regulation No. 15, 1992*: specified the procedure to enable registration of forest industry participants and consultants under the Act.

¹¹ See Bourke, M and Harwood, T (2009) Ed, Food and Agriculture in Papua New Guinea, ANU, Press, Canberra

¹² The text of this section is borrowed from the page "Forest laws of PNG" on the Internet site of the Forest Authority (http://www.forestry.gov.pg), and from the 1997 FAO document Asia-Pacific Forestry Sector Outlook Study: Country Report - Papua New Guinea. (Asia-Pacific Forestry Sector Outlook Study Working Paper No: APFSOS/WP/47).

- Forestry (Amendment) Act, 1993: was certified in April 1993 and provided for a clear administrative function of the National Forest Board, and of the National Forest Service through the Managing Director and the Provincial Forest Management Committees.
- National Forest Development Guidelines, 1993: were issued by the Minister for Forests and endorsed by the National Executive Council in September 1993. The Guidelines established an implementation guide for aspects covered in the new Forest Act, especially in terms of sustainable production, domestic processing, forest revenue, training and education, review of existing projects, forest resource acquisition and allocation, and sustainable development.
- National Forest Plan: under the Forestry Act of 1991 (as amended), the Forest Authority has been required to prepare a National Forest Plan to provide a detailed statement of how the national and provincial governments intend to manage and utilize the country's forest resources. The National Forest Development Program (NFDP) under the Plan is now under implementation.
- Logging Code of Practice, 1996: was finalized in February 1996 and tabled in Parliament in July 1996. This PNG code is inconsistent with the Regional Code proposed at the 1995 Suva Heads of Forestry Meeting but is more specific to PNG operating conditions. It has been mandatory as of July, 1997, but will shortly be undergoing review.
- The 1996 Forestry Regulations: cover all facets of the industry procedures and control, and were approved by the National Executive Council in 1996, and finalized soon after with some changes. These Regulations provide the legal status for the implementation of many of the requirements specified under the Forestry Act 1991 (as amended).
- Forestry (Amendment no. 2) Act, 1996: was passed by Parliament and certified on the 11 October 1996. The major amendment relates to the membership to the Board to still have eight members, including the representatives of a National Resource Owners Association and CSOs/NGOs. Further amendments were made in 2000 and 2005.
- Environment Act, 2000: provides the administrative mechanism for the evaluation of impacts on the environment through an environmental approval and permitting system under the administration of the Department of Environment and Conservation (DEC).
- National Forestry Development Guidelines, 2009: act as an update to previous (1993) guidelines and set out the objectives for the Forestry Sector in PNG. They also recognize climate change initiatives under the United Nations Framework Convention on Climate Change (UNFCCC).
- Forestry and Climate Change Framework for Action 2009 2015 (FCCFA): and outlines the priorities for the GoPNG regarding sustainable development in the forestry sector.

The regulatory and policy action above outlines some of the initiatives taken by the PNGFA to move the PNG industry to a more sustainable development path to reflect both PNG's international efforts in REDD-plus and domestic priorities set by the Government. The Logging Code of Practice has been reviewed in recent years to improve the standard of logging operations in the country. In addition, the PNGFA is developing a plantation recovery strategic plan to revive and bring some of these plantations back to sustainable and commercial levels.

Recently, the Forest Authority sought NEC approval for a forest and climate change policy integrating climate change and conservation issues in its forestry operations. Under the Forestry legislation, areas of conservation value could be set aside as 'reserves' within Forest Management Areas earmarked for large scale logging. PNGFA and the OCCD are in the process of jointly developing REDD-plus pilot projects to test the concepts outlined in the climate change framework.

The PNGFA is also refining it strategies to move the forest industry to a more sustainable level. In September 2009, for example, the Minister for Forests announced that no new FMA timber concessions would be allocated with round log export entitlements.

Service Delivery

In 1995 the 'Organic Law on Provincial and Local Level Governments' (OLPLLG) was passed by Parliament and was subsequently implemented in 1997. It is essentially an attempt to decentralise government functions and responsibilities by devolving substantial financial management functions and responsibilities such as planning, budget and finance to the sub-national level (Provincial, District and Local Level Administrations and Treasuries), although management of forest resources is still the mandate of the PNGFA. Since the introduction and implementation of the OLPLLG, PNG has gone through an extensive process of national and provincial capacity building in order to apply and comply with the requirements of the law. However, this process is far from completion and continuing problems prevail especially with regard to the management of financial resources at the provincial and lower level. As a result, the delivery of basic services in the provinces is sub-standard even though it varies among different provinces.

Although the New Organic Law established decentralized responsibilities and authority across three levels of government in a more equitable sharing arrangement, it did not adequately address implementation issues. Central, line, provincial and local-level government agencies were left to legislate their respective administrative functions and responsibilities with respect to other government agencies. Inadequate guidance and management of this process has resulted in incomplete and open-ended arrangements, with responsibilities poorly matched to authority. Lines of authority between the three tiers of government are insufficiently developed, and transparent and accountable procedures and systems to enhanced decentralization of service delivery remain a huge challenge. In reality, decentralization may have caused accountability at all levels to decrease.¹³

Data availability

PNG has a number of national spatial datasets including land-use, physical environment (e.g. soils, landform, climate etc), and forest types which have been developed over a 20-30 year period. A range of agencies develop and maintain their own datasets. While some high quality datasets exist, institutional arrangements are not conducive to collaboratively holding and maintaining datasets.

Data sources:

- PNGFA's data stored in the Forest Authority Database (FAD), which includes concession planning documentation and Forest Inventory Mapping Systems (FIMS), the Forest Inventory Processing System (FIPS) and the Persyst which is located at the PNG Forest Research Institute in Lae (FRI) and captures the permanent sample plot measurements;
- Available satellite optical and radar data;
 - University of Papua New Guinea (UPNG) PNG Remote Sensing Unit;
 - University of Melbourne (also have Joint Research Centre data);
- National Agriculture Development Plan (for future land-use plans).

These datasets have been created using different base maps, are at different scales, were derived from different source data (e.g. aerial photography, Landsat TM etc) and many have complex polygon level attributes. Different base maps have also been used for development of the land-use versus the forestry datasets which complicates the combination of data from different sources.

¹³ From www.adb.org/Documents/Reports/CGA/CGA-PNG-2006.pdf

Forest research plots

The Forest Research Institute maintains a set of permanent 1 hectare plots which were established under a research project titled "Intensification of Growth and Yield Studies of previously Loggedover Forests in Papua New Guinea", 1992-1999, funded by the International Tropical Timber Organization (ITTO). The project resulted in the establishment and measurement of 72 Permanent Sample Plots (PSPs) in cutover natural forests throughout PNG. Since 1995, FRI has also expanded the PSP network by establishing and measuring more than 55 additional plots of which 9 are on uncut natural forests.

From 2001 to 2005, ACIAR project FST/1998/118 (Planning methods for sustainable management of timber stocks in Papua New Guinea) provided funds to support the re-measurement of these plots. During this time 32 PSPs were re-measured. The current ACIAR project FST/2004/061 is providing funding for ongoing maintenance and re-measurement of these plots as well as the management of the PSP database. As at July 2008, ACIAR project FST/2004/061 had funded the re-measurement of 30 PSP plots.

ITTO Project consultants developed a PSP database computer program (Persyst) in the late 1990s, a long with a forest growth model called PINFORM for lowland tropical forests of PNG using data from these PSPs. FRI national staff have managed PSP re-measurements over the last 15 years.

In 2006-7 the European Commission's Joint Research Centre and the Max-Planck Institute for Biogeochemistry undertook a feasibility study on forest area change and carbon stock change assessment. The team included Danilo Mollicone (who now works at FAO as part of the UN-REDD Programme) and worked with the PNG's Forest Research Institute (FRI). Reports were made to SBSTA26 and COP-13.

It has to be pointed out that data on biomass and carbon stocks is still limited in PNG. Furthermore, in most cases research plots have been set up for a purpose different from setting up a multipurpose forest carbon inventory. Hence, more work has to be conducted in this area.

Available satellite data

Australia is sourcing access to available optical and radar data primarily from SPOT, Landsat, JERS-1 and ALOS PALSAR. Australia hopes to obtain cloud free optical imagery prior to 1990 with 1st coverage of cloud free radar data from 1992. Australia is working with a range of national and international organizations to obtain this data and refine methods for integration of these various data sources into continuous spatial coverage and continuous time series. The intent is to make this historic and ongoing data streams available to PNG and other countries in the region.

The Joint Research Centre team also considered the feasibility of determining deforestation and degradation rates from available satellite data – such as the Maryland University Global Land Cover Facility archive. Reports were made to COP-12 and GOFC-GOLD meetings.

2.3. The importance of climate-compatible development to Papua New Guinea

Climate change is both a threat and an opportunity for PNG. Greenhouse gas emissions are high relative to the level of development, especially due to emissions from land use, land-use change and forestry. Rising sea levels, floods, landslides and malaria pose an increasing threat to PNG's population. On the other hand, climate-compatible development offers an opportunity to move to a broader-based, low-carbon growth path.

PNG contribution to the international debate on climate change

PNG has played a leading role in advancing the agenda on Reducing Emissions from Deforestation and Forest Degradation Plus Conservation, Sustainable Forest Management and Carbon Stocks Enhancement (REDD-plus) in the UNFCCC. REDD-plus was first introduced into the COP by PNG and Costa Rica at COP-11 in 2005, leading to COP-13 decision <u>2/CP.13</u> in Bali in December 2007. PNG has since contributed various ideas for stimulating action in <u>submissions</u> to the UNFCCC's Subsidiary Body for Scientific and Technological Advice (SBSTA). In addition, PNG plays a leadership role in the Coalition for Rainforest Nations and has worked through the Paris-Oslo process to promote an interim REDD-plus agreement as a prelude to a globally applicable, legally binding climate change treaty. Following on to the Oslo meetings in May of this year, PNG has accepted the co-chair position of the Interim REDD-plus Partnership Secretariat.

Progress on the domestic stage

In March 2010, the National Executive Council (NEC) approved the creation of the Office of Climate Change and Development (NEC Decision 54/2010). This Office, known as OCCD, is the coordinating entity for all climate change policy in PNG and the Designated National Authority under the UNFCCC, in which it replaces the Office of Climate Change and Environmental Sustainability.

The OCCD's mandate is founded upon the principles of the Fourth Goal of PNG's National Constitution which stipulates that:

"Papua New Guinea's natural resources and environment are to be conserved and used for the collective benefit of all and are replenished for the benefit of future generations."

The mandate is derived from NEC decision 54/2010, which specifies:

- That the National Climate Change Committee (NCCC) and the Office of Climate Change and Development as its secretariat take full and exclusive responsibility for all policies and actions under Pillar Five of the Vision 2050, concerning Climate Change and Environmental Sustainability;
- That the OCCD engages and involves all stakeholders to build a common vision and pathway on action to tackle climate change;
- That the OCCD works in close collaboration with, and in support of other departments and agencies to achieve these goals.

The OCCD is designed as a lean, efficient organization that coordinates the climate-change efforts of the Government of PNG (GoPNG) (see Exhibit 2). After a 6-month period of institutional set up and recruitment, the OCCD has initiated work with a staff of 3 directors and 12 analysts in later August 2010. The office is currently completing the recruitment process for its administrative positions and has already conducted a first comprehensive training programme for its staff in September. Capacity development for the OCCD's staff to enable the OCCD carry out its tasks effectively will remain a key priority over the coming months and years, for which the joint programme will play an important role.





The OCCD has four immediate tasks:

- Conduct a national and provincial consultation on climate-compatible development. The consultation will engage a broad range of stakeholders including government, civil society, private sector and local communities. At the local level, the consultation is designed to yield a better understanding the climate-change issues facing communities, obtain feedback on what it would take communities to participate in a national REDD-plus program and prioritize adaptation measures most appropriate for communities.
- Launch immediate Fast Start Actions including 'readiness activities' for REDD-plus and pilot projects for different approaches to mitigation, adaptation and low carbon growth.
- Prepare the final version of PNG's National Climate-Compatible Development Strategy (CCDS), outlined in section 3 of this document. The content of this strategy is contingent on the outcome of the consultation and international negotiations including potential for funding climate-compatible development.
- Determine financing requirements of Fast Start Actions and scale up and establish an overall investment plan, which can form the basis for international negotiations of REDD-plus support.

In carrying out these tasks, the OCCD is embedded in a structure that ensures whole-ofgovernment approach through the National Climate Change Committee (NCCC) (Exhibit 3). Technical Working Groups with the participation of GoPNG departments, the private sector, civil society and development partners ensure that a broad range of perspectives are considered in the OCCD's work. The REDD-plus Technical Working Group is further supported by three sub-working groups on Agriculture, Forestry and MRV which will play a key role in contributing to the implementation of the joint programme. The overall governance structure ensures that existing capabilities in PNG are utilized effectively and that additional capacity can be built up in a targeted and lasting manner.

EXHIBIT 3 – The OCCD's governance structure



2.4. Net Greenhouse gas emissions

The baseline level of greenhouse gas emissions

Over 95 percent of Papua New Guinea's emissions derive from land use, land-use change and forestry (LULUCF), including the effects of forest fires. The remainder come from mining, transport, the production of energy and oil and gas. Emissions from shipping, aviation and fossil fuels that are exported (such as LNG) are not included, in line with IPCC (Intergovernmental Panel on Climate Change) guidelines. The level of gross emissions is estimated at 113-130 Mt CO₂e (million tons of carbon dioxide equivalent) for 2010 (Exhibit 4).¹⁴ Of the total, 110-126 Mt CO₂e are related to land use, land-use change and forestry (LULUCF). Emissions from non-LULUCF sectors are estimated to amount to 3-4 Mt CO₂e. In per capita terms, this translates into total gross emissions of 17.2-19.8 t CO₂e per capita in 2010, if LULUCF is included. For non-LULUCF sectors only, GHG emissions amount to 0.5-0.6 t CO₂e per capita.

To estimate gross GHG emissions, data specific to Papua New Guinea has been used wherever available. In the absence of such data, international benchmarks and data from comparable tropical forest countries have been used as an approximation. Further research is required to verify the emissions in specific sectors and develop a detailed greenhouse gas inventory. Part of such refinement will be carried out as part of the consultation process for the CCDS, which the emissions data in this document is based on. Additional work to update emissions data and the National GHG Inventory is currently being carried out in the development of the Second National Communication to the UNFCCC.

¹⁴ Not including removals from carbon sinks.



EXHIBIT 4 – Sources of PNG's historical GHG emissions

SOURCE: Shearman et al (2008, 2009, 2010); Fox et al (2010); Hunt (2010); REDD+ technical working group

REDD-plus development and emissions under business as usual

A business as usual (BAU) scenario describes a growth path before any mitigating action is taken on climate change. Exhibit 5 shows a scenario that is a mid-point between the growth aspirations set out in PNG's Vision 2050 and Development Strategic Plan and a more cautious path in which both LNG projects are completed, but the economy is slow to diversify into non-resource sectors.





2 Emission from ag leases caused by overlap with timber extraction SOURCE: REDD+ technical working group The Business as Usual growth path is carbon-intensive. GHG emissions continue to increase, by up to 40 percent by 2030 under the BAU scenario. The majority of this increase would come from increased deforestation from large-scale agriculture leases, subsistence and smallholder agriculture (mostly as a result of population growth). Absolute emissions from non-land use sectors are still low. However, emissions from the energy, transport and oil and gas sectors will have the highest rates of increase over the next 20 years. Oil and gas emissions would rise further if any of the natural gas produced by either LNG project was retained for domestic consumption, but could be reduced if the liquefaction plant were powered by renewable energy sources.

2.5. Opportunities for greenhouse gas abatement

In February 2010, the Government of Papua New Guinea made a conditional commitment, submitted to the UNFCCC under the Copenhagen Accord, that greenhouse gas emissions would be reduced by ~30 percent from current levels, or ~50 percent from the BAU forecast, by 2030.¹⁵ The bulk of this abatement comes from reducing emissions caused by land use, land-use change and forestry, which currently account for over 95 percent of emissions, but generates less than 20 percent of GDP. Exhibit 6 sets out the growth in emissions forecast under BAU and potential emissions reductions from the most important abatement levers. While Exhibit 5 presents the overall abatement potential, it is important to note that the realized abatement volume will depend on the extent of the implementation of the individual abatement levers.





The theoretical cost of abatement measures such as these is estimated at approximately USD 5.6 per t CO_2e , amounting to ~USD 5.9 billions over the next 20 years (2011-2030). Naturally, these reductions are conditional on an international agreement that will fund REDD-plus so that Papua New Guineans are compensated for the ecosystem services and mitigation benefits they contribute to the world, and for the resulting changes to their incomes and livelihoods. Exhibit 7 shows the

¹⁵ http://unfccc.int/files/meetings/application/pdf/pngcphaccord_app2.pdf

cost curve for the abatement measures related to LULUCF, with the lowest cost measures on the left side near the axis and the most expensive on the right side.¹⁶ Overall, these measures would reduce emissions by approximately 60-80 percent compared with the BAU scenario.



EXHIBIT 7 – Abatement potential related to LULUCF by 2030

The abatement measures are all subject to the national consultation process and have not been turned into domestic policy yet. Their translation into policy is contingent upon a piloting and demonstration phase and in some cases to international support. Each measure is described below:

- Increasing yields in subsistence and smallholder agriculture by investing in agricultural extension programs and market access could save 9-15 Mt CO₂e by 2030 on the premise that 25 percent of farming communities improve their methods and preserve current forest coverage. The abatement effect of these measures is unproven, but they are likely to increase rural incomes and food security, so have value going beyond climate change mitigation.¹⁷
- Stopping deforestation from agriculture leases could save ~27-30 Mt CO₂e per year by 2030 if ~60-80 percent of the ~670,000 ha of currently approved agriculture leases could be withdrawn, (roughly 40,000 ha have already been logged). These ~670,000 ha only include projects with full approval from PNGFA and DEC. It is assumed that starting 2015, some of the land deforested for agriculture leases areas will be used for commercial agriculture plantations particularly oil palm, which is considered a separate driver of deforestation in the period from 2010 to 2015. Moreover, agriculture leases may be perceived as an alternative source of timber production with more limited regulation that might replace some of the production from existing and new FMA (Forest Management Agreement) areas. Additional agriculture leases that have not yet obtained final approval have not been included in these calculations.

¹⁶ Unit costs per tonne of CO₂e abated are calculated based on cost of programmes, with the exception of agricultural leases and shifting oil palm plantations which also include opportunity cost in the form of compensations for stakeholders that would lose revenue or income from a change in activities.

¹⁷ Improved agricultural practices need to be carefully implemented so that communities receiving agricultural extension services as part of a program which protects the existing forests instead of additional clear cutting to increase the amount of land used for agricultural purposes.

- Reducing deforestation in commercial agriculture could save ~2-9 Mt CO₂e per year by 2030. The primary means of achieving this would be by shifting 100 percent of new oil palm plantations from forested to degraded land. We assume that starting in 2015, 40-50 percent of new oil palm plantations will be established on former agricultural lease areas, while the rest will planted on degraded lands (e.g., pasture land, grassland).
- Implementing Reduced Impact Logging (RIL) practices¹⁸ in all logging concession areas could save 21-36 Mt CO₂e per year by 2030. This includes the potential to reduce emission from forest degradation by ~33-55 percent in carbon stock loss and to reduce the deforested area by ~33 percent within forest concessions. Fully recognizing the implementation challenges, it is also worth exploring whether the application of Reduced Impact Logging practices could help some forest operations to qualify for Sustainable Forest Management (SFM) status and so achieve certification under the FSC (Forest Stewardship Council) or other international certification schemes.
- Promoting afforestation/reforestation on marginal lands, with a view to protecting watersheds and in some cases developing forest plantations could sequester ~14 Mt CO₂e per year by 2030.
- Managing secondary forests, promoting re-growth through selected replanting and silvicultural practices in logged-over forests could save 14–21 Mt CO₂e per year by 2030.
- Conserving forests through community REDD-PLUS schemes. The abatement potential of this initiative has not been calculated since it heavily depends on the prior land allocation. For example the abatement potential will be different between conservation areas that were formerly assigned for agricultural leases or wildlife management areas.
- A national fire management program and continued efforts to reduce the environmental impact of large-scale mining could save ~5.4 Mt CO₂e per year.

Reducing emissions in other sectors could save ~ 2.1 Mt CO₂e per year by 2030, including:

- ~1.1 Mt CO₂e per year in the power sector, coming from a combination of constructing and/ or rehabilitating grid-connected hydro and geothermal power stations and rural electrification using micro-hydro and solar technology;
- ~0.5 Mt CO₂e per year in the oil and gas sector, with additional potential if LNG plants can be powered by renewable energy sources;
- ~ 0.5 Mt CO₂e per year in the transport sector, mostly from energy efficiency measures.

The abatement measures set out above have the potential to put Papua New Guinea onto a lowcarbon growth pathway that will have benefits beyond reducing emissions. The number of jobs created in new sectors, such as tourism and forest management, should more than outweigh those lost in the traditional logging sector. Overall, with the right additional inputs, the economy can therefore achieve the same 6-7 percent annual growth rate under a low-carbon growth path as under the BAU scenario, with over 20,000 additional jobs created and a more equitable income distribution. In order to translate the identified initiatives into real action, pilot projects and programs need to be rolled out over the next three years.

¹⁸ Reduced impact logging (RIL) differs from conventional logging inasmuch as it extracts commercially viable timber at sustainable volumes while minimizing collateral damages. RIL reduces degradation by minimizing logging roads, managing directional timber falling and optimizing cutting methods. RIL can reduce biomass loss to 20-30 percent from ~40-50 percent through conventional logging practices and reduce the eventual area deforested by 33 percent.

3. Strategies including lessons learned and the proposed joint programme

3.1. The CCDS and Interim Action Plan

PNG has developed a draft Climate-Compatible Development Strategy (CCDS) which is currently undergoing a consultation process with stakeholders in the country, with the aim to finalize the document before COP-16 in Cancún, Mexico. To bridge the period until the final CCDS is in place, PNG has also developed an Interim Action Plan as a practical step toward realizing a 50 percent decrease in PNG's emissions by 2030 as set out in Vision 2050. It also reflects the integration of PNG's climate-change objectives into its Medium-term Development Plan (MTDP).

The NEC has endorsed the main elements of the national CCDS (NEC Decision 55/2010, see box 1).

Box 1: Main principles, themes and intended actions contained in the Executive Summary of the Report on Climate-Compatible Development

On 22nd March 2010, Council . . . endorsed and supported as a matter of National priority, the main principles, themes and intended actions contained in the Executive Summary of the Report on Climate-Compatible Development as follows:

(i) That mitigation of and adaptation to climate change are inseparable from economic development and future prosperity of the people;

(ii) That the national strategies and plans on climate-compatible development are to be adopted and incorporated into the other national development strategies and plans, including the **Vision 2050** and the (renewed) **Medium Term Development Plan**;

(iii) That it is necessary to reform (and in some cases to create) institutions and bureaucratic arrangements to facilitate implementation of the National Strategy on Climate-Compatible Development, taking care to ensure that there is no overlap or duplication of activities with other branches of government or the Prime Minister's Department;

(iv) That a review is necessary of all national development policies and plans which impinge upon and are affected by climate change mitigation, adaptation, and low carbon growth, to ensure climate compatibility;

(v) That research and development is commissioned and conducted to support the development of a comprehensive greenhouse gas inventory and a more comprehensive understanding of the impacts of climate change on the Country;

(vi) That collaborative efforts by stakeholder agencies and inputs from development partners must be coordinated and used to improve upon the Government's preliminary policy initiatives;

(vii) That arrangements for Measurement, Reporting and Verification (MRV) and benefit sharing must be developed such that resource owners' rights and interests are protected and that they share in the benefits from greenhouse gas mitigation schemes, including REDD-PLUS;

(viii) That pilot projects, demonstration projects and programmes are established and managed by relevant departments and agencies, to improve knowledge and technical capacity on mitigation, adaptation and low-carbon growth, with a view to incorporating lessons from them into the policy framework and legislation; and

(ix) That a financial strategy be developed in tandem with the above stated activities, to request assistance from donors in building capacity for REDD-PLUS and other aspects of climate-compatible development.

The CCDS outlines the overall strategic direction for the country to achieve the Vision 2050 goals of 50 percent net GHG emission reductions by 2030 and carbon neutrality by 2050, based on PNG's net GHG emissions profile and the corresponding abatement opportunities. The Interim Action Plan outlines immediate priorities and actions for the next 6-12 months to set PNG on this path, including stakeholder awareness building and capacity development for the OCCD.

By adopting the core elements of the CCDS and the Interim Action Plan, the NEC recognized that economic development must be combined with climate change mitigation and adaptation measures as the core climate-related challenges that PNG faces:

- Promotion of economic development through low-carbon growth;
- Mitigation of net GHG emissions through participation in a global REDD-plus scheme;
- Adaptation to climate-related hazards.

The confluence of these three objectives forms the heart of PNG's climate-compatible development strategy, which will foster environmentally sustainable economic growth while capturing the opportunities of carbon mitigation and protecting against the perils of climate-driven hazards.





3.2. Priority actions

The Interim Action Plan spells out 5 priority actions for GoPNG that are to be initiated in 2010 (Exhibit 9). This plan is subject to continued updating and refinement.

All priority actions are significant contributions towards REDD readiness. Each initiative will follow a whole-of-government approach and will require close cooperation with land owners, civil society organizations, the private sector and development partners. GoPNG has made important first steps to incorporate climate-compatible development, including REDD-plus, into its overall development planes, e.g., through the MTDP. Yet, more work needs to be done in the future. One critical example is the development and enhancement of spatial planning at both the national and provincial level to ensure that land use is able to contribute to a mix of different development objectives.

The actions below, including those proposed to be supported by the NJPP, will help to contribute to this goal and ensure that climate-compatibility is deeply anchored into PNG's socio-economic development, but also that benefits beyond GHG abatement will be embedded into a REDD readiness framework.

EXHIBIT 9

	Institution & capacity building	 Implement 18-months capability building plan for the staff of the new Office of Climate Change and Development
B milli	Strategy and policy development	 Refine National Climate-Compatible Development Strategy Implement agreed policy changes
C C	Benefit sharing mechanism	 Develop a benefit sharing approach in line with globally evolving requirements including mechanisms to allocate funds at a national and community levels
0	Consultation & communication	 Conduct a national consultation process focusing on provinces with the highest climate change exposure for both mitigation and adaptation
E	MRV	 Finalize MRV stock take and develop requirements for a national MRV system in line with global requirements Develop a MRV solution and start implementation

A) Institution & capacity building

After a careful staff selection, the OCCD is developing a high calibre team through training on key skills, explicit mentorship and a strict performance management process. The second level of capacity building will come through the process of learning by doing on pilot and demonstration projects. Growth of local capabilities will come primarily from experience on the job, e.g., project design and implementation. Where necessary this will be complemented by formal skills training.

The third component of capacity building will be through targeted training sessions aimed at supporting the scale-up of pilot projects. After pilot programs have demonstrated impact, the challenges and capability gaps for future implementation will be codified and built into a training curriculum. The net effect of the national strategy's approach to capacity building will be to strengthen capabilities while generating results.

GoPNG has contracted the services of an international consulting firm to support this process. In addition, the OCCD is identifying PNG nationals as well as overseas experts who can be seconded to the OCCD for an initial 12-month period. All secondment positions will be fully embedded into the organizational structure of the OCCD and focus on helping to build capacity and capabilities of the permanent staff, in addition to directly pushing forward the OCCD's work. The proposed NJP is envisaged to facilitate this process through the position of a 'director shadow' for the OCCD Director 'MRV & National Communication' as well as a Programme Manager for the overall management of the NJP implementation.

B) Strategy and policy development

A refined version of the National Strategy for Climate-Compatible Development will be completed towards the end of this year, envisaged prior to COP-16 in Cancún, Mexico, and incorporate the insights from a provincial consultation process and the ongoing international REDD+ negotiations. NEC Decision 55/2010, accepting the principles of climate-compatible development, mandates that, "A review is necessary of all national development policies and plans which impinge upon and are affected by climate change mitigation, adaptation, and low carbon growth, to ensure climate compatibility." In light of this direction, the Government is taking steps to ensure that:

The Medium Term Development Plan for 2011-15, currently under development by the Department of National Planning, will be climate compatible.

- The Electricity Industry Policy, which provides a framework for the private sector to invest in renewable energy sources, is adopted and implemented.
- The Forestry and Climate Change Framework for Action (FCCFA) is implemented.
- A review is conducted of the National Agricultural Development Plan including the allocation of forest land for agriculture leases.
- Strict design principles and criteria are developed for all REDD+ projects, taking strong action against any unauthorized voluntary trading schemes.

Many of these activities have already been commenced by GoPNG and will be continued with the support of a broad range of stakeholders, such as civil society organisations, the private sector and development partners. The FCCFA has already been approved and PNGFA is initiating the steps to implement it. REDD-plus project guidelines and safeguard criteria have been developed by the REDD-plus Technical Working Group and are under review by the NCCC. They include social, environmental and fiduciary safeguards to ensure REDD-plus falls into the broader development objectives of PNG and takes into account social and environmental benefits beyond GHG abatement.

C) Models for compensation and benefit sharing

Two critical decisions need to be made for the distribution of international REDD-plus funds at the local level. First, how will funds be handled on a national level? Second, how will funds be used and distributed to pay for the costs of REDD-plus activities and to compensate and incentivise local communities for potential livelihood changes?

There are many examples of benefit sharing at the local level, each with its own challenges and potential for improvement. These include the arrangements for mining, petroleum and forestry projects and conservation work. One of the most important challenges that GoPNG faces is to design a simple, transparent and equitable system for distributing and allocating REDD-plus funds that learns from these examples. It is important that this system also takes into account the broader development perspective of PNG and also addresses other benefits alongside with GHG abatement in a holistic way.

The REDD-plus Technical Working Group has finalised the Terms of Reference for a review and design study aimed at (i) reviewing the benefit sharing models and their implementation in existing sectors (e.g., mining and forestry) domestically and internationally, and (ii) designing the principles and framework for a model specific to REDD-plus in PNG. It is envisaged that this study will be initiated in Q4/2010 with the support from development partners. The OCCD has approached AusAID to assess opportunities for co-funding through the Australian Forest Carbon Partnership.

D) Consultation and communication

The freedom and strength of civil society in PNG will be a key factor in determining whether forest carbon will be managed for the benefit of all of the citizens. An outreach programme to all stakeholders is therefore a critical element to ensure the success of REDD readiness efforts in PNG. To this end, the OCCD has initiated a comprehensive multi-stakeholder national consultation process. In the near term, this focuses on communicating and improving the CCDS. In the longer term, the consultation process has the following objectives:

- Build a local understanding of the facts of climate change and options for climate-compatible development that could form part of a national strategy;
- Gain an on-the-ground understanding of local needs and desires so that mitigation and adaptation initiatives can be best tailored to meet them;
- Test community interest and willingness to participate in REDD-plus schemes

- Develop working relationships between the OCCD, local government, the private sectors and civil society.
- Empower local government to communicate the national strategy.

The OCCD has already started this process with workshops for GoPNG agencies and civil society organizations and consultation events in provinces. The NEC has foreseen PGK 4.5 million PGK (~USD 1.7 million) for these efforts over the period from 2011 – 2013, to be funded out of the GoPNG budget. In addition, it is envisaged that the UN-REDD NJP and other development partners provide additional funding and international expertise into this important area.

E) Measurement, reporting and verification (MRV)

At the time of writing, there is not yet an agreed framework for REDD-plus under the UNFCCC. However, its eventual outline is likely to include the critical 'payment for performance' principle. This is intended to ensure that countries are only compensated for reductions in GHG emissions once they have been achieved and verified. A credible system for the Measurement, Reporting and Verification (MRV) of REDD+ activities is essential to prove actual emission reductions to international counterparts and thus to allow for performance-based REDD+ payments. The establishment of the system and the related capabilities would also have additional benefits for PNG as the remote sensing and mapping capabilities can be leveraged for non-MRV topics such as spatial and land use planning.

At present, no national MRV system exists in Papua New Guinea. A preliminary diagnostic on current MRV capabilities across different institutions in PNG indicates that most systems use satellite images and on-the-ground measurement to monitor land use. These systems have been sponsored by academic institutions, government departments and agencies, and increasingly NGOs. Few of these systems have national coverage and none includes all types of greenhouse gas emissions or land-use changes.

Efforts are being made, particularly by PNGFA and UPNG, to increase the capacity for remote sensing and MRV in PNG. These are supported by development partners, most notably JICA with its comprehensive support to PNGFA for hardware and software for a remote sensing centre. The UN-REDD NJP provides a unique opportunity to complement these activities to develop a comprehensive MRV system for PNG and build the local capacity to operate it. The proposed NJP therefore has a strong focus on this component which is outlined in more detail below.

3.3. Development of a Measurement, Reporting and Verification system

The development of an IPCC-compliant MRV system will be a key element to support REDD-plus policies and measures and to assess PNG performance in climate change mitigation. Internationally, REDD-plus is still under negotiation and possible accounting rules will have to be defined in the future. Nonetheless, existing guidelines and reporting requirements about the LULUCF sector for Annex I Parties under UNFCCC are sufficient to inform the establishment of a PNG MRV system at this point. This approach is considered to be conservative as the MRV systems under the Convention are comprehensive and inclusive of all possible land use activities. In this respect the MRV system of PNG (see Exhibit 10) will be composed of three main pillars:

- 1) A Satellite Land Monitoring System to assess activity data, forest area and forest area changes;
- 2) A multipurpose National Forest Carbon Inventory to assess carbon stocks and carbon stock changes (i.e. emission factors EF);
- 3) A National GHG Inventory to estimate and report anthropogenic emissions by sources and removals by sinks.

These pillars will have to be supported by a responsible authority for the coordination of the administrative and technical aspects, for the overall quality of reported estimates to UNFCCC and for the fulfilment of procedural requirements and safeguards of REDD-plus.

PNG is going to develop a MRV system learning from other countries' experiences. The PNG system will combine inputs from already operational and successfully monitoring systems. To achieve these objectives, the OCCD has launched an international Request for Expression of Interest for its MRV system on 06 September 2010 as a first step in an open and transparent procurement process for the establishment of the individual system components. This tender process is envisaged to cover all aspects of a future MRV system, including software, hardware, and capacity building to enable PNG to independently and reliably operate its system in the long-term.





Institutional and governance arrangements

It is important to identify and develop an institutional structure that will be responsible to set up a National System.¹⁹ The elements of the MRV system outlined above will form part of the National System that a country will be expected to establish when the REDD-PLUS mechanism will enter into force. In the case of PNG, a number of institutions and GoPNG departments are today involved in activities related to the functions of a MRV system for LULUCF, e.g.

- The **OCCD** is mandated by the NEC to develop a MRV system;
- The PNGFA as responsible agency for the management of PNG's forests is overseeing the monitoring and surveillance of forest areas; FRI is the forestry research arm of PNGFA and operates a network of permanent sampling plots.
- The DEC is tasked with the administration and implementation of the Environment Act 2000 to ensure good environmental protection and management and wise management of PNG's natural resources.

¹⁹ The concept of National systems is explained in paragraph 9 of the Annex to Decision 19/CMP.1.: "National systems should be designed and operated to enable Parties included in Annex I to consistently estimate anthropogenic emissions by all sources and removals by all sinks of all GHGs, as covered by the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories and IPCC good practice guidance, in accordance with relevant decisions of the COP and/or COP/MOP." REDD-plus is a mechanism envisaged to require the full participation of national institutions in Non-Annex I Parties to the financial mechanism under the Convention (e.g. like Annex I countries under the Kyoto Protocol). Thus, it is expected that countries participating in REDD-PLUS will be required to set up such National systems.

- The Departments of Lands and Physical Planning (DLPP) is responsible for managing the alienated and customary land in PNG, including support for land use plans at the GoPNG, province and district levels.
- The **National Mapping Bureau** is responsible for providing Papua New Guinea, specifically also GoPNG, with mapping products and services.
- The University of PNG (UPNG) Remote Sensing Unit is currently operating PNG's most advanced GIS system and supporting GoPNG in many of the tasks outlined above.

Accordingly, the institutional set up and organizational responsibilities will have to be clearly identified in order to clarify which institution is responsible for different aspects of the coordination of administrative and technical arrangements, the overall quality of reported estimates and the fulfilment of procedural requirements of REDD-PLUS. Strong coordination mechanisms will be required to ensure interaction between all stakeholders at a national and local level.

The final arrangement of organizational responsibilities will be determined through intensive GoPNG consultations and by the proposals received by interested parties in the international procurement process. Exhibit 11 outlines a potential structure, based on the current GoPNG responsibilities. All organizations involved will ensure the participation of local communities, NGOs, various agencies at national and international level and the private sector.

- The Office of Climate Change and Development is responsible for the coordination of the administrative and technical aspects of the MRV system, hosts the national GHG inventory and reports net GHG emissions to external parties, e.g., National Communications to the UNFCCC;
- The Forest Research Institute, in close cooperation with the PNG Forest Authority, operates the National Forest Inventory;
- The PNG Forest Authority, the Department of Lands and Physical Planning and the Office of Climate Change and Development, as well as other relevant departments manage the Satellite Land Monitoring System;
- The National Climate Change Committee acts as auditor and reviewer to the National GHG Inventory and commissions regular independent in-country audits to verify the transparency, accuracy, consistency, comparability and completeness of the submitted data.



EXHIBIT 11 – Potential PNG System for MRV under the UNFCCC

REDD-plus activities and phases and their relation to MRV

Five forest related activities have been identified under REDD-plus:²⁰

- (i) Reducing emissions from deforestation;
- (ii) Reducing emissions from forest degradation;
- (iii) Conservation of forest carbon stocks;
- (iv) Sustainable management of forest;
- (v) Enhancement of forest carbon stocks.

This broad prospective has been agreed in order to reflect all potential different national circumstances (e.g. countries with high forest cover and high deforestation; countries with high forest cover and low deforestation; or countries which are expanding their forest area and their carbon stocks), but also to support a phased implementation of the expected REDD-plus mechanism. Indeed, countries may start with the implementation of policies and measures to tackle emissions from deforestation and forest degradation, and later on add other mitigation actions like sustainable management of forests, conservation and enhancement of forest carbon stocks.

The roadmap for developing a MRV system in PNG would at all stages accompany and support REDD readiness efforts, as outlined in the CCDS and the Interim Action Plan. The REDD-plus process would follow through 3 broad stages:

- Phase 1 Readiness: Capacity development for the establishment and testing of the national MRV system. In this phase, PNG will assess its historical forest area and carbon stock changes;
- Phase 2 Implementation supported by transitional funding: Preliminary MRV operational system in place, mainly based on RS/GIS analysis with the combination of preliminary data from the National Forest Inventory (pre-sampling data for conservative estimates of EF);
- Phase 3 Payments for verified performance: Operational national MRV system. Integration of REDD-plus activities with other mitigation mechanisms under UNFCCC.



EXHIBIT 12 - Multiphase implementation of REDD-plus through MRV

²⁰ FCCC/AWGLCA/2009/L.7/Add.6

The MRV system will enable identification and tracking of actions and processes that are related to the five activities identified under REDD-plus and implementation of the most recently adopted or encouraged IPCC methodological approaches. Even if the 2006 IPCC Guidelines are not yet adopted by the UNFCCC these will form the methodological base of the proposed MRV system since they are the most updated guidelines produced by the IPCC and are fully consistent with the 2003 IPCC GPG for LULUCF, currently adopted for reporting GHG Inventories. The estimation of GHG emissions and removals will be based on two activities: (i) identification of activity data through a satellite monitoring system and (ii) assessment of emission factors through field measurements.

Satellite Land Monitoring System

To assess activity data, a Satellite Land Monitoring System (SLMS) will have to be set up in PNG, along with the capacity to operate it. The SLMS will:

- Detect land use changes (changes among different land uses categories) and forest canopy changes in forest land remaining forest land.
- Be operational, i.e. it will allow full territory coverage by high resolution satellite data with a seasonal temporal frequency of a minimum of 2 Landsat class data per area unit per year;
- Allow for frequent monitoring, i.e. it will enable the monitoring of forest disturbance processes in frequent intervals through medium resolution satellite data, complemented by more detailed imaging for high-risk areas, with the ultimate intention of developing UNFCCC tier 3 capability;
- Monitor in accordance with the forest definition that PNG will adopt under REDD-plus, and parts of which have already been developed as part of the consultation under the FCCFA;

Each unplanned change of land cover detected by the SLMS will then need to be controlled on the ground in order to assess changes and identify causes and actors. Furthermore, GoPNG will need to design a framework for remedial actions through PNGFA and other authorities for cases when undesired changes in land cover are detected, and will guide in the implementation of those actions. Enforcement mechanisms will require considerable attention to be effective.



EXHIBIT 13 – Graphical example of a 'real time' monitoring system (Brazilian Deter)²¹

²¹ The system using medium resolution satellite data (MODIS with 250m ground spatial resolution) is able to provide biweekly maps of forest cover changes that are occurring in all the legal Amazonia area. These data are used by the Brazilian authorities to fight illegal activities in forest land and to promote law enforcement. The polygons in the pictures represent area where changes in forest canopy cover are occurring (deforestation, degradation, and logging).

An ambitious, illustrative output of the SLMS in terms of reporting requirements is shown in Exhibit 14 below. The final matrix or matrices will be developed as part of the joint programme and related efforts in PNG, and will build on existing approaches in PNG:

- An annual land use change matrix, for reporting on land use changes processes
- An annual conversion matrix, for reporting on changes in land practices between each land use sub-categories.



EXHIBIT 14 – Example of a possible PNG land use change matrix and practices conversion matrix

As the forest area of a country is not homogeneous in terms of species composition, management practices, (e.g. unexploited, under sustainable management, conservation, etc.) and ongoing and future drivers of carbon stock changes (e.g. drivers of deforestation), PNG will develop a stratification of its forest land area in order to identify and track different portions of land with different biophysical properties and subject to different policies, measures and activities. Within a single stratum, different activities and institutional arrangements related to forest carbon stocks management will be identified, producing a further, more detailed sub-stratification. An example of such a system is shown in Exhibit 15.

For each different stratum and/or sub-stratum technical and methodological arrangements aimed at achieving the highest quality estimates in a cost-effective manner will be implemented; at this scope all on-going local monitoring activities will be taken into account or directly included in the GHG inventory system while the national monitoring activities verify the local estimates.



EXHIBIT 15 – Potential land use classification/stratification system for PNG's national territory

National Carbon Forest Inventory

For the assessment of the forest emission factors, the preparation of a multipurpose national carbon forest inventory is key. The main objective for PNG will be the establishment of a country-specific emission factors database reflecting the different forest types in order to support an assessment of carbon stock changes at tier 2 of IPCC guidelines for phase 2 and tier 3 for phase 3 of REDD-plus.

PNG's national carbon forest inventory will build on existing research results which have provided indications on PNG's forests (e.g., permanent sampling plots network, ITTO 1992 or ACIAR project FST98-118, Planning methods for sustainable management of timber stocks in Papua New Guinea). As in many cases, existing research and sampling plots had a different focus from the objectives outlined here, these efforts need to be assessed and complemented to meet the requirements of the multipurpose national carbon forest inventory. The inventory will have two phases: i) pre-sampling, and ii) final sampling. It will be based on the principle of optimum allocation of resources. During pre-sampling, preliminary statistics of different forest strata will be assessed. These preliminary statistics will be used to define the final sampling strategy but also to produce conservative estimates of emission factors which will support the implementation of REDD-plus's phase 2 (i.e. tier-2 reporting).

GHG estimates of a National GHG Inventory

In order to assess estimates of GHG emissions and removals, countries have to compile a national GHG inventory which is then reported to the UNFCCC Secretariat. In PNG, this function will be assumed by the new Office of Climate Change and Development.

PNG's national GHG inventory will be constructed following the methodologies developed by the IPCC in its 2006 Guidelines. The initial objective will be to report GHG estimates at Tier 2 in two to three years, but the GHG inventory unit will aim at reaching Tier 3 around 2020.

A key function of the office responsible for compiling the national GHG inventory is quality assurance and quality control (QA\QC) of data and methods. The OCCD will therefore work as the national entity in charge of verifying data provided by the other two MRV components: the SLMS and the NFI. These functions will be carried out following IPCC guidelines on quality control (QC) and quality assurance (QA).

In order to ensure the transparency of the entire MRV process, all data PNG will use in its national system will be publicly available through a web-based portal. The land data from the SLMS will be distributed through a WEB-GIS system.

MRV Control Service

In addition to the three technical components of the MRV system above, ensuring that all technical and institutional arrangements related to REDD-plus in PNG are implemented is a critical component of the overall system. The OCCD will therefore closely work with the National Climate Change Committee to ensure that the necessary technical capacity for establishing an MRV system and for the design and implementation of REDD-plus related policies, measures and activities, is developed.

The NCCC will therefore commission regular audits, to be carried out by an independent third party, to monitor progress in system development and to verify the results of the REDD-plus activities. It further ensures that policies, measures and activities implemented for REDD-plus respect relevant safeguards and are compliant with PNG's development plans.

3.4. REDD-plus related Initiatives in PNG

Papua New Guinea – Australia Forest Carbon Partnership

The Prime Ministers of Australia and Papua New Guinea established the Papua New Guinea-Australia Forest Carbon Partnership on 6 March 2008. Under this Partnership, Papua New Guinea and Australia have agreed to cooperate in three main areas: policy dialogue on national and international REDD-plus policy; increase PNG capacity in forest carbon monitoring and assessment; and cooperation on participation in international carbon markets, including on REDD-plus demonstration activities. As announced at the PNG-Australia Madang Ministerial Forum, Australia is contributing up to \$3 million in initial funding which will include technical, scientific and analytical support for the design of Papua New Guinea's carbon monitoring and accounting systems. This Partnership represents one of the support windows under the Australian Government's A\$273m International Forest Carbon Initiative (IFCI). Other IFCI windows of direct relevance to PNG are:

- An allocation for NGOs to develop concepts for demonstration activities to inform the development of a national REDD+ framework—this work is nearing completion, with four of the five NGO concepts presented to the Government of Papua New Guinea in July 2010.;
- The Asia Pacific Forestry Skills and Capacity Building Program.

Australia has worked with the GoPNG to identify an initial package of assistance under the PNG-Australia Forest Carbon Partnership. It aims to:

- Build the capacity of GoPNG institutions to articulate and implement national climate change policies that meet relevant international standards;
- Build the capacity of GoPNG and other relevant institutions to develop a robust national carbon monitoring and accounting system;
- Support GoPNG to engage in international dialogue on REDD-plus.

GoPNG has requested that the Forest Carbon Partnership work plan be updated which is under consideration by officials. It is envisaged that the updated work plan would complement the REDD readiness efforts covered under the National Joint Programme by lending support to areas that are not comprehensively covered in the NJP.

Global Environment Facility (GEF) Support for Sustainable Forest Management

PNG is developing a Forest and Coastal Conservation and Natural Resource Management project with the assistance of UNDP, as an element of the GEF's Pacific Alliance for Sustainability, specifically under the Forestry and Terrestrial Protected Areas component. The objective of the project will be to develop and demonstrate resource management and conservation models for landholding communities that effectively incorporate community conservation areas. The key outcome will be the extent of high conservation value terrestrial and marine area which is brought under community-based conservation and protected areas at targeted sites.

Japan International Cooperation Agency (JICA)

With the support of a PGK 20 million (700 million yen) grant from the Japanese government, PNGFA is aiming to improve its remote sensing and GIS capabilities. The grant comes under the forestry preservation program (FPP), and was signed by the Government of Japan and GoPNG on March 19, 2010. The main objectives of the project, which focuses on software and hardware equipment, but includes training of staff from all relevant collaborators, are:

- Update the forest resource information of the country;
- Strengthen institutional and capacity building of the PNGFA and other collaborators in assessing changes in forest cover;
- Support PNG's capabilities to report its GHG emissions to UNFCCC.

The funds will be used to purchase equipment and soft (non-physical) components which may include:

- The Japanese Aerospace Exploration Agency (JAXA) remotely sensed data;
- ALOS Satellite Imagery
- Geographical Information System (GIS) related equipment, computer hardware, software/licensing & software upgrading;
- Ground truthing instruments; and
- Training in the use of GIS and processing of ALOS/SPOT data;
- Training PNGFA staff on the Global Positioning System (GPS);
- Field data collection and data processing.

European Union

The European Union (EU) is currently funding activities of UPNG aimed at supporting PNGFA in the implementation of a new climate monitoring network as well as upgrading the forest inventory mapping system. In addition, it is foreseen that two REDD-plus related projects are launched in 2011. These will contribute to remote sensing forest degradation and to improve the productivity and quality of teak plantations.

Moreover, the EU has also been initiating discussions with Papua New Guinea's stakeholders in view of informing of the possibility for implementing a Forest Law Enforcement, Governance and Trade (FLEGT) mechanism.

Finally, additional funds may further be allocated to the sector depending on identification processes to be carried out in 2011.

3.5. The proposed joint programme

The proposed National Joint Programme builds on the Interim NJP draft developed in 2009 and has been updated to reflect progress on PNG's REDD readiness efforts over the past 12 months. It will support the relevant institutions, notably the OCCD, PNGFA and others, in furthering PNG's preparatory for REDD and help develop the capacity to sustainably implement and sustain a REDDplus framework in PNG. The NJP will place strong emphasis on enhancing PNG's capacity and technical infrastructure to effectively measure, report and verify changes in net GHG emissions from activities related to LULUCF.

MRV features as one of the immediate priorities in the CCDS and Interim Action Plan, and it is a critical enabler for PNG's participation in international REDD-plus systems. PNG's national MRV system will be a multifunctional instrument, serving as a guide for social, economic and environmental policies and providing information about forestry-related fields, such as biodiversity, and supporting the monitoring of the REDD-plus safeguards²². The activities under the proposed National Joint Programme will be closely tied into the broader REDD readiness efforts that GoPNG supports with its own resources, and with the help of other development partners.

3.6. Sustainability of results

Over the past year, PNG has made significant progress in building the institutional framework and developing the capabilities to effectively prepare for and manage REDD-plus activities in the country. All activities proposed under the NJP will be embedded in this framework and are concentrating on the priorities emphasized in PNG's draft CCDS and Interim Action Plan. It is therefore ensured that the NJP contributes to the longer-term strategy, framework and priorities that GoPNG is committed to pursue.

In addition, by anchoring the institutional responsibility for the success of the NJP in existing institutions and committees, notably the OCCD and the REDD-plus Technical Working Group for Programme Management, and the National Climate Change Committee for the Programme Executive Board the NJP actively contributes to embedding the results in a broader framework that will last beyond the NJP's implementation period. This is further strengthened by helping to build additional capacities in the areas of REDD readiness and MRV to achieve this goal,

3.7. Links to the UN Country Programme

The UN Country Programme for PNG was one of the world's first Joint UN Country Programmes when it was signed in mid-2007. It introduces new ways of provision of assistance that are in line with the ongoing UN Reform as well as the Paris Declaration on Aid Effectiveness. The overall aim is to simplify and harmonize the way the UN works at country level and to ensure that the UN Country Programme is aligned with and in support of national priorities and that national systems and procedures are utilized for programme delivery which reduces transaction cost significantly.

The UN Country Programme is themed 'Partnership for Nation Building' and encompasses five broad developmental outcomes

 Governance and Crisis Management - Government develops and implements effective governance and crisis management policies

²² FCCC/AWGLCA/2009/17 available at: http://unfccc.int/resource/docs/2009/awglca8/eng/17.pdf

- Foundation for Human Development (Health, Education and Child Protection) By 2012, children, youth, women and men benefit from basic quality health, education and protection.
- Sustainable Livelihoods and Population By 2012, rural communities in selected provinces of each region use improved sustainable livelihood practices.
- Gender By 2012, women and girls experience fewer gender inequalities in PNG
- HIV and AIDS By 2012, the rate of HIV and AIDS infection is halted or reduced and government provides services to those people with, and affected by, HIV and AIDS.

This NJP is one of three programmes under the Sustainable Livelihoods Programme developed to achieve the following Intermediate Outcome: *"Communities apply national policies and regulatory frameworks to implement environmentally sustainable livelihood opportunities, including community based ecotourism, non-timber forest products, sustainable agriculture and ecoforestry."* The proposed UN-REDD NJP supports the activities required to achieve the first output by supporting the GoPNG's efforts to build the capacities needed to effectively develop climate change policy and coordinate activities to address initiatives on climate change.

4. Results Framework

The main objective of this NJP is to refine and implement a full MRV roadmap for PNG that will drive country actions to obtain a fully operational monitoring system by the end of 2012 that supports PNG's overall REDD framework and readiness efforts.

The activities under the NJP will be closely tied to the broader set of REDD readiness priorities undertaken by the OCCD and GoPNG, as outlined in section 3.2. The NJP will also be closely linked to and implemented with the additional support of AusAID, JICA and other development partners.

Outcome 1 – Readiness Management Arrangements in Place

The UN-REDD NJP will support the GoPNG, particularly the OCCD, in furthering its capacities and advancing REDD readiness activities. The outcome builds on and complements the efforts of GoPNG outlined above. Indicative activities contributing to this outcome will include:

- Assistance to the OCCD for liaising with other REDD-plus initiatives and linking the NJP to additional programmes;
- Strengthening of the National Joint Programme through the support of a NJP manager.

Both support positions will be fully embedded into the OCCD's line organisation and hired by the OCCD to ensure GoPNG ownership of the NJP and capacity building in programme management.

Outcome 2 – National MRV system developed

The core of the NJP will focus on the establishment of a measurement, reporting and verification system for net GHG emissions from LULUCF through an open and transparent international procurement process. Activities under this outcome are preliminary and may change based on the ongoing Expression of Interest process for a PNG National MRV system which will help to shape the design and setup of a National MRV system in PNG. The system will build on existing components for MRV in the country and develop and strengthen capabilities in a whole-of-government approach. It will complement the activities funded by other donors, particularly the hardware and software of a satellite monitoring system funded by JICA. Indicative activities under this outcome are:

- Establishment of an operational wall-to-wall satellite monitoring system that allows PNG to report LULUCF activity data and supports national and sub-national REDD implementation, including development and implementation of
 - Methodologies to assess land use and land use changes using Landsat class data;
 - Real-time methodologies to monitor canopy cover changes, deforestation and active fires;
 - A GIS platform and web-GIS portal for data visualization and distribution;
- Establishment of a multipurpose national carbon forest inventory in line with UNFCCC reporting requirements that builds on and expands existing efforts to measure carbon stocks, e.g. the existing permanent sampling plot system by FRI and PNGFA;
- Development of a National GHG Inventory;
- Technical advice and support to carry out the activities above, also including a transparent mechanism for quality assurance and control of the MRV system and the data generated;
- Institutional support to OCCD to enhance the office's capabilities related to an MRV system and the reporting of net GHG emissions through the secondment of a 'director shadow' to the OCCD Director MRV & National Communication who would provide content, meeting management and process management support to the Director and act as coach (see also Annex 3).
Outcome 3 – Historical drivers of deforestation assessed

The UN-REDD NJP will support the assessment of methodologies for historical emissions levels from deforestation. Indicative activities under this outcome include:

- Assessment of past drivers of deforestation, including spatial analysis;
- Test and refinement of MRV methodology (Outcome 2) using available historical emission data;
- Review of methodologies for establishing Reference Emission Levels (REL) and Reference Levels (RL);
- Compilation of data to support the development of REL and RL.

Outcome 4 – Monitoring of abatement concepts supported

The NJP will support capacity development for the implementation, monitoring and enforcement of forestry abatement levers among all relevant stakeholders, i.e. GoPNG, and particularly PNGFA, the private sector, landowners and civil society. Efforts will include training, implementation and evaluation of abatement lever benefits, and piloting the MRV of abatement levers on the ground. The initial focus will include, but not be limited to, the areas of Reduced-Impact-Logging (RIL) practices, Sustainable Forest Management and forest conservation, and also include Afforestation and Reforestation. PNGFA has already commenced with preparing pilot activities in these areas, including outside support, e.g., through ITTO. Indicative activities under this outcome are:

- Develop and deliver comprehensive training in a training of trainers concept for PNGFA and pilot concessions leveraging local vocational and other training capacities;
- Support for piloting abatement levers, including implementation in pilot areas (concessions) and monitoring and verifying results.

Outcome 5 – Stakeholders aware of REDD-plus activities and opportunities in PNG

The NJP will contribute to build awareness and capacity among all domestic stakeholders, particularly at the provincial and community level, to understand and support GoPNG's efforts and progress to establish a REDD-plus framework in PNG. The component is critical for the success of REDD readiness activities. NJP support complements Indicative activities under this outcome include:

- Develop and agree on guidelines for stakeholder engagement including the formal agreements for technical, advisory and public consultation levels;
- Facilitate a constructive and reciprocal dialogue between national multi-stakeholder groups, OCCD/GoPNG and development partners, e.g., through the development of outreach material.

Table 4: Results Framework

JP Outputs	UN Agency	Partner	Indicative activities for each Output		Ame	ount US\$	
Outcome 1. Readiness M	Arrangeme	2011	2012- 2013	Total	Support by UN- REDD		
1.1 Management arrangements between GoPNG and Development Partners strengthened	UNDP	OCCD	 Assist the OCCD in liaising with other REDD initiatives, in particular the PNG-Australia Forest Carbon Partnership Assist the OCCD in carrying out PEB and PMC meetings 	30,000	70,000	100,000	100,000
1.2 Joint Programme Implementation strengthened	UNDP	OCCD	 Provide support through NJP Manager Facilitate knowledge sharing with UN-REDD countries including other regional and international experiences 	180,000	40,000	220,000	220,000
Outcome Sub-Total				210,000	110,000	320,000	320,000
Outcome 2. National MR	V system de	veloped		2011	2012- 2013	Total	Support by UN- REDD
2.1 Satellite Forest Land Monitoring Systems	FAO	PNGFA/ DLPP/ OCCD	 Establishment of an operational wall-to-wall system based on satellite remote sensing data Design a monitoring methodological approach to support the implementation of REDD at sub-national scale Training in forest land monitoring methodology Develop a near real time monitoring system 	1,600,000	2,000,000	3,600,000	1,200,000
2.2 Multipurpose national carbon forest inventory	FAO	FRI/ PNGFA	 Development of measurement protocols and sampling design for a national forest carbon survey, building on the existing permanent sampling plot system. The system design will be driven by UNFCCC reporting requirements, Institutional capacity needs assessment Adequate institutional capacity established to undertake regular forest carbon monitoring and reporting consistent with REDD information needs Training in forest inventory methodology 	2,000,000	2,000,000	4,000,000	2,100,000
2.3 National GHG Inventory	FAO	OCCD	 Institutional capacity development Training on IPCC GHGs inventory methodology 	500,000	800,000	1,300,000	750,000
2.4 Technical advice and implementation support	FAO	OCCD/ PNGFA	 Technical advice and support covering the activities outlined above for the institutions involved in the national MRV system 	150,000	300,000	450,000	450,000
2.5 Technical advice to the OCCD, and other relevant institutions	FAO	OCCD	Provide support through international 'director shadow' for Director MRV & National Communication	150,000	150,000	300,000	300,000
Outcome Sub-Total				4,400,000	5,250,000	9,650,000	4,800,000

Outcome 3. Historical d	lrivers of d	eforestatio	on assessed	2011	2012-2013	Total	Support by UN-REDD
3.1 Assessment of historical drivers of deforestation	FAO	PNGFA/ OCCD	 Assessment of past drivers of deforestation Test and refinement of MRV methodology (Outcome 2) using available historical emission data Review of methodologies for establishing REL and national reference emission levels Compilation of data to support development of REL 	100,000	200,000	300,000	300,000
Outcome Sub-Total				100,000	200,000	300,000	300,000
Outcome 4. Monitoring	of abatem	ent concep	ots supported	2011	2012-2013	Total	Support by UN-REDD
4.1 Capacity develop- ment for monitoring and implementation of priority abatement levers	FAO	PNGFA/ OCCD			200,000	350,000	350,000
Outcome Sub-Total				150,000	200,000	350,000	350,000
Outcome 5. Stakeholders engaged in PNG's REDD readiness process				2011	2012-2013	Total	Support by UN-REDD
5.1 Framework for stakeholder engagement processes in place	UNDP	OCCD	 Develop and agree on guidelines for stakeholder engagement including the formal agreements for technical, advisory and public consultation levels Facilitate a constructive and reciprocal dialogue between national multi-stakeholder groups, OCCD/GoPNG and development partners, 	850,000	1,050,000	1,900,000 ²³	200,920
Outcome Sub-Total				850,000	1,050,000	1,900,000	200,920
Total	Program	me Cost		5,710,000	6,810,000	12,520,000	5,970,920
SUMMARY COST BY AG	ENCIES						
FAO	Programme Cost						5,450,000
	Indirect Su	upport Cost					381,500
UNDP	Programm	e Cost					520,920
Indirect Support Cost							36,464
Total Programme Cost							5,970,920
	Indirect S	Support Co	ost				417,964
	Total Cos	t					6,388,884

²³ Includes full requested OCCD budget for stakeholder engagement processes

5. Management and Coordination Arrangements

5.1. Overall Arrangements for the UN-REDD Programme

Policy Board

The UN-REDD Policy Board provides overall leadership and sets the strategic direction of the UN-REDD Programme. It decides on Programme financial allocations, in line with the budget parameters set out in the UN-REDD Framework Document, and develops monitoring mechanisms, with a view to ensuring Fund-wide success. The UN-REDD Policy Body will ensure coordination with REDD actors at a global scale, such as the World Bank's FCPF participants' committee.

UN-REDD Secretariat

The UN-REDD Secretariat serves the Policy Board, using the capacities of the participating UN organizations, research institutions and recognized experts. It ensures policies and strategies decided by the Policy Board are implemented and adhered to. The Secretariat will manage the national joint programme review process. It will also manage the UN-REDD's overall monitoring and evaluation function which includes *inter alia* monitoring allocations to and delivery by the country joint programmes, and tracking Programme-wide progress and ensuring that monitoring mechanisms are applied.

The Secretariat's main roles can be summarised as follows:

- Policy Board support
- Partner and external relations
- Quality assurance and oversight of national joint programmes
- Quality assurance and oversight of the International Support Functions described in the Global Joint Programme (hereafter referred to as the "Global Joint Programme")
- Monitoring and knowledge management

Participating UN Organizations' Coordination Group

The Participating UN Organizations' Coordination Group consists of representatives of the three UN agencies: FAO, UNDP, and UNEP. The Coordination Group will have the main function in ensuring active, participatory and well-coordinated engagement by the agencies to implement the goals and objectives of the overall UN-REDD Programme, as well as to provide oversight of the Secretariat consistent with the strategic directions and decisions provided by the Policy Board.

Administrative Agent

The UNDP Multi-Donor Trust Fund (MDTF) Office is the Administrative Agent of the UN-REDD Fund. The MDTF Office manages the distribution of resources and serves as the administrative interface with donors. UNDP's accountability as the Administrative Agent is set out in the policy "UNDP's Accountability when acting as Administrative Agent (AA) in MDTFs and/or UN Joint Programmes using the pass-through fund management modality".

The MDTF Office as AA will is responsible for:

- Receipt, administration and management of contributions from donors;
- Disbursement of funds to the Participating UN Organization, in accordance with the instructions of the UN-REDD Policy Board;

- Provide support to FAO, UNDP and UNEP in their reporting functions;
- Compilation of consolidated narrative and financial reports to the Policy Board through the UN-REDD Secretariat, national steering committees and to donors.

The Administrative Agent may undertake additional functions at the request of the Participating UN Organizations. The Administrative Agent will charge a one-time fee of 1 percent for fund administration and fiduciary responsibilities which will be provided in advance on the basis of Programme Documents budgets approved by the Policy Board.

5.2. Management Arrangements at the National Level

This UN-REDD NJP and associated Annual Work Plan (AWP) are an integral part of the overall UN Country Programme (UNCP) Action Plan. The UNCP Action Plan provides the overall legal framework and the relevant management arrangements, which will apply to this AWP. The "Implementing Partner" (referred hereunder as the "Designated Institution") of this Programme will be the OCCD. The OCCD Executive Director will direct the programme and carry overall accountability for the programme to the GoPNG and to the UN agencies as National Programme Director (NPD). The overall programme and each specific activity will be implemented under the leadership of the GoPNG, represented by the NPD. It is envisaged that the NPD is then represented by the National Programme Manager in the UN's Environment and Sustainable Livelihoods Task Team.

Fund management will use the pass-through modality.²⁴ The funds from UN-REDD will be passed through from the Administrative Agent, i.e. the MDTF, to the Participating UN Organisations in accordance with the MOU between UN-REDD and the Multi-donor Trust Fund Office.²⁵

The Programme will be managed in accordance with the 2003 UNDG Guidance Note on Joint Programming. It will be executed by several "National Implementing Agencies", including the OCCD, the PNGFA, Provincial and District agencies, through the participating UN organizations UNEP, FAO, and UNDP. Each of those Implementing Agencies is accountable to the participating UN organization relating to the funds released for the delivery of a specific set of outputs and for management of inputs. Specialized service delivery costs for programme and project implementation may be charged directly to the Joint Programme, in accordance with the respective Participating UN Organizations' policies, but such costs will amount to no more than 6 percent of the Participating UN Agency's budget allocation.

²⁴ www.undg.org/archive_docs/3642-Finalized_Guidance_Note_on_Joint_Programming__complete_.doc

 $^{^{25}\,}http://www.undp.org/mdtf/UN-REDD/docs/UN-REDD-MOU.pdf$

EXHIBIT 16 – UN-REDD PNG NJP Management Arrangements



Programme Executive Board (PEB)

A Programme Executive Board will be established. The PEB will be jointly chaired by the Chief Secretary as Chair of the NCCC and a designate of the UN Resident Coordinator, and will include representatives of the UN agencies involved in the UN-REDD NJP; members of the NCCC, including the National Programme Director (Secretary); representatives of Indigenous Peoples' and Civil Society Organizations; and representatives of the private sector. The PEB will initially meet quarterly, for at least the first three quarters of project implementation, and thereafter at intervals required to ensure effective project implementation. The PEB will be responsible for the effective coordination of the programme, the approval of all detailed work plans, budgets, and overall monitoring and evaluation of progress made. PEB decisions will be reached by consensus. Specific responsibilities of the PEB include:

- Reviewing and adopting the Terms of Reference and Rules of Procedures of the PMC and/or modify them, as necessary (Generic Terms of Reference can be found on the MDTF website);
- Approving the final Joint Programme Document before submission to the UN-REDD Policy Board;
- Approving the strategic direction for the implementation of the Joint Programme within the approval by the UN-REDD Policy Board;
- Approving the documented arrangements for management and coordination;
- Acting as AWP Steering Committee, i.e. approving the annual work plans and budgets as well as making necessary adjustments to attain the anticipated outcomes;
- Reviewing the Consolidated Joint Programme Report from the Administrative Agent and provide strategic comments and decisions and communicate this to the Participating UN Organizations;
- Suggesting corrective action to emerging strategic and implementation problems;
- Creating synergies and seeking agreement on similar programmes/ projects by other donors;
- Approving the communication and public information plans prepared by the PMC.

Programme Management Group/Committee (PMC)

The existing REDD-plus Technical Working Group, chaired by the OCCD and comprising members from relevant GoPNG departments, civil society and the private sector, will act as Program Management Group/Committee (PMC), with the participation of members at the working level of the UN agencies that form part of the UN-REDD NJP. The REDD-plus Technical Working Group will meet as PMC once a month to share progress made and find solutions for common issues. The responsibilities of the PMC will include:

- Ensuring operational coordination;
- Managing programme resources to achieve the outcomes and output defined in the NJP;
- Establishing adequate reporting mechanisms in the programme;
- Integrating work plans, budgets, reports and other programme related documents;
- Providing technical/substantive leadership regarding the activities envisaged in the Annual Work Plan;
- Agreeing on re-allocations and budget revisions and making recommendations to the NSC as appropriate;
- Addressing management and implementation problems;
- Identifying emerging lessons learned; and
- Establishing communication and public information plans.

National Programme Director (NPD)

The Executive Director of the OCCD will assume the role of National Programme Director (NPD). As well as being responsible to the GoPNG, the NPD will also be responsible to the UN Resident Coordinator for overall delivery of the programme, as well as serving as Secretary to the PEB.

Deputy National Programme Director (DNPD)

The OCCD Director REDD-plus and Mitigation will assume the role of Deputy National Programme Director (DNPD). The DNPD will be responsible for ensuring that the responsible UN agencies and implementing partners organise and deliver results according to the results framework (Table 4). The DNPD will also be responsible for maintaining regular contact with other development partners to ensure that the PNG UN-REDD programme responds to new initiatives developed by those partners.

Programme Management Unit (PMU)

The day-to-day management of the programme, including the preparation of annual and threemonthly work plans, and financial and programmatic reports work will initially be led by a Programme Manager to be funded out of the UN-REDD NJP. The Programme Manager's work will be guided by the CCDS. He/she will be selected in a joint recruitment process between the OCCD and UN agencies. The Programme Manager will report to the Deputy National Programme Director and work closely with OCCD's divisions 'REDD-plus and Mitigation' and 'MRV and National Communication' which act as programme management unit (PMU). The PMU will work in close collaboration with the partners responsible for the implementation of outputs, such as PNGFA and its division FRI, DEC, DLPP and others.

UN Resident Coordinator

The Resident Coordinator shall keep Country Team members fully-informed on UN-REDD activities. Involvement of the Government in the deliberations concerning the programme activities in the country is also crucial. The UN-REDD Programme also looks to Resident Coordinators to reach out to NGOs, CSOs, national governments and non-resident UN agencies, where appropriate.

The UN Resident Coordinator will provide ongoing oversight to the NJP at the national level, ensuring the participating UN organizations are meeting their obligations. The Resident Coordinator is entrusted with supporting the overall programme design under the government's leadership, ongoing programmatic oversight of the UN-REDD activities and UN coordination with the OCCD. The Resident Coordinator also facilitates ongoing monitoring and evaluation of UN-REDD activities in conformity with UN standards. On receipt of consolidated country level reports, the Resident Coordinator will provide an overall assessment of the programme's progress and results. He/she will also facilitate ongoing monitoring and evaluation of Fund-supported activities in conformity with UN standards by the UN-REDD Secretariat or Policy Board.

5.3. Cash Transfer Arrangements and work planning and budgeting

In the Case of all three UN Agencies, cash transfers will be according to the UN Harmonized Approach to Cash Transfers. The specific modality of cash transfers will be determined on the basis of a joint micro-assessment to be conducted by ExComm agencies.

The PMU will be responsible for preparing a quarterly work plan (QWP) using a unified work plan format and covering activities and inputs under all three Participating UN Agencies, and (after the first quarter of implementation) a unified report on activities and expenditures during the previous quarter, disaggregated by participating UN Agency. The QWP will be accompanied by a quarterly budget table, disaggregated by responsible Participating UN Agency, as specified in chapter 9, above, and for identifying specific procurement and recruitment activities to be undertaken by the National Implementing Partners and Participating UN Agencies. The QWP and budget will be reviewed and agreed among the three UN Agencies and the NPD. Taking into account the financial report of the preceding quarter, and any cost savings or overruns reported therein, funds for those activities will be allocated by each responsible agency. The legal basis for fund transfer will be in accordance with agency financial rules and regulations.

6. Fund Management Arrangements

The UN-REDD Collaborative Programme utilizes the 'pass-through' modality for fund management. Participating UN organizations, in this case FAO, and UNDP, assume full programmatic and financial accountability for the funds received from the Administrative Agent.

Each Participating UN Organization shall decide on the execution process with its partners and counterparts following the organization's own regulation and rules. National governments, Regional Development Banks and NGOs can receive funding through a Participating UN Organization and act as executing agencies. Participating UN Organizations shall be entitled to deduct their indirect costs on contributions received according to their own regulations and rules, taking into account the size and complexity of the particular programme. Any indirect costs will be reflected in the Joint Programme submitted to the UN-REDD Secretariat. Indirect costs will not exceed 7 percent of the project budget. These costs cover general oversight, management, and quality control, in accordance with its financial regulations and rules. Parties to the NJPP commit to negotiate appropriate fees charged and services provided. Specialized service delivery costs for programme and project implementation may be recovered directly, in accordance with the respective Participating UN Organizations' policies.

Each Participating UN Organization will use the funds disbursed to it by the Administrative Agent from the UN-REDD Programme MDTF to carry out the activities for which it is responsible as set out in this document as well as for its indirect costs. The Participating UN Organizations will commence and continue to conduct operations for the UN-REDD Programme as set out in the UN-REDD MOU or as instructed by the UN-REDD Policy Board. The Participating UN Organizations will not make any commitments above the approved budgets, as amended from time to time by the Policy Board. If there is a need to exceed the budgeted amounts, the Participating UN Organization concerned will submit a supplementary budget request to the UN-REDD Policy Board, through the UN-REDD Secretariat.

The Administrative Agent will ensure consistency of the approved Joint Programme with the applicable provisions of the Standard Administrative Arrangements (SAA) entered between donors and the Administrative Agent, and the MOU between the Participating UN Organizations and the Administrative Agent.

Funds will be released in accordance with the UN-REDD Programme Rules of Procedure. These procedures require the UN-REDD Secretariat to submit the following to the Administrative Agent:

- Copy of the signed NJP document with the approved budget
- Submission Form, signed by the Chair of the Policy Board.

Upon receipt of the necessary documentation, the Administrative Agent shall release funds to the Participating UN Organizations as set out in Section II of the Memorandum of Understanding for the Multi-Donor Trust Fund (available at <u>www.undp.org/mdtf/UN-REDD/overview.shtml</u>). The Administrative Agent shall notify the Participating UN Organizations and the UN Resident Coordinator when the funds have been transferred. Each Participating UN Organization shall establish a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent.





The OCCD prepares substantive progress reports on a quarterly basis and submits these for review and approval to the PEB. Within the context of the Harmonized Approach to Cash Transfers (HACT), the OCCD will manage the implementation of this AWP and, in accordance with the UNCP Action Plan, ensure appropriate agreements are prepared and signed with the Responsible (third) Party, in cases where the implementation of certain activities is being outsourced. The OCCD will use the form called Funds Authorization and Credit Expenditures (FACE) to financially report on the PEB, also on a quarterly basis. Depending on the cash transfer modality, this quarterly financial report includes the request for funds for the next quarter. Also, the procurement of the outsourced activities, the achievement of the results envisaged by them and the appropriate use of resources, remain the responsibility of the OCCD.

As an initial step to implement HACT, the OCCD is subject to a Micro Assessment conducted by a selected audit firm. By signing this NJP, OCCD reaffirms its commitment to the Micro Assessment and the subsequent recommendations, including decisions pertaining to the appropriate cash transfer modality and assurance activities.

7. Monitoring, Evaluation and Reporting

The Joint Programme Monitoring Framework will be developed during the finalisation and approval/signature of the NJP document. It will be cleared by the UN-REDD Secretariat. Table 5 below provides a preliminary framework.

Expected Results (Outcomes & outputs)	Indicators (with baselines & indicative timeframe)	Means of verification	Collection methods (with indicative time frame & frequency)	Responsibilities	Risks & assumptions
Outcome: PNG has an operational Measurement, Reporting and Verification system that enables the country to manage its forest resources effectively and allows PNG's participation in international REDD- plus systems to protect its environmental resources and contribute to sustainable livelihood practices of rural communities Output: OCCD and other GoPNG organizations have the capacity to measure and report GHG emissions from LULUCF	 Climate-Compatible Development Strategy is made available Tender(s) for components of the MRV system have been carried out Drivers of GHG emissions from LULUCF have been assessed Remote sensing data is made available publicly # of awareness raising workshops conducted to the general public on REDD # of consultations conducted involving community based organization, landowners, the private sector and government to discuss on REDD implementation 	 GoPNG CCDS PEB minutes Programme/Project Progress Reports Stakeholder Consultation Workshop Reports Technical Working Group minutes 	 Once Quarterly Quarterly As carried out Bi-weekly/monthly 	UN – Quarterly Monitoring UN- Annual Work Plan Steering Committee Meeting	 Limited technical and operational capacity of PNGFA and OCCD coordinate and operate a full MRV system. Future of REDD remains uncertain until Post-Kyoto is deliberated and could have an impact on the success and interest in moving forward the REDD agenda nationally and internationally. Limited understanding of REDD and how it could work in the PNG context as well as the complexity surrounding landowner issue may slow progress and create tensions amongst differing beneficiaries.

Table 5: Joint Programme Monitoring Framework (JPMF)
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7.1. Monitoring of risk

Each regular meeting of the PMC will review the Risk Log (see Table 6). In the case of any risks for which the PMC concludes that the risk status, or the probability or impact scores need to be amended, the PMC will recommend whether the existing Counter Measures/Management Response remain adequate or need to be amended also. The revised Risk Log will be sent to all participating UN agencies as soon as possible after the PMC meeting.

Table 6: RISK LOG: UN-REDD Programme for PNG	

RISK TYPE	RISKS (threats & opportunities)	Risk impact score ²⁶	Risk probability score ¹	Proposed Action
Social	1. Tribal community systems and land- owner rights are highly complex & unpredictable and may be counterproductive to the development of ground truthing elements for the MRV system, to transparent and equitable ways of benefit/revenue sharing, as well as to effective community-based forest conservation programs.	4	5	 Establish clear framework for effective community outreach and awareness building Ensure sufficient resources for land owner information and consultation in all activities of the NJP at the local level (e.g., ground truthing)
	2. Target communities' extreme poverty, low education levels, and being unacquainted with external aid programs may lead to large REDD start-up problems and delays, as well as introduce vulnerability to non-equitable practices.	5	4	Same as above: put adequate resources into community organization, outreach and development.
Financial	1. Non-compliance in areas of REDD-plus will impact transparent and equitable disbursement mechanism to land owners.	4	4	Establish independent equitable & verifiable payment distribution mechanism, monitored by both a National Multi-stakeholder Board as well as donors.
	2. High overhead costs for national REDD management and oversight, and for REDD projects may excessively reduce cash benefits to carbon sellers land owners.	3	4	Incorporate cost-recovery mechanisms for the OCCD and other REDD management actors from non CER sources (government forestry fees, donors, voluntary market schemes, etc)

²⁶ 1 very low; 2 low; 3 medium; 4 high; 5 very high

Operational	1. Weak information supply and low level of REDD awareness may lead to wrong expectations, loss of stakeholders' trust and wrong REDD approaches (PNG REDD programs runs ahead of basic awareness requirement levels)	4	4	Sustain and expand national REDD-plus consultation and communications campaign, involving education, training and social marketing approaches (2011- 2013)
Organizational	1. Weak local government governance systems & capacity, and little decentralized program experience will prevent proper project uptake, performance and monitoring on sustainable forest management/REDD program elements (e.g. Provincial Forest Management Committees)	4	5	Project will have to invest in a major human resource development programs.
	2. The OCCD is not adequately receptive to broad-based support arrangements and working with a range of sector agencies and non-governmental organizations, which may prevent enhanced forest governance and community development systems.	4	2	 Link all aspects of support with the operations of the OCCD, clearly identify how broad-based support assists OCCD Integrate NJP into work of Technical Working Groups managed by the OCCD.
	3. Donor assistance is mobilised too slowly to meaningfully contribute to UNFCCC negotiations, and momentum on National REDD Program planning dialogue is lost	3	4	 Mobilise basic TA to maintain ongoing dialogue Organise regular donor coordination missions; and continued engagement through donor in-country offices.
	4. GoPNG seeks to intervene too much in endorsement of carbon market players – risks false security to landholders and difficulty in access by transparent operators	4	3	 Establish national REDD policies and legislation in carbon finance prior to engagement Adopt national REDD standards and procedures such as e.g. the Community Carbon and Biodiversity Standards (ver.2)
	5. Lack of transparency in selection of demonstration activities and their linkages with the private sector	3	2	Development of a set a transparent criteria for selection of demonstration activities, led by the OCCD and Technical Working Groups (ongoing).

Political	1. Need for policy harmonization as well as political will to review e.g. 'high impact projects', expiring Forest Management Agreement areas and to cancel ongoing logging concessions/agricultural leases may reduce prospect for REDD projects.	5	4	 PNG government to consider a moratorium on new logging concessions, agro-forestry programs until legality, REDD eligibility and forest status have been confirmed. National REDD Communications Program to target politicians and decision makers through social marketing. NEC endorsement of National REDD Policy, including the reduction of deforestation from commercial logging.
	2. Need to acknowledge the authority of PNGFA on forest matters in any national REDD program	4	3	OCCD to establish partnership with PNGFA
	3. Political change means OCCD is disbanded	4	3	Ensure support broad based and shared among a range of relevant institutions (e.g. DEC, PNGFA, NGOs where appropriate, UPNG)
	4. OCCD continues to exist but institutional architecture is further amended in near term	2	3	Ensure support broad based and shared among a range of relevant institutions (e.g. DEC, PNGFA, NGOs where appropriate, UPNG)
	5. Other government departments such as DEC resists cooperation with OCCD		3	 Encourage whole-of-government approach Ensure existing ASF advisory support in line- agencies is supportive of engagement with OCCD
Regulatory	1. PNG policy direction, in particular on carbon accounting, does not meet international standards	4	2	 Focus on areas of agreement, engage where possible on carbon accounting Build trust through ongoing engagement and preparedness to support existing efforts
Strategic	1. PNG REDD program has yet to specify steps towards maximizing biodiversity conservation benefits and as such may miss its Environmentally Sustainable Economic Growth target: "reduce biodiversity loss, by 2010, a significant reduction in the rate of loss".	3	3	 Develop a Priority Setting Tools and Mechanisms, backed by national policy support through the UN- REDD Program. Incorporate biodiversity data and targets in planned development of REDD project criteria

	2. Climate change sector is so highly politicized that robust policy dialogue is meaningless	3	2	Continued engagement with non-Government sector, and broadly at the officials level across government
	3. Donor assistance is not coordinated	3	1	 Continual donor engagement, support for OCCD to convene a donor partner's forum Sharing of key documentation among donors Regular dialogue both in-country and in international fora on progress on donor support programs in PNG
Other	1. Lack of PNG forest scientific capacity to provide applied research to REDD (opportunity costs REDD, co-benefits, NTFP, SFM etc)	3	4	 Strengthen FRI through partnerships on REDD research; Sub-contract UPNG Scholarships, secondment programs
	2. Unknown procedures, methodologies and decision mechanism to establish and communicate REDD-project carbon values and opportunity costs may weaken fair distribution of payments and other benefits (sub-national and project REDD accounting).	4	2	Design and integrate site valuation, opportunity costing, and standardized carbon estimates into REDD module criteria, contract procedures (land owners with government), payment distribution guidelines, as well as M&E systems
	3. Private sector moves quickly into voluntary market arrangements, VCS undermines development of national baseline approach	3	4	Continue engagement with private sector on planned investments / engagement
	4. Misinformation to landholders results in detrimental contractual agreements being made by landowners	5	4	National Communications Campaign with targeted information to land owners
	5. Plant taxonomic skills FRI to be utilized for REDD forest monitoring program (opportunity)	3	3	Involve FRI staff in proposed National Multi-purpose Forest Inventory program

Annual/Regular reviews

Activities carried out by the Participating UN Organization shall be subject to internal and external audit as articulated in their applicable Financial Regulations and Rules. In addition, the UN-REDD Secretariat will consult with the Participating UN Organizations on any additional specific audits or reviews that may be required, subject to the respective Financial Regulations and Rules of the Participating UN Organizations. Participating UN Organizations will provide a summary of their internal audit key findings and recommendations for consolidation by the MDTF Office and submission to the Policy Board and National REDD Committee as applicable.

GoPNG, particularly the Executing Agency, or Lead Implementing Partner, and the Participating UN Organizations, shall jointly conduct scheduled/annual planning and review meetings for all activities covered in the results framework, monitoring and evaluation plan and work plans covered by this Joint Programme. This will include an assessment of the risks and assumptions to determine whether they are still holding.

Evaluation

The UN-REDD Secretariat will establish an Evaluation Plan which ensures that all programmes supported by the UN-REDD Programme will undertake a final evaluation, which will assess the relevance and effectiveness of the intervention, and measure the development impact of the results achieved, on the basis of the initial analysis and indicators described at the time of programme formulation. Furthermore, the UN-REDD Secretariat from time to time shall lead reviews for programmes as necessary.

Reporting

At the national level, the Participating UN Organizations are required to provide narrative reports on results achieved, lessons learned and the contributions made to the Joint Programme. Quarterly progress report (programme and financial results) will be prepared by the PMU and submitted to UN Coordination Office after quality control by the HOA. The information shall be consolidated by the Programme Manager into a narrative report every 6 months. The UN-REDD Secretariat shall provide the Policy Board updates on the implementation progress of the Joint Programme every 6 months, based on information received from the Programme Manager. The UN Resident Coordinator will assist in ensuring the Participating UN Organizations at the country level provide the necessary information. The UN-REDD Coordination Group shall also follow-up with the relevant officers and representatives of the Participating UN Organizations.

The Administrative Agent will provide regular updates on the financial status of the MDTF to the Policy Board, for review and action as appropriate. Participating UN Organizations in receipt of UN-REDD resources will be required to provide the Administrative Agent with the following statements and reports:

- Narrative progress reports for each twelve-month period ending 31 December, to be provided no later than three months after the end of the applicable reporting period;
- Annual financial reports as of 31 December each year with respect to the funds disbursed to it from the Joint Programme Account, to be provided no later than four months after the end of the applicable reporting period;
- A final narrative report and financial report, after the completion of all Joint Programme activities financed from the UN-REDD MDTF, to be provided no later than 30 April of the year following the financial closing of Joint Programme activities;

■ A final certified financial statement, to be provided no later than 30 June of the year following the financial closing of Project activities.

The Administrative Agent shall prepare consolidated narrative progress and financial reports consisting of the reports referred to above submitted by each Participating UN Organization, and shall provide those consolidated reports to the respective Resident Coordinators and subsequently to the UN-REDD Policy Board through the UN-REDD Secretariat.

Subsequently, in accordance with the MOU and the SAA, the Administrative Agent will submit consolidated narrative and financial reports to all UN-REDD Programme donors. Agreed standard UNDG financial and progress reporting formats will be utilised. The Administrative Agent will also submit to donors a certified annual financial statement (Source and Use of Funds).

Information given to the press, to the beneficiaries of the UN-REDD Programme, all related publicity material, official notices, reports and publications, shall acknowledge the role of the UN-REDD donors, the UN Agencies, and any other relevant parties.

Whenever possible and to the extent that it does not jeopardize the privileges and immunities of UN Agencies, and the safety and security of their staff, UN Agencies will promote donor visibility on information, project materials and at project sites, in accordance with their respective regulations, rules, policies and procedures.

8. Legal Context or Basis of Relationship

The Participating UN Organizations (FAO, UNDP and UNEP) have signed a Memorandum of Understanding (MOU) to implement the UN-REDD Collaborative Programme, which came into effect on 20th June 2008 and ends 20th June 2012.

This Joint Programme document is consistent with the cooperation/assistance agreements signed by the lead UN agencies involved in this programme with GoPNG. For the UNDP, this Document is pursuant to the Country Programme Action Plan and the Standard Basic Assistance Agreement (SBAA) it signed with the Government of the PNG on 7 April 1981. All provisions in the SBAA therefore apply to this document. Consistent with Article III of the SBAA, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP"s property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; and
- assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

The **UNDP** reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

On the part of the **FAO**, the FAO Office (UN-REDD Programme) in Rome shall represent the Organization in PNG, and shall be responsible within the limits of the authority delegated to him/her, for all aspects of the Organization's activities in the country. In the effective performance of his/her functions, the FAO representative shall have access to appropriate policy and planning levels of GoPNG in the agriculture and forestry sectors of the economy, as well as to National Planning and the OCCD. He/she shall maintain close liaison with the Government's coordinating agency for external assistance and thereby serve to keep all the appropriate Government agencies fully informed on all aspects of the policies and procedures of FAO's programme in PNG.

For **UNEP**, in line with its position as a non-resident agency with a global mandate for technical cooperation and capacity building, the signed Joint Programme document shall be the legal basis of UNEP's relation with the Government of PNG within the context of this programme. UNEP will work in close coordination with the programme management team.

The Participating UN Organizations agree to undertake all reasonable efforts to ensure that none of the funds received pursuant to UN-REDD are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by Participating UN Organizations do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this programme document.

9. Work plans and budgets

An annual work plan and budget will be produced each year for each Participating UN Organization, subsequent to the decisions of the annual/regular reviews. Each work plan will be approved by the UN-REDD Secretariat and signed by the implementing partners. A work plan for year 1 of the joint programme will be developed during the approval/signature and inception phase of the NJP. For outcome 2 'National MRV system developed', this allows for the evaluation of Expressions of Interest received and their integration into the work plan.

Annex 1 –

Meeting minutes of the REDD+ Technical Working Group



MEETING MINUTES

REDD+ Technical Working Group 14th Consecutive Meeting and Introduction to National Joint Program submission to NCCC

September 22nd, 2010 9 – 11am Secretary's Conference Room, 7th Floor, Somare Foundation

Chairman:Paul Rame (Director, REDD+ and Mitigation, OCCD)Secretary:Eunice Dus (Policy Analyst, REDD+, OCCD)

Purpose

To inform the REDD+ Technical Working Group members on the key points of the fourteenth (14th) meeting held on August 22, 2010 with representatives of the United Nations Development Programme (UNDP), AusAID, European Union (EU), JICA, Department of Treasury, PNG Forest Industries Association (PNGFIA), Papua New Guinea Forest Authority (PNGFA), Office of Climate Change Development (OCCD), World Wide Fund for Nature (WWF), ECO-Forestry Forum (EFF), Department of Lands and Physical Planning (DLPP) and McKinsey.

- Attendance: Paul Rame (OCCD), Martin Baal (OCCD), Danny Nekitel (OCCD), Eunice Dus (OCCD), Peta Mills (AusAID), Ellen Hau-Pati (AusAID), Clement Bourse (EU), Amos Goodwil (PNGFA), Gabriel Samol (PNGFIA), Steve Nicholls (UNDP), Stanley Wapot (UNDP), Kiren Andrew (Treasury), Thomas Paka (EFF), Justine Ondopa (EFF), Senson Mark (EFF), Matt Leggett (WWF), John Yareki (DLPP), Nesaki Shun (JICA)
- Members Absent: Valentine Thurairajah (UNDP/DEC), Gewa Gamoga (PNGFA), Felix Bablis (NRI), Karen Hiawalyer (DNPM), Daniel Kereka (DNPM), Douglas Maip (DNPM), Iruna Rogakila (DLPP), Timothy Mais (treasury), Udai Pal (NARI), John Demerua (NARI), John Michael (DEC), Barbara Lokes (UPNG Remote Sensing), Ross Sinclair (WCS), Kevin Samuel (Finance), Alex Kana (DPLGA), Cecily Kome (Finance), Jeff Kinch (SPREP), Frank Wickham (SPREP), James Sabi (DEC), Harry Rei (ORD), Thomas Viot (EU), Simon Saulei (FRI/PNGFA), Roy Banka (WWF), Shun Nesaki (JICA), Toru Gomi (Forestry Agency of Japan), Wataru Yamamoto (RECS), Masamichi Haraguchi (Kokusai Kogyo), Hiroki Miyazono (JICA), Stephen Rambe (ORD), Donald Hehona (Treasury), Ben Ngava (Live & Learn), Anjali Brown (Live & Learn), Ian Orrel (OPRA)

AGENDA

- 1. Opening Meeting Objective
 - Debrief from 3rd NCCC meeting
- 2. REDD+ safeguard criteria and approval process
- 3. National Joint Program (NJP)
- 4. Any other business (AOB)
- 5. Next steps and way forward

Expected outcomes of the meeting

- Compile final input for REDD+ safeguard criteria and approval process before the 4th NCCC meeting
- Conduct validation meeting on PNG UN-REDD National Joint Programme (NJP) document and integrate input from stakeholders

SUMMARIES OF KEY AGENDA DISCUSSION

- 1. Opening with member's introduction
- 2. Debrief from 3rd NCCC meeting held on the 27th of August, 2010.

The following were decisions reached in the NCCC meeting

- i) OCCD Corporate Plan
 - > NCCC approved the OCCD vision, mission and workplan
 - > NCCC approved the OCCDs departmental priorities for 2010
- ii) National Consultation Technical Working Group (TWG)
 - NCCC approved the National TWG and agreed to actively participate and support the TWG
- iii) OCCD Budget
 - NCCC approved the OCCDs budget for 2011
 - > NCCC noted and supported the required adjustment for the 2010 budget
- iv) MRV
- Approved the Request for Expression of Interest for a PNG MRV system

Request: AusAID enquired if a copy of the OCCD's budget and corporate plan could be shared as a means to see the Government of PNG's/OCCD's funding priorities for 2011.

3. REDD+ safeguard criteria and approval process

- Safeguard criteria and REDD-plus guidelines critical to ensure the quality and transparent of REDD-plus activities in PNG;
- Proposed criteria and process are designed to accommodate different types of projects through a flexible mechanism, as not all projects are similar in scope, or focus.

- Safeguards include a set of 'must have' criteria which need to be met by all REDD-plus demonstration activities
- So far, written comments have been received from only 2 NGOs
- Safeguard criteria to be distributed for final comments by 28th September, 2010 to ensure they can be integrated into the next NCCC meeting where the safeguards will be discussed

Comments:

EFF Highlighted the importance of safeguarding the interests of the people, and incorporating biodiversity

4. UN-REDD NJP

- ➢ Objectives of NJP : -
 - To refine and implement a full MRV roadmap for PNG that will drive country actions to obtain a fully operational monitoring system by the end of 2012
 - > To supports PNG's overall REDD framework and readiness efforts.
 - Activities under the NJP are to be closely linked to and implemented with the additional support of AusAID, JICA, the WB-FCPF and other development partners
- Outcomes of the UN-REDD NJP (see attached Powerpoint slides for the more detailed presentation material used during the meeting)
 - i. Readiness management arrangements in place
 - ii. National MRV system developed
 - iii. Historical drivers of deforestation assessed
 - iv. Monitoring of abatement concepts supported
 - v. Stakeholders aware of REDD-plus activities and opportunities in PNG

Comments on UN-REDD NJP

The NJP, particularly the programme outcomes, were approved by participants in principal. But some specific comments were raised which are summarized below. It was agreed that additional comments to the NJP, which had been distributed by email to all TWG members on September 17, would be submitted by participants by Monday, September 27, 2010. [Comments from non-GoPNG organizations were received from Steve Nicholls – UNDP, the Government of Australia, and PNGFIA]

UNDP – Asked for a clarification on the difference between the original draft NJP from 2009 and the current draft.

<u>Response</u>: The current version of the NJP builds on, but moves beyond the scope of the 2009 draft NJP. The 2009 draft focused on the preparation of a national REDD plan, particularly through institutional capacity support, the assessment of information needs for key building blocks of REDD, and stakeholder engagement processes. MRV played a more limited role. Since then, the Government has made tremendous progress in furthering REDD readiness activities, thereby covering many of the focus areas of the previous 2009 draft NJP with own efforts. A Climate-Compatible Development Strategy and Interim Action Plan now clearly spell out the risks, opportunities and immediate priorities related to climate change on which the UN-REDD NJP builds. With the establishment of our new Office, we now also have the institutional framework in place to effectively manage UN-REDD NJP.

PNGFIA/WWF/EFF – Overall report OK! But some underlying issues, e.g., around the Climate-Compatible Development Strategy (CCDS), should be addressed. One example is the focus on Reduced Impact Logging for abatement concepts which has received criticism from WWF and others for sending the wrong signal on logging in the past. The strong focus on MRV should also be clarified, and how it supports the broader REDD-plus readiness agenda. Should other items like enforcement in the forest sector and land use planning also be integrated.

> <u>Response</u>: The focus on MRV has been chosen particularly because the UN-REDD NJP offers the opportunity to comprehensively address this very critical element of REDD readiness efforts in PNG. GoPNG is complementing the NJP with own efforts in other areas of REDD readiness and also seeking additional support from other development partners. The NJP will be updated to reflect the comments to ensure that a) it allows for enough flexibility to incorporate changes of the CCDS through the consultation process, and b) to better explain linkages to other REDD readiness efforts.

PNGFA – *Raised concerns about the previous draft and earlier process that had resulted in a temporary suspension of the programme.*

<u>Response</u>: At the time that the previous draft was discussed, the UN agencies and GoPNG could not reach full alignment on the priorities of the UN-REDD NJP. As a consequence, it was decided to put on hold PNG's UN-REDD process until the NJP could more effectively contribute to PNG's climate-change efforts.

UNDP – Asked for the link of Japan's (JICA) support to PNGFA to the NJP's MRV component.

<u>Response</u>: To establish a satellite monitoring system and remote sensing center at PNGFA. The project focuses on hardware and software, and not on technical system. The NJP will complement these efforts and ensure that JICA's support is fully integrated into the broader MRV work that the NJP supports.

PNGFA – Asked for clarification on the process for submitting the NJP.

<u>Response</u>: - The deadline for submission to the 5th Policy Board on November 4-5, 2010 is October 1st. In order to allow for enough time for integration into the document and approval by the National Climate Change Committee, comments need to be submitted by Monday, September 27, 2010

PNGFIA/EFF Pointed out that the OCCD should be relying less on technical advice in its work in general, and the preparation and presentation of the UN-REDD submission in particular.

<u>Response</u>: It was pointed out that the OCCD is a young office and still in a phase of capacity building and transition, but ramping up quickly. Technical assistance and capacity building support had specifically been sought for this phase of organizational development, in which the OCCD is developing increasing capacity and capability to effectively manage and coordinate

all climate change matters in PNG. In addition, the Director MRV and Senior Analyst MRV were not able to attend the meeting and present the MRV focus due to a stakeholder consultation commitment in Manus.

- PNGFIA Pointed out some technically misleading descriptions in the document. E.g., further clarification is required how the existing FRI sample plots would serve carbon stock measurements as the plots had been set up for a different purpose. A full list of comments by PNGFIA is to be provided by September 27, 2010.
- PNGFIA/UNDP- Pointed out that the role of DEC in managing and overseeing PNG's forests should be highlighted more prominently.
- WWF/AusAID Efforts in PNG need to urgently address a National Land-use Management Plan. Land-use is important in REDD+ scenario - how do we enforce to monitor values of land-use? How do we adequately address land availability, food security?
- DLPP New to technical aspects of climate change; but interested in following up on the land-use questions. Requires additional understanding of the OCCD's priorities to understand linkages to DLPP's land use policy. Asked for additional material on the topic to be sent to the Chief Policy/Planning of DLPP. (Apologies for not having been able to attended previous meetings)
- *PNGFA* Questioned anticipated start/end date is 1 Dec 2010 31 Dec 2013. Chapter 8 outlines that UN-REDD is designed until 20^{th} June 2012 only. Is the NJP therefore in the timeframe?

<u>Response</u>: Start/end dates were discussed with FAO, but the OCCD will follow up to clarify.

5. Any other business (AOB)

- AusAID presented a preliminary date for an OCCD study tour to Indonesia from 11 16 November, 2010, for PNG to meet and learn how Indonesia is setting up REDD+ activities. OCCD to confirm date with AusAID.
- JICA sought clarification on who would attend the Interim REDD+ Partnership meeting in Nagoya from PNG. The OCCD will look into the issue and clarify
- PNGFIA brought up two new submissions to the UNFCCC by Australia and Indonesia on A/R under CDM. The OCCD will follow up and
- > EFF suggested a stronger presence of the new OCCD at international UNFCCC meetings..

6. Next steps and way forward

- 7. Closing of the TWG meeting 11:30am
- 8. Next Meeting Date OCCD will confirm with all members in the near future; preliminary meeting date 20 October 2010.

Annex 2 –

NCCC Business Paper 'PNG UN-REDD National Joint Programme'



24th September 2010

BUSINESS PAPER - PNG UN-REDD National Joint Programme

NATIONAL CLIMATE CHANGE COMMITTEE

BUSINESS PAPER FOR CIRCULAR APPROVAL

SUBJECT: SUBMISSION OF THE PNG UN-REDD NATIONAL JOINT PROGRAMME TO THE

UN-REDD POLICY BOARD

PURPOSE

- To update the Committee of the progress on the UN-REDD National Joint Programme (NJP)
- To ask for the Committee's approval of the NJP for submission to the 5th UN-REDD Policy Board

RECOMMENDATIONS

• That the Committee approves the PNG UN-REDD NJP.

FACTS AND CONSIDERATIONS

The UN-REDD Programme is the United Nations Collaborative initiative on Reducing Emissions from Deforestation and forest Degradation (REDD) in developing countries. The Programme was launched in September 2008 to assist developing countries prepare and implement national REDD+ strategies, and builds on the convening power and expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).

Papua New Guinea is one of nine pilot countries that the UN-REDD Programme currently supports. After a year of only limited progress, the OCCD, in collaboration with GoPNG and civil society stakeholders, has prepared a submission to the 5th UN-REDD Policy Board on 4-5 November 2010.

The NJP's focus is to help PNG develop a MRV system that would enable the country to transparently monitor GHG emissions from deforestation as a key component of REDD+ readiness. The NJP targets the following 5 outcomes for the programme period 2010-13:

- REDD+ readiness management arrangements are in place.
- A National MRV system has been developed in an open and transparent procurement process.
- Historical drivers of deforestation have been assessed.
- The monitoring of abatement concepts is supported.
- Stakeholders are aware of REDD-plus activities and opportunities in PNG.

A multi-stakeholder validation meeting was held on 22 September 2010 as part of the REDD+ Technical Working Group. At that meeting, members of the REDD+ Technical Working Group approved the NJP with some technical comments that are currently being integrated into the draft. In order for the NJP to be considered by the UN-REDD Policy Board, the submission has to be received by 1 October 2010 and is now awaiting final approval from the Committee.

FINANCIAL IMPLICATIONS

Approval of the PNG's NJP by the UN-REDD Policy Board would make available funding for REDD+ readiness activities, particularly a Measurement, Reporting and Verification system for greenhouse gas emissions from land use, land-use change and forestry, of USD 5,970,920, to be administered by participating UN agencies (FAO and UNDP).

LEGAL IMPLICATIONS

None.

PLANNING IMPLICATIONS

Once approved, implementation of the joint programme will be closely coordinated and planned jointly with GoPNG stakeholders.

POLITICAL IMPLICATIONS

Views of the Secretaries will be sought in the meeting.

VIEWS OF THE OCCD

The OCCD recommends these measures.

ANNEXES

ANNEX I – PNG UN-REDD National Joint Programme

Committee's Decision;

Members approve the PNG UN-REDD National Joint Programme for submission to the 5th Policy Board by 1 October 2010.

Approved Z Approved □ Rejected □ Rejected Mr. Manasupe Zurenuoc Ms Margaret Elias Acting Chief Secretary Secretary Department of Prime Minister & NEC □ Approved Approved □ Rejected □ Rejected Dr. Wari Iamo Dr. Lawrence Kalinoe Acting Executive Director Secretary Office of Climate Change Department of Justice and and Development Attorney General Approved Approved □ Rejected Rejected Mr. Kanawi Pouru Mr. John Kar Managing Director Secretary PNG Forest Authority Department of Personnel Management Approved and? □ Approved □ Rejected □ Rejected Mr. Anton Benjamin Mr. Simon Tosali Secretary Secretary Department of Agriculture Department of Treasury and Livestock M Approved Approved □ Rejected (CG)□ Rejected Mr. Pepi Kimas Mr. Joseph Lelang Secretary Secretary Department of Lands & Department of National Planning and **Physical Planning** Monitoring □ Approved □ Approved □ Rejected **Rejected** Mr. Rendle Rimua Mr. Sylvester Pokajam Secretary Managing Director Department of Petroleum & Energy National Fisheries Authority

4

Committee's Decision;					
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Committee's Decision;	G UN-REDD N	ational Joint Programme for submis	sion to the
Policy Board by 1 October		ational Joint Programme for Submis	51011 to the
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Mr. Rendle Rimua Secretary Department of Petroleum & I	Energy	Mr. Sylvester Pokajam Managing Director National Fisheries Authority	

Committee's Decision; Members approve the PNG UN-REDD National Joint Programme for submission to the 5th Policy Board by 1 October 2010. □ Approved □ Approved □ Rejected □ Rejected Mr. Manasupe Zurenuoc Ms Margaret Elias Acting Chief Secretary Secretary Department of Prime Minister & NEC □ Approved □ Approved □ Rejected □ Rejected Dr. Wari Iamo Dr. Lawrence Kalinoe Acting Executive Director Secretary Office of Climate Change Department of Justice and and Development Attorney General Approved □ Approved Rejected □ Rejected Mr. Kanawi Pouru Mr. John Kali Managing Director Secretary PNG Forest Authority Department of Personnel Management □ Approved □ Approved □ Rejected □ Rejected Mr. Anton Benjamin Mr. Simon Tosali Secretary Secretary Department of Agriculture Department of Treasury and Livestock Approved □ Approved □ Rejected □ Rejected Mr. Joseph Lelang Mr. Pepi Kimas Secretary Secretary Department of Lands & Department of National Planning and **Physical Planning** Monitoring □ Approved □ Approved 2010 □ Rejected □ Rejected Mr. Rendle Rimua Mr. Sylvester Pokajam Secretary Managing Director Department of Petroleum & Energy National Fisheries Authority

Annex 3 –

Secondment position of a 'director shadow' to the OCCD Director MRV and National Communication – Description



– OFFICE OF THE EXECUTIVE DIRECTOR –

Telephone: (675) 325 0180 Facsimile: (675) 325 0182 Email: officesec@dec.gov.pg Level. 7 Somare Foundation P O Box 6601 BOROKO, NCD

PNG UN-REDD National Joint Programme Manager

Reports to:	Deputy National Programme Director
Status/period	Temporary position (12 months with possibility for extension)
Location:	Office of Climate Change and Development, Port Moresby
Special conditions:	Frequent interaction with other stakeholders in Government, UN agencies, civil society and the private sector required

Background

The PNG UN-REDD National Joint Programme aims to support the Government of PNG to further its efforts towards REDD readiness. The NJP places heavy emphasis on the development of a Measurement, Reporting and Verification (MRV) system for PNG, as an important complement to PNG's domestic climate-change efforts. The NJP will be managed and coordinated by the Office of Climate Change and Development, in close cooperation with other government agencies, particularly the PNG Forest Authority, and UN agencies. The NJP will be implemented with the frequent consultation of a broad range of stakeholders including Government, civil society, the private sector and development partners.

Objective

The overall objective of the assignment is to ensure efficient and effective implementation of the PNG UN-REDD Programme.

Role / job specifications

- Prepares and updates project work plans that are consistent with guidance provided by UN-REDD, and submits these to the NPD and UN agencies for clearance;
- Prepare and participate in quarterly work planning and progress reporting meetings with the NPD, PMU, and UN agencies;
- Ensures that all agreements with implementing agencies are prepared, negotiated and agreed upon.
- Drafts TORs for key inputs (i.e. personnel, sub-contracts, training, procurement) and submits these to the NPD and UN agencies for clearance, and administers the mobilization of such inputs.
- With respect to external project implementing agencies/ sub-contractors:

- Ensures that these agencies mobilize and deliver the inputs in accordance with their letters of agreement or contracts, and
- Provides overall supervision and/or coordination of their work to ensure the production of the expected outputs.
- Assumes direct responsibility for managing the project budget by ensuring that:
 - Project funds are made available when needed, and are disbursed properly,
 - Expenditures are in accordance with the project document and/or existing project work plan,
 - Accounting records and supporting documents are properly kept,
 - Required financial reports are prepared,
 - Financial operations are transparent and financial procedures/regulations for NEX projects are properly applied; and
 - S/he is ready to stand up to audits at any time.
- Drafts project progress reports of various types and the Final Project Report as scheduled, and
 organizes review meetings and evaluation missions in coordination with UN agencies.
- Reports regularly to and keeps the NPD and UN agencies' PO's up-to-date on project progress and problems.

Accountability & working relationship

The Programme Manager will report directly to the Deputy National Programme Director and will be fully embedded into the OCCD organization. As such, administrative support will be supplied by OCCD, and where needed by UNDP officers (e.g. regarding contractual issues). The Programme Manager will also work closely with stakeholders from other relevant ministries/agencies, provincial and district DPIs, and bilateral and multilateral development partners.

Qualifications

<u>Academic</u>: Minimum bachelor degree from an internationally renowned university; Post graduate degree in Environmental Science, Natural Resource Management, Environmental Economics, or similar preferred.

<u>Work</u>: Minimum of 2 year work experience in a private or public sector role requiring good process and project management. Content knowledge on MRV and/or REDD-plus and conservation a plus.

Personal skills: Strong inter-personal skills, especially oral and written communication skills.

Language skills: Proficiency in both spoken and written English.

<u>Computer skills</u>: Good computer literacy, particularly proficiency with Microsoft Office; hands-on experience with data management and data analysis desired

Annex 4 –

National Joint Programme Manager – Terms of Reference



– OFFICE OF THE EXECUTIVE DIRECTOR –

Telephone: (675) 325 0180 Facsimile: (675) 325 0182 Email: officesec@dec.gov.pg Level. 7 Somare Foundation P O Box 6601 BOROKO, NCD

PNG UN-REDD National Joint Programme Manager

Reports to:	Deputy National Programme Director
Status/period	Temporary position (12 months with possibility for extension)
Location:	Office of Climate Change and Development, Port Moresby
Special conditions:	Frequent interaction with other stakeholders in Government, UN agencies, civil society and the private sector required

Background

The PNG UN-REDD National Joint Programme aims to support the Government of PNG to further its efforts towards REDD readiness. The NJP places heavy emphasis on the development of a Measurement, Reporting and Verification (MRV) system for PNG, as an important complement to PNG's domestic climate-change efforts. The NJP will be managed and coordinated by the Office of Climate Change and Development, in close cooperation with other government agencies, particularly the PNG Forest Authority, and UN agencies. The NJP will be implemented with the frequent consultation of a broad range of stakeholders including Government, civil society, the private sector and development partners.

Objective

The overall objective of the assignment is to ensure efficient and effective implementation of the PNG UN-REDD Programme.

Role / job specifications

- Prepares and updates project work plans that are consistent with guidance provided by UN-REDD, and submits these to the NPD and UN agencies for clearance;
- Prepare and participate in quarterly work planning and progress reporting meetings with the NPD, PMU, and UN agencies;
- Ensures that all agreements with implementing agencies are prepared, negotiated and agreed upon.
- Drafts TORs for key inputs (i.e. personnel, sub-contracts, training, procurement) and submits these to the NPD and UN agencies for clearance, and administers the mobilization of such inputs.
- With respect to external project implementing agencies/ sub-contractors:

- Ensures that these agencies mobilize and deliver the inputs in accordance with their letters of agreement or contracts, and
- Provides overall supervision and/or coordination of their work to ensure the production of the expected outputs.
- Assumes direct responsibility for managing the project budget by ensuring that:
 - Project funds are made available when needed, and are disbursed properly,
 - Expenditures are in accordance with the project document and/or existing project work plan,
 - Accounting records and supporting documents are properly kept,
 - Required financial reports are prepared,
 - Financial operations are transparent and financial procedures/regulations for NEX projects are properly applied; and
 - S/he is ready to stand up to audits at any time.
- Drafts project progress reports of various types and the Final Project Report as scheduled, and
 organizes review meetings and evaluation missions in coordination with UN agencies.
- Reports regularly to and keeps the NPD and UN agencies' PO's up-to-date on project progress and problems.

Accountability & working relationship

The Programme Manager will report directly to the Deputy National Programme Director and will be fully embedded into the OCCD organization. As such, administrative support will be supplied by OCCD, and where needed by UNDP officers (e.g. regarding contractual issues). The Programme Manager will also work closely with stakeholders from other relevant ministries/agencies, provincial and district DPIs, and bilateral and multilateral development partners.

Qualifications

<u>Academic</u>: Minimum bachelor degree from an internationally renowned university; Post graduate degree in Environmental Science, Natural Resource Management, Environmental Economics, or similar preferred.

<u>Work</u>: Minimum of 2 year work experience in a private or public sector role requiring good process and project management. Content knowledge on MRV and/or REDD-plus and conservation a plus.

Personal skills: Strong inter-personal skills, especially oral and written communication skills.

Language skills: Proficiency in both spoken and written English.

<u>Computer skills:</u> Good computer literacy, particularly proficiency with Microsoft Office; hands-on experience with data management and data analysis desired

Annex 2 –

Request for Expression of Interest for the Provision of MRV Services –

Terms of Reference



- OFFICE OF THE EXECUTIVE DIRECTOR -

Telephone: (675) 325 0180	Level 7 Somare Foundation
Facsimile: (675) 325 0182	P O Box 6601
Email: officesec@dec.gov.pg	BOROKO, NCD

Request for Expression of Interest

Terms of Reference for the Provision of Measurement, Reporting and Verification (MRV) Services

1. Context and background

The Government of Papua New Guinea is currently developing a Strategy for Climate-Compatible Development. A critical component of this strategy is to Reduce Emissions from Deforestation and Forest Degradation Plus Conservation, Sustainable Forest Management and Carbon Stocks Enhancement (REDD+). Papua New Guinea is taking a lead on REDD+ internationally by co-chairing the global Interim REDD+ Partnership that seeks to enshrine REDD+ as a viable development and climate change mitigation option for developing countries.

In parallel with its international leadership, the Government is now seeking to establish institutional foundations and develop its readiness for REDD+ domestically. National Executive Council Decision no. 55/2010 mandates the newly created Office of Climate Change and Development (OCCD) to coordinate the development of a national system for Measurement, Reporting and Verification (MRV) of greenhouse gas emissions from land use, land-use change and forestry (LULUCF). This system is a crucial enabler for the payments for ecosystem services that are at the heart of the REDD+ concept.

The government's Interim Action Plan for Climate-Compatible Development and subsequent work by the cross-departmental MRV sub-working-group identifies the following requirements for a national MRV system for LULUCF:

- A system to classify land use and land cover, and to monitor forest cover from remote sensing data;
- Regular forest, carbon and land surveys to estimate terrestrial carbon stocks, verify changes to local land use, and verify and corroborate the remote sensing-based system;
- The development of a comprehensive inventory of greenhouse gas (GHG) emissions from LULUCF for reporting purposes.

The OCCD, mindful that many of these capacities already exist or are being developed within Papua New Guinea, notably by the Papua New Guinea Forest Authority (PNGFA), the University of Papua New Guinea and others, is now inviting interested parties to submit their qualifications for the development of such an integrated system and/or the components of it. Parties should note that qualifications will be treated in strict compliance with the rules and procedures of the Central Supply and Tenders Board (CSTB). The OCCD intends to conduct a public tender, in accordance with the regulations of the Central Supply and Tenders Board, at a later date this year.

2. Objectives

The overarching goal is to develop a system for Measurement, Reporting and Verification of GHG emissions from LULUCF that allows Papua New Guinea to have timely information on emissions and emission savings from these sectors. Core components of the MRV system are to be housed in, and operated by, institutions within Papua New Guinea. The system for Measurement, Reporting and Verification should be designed to meet the following objectives:

- Provide regular updates of changes to land use and land cover, with particular focus on forest cover,
- Provide regular estimates of the resulting GHG emissions at the country, provincial and district levels, and provide annual updates to the inventory of greenhouse gases (GHGs) for reporting purposes;
- Enable the Executive Director of the OCCD as the Designated National Authority to report these figures to external organizations, including the UNFCCC and other parties as appropriate;
- Permit third parties inside and outside Papua New Guinea to review the figures and underlying data to verify their accuracy;
- Develop the capacity and institutions to operate the MRV system in Papua New Guinea.

The system should also be capable of complementing and expanding Papua New Guinea's capacity to provide output on land cover change and forest conditions for national and international reporting processes such as the national State of the Forest Report and Forest Pan, the FAO Global Forest Resource Assessment and the Convention on Biodiversity. This would include, but not be limited to, an estimation of timber stocks, forest health, forest disturbances such as fire, landslide or storm damage, human activities such as timber harvesting (for industrial and domestic purposes, including fuelwood) and collection of non-timber forest products and the status and condition of biodiversity at site and landscape scales.

In providing these capacities, the system should as far as possible build on systems and capacities that already exist in Papua New Guinea today, as well as on ongoing efforts by the Government of Papua New Guinea, development partners and other organizations to develop additional capacity in areas related to the MRV system.

3. Policy and institutional requirements

Interested parties must specify:

- The elements of the system that they will provide themselves and the institutions that these will be housed in;
- The elements of the system that they will outsource to other organizations, including both those within and outside Papua New Guinea, mindful that the core elements of the system are to be housed in Papua New Guinea;
- Their intended collaboration with existing institutions in Papua New Guinea, including amongst others the National Climate Change Committee (NCCC), the OCCD, PNGFA, and the Forest Research Institute (FRI);
- The mechanism and frequency by which the system enables the OCCD (and other organizations as appropriate) to report to the Government, UNFCCC and others;
- The mechanism to ensure conformity to the National System for GHG reporting, particularly proper institutional, legal and procedural arrangements taken to allow the OCCD to report and to archive all information in a transparent, complete, consistent, comparable and accurate way and to ensure the quality of delivered information;
- The mechanisms by which the system would foster transparency at the national and international levels, including opportunities for verification by third parties;
- The technical and human capacities needed for each component of the system and how they propose to develop these capacities through training, coaching, and procurement of services from domestic and international providers.

4. Technical requirements

Interested parties must specify:

- The specifications of the following system elements:
 - 1) Activity data
 - Remote sensing, including sensors proposed with description of types (e.g., optical, radar, LIDAR), resolution and frequency of update, current coverage of Papua New Guinea, expected continuity and risk of failure of the proposed sensors, and classification and/or interpretation methodologies;
 - Ground surveys, including the proposed survey methodology and proposed coverage and frequency;
 - Accuracy assessment and uncertainty analysis of data ;
 - The financial and human resources required.

- 2) Expansion factors, data collection and analysis
 - How carbon stock and carbon stock change data are collected, and how non-CO $_{2}$ fluxes are measured
 - Systems (software and hardware) used for analysis
 - Accuracy assessment and uncertainty analysis of data
 - The financial and human resources required
- 3) Data integration and reporting
 - How a national GHG inventory will be constructed and reported
 - System to be used for database management and creation of output
 - Examples of output generated (e.g., charts and maps)
 - Accuracy assessment and uncertainty analysis of data
 - The resources required (hardware, software, human etc.)
- 4) Verification
 - Ability of other institutions to interrogate and verify data
 - Conformity of reporting system with IPCC and UNFCCC requirements
 - Ability of system to undergo audit by the UNFCCC
 - Accuracy assessment and uncertainty analysis of data
- The compliance of their system with the guidelines of IPCC, UNFCCC and other internationally accepted best practices
- Their experience of applying this system in comparable contexts (e.g., countries with extensive, cloud-covered rainforests; countries with limited existing capacity to operate an MRV system in the public and private sectors)
- The names, qualifications and experience of the technical staff and consultants who would be involved in developing the system in Papua New Guinea (including who would be based in the country permanently and who would be available part-time and as needed)
- The relationship of the proposed MRV system to existing systems, databases and resources within Papua New Guinea, including in particular:
 - The Forest Monitoring System run by the PNG Forest Authority
 - The Remote Sensing Centre at the University of PNG
 - The Forest Research Institute

5. Format for submission

In order to be considered as potential supplier, interested parties should submit their Expression of Interest including the following information:

- 1. Brief presentation of the parties associated with the proposal;
- 2. Reference list demonstrating the qualifications of the interested parties for participating in this tender process. The referenced projects should be related to the same kind of services and highlight the applicability to the specific local conditions in Papua New Guinea;
- 3. An opinion on the key issues related to the establishment of the system for Measurement, Reporting and Verification, particularly
 - a. Compliance with policy and institutional requirements (see section 3 for details);
 - b. Compliance with technical requirements (see section 4 for details);
- 4. Preliminary timeline and budget for system development;
- 5. Contact information (full name and address, country, telephone and fax numbers, e-mail address, website and contact person);
- 6. Declaration of intent (see Schedule 1).

For clarifications, interested parties may obtain further information at the address below:

Office of Climate Change and Development (OCCD) Director MRV and National Communication P. O. Box 6601 Boroko, N.C.D Papua New Guinea

Telephone: (675) 325 0180 Facsimile: (675) 325 0182 Email: <u>gsissiou@dec.gov.pg</u>

Interested parties are requested to submit their Expression of Interest in both hardcopy and electronic format, to be included on CD or submitted by email to <u>gsissiou@dec.gov.pg</u>. Complete Expression of Interest documents must be delivered to the address below by 1pm PNG time on 24 September 2010.

Office of Climate Change and Development (OCCD) Office of the Executive Director P. O. Box 6601 Boroko, N.C.D Papua New Guinea Alternatively, if hand delivered, documents must be delivered to:

Office of Climate Change and Development (OCCD) Office of the Executive Director Somare Foundation Building, Level 7 Corner of Sir John Guise Dr. and Independence Ave. Waigani, N.C.D. Papua New Guinea

The OCCD reserves the right to change or cancel the requirements at any time during the EOI and/or solicitation process. The OCCD also reserves the right to require compliance with additional conditions as and when issuing the final solicitation documents. Submitting a reply to a call for EOI does not automatically guarantee receipt of the solicitation documents when issued. Invitations to bid or requests for proposals and any subsequent purchase order or contract will be issued in accordance with the rules and procedures of the Central Supply and Tenders Board and the Public Finance (Management) Act.

SCHEDULE 1

Declaration of intent

I,		, on behalf of
		, do hereby
declare that all the information ability.	above is true and complete to the best of my k	nowledge and
Signed at	on this day the	2010.
	(Signature)	