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# RAPID ASSESSMENT OF THE POLITICAL, LEGAL AND INSTITUTIONAL SETTING

## PAPUA NEW GUINEA



**WINROCK**  
INTERNATIONAL



**CLIMATEFOCUS**

# **Lowering Emissions in Asia's Forests (LEAF)**

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## **RAPID ASSESSMENT OF THE POLITICAL, LEGAL AND INSTITUTIONAL SETTING**

### **PAPUA NEW GUINEA**

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## Acronyms

AusAID	Australian Agency for International Development
CCBA	Climate, Community and Biodiversity standards
CCDS	Climate-Compatible Development Strategy
CDM	Clean Development Mechanism
CfRN	Coalition for Rainforest Nations
DAL	Department of Agriculture and Livestock
DEC	Department of Environment and Conservation
FCPF	Forest Carbon Partnership Facility
FLEGT	Forest Law Enforcement, Governance and Trade Program
FMA	Forest Management Agreement
FPIC	Free, prior, and informed consent
FRI	Forest Research Institute
GEF	Global Environment Facility
ILG	Incorporated Landowner Group
JICA	Japan International Cooperation Agency
LNG	Liquefied Natural Gas
MRV	Monitoring, reporting and verification
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Programme of Action
NCCC	National Climate Change Committee
NCCPF	National Climate Change Policy Framework
NEC	National Executive Council
NFB	National Forest Board
NFS	National Forest Service
OCCD	Office of Climate Change and Development
OCCES	Office of Climate Change and Environmental Sustainability
OCCT	Office of Climate Change and Carbon Trading
OLPLLG	Organic Law on Provincial and Local Level Governments
PDD	Project Design Documents
PISS	Provincial and Industrial Support Services
PNG LNG	Papua New Guinea Liquefied Natural Gas
PNGFA	Papua New Guinea Forest Authority
REDD+	Reduced Emissions from Deforestation and Forest Degradation,

including conservation, sustainable management of forests, and enhancement of forest carbon stocks

R-PP	Readiness Preparation Proposal
SABL	Special Agricultural Business Lease
TNC	The Nature Conservancy
TWG	Technical Working Group
TWGs	Technical Working Groups
UPNG	University of Papua New Guinea

## **Political, Institutional and Legal Setting for REDD+ in Papua New Guinea**

This report provides an assessment of the national, institutional, political and legal circumstances relevant to forest and land use in Papua New Guinea; and, more importantly to identify areas of opportunity for increased support from institutional donors.

The assessment provides an overview of national context, including the country's status of REDD+ readiness, involvement in multilateral REDD+ processes and other international forest sector reform initiatives, a discussion of the current forest cover and trend of deforestation, as well as Papua New Guinea's experience in other carbon market mechanisms. This chapter is followed by an analysis of the main drivers of deforestation and forest degradation as identified by the country and described in existing literature, as well as by an analysis of the main institutions in the country in charge of land use matters including forestry, agricultural and REDD+. The fourth chapter provides an overview of the legal framework regarding land use, including national definitions (or lack thereof) for key issues such as forest types, forest degradation and different types of land tenure arrangements. This is followed by an overview of government efforts to address drivers through policies, programs and other legal provisions.

The basis for the assessment was an initial literature review to examine the political, institutional and legal challenges for REDD+ implementation in Papua New Guinea. In a second step, twelve semi-structured interviews with experts in financial mechanisms, conservation and development initiatives and with a specific target audience, REDD+ practitioners and project implementers for national or jurisdictional REDD+ programs. The literature review together with these interviews helped to identify the opportunities and interventions most relevant to the provision of additional support from institutional donors.

### **Executive Summary**

Quantifying rates of land-use change in Papua New Guinea (PNG) have been contentious. Current forest cover is approximately 28.5 million hectares; and, the combined annual rate of deforestation and degradation is estimated at approximately 1.41%. While deforestation rates have been comparatively low and current forest cover is high, PNG is at risk of rapid increases in deforestation from the expansion of commercial agriculture as well as infrastructure developments in pristine forest areas. Five million hectares are currently pending under agricultural business leases. Subsistence agriculture is stated to become a more significant driver in the future due to high population growth, which is reported at approximately 2.3% annually.

Substantial institutional reforms are under way since the change in Government in July 2011, which will likely lead to a merger of the PNG Forest Authority and the Office of Climate Change and Development (OCCD). This merger is hoped to re-establish trust among international donors and national stakeholders who have been withdrawing/ reducing their engagement due to major concerns about corruption and mismanagement.

PNG has not yet leveraged all potentially available sources for readiness support as could be provided by AusAID, the World Bank, the EU among others, and has not yet submitted an R-PP (Readiness Preparation Proposal) to the FCPF. The country secured a US\$ 6.4 million UN-REDD grant aimed at the establishment of an MRV system. A national REDD+ strategy was developed by a consulting firm hired to help the OCCD during the readiness phase. This strategy was adopted by OCCD. However, it was not developed in a consultative process and

did not consider input from other Ministries or stakeholders. Hence, buy-in of Government is low and adoption by the newly created Ministry remains unclear.

PNG has been one of the most active countries in UNFCCC REDD+ negotiations and co-founder of the Coalition of Rainforest Nations. However, there is disconnect between PNG's international voice and its domestic capacity, which lacks experience in both voluntary and compliance carbon markets, in the land-use sector particularly. The PNG Government has been opposed to the development of REDD+ projects under voluntary schemes (as outlined in the NEC policy decision 55/2010), which greatly reduced incentives of stakeholders to invest in early REDD+ project development in the past. The change in Government seems to bring a change to this contentious issue, which however is yet to be confirmed.

### ***Drivers of Deforestation and Degradation***

- Unsustainable logging and subsistence agriculture are reported as the two main drivers of deforestation and degradation in Papua New Guinea since 1972.
- While deforestation rates have been comparatively low and current forest cover is high, PNG is at risk of rapid increases in deforestation from the expansion of commercial agriculture as well as infrastructure developments in pristine forest areas. Five million hectares are currently pending to be executed under Special Agricultural Business Leases.
- Subsistence agriculture is stated to become a more significant driver in the future due to high population growth, which is reported at approximately 2.3% annually.
- For the period 1972-2002, the direct drivers of deforestation and degradation were commercial logging (48.2%) and subsistence agriculture (45.6%), with minor contributions from forest fires (4.4%), clearing for agricultural plantations (1%) and mining (0.6%). Rapid population growth, international demand for timber and weak governance were seen as indirect drivers of deforestation during this period.

### ***Institutional Framework***

- Changes in the Government in June 2011 seem to lead to the merger of the Office of Climate Change and Development (OCCD) and the Papua New Guinea Forest Authority (PNGFA) under one Ministry. The merger of OCCD and PNGFA has yet to take place and respective REDD+ related responsibilities are not yet defined; but, OCCD staff considers this merger a positive step towards increasing harmonization of efforts between departments.
- In the past, the lack of clarity on REDD+ mandates between OCCD and PNGFA has caused considerable duplication of effort. The climate change office has been restructured and rebranded twice in the past five years, leading to some feelings of confusion among donors and the international carbon market community.
- At the local level, expectations for REDD+ projects are extremely high. At the international level, PNG representatives have been strongly lobbying against sub-national project activities in favor of a centralized approach. The lack of national guidance on the potential integration of local activities into a national REDD+ strategy has created confusion and friction for local groups. As a result, bottom-up REDD+ project development has not progressed beyond initial planning stages.
- There are challenges in providing basic services in rural areas. PNG suffers from a general lack of institutional and technical capacity for forest governance and land use planning and coordination (at the National and Local level). This could hinder

implementation of sound land management initiatives that are in the resource owners' best long term interests.

### ***Legal Framework***

- A consulting firm worked with the OCCD to develop a Climate Compatible Development Strategy. This strategy has been adopted by the Government and proposes an ambitious target of 7% annual economic growth and carbon neutrality by 2050. REDD+, principally implemented through reduced impact logging and sustainable forest management, was expected to make up over 60% of the projected emission reductions.
- Management of forest resources in PNG is centralized by the PNGFA .
- 97% of the land in PNG is owned by communities and governed by customary rules. However, the state has developed procedures to gain access to communities whereby the State may acquire customary land by agreement or compulsory process.
- In PNG, trees can be owned separately from the land. Forest Management Agreements (FMAs) can be used to give ownership of trees to the National Forest Service of the PNGFA, which can then issue logging concessions to agriculture and timber companies on the basis of the FMA.
- Use of FMAs has resulted in control over forest resources being transferred from traditional landowners to the government. Through this process, resource allocation power has been gradually transferred from the landowners to the government.
- Customary communities that own the land form Incorporated Landowner Groups (ILGs) to receive royalties from FMAs. ILGs seldom receive complete royalty payments. The formation of ILGs is also a very lengthy and often difficult process due to changes in clan affiliation of local people. This is compounded by a lack of experience with cross-generational contractual obligations within clans as well as prevailing illiteracy for reviewing ILG and FMA contracts.
- The current version of the National Climate Change Policy Framework assigns carbon rights in PNG to landholders, however, the government has the right to develop and sell it.
- Several laws and policies were enacted in PNG after the Forest Commission of Inquiry (Barnett Commission) into Aspects of the Timber Industry was established in 1987. This inquiry provided enough evidence that some timber companies in PNG were operating illegally. The government responded to the findings of the Barnett Commission with a comprehensive program of reform but these efforts have been insufficient to regulate forestry operations and agriculture in a sustainable and effective way.

### ***Opportunities for Additional Institutional Donor Assistance***

The increasing threats of deforestation and degradation, low capacities of forest and climate change institutions, and the poor forest governance make PNG a priority country for REDD+ donor assistance. Support is needed to help the country enter a more sustainable economic growth trajectory and prevent a steep increase in land-based GHG emissions, particularly if all pending Special Agricultural Business Leases get executed. Ironically, PNG does not attract strong donor support due to incidences of poor governance that has created mistrust amongst the donor community.

The past Government has been a strong opponent of project-based REDD+ activities at sub-national level, which has stopped local stakeholders from developing pilot projects. However, with the new Government, this view seems to be changing. Technical staff members within OCCD and PNGFA recognize the importance and opportunities for sub-national pilot projects in PNG, where the clan-based land management system quasi pre-determines a workable project scale. This shift opens up vast opportunities for support from institutional donors, since political guidance and regulatory provisions to stimulate pilot project development are as yet incomplete, missing or not practical.

The following list of identified opportunities provides a mix of central level activities and activities in conjunction with projects on the ground, whereby activities 1, 2 and 3 mainly aim to support PNG getting on track with REDD+ readiness as well as supporting the country to open up access to available funding sources. Further, activities 4, 5 and 6 aim to stimulate pilot project development as a means to build up knowledge in PNG for REDD+ development and implementation; and, feed this experience into the national level legislative processes. The main drivers targeted could potentially be all listed in the assessment as the strengthened resulting governance framework mainly aims to improve sustainable land management planning and implementation including communities as service providers. Thus, further analysis is required during a refinement process to assess which driver should be targeted in particular.

The proposed activities listed below should be further discussed with Government and relevant stakeholders to be further refined and turned into country strategies.

1. Advise the government on a way forward to improve the existing REDD+ roadmap that allows development of a corresponding workplan; as well as, ways to increase buy-in of local stakeholders and Government. The existing REDD+ roadmap has been developed in a desk exercise but does not spell out priorities and more precise work steps and milestones.
2. Provide technical advice to develop the R-PP, including support for the identification of external consultants and funding sources for R-PP development, which could include the World Bank and AusAID among other potential sources.
3. Support the development and adoption of a workplan to develop a national or sub-national reference level in conjunction with increased support for capacity building. Provide technical advice and assist in leveraging third party donor support for selected parts of the process.
4. Support development and adoption of guidelines for REDD+ project development and FPIC guidelines to stimulate a bottom-up REDD+ approach for demonstrations.
5. Help develop legislation clarifying carbon tenure and approaches to benefit distribution mechanisms for REDD+ and/ or PES to access potential new funding sources for community based forest protection and management and assure for more equitable distribution of income streams.
6. Support efforts to introduce local level land use planning and conflict resolution mechanisms to Province legislation as initiated in the Adelbert Mountains in Madang Province by The Nature Conservancy (TNC). This project's main outcome is the institutionalization of clan based land use planning in district law.

## 1. National Context

### *Key findings*

- Quantifying rates of land-use change in Papua New Guinea (PNG) has been challenging. Current forest cover is approximately 28.5 million hectares; and, the combined annual rate of deforestation and degradation is estimated at approximately 1.41%.
- Substantial institutional reform are under way since the change in Government in July 2011, which will likely lead to a merger of the PNG Forest Authority and the Office of Climate Change and Development (OCCD). This merger is hoped to re-establish trust among international donors and national stakeholders who have been withdrawing/reducing their engagement due to major concerns about corruption and mismanagement.
- PNG has not yet leveraged all potentially available sources for readiness support as could be provided by institutions such as AusAID, the World Bank and the EU among others, and has not yet submitted an R-PP (Readiness Preparation Proposal) to the FCPF. The country secured a US\$ 6.4 million UN-REDD grant aimed at the establishment of an MRV system. A national REDD+ strategy was developed by a consulting firm hired to help the OCCD during the readiness phase. This strategy was adopted by OCCD. However, it was not developed in a consultative process and did not consider input from other Ministries or stakeholders. Hence, buy-in of Government is low and adoption by the newly created Ministry unclear.
- PNG has been one of the most active countries in UNFCCC REDD+ negotiations and co-founder of the Coalition of Rainforest Nations. However, there is disconnect between PNG's international voice and its domestic capacity, which lacks experience in both voluntary and compliance carbon markets, in the land-use sector particularly.
- The PNG Government has been opposed to the development of REDD+ projects under voluntary schemes (as outlined in the NEC policy decision 55/2010), which greatly reduced incentives of stakeholders to invest in early REDD+ project development in the past. The change in Government seems to have brought a change to this issue. However, this has yet to be confirmed.

### **1.1 Engagement with REDD+ and other forest sector cooperation**

The government of PNG estimates that REDD+ readiness activities should cost between US\$30-50 million over the next five years, and several multi- and bilateral organizations are providing support despite several setbacks.<sup>1</sup> PNG is actively engaged in several multilateral REDD+ discussions and requests for funding support. The most important of these are as follows:

#### ***Forest Carbon Partnership Facility (FCPF)***

In 2008, PNG submitted a Readiness Plan Idea Note to the FCPF, however as of October 2011 a Readiness Plan Proposal (R-PP) had not been submitted, and thus no funding has been made available.

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<sup>1</sup> GOPNG. 2010. Interim Action Plan for Climate-Compatible Development: Document for Public Consultation.

## **UN-REDD**

In 2009, PNG submitted a Joint Programme Proposal to UN-REDD. The initial US\$2.58 million was never disbursed due to the poor results of a 2010 review.<sup>2</sup> In November 2010, a second Programme with a strong focus on MRV was conditionally approved; and, PNG was authorized to receive a grant of \$6.4 million from UN-REDD. The US\$ 6.4 million, co-financed by Japan International Cooperation Agency (JICA), will not be disbursed until 16 conditions have been satisfactorily met, pursuant to the UN-REDD Policy Board.<sup>3</sup> JICA is also supporting the PNGFA to improve its remote sensing and GIS capacity.

## **REDD+ Partnership**

PNG is actively engaged in the REDD+ Partnership. The country was co-Chair in 2010 with Japan.

## **The Coalition for Rainforest Nations**

PNG co-founded the Coalition for Rainforest Nations (CfRN) – a loose collection of countries that often form common negotiating positions on REDD+. Until end of 2011, the Executive Director (Kevin Conrad) of CfRN also represented PNG at the UNFCCC, adding substantially to the country's visibility in international fora during that time. At the time of writing, Mr. Conrad appears to continue being active in the CfRN, however, not in the role of PNG country representative. .

## **Forest Law Enforcement, Governance and Trade (FLEGT) Program**

PNG is currently in the pre-Voluntary Partnership Agreement (VPA) negotiation phase of the EU's FLEGT program, which aims to provide for the full licensing of timber exports through building the required governance, monitoring frameworks and instituting a strict licensing system.

The **Global Environment Facility (GEF)** and PNG partnered in the early 2000s to improve the sustainability of the forest sector. The GEF Forestry and Conservation Project was suspended by the PNG government in 2005 – less than two years after its inception due to governance issues.<sup>4</sup>

## **Bilateral initiatives**

The **European Commission** is also working with the PNGFA; however it is mainly funding several small activities related to forest inventory techniques and mapping. They have expressed interest in funding some REDD+ related activities in conjunction to the JICA project involving remote sensing of forest degradation.<sup>5</sup>

The **Australian Agency for International Development (AusAID)** has been supporting the design of a national carbon measurement system as part of its International Forest Carbon Initiative, although disbursement has been reported to be delayed due to governance

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<sup>2</sup> Andrea Babon. "Snapshot of REDD+ in Papua New Guinea", CIFOR Infobrief, No. 40, August 2011 [*hereinafter* Babon (2011)]. .

<sup>3</sup> <http://www.un-redd.org/UNREDDProgramme/CountryActions/PapuaNewGuinea/tabid/1026/language/en-US/Default.aspx>.

<sup>4</sup> William F. Laurance, et al., "Predatory corporations, failing governance, and the fate of forests in Papua New Guinea" 4 *Conservation Letters* 1 (2010) [*hereinafter* Laurance et al. (2010)].

<sup>5</sup> Babon (2011).

concerns.<sup>6</sup> They have also provided grants up to AU\$ 200,000 to four NGOs to develop REDD+ demonstration activity concepts (TNC, WCS, CI, and Live and Learn).

## **1.2 State of REDD+ Readiness**

### ***National REDD+ Strategy***

To date PNG has focused more on influencing the REDD+ debate internationally than on national implementation. This has led to a current disconnect between what they propose internationally and domestic capacity for implementation. More work is needed to build capacity including technical components such as reference levels.

Domestically, REDD+ Readiness falls under the country's Climate Compatible Development Strategy<sup>7</sup> that was developed prior to Cancun. The strategy does not suggest a halt to commercial logging, but rather focuses on reduced impact logging, secondary forest management, and improved management of secondary forests as the greatest opportunities for REDD+, while largely ignoring reducing forest loss caused by subsistence agriculture. Developing a MRV system with fund disbursement mechanisms and benefit-sharing models are prioritized in the strategy, which also acknowledges the country's capacity limitations; noting that policy and institutional structures are currently insufficient.<sup>8</sup>

The Interim Action Plan for Climate Compatible Development, released in August 2010, lists capacity development as a key priority, focusing largely on the Office of Climate Change and Development (OCCD).<sup>9</sup> Implementation of the Action Plan, much of which was slated to begin in 2010, has been delayed, and the process has been criticized by stakeholders in the country (e.g. the Ecoforestry Forum, an umbrella organization representing national and international NGOs active in the country) for a lack of consultation during the drafting process.<sup>10</sup>

### ***National Forest Reference Level***

PNG has not yet started to work on the development of reference levels or reference emission levels for land-based emissions and removals. The Joint Programme Document under the UN-REDD process states that "further research is required to verify the emissions in specific sectors and develop a detailed greenhouse gas inventory" and "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."<sup>11</sup>

### ***National Monitoring and Reporting System***

The main activities to develop a national MRV system are being carried out as part of the recently obtained UN-REDD grant as well as the JICA project on Forest Information Services. A

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<sup>6</sup> Matt Leggett, "The Status of REDD+ in Papua New Guinea" (2011) [*hereinafter* Leggett (2011)].

<sup>7</sup> GOPNG. 2010. Climate-compatible Development Strategy for Papua New Guinea, Second Draft for Stakeholder Comment. March, 2010, available at [http://www.occd.gov.pg/images/stories/documents/Publications\\_CCDS%20nd%20draft.pdf](http://www.occd.gov.pg/images/stories/documents/Publications_CCDS%20nd%20draft.pdf) [*hereinafter* PNG Climate Compatible Development Strategy].

<sup>8</sup> Babon (2011).

<sup>9</sup> GOPNG. 2010. Interim Action Plan for Climate-compatible Development. August, 2010.

<sup>10</sup> Babon (2011).

<sup>11</sup> GOPNG, UN-REDD Joint Programme Document (2011).

national forest cover map does not currently exist but developing one is planned to be a main outcome of the JICA support along with increasing capacity for remote sensing.<sup>12</sup>

### Demonstration activities and pilot projects

OCCD is working on guidelines to stimulate REDD+ pilot project development. Independently of OCCD, PNGFA has been working to identify REDD+ pilot projects. PNGFA has identified four provinces it believes are suitable for demonstration activities: Milne Bay, Sandaun, Eastern Highlands, and West New Britain.<sup>13</sup> The PNGFA hopes to use the pilots to develop and test MRV methodologies, identify and test the benefit sharing mechanism, and build capacity, with initial results available within 2-3 years.<sup>14</sup> A summary of government proposed pilot activities are shown in Figure 1.

Figure 1: Summary of Government proposed REDD+ initiatives in the forestry sector.<sup>15</sup>

	Objective	Responsible institution	Proposed location	Proposed budget <sup>1</sup> (USD)	Timing and next steps
Reduced Impact Logging	<ul style="list-style-type: none"> <li>Reduce collateral damage and forest degradation by 50%</li> </ul>	<ul style="list-style-type: none"> <li>PNGFA</li> <li>FRI</li> </ul>	<ul style="list-style-type: none"> <li>Sandaun</li> <li>W. New Britain</li> <li>Milne Bay</li> </ul>	<ul style="list-style-type: none"> <li>2010: 0.1m</li> <li>2011 onwards: tbd with provincial gov</li> </ul>	<ul style="list-style-type: none"> <li>Engage local gov to define scope</li> <li>Pilot starting Sep 2010</li> </ul>
Secondary Forest Management	<ul style="list-style-type: none"> <li>Enhance regrowth rate of secondary forest</li> </ul>	<ul style="list-style-type: none"> <li>PNGFA</li> <li>FRI</li> </ul>	<ul style="list-style-type: none"> <li>E. Highlands</li> <li>Sandaun</li> <li>W. New Britain</li> </ul>	<ul style="list-style-type: none"> <li>2010: 0.1m</li> <li>2011 onwards: tbd with provincial gov</li> </ul>	<ul style="list-style-type: none"> <li>Engage local gov to define scope</li> <li>Pilot starting Sep 2010</li> </ul>
Afforestation/ Reforestation	<ul style="list-style-type: none"> <li>Enhance carbon stock</li> </ul>	<ul style="list-style-type: none"> <li>PNGFA</li> <li>FRI</li> </ul>	<ul style="list-style-type: none"> <li>Milne Bay</li> <li>E. Highlands</li> <li>W. New Britain</li> </ul>	<ul style="list-style-type: none"> <li>2010: 0.1m</li> <li>2011 onwards: tbd with provincial gov</li> </ul>	<ul style="list-style-type: none"> <li>Engage local gov to define scope</li> <li>Pilot starting Sep 2010</li> </ul>
Forest Conservation	<ul style="list-style-type: none"> <li>Protect forest to maintain biodiversity and provide environmental service</li> </ul>	<ul style="list-style-type: none"> <li>PNGFA</li> <li>DEC</li> </ul>	<ul style="list-style-type: none"> <li>Central Province</li> <li>W. New Britain</li> <li>Milne Bay</li> <li>E. Highlands</li> </ul>	<ul style="list-style-type: none"> <li>2010: 0.1m</li> <li>2011 onwards: tbd with provincial gov</li> </ul>	<ul style="list-style-type: none"> <li>On going in Kokoda and WNB, others starting Sep 2010</li> </ul>
Community REDD+ schemes	<ul style="list-style-type: none"> <li>Test REDD+ concepts with community (i.e., Benefit Sharing mechanism)</li> </ul>	<ul style="list-style-type: none"> <li>WCS</li> <li>WWF</li> <li>TNC</li> </ul>	<ul style="list-style-type: none"> <li>Manus</li> <li>W. New Britain</li> <li>Adelbert Mt, Madang</li> </ul>		<ul style="list-style-type: none"> <li>On going</li> <li>Collaborate with REDD+ pilots</li> </ul>

<sup>1</sup> 2010 budget is mostly for provincial consultation to identify scope of forestry pilot projects in certain provinces

SOURCE: Forestry sub working group

To date, only two projects have submitted Project Design Documents (PDD) for validation under the Climate, Community and Biodiversity Alliance (CCBA) and Verified Carbon Standard (VCS): the April Salumei Sustainable Forest Management Project in East Sepik, being managed by the April Salumei Foundation and Rainforest Management Alliance (formerly EarthSky Ltd.); and

<sup>12</sup> GOPNG, UN-REDD Joint Programme Document (2011).

<sup>13</sup> GOPNG, "Climate-compatible Development Strategy for Papua New Guinea", Second Draft for Stakeholder Comment, March, 2010, available at <http://actnowpng.org/sites/default/files/Interim%20Action%20Plan,%20August%202010.pdf>.

<sup>14</sup> [PNG Climate Compatible Development Strategy](#).

<sup>15</sup> Taken from: GOPNG, "Interim Action Plan for Climate-compatible Development" (2010).

the Kamula Doso Improved Forest Management Carbon Project in Middle Fly, being managed by Tumu Timbers Development and Nupan Trading Ltd. April Salumei is now one of the PNGFA's official REDD+ demonstration sites, and is undergoing a community consultation process to secure free, prior, and informed consent (FPIC) from landowners. In July 2010, Dr. Wari Lea Iamo, the Executive Director of the OCCD issued an OCCD position stating that the OCCD "does not recognize and disavows any partnership, support, endorsement or any form of connection to the proposed April Salumei and Kamula Doso Projects." The position was based on an independent review which found the projects to be incompatible with existing PNG laws and regulations.<sup>16</sup>

Within another initiative, FORCERT,<sup>17</sup> a local NGO, has been coordinating and piloting a trial PES project at the community level to develop a forest carbon inventory methodology. FORCERT uses Forestry Steward Council (FSC) certification as a management tool, linking community forest enterprises with timber yards, and have good relationships with similar organizations elsewhere in South East Asia.<sup>18</sup>

Similarly, the Nature Conservancy (TNC) has been working on community land use planning and dispute resolution in the Adelbert Mountains in Madang Province. They are focused on delineating clan boundaries, dispute resolution mechanisms, benefit sharing, and community mapping. Apart from basic sampling of carbon biomass, no direct work on the applicability of REDD+ to the Adelberts has yet been carried out.<sup>19</sup> This project's main outcome is the institutionalization of clan-based, land-use planning in district law.

### **1.3 Other UNFCCC engagement**

PNG has been one of the most active countries in REDD+ negotiations under the UNFCCC. While they are part of the G77 and AOSIS grouping, they often speak with an independent voice. They are credited, along with Costa Rica, for putting REDD+ back onto the UNFCCC agenda in 2005 and raising the profile of forests in climate change discussions. In the negotiations in the past, PNG had supported national-level action, increasing financing for forests, and robust "MRV" to support the use of market mechanisms for REDD+. Much of this was led by Kevin Conrad who represented PNG in UNFCCC negotiations until July 2011.<sup>20</sup> This position seems to be changing gradually; informal discussions with OCCD indicate interest in exploring sub-national approaches to REDD+ as well as opening up to the voluntary market.

Pursuant to Copenhagen Accords noted in the COP-15 round of UNFCCC negotiations in 2009, PNG submitted their Nationally Appropriate Mitigation Actions (NAMA). While the NAMAs included concrete emission reduction goals, they were expressly conditioned on several factors, including availability of fast-start finance and the establishment of a Green Climate Fund. The emission reduction goals included plans to decrease GHG emissions by at least 50% before 2030, while tripling GDP per capita; and, becoming carbon neutral before 2050. By 2030, this

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<sup>16</sup> Cited in: Leggett (2011).

<sup>17</sup> FORCERT is a Papua New Guinean not-for-profit company that provides forest management and product certification services. For more information please see: <http://www.forcert.org.pg/>, last accessed on September 27, 2011.

<sup>18</sup> Leggett (2011).

<sup>19</sup> Leggett (2011).

<sup>20</sup> See <http://www.postcourier.com.pg/20110818/news16.htm>

would effectively limit annual CO<sub>2</sub>e emissions between 26-32 Mt.<sup>21</sup> The Government has just submitted its second National Communication on Climate Change to the UNFCCC (2008-2011).

To date, PNG has not submitted a National Adaptation Program of Action (NAPA).<sup>22</sup>

### ***Carbon market experience***

Papua New Guinea does not have much carbon market experience, primarily due to its lack of capacity; governance limitations; and historic reluctance to engage in the voluntary market forestry projects. In the compliance market, none of the six Clean Development Mechanism (CDM) projects that exist are afforestation/reforestation project from which to draw experience. One geothermal project is registered in New Ireland Province, and five methane avoidance (waste water) projects in West New Britain are at the validation stage.<sup>23</sup>

Reluctance to engage in voluntary REDD+ projects has been based on government opposition to the private development of projects outside of official REDD+ channels, citing that they are unlikely to deliver high carbon prices.<sup>24</sup> The two largest projects being developed, April Salumei (REDD) and Kamula Doso (IFM), are government-sanctioned, but awaiting validation under the Climate, Community and Biodiversity (CCBA) standards (in addition to VCS in the case of Kamula Doso).<sup>25</sup>

## **1.4 Forest cover, deforestation and forest degradation trends**

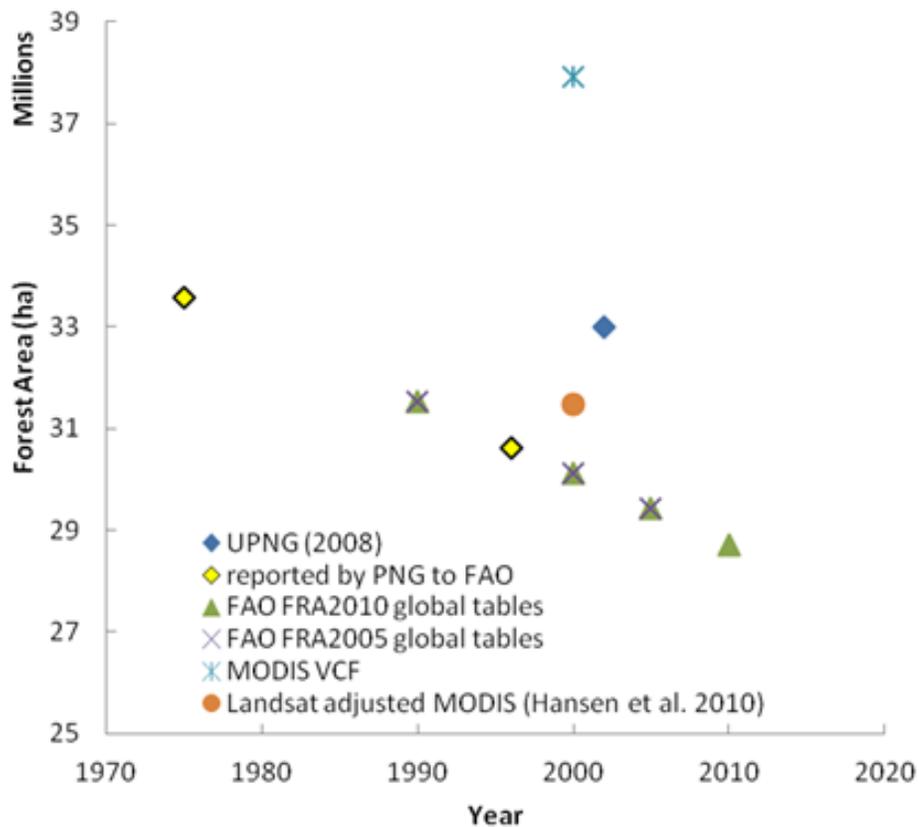
In the FAO Forest Resources Assessment (FRA) 2010, PNG uses forest-area data for the years 1975 and 1996 derived from the country's Forest Inventory Mapping Systems. The earlier 1975 data are based on interpretation of aerial photographs and the 1996 data are based on supplements to the 1975 data with 1996 Landsat TM images. A more recent survey of PNG's forests was completed in 2008 by the University of Papua New Guinea (UPNG) Remote Sensing Centre, which summarized analyses of forest extent for the years 1972 and 2002 as well as deforestation and forest degradation across PNG using Landsat ETM+ and SPOT4 and SPOT 5 satellite imagery (Figure 2).

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<sup>21</sup> GOPNG, "Preliminary Inscription under the Copenhagen Accord" (2010).

<sup>23</sup> UNEP Risoe CDM/JI Pipeline Analysis and Database, August 1<sup>st</sup> 2011, available at <http://cdmpipeline.org/>.

<sup>24</sup> DEC 2009 Media Statement, cited in: Babob (2011).



**Figure 2: Trends in forest cover over time in Papua New Guinea according to multiple data sources.**

In addition to forest extent, the UPNG study also estimated the rate of forest change between 1972 and 2002 and found that 15% of PNG’s diverse rainforests had been cleared and 8.8% had been degraded to secondary forest over the 30 year time period, representing 7.9 million hectares in total<sup>26</sup>.

Hansen et al. (2010) estimates of forest cover and gross forest cover loss for PNG were extracted from a larger global analysis and derived using only a sample of high-resolution images across the tropical biome. Therefore, the UPNG study, which uses wall-to-wall high resolution imagery specific to PNG, is a more reliable estimate of forest cover and forest cover loss. Despite its advantages, the UPNG study uses imagery from only two years to deduce an annual rate of deforestation (1.41% per year) and does not provide a recent time period as do other assessments (Table 1), which report much lower rates of change.

<sup>26</sup> Phil Sharman et al. “The state of the forests of Papua New Guinea: Mapping the extent and condition of forest cover and measuring the drivers of forest change in the period 1972-2002.” Port Moresby, University of Papua New Guinea (2008) [*hereinafter* Shearman et al. (2008)].

**Table 1:** Forest area change estimates for different time periods according to different data sources. FAO estimates represent net loss while MODIS VCF and Hansen et al. estimates represent gross loss.

Time Period	Forest Area Change							
	<i>ha yr<sup>-1</sup></i>				<i>% yr<sup>-1</sup></i>			
	FAO FRA2010	FAO FRA2005	MODIS VCF	Landsat adjusted MODIS (Hansen et al. 2010)	FAO FRA2010	FAO FRA2005	MODIS VCF	Landsat adjusted MODIS (Hansen et al. 2010)
1990-2000	-139,000	-139,000			-0.45	-0.5		
2000-2005	-139,000	-139,000	-272,474	-49,806	-0.47	-0.5	-0.72	-0.13
2005-2010	-142,000				-0.49			

Deforestation and degradation rates vary considerably across the country's biogeographic regions, with the majority occurring in the lowland forests and islands, particularly in the east (Bismarck, D'Entrecasteaux, East Papuan Islands, and in the South-East Papua-Oro region). While these regions continue to have the greatest potential for further losses in the near term, the Huon Peninsula and Adelbert region of the highlands have also undergone deforestation at a similar magnitude.<sup>27</sup>

Emissions from land use, land-use change, and forestry now account for 95% of total national emissions, amounting to about 110-126 Mt CO<sub>2</sub>e in 2010.<sup>28</sup> Between 1972 and 2002, an estimated 3.4 Gt CO<sub>2</sub>e were released from deforestation, with an additional 280.1 to 325.7 Mt CO<sub>2</sub>e from degradation,<sup>29</sup> although several studies claim that the available data are inadequate to derive accurate measurements.<sup>30</sup>

## 2. Drivers of Deforestation

### Key Findings

- Unsustainable logging and subsistence agriculture are reported as the two main drivers of deforestation and degradation in Papua New Guinea since 1972.
- While deforestation rates have been comparatively low and current forest cover is high, PNG is at risk of rapid increases in deforestation from the expansion of commercial agriculture as well as infrastructure developments in pristine forest areas. Five million hectares are currently pending to be executed by license holders under Special Agricultural Business Leases.
- Subsistence agriculture is stated to become a more significant driver in the future due to high population growth, which is reported at approximately 2.3% annually.

<sup>27</sup> Phil Sharman and Jane Bryan, "A bioregional analysis of the distribution of rainforest cover, deforestation and degradation in Papua New Guinea", 36 *Austral Ecology* 9 (2011).

<sup>28</sup> Government of Papua New Guinea (*hereinafter* GOPNG). 2010. National Program Submission, UN-REDD, 5<sup>th</sup> Policy Board Meeting, 4-5 November 2010, Washington, DC [*hereinafter* PNG Joint Program Document].

<sup>29</sup> GOPNG, Readiness Plan Idea Note (R-PIN), Forest Carbon Partnership Facility (2008) [*hereinafter* PNG R-PP].

<sup>30</sup> Jane Bryan et al., "On estimating tropical forest dynamics in Papua New Guinea", (2011) *Annals of Forest Science*, Letter to the Editor.

- For the period 1972-2002, the direct drivers of deforestation and degradation (Table 2) were commercial logging (48.2%) and subsistence agriculture (45.6%), with minor contributions from forest fires (4.4%), clearing for agricultural plantations (1%) and mining (0.6%). Rapid population growth, international demand for timber and weak governance were seen as indirect drivers of deforestation during this period.

As with forest cover, the relative contributions of deforestation drivers are also subject to controversy and debate.<sup>31</sup> Shearman et al. (2008/2009) found that almost all forest change in Papua New Guinea since 1972 has been due to either logging (48.2%) or subsistence agriculture (45.6%) (see Table 2). Additional drivers include forest fires (4.4%), plantations (1.2%), and mining (0.6%).<sup>32</sup> Each is addressed below.

**Table 2: Sources of PNG’s historical GHG emissions (Adapted from: PNG UN-REDD National Program Submission)**

Proximate Driver	Description	2010 Emissions (Mt CO <sub>2</sub> e)
Timber Harvesting	<ul style="list-style-type: none"> <li>• Logging results in significant deforestation and degradation, mainly in lowlands and islands</li> </ul>	68-69
Subsistence/smallholder agriculture	<ul style="list-style-type: none"> <li>• Increasing population leads to expansion of agriculture area into forest (and shortening of rotation cycle)</li> </ul>	28-43
Agriculture Leases	<ul style="list-style-type: none"> <li>• Clearing of forest under ‘agriculture leases’ scheme to establish agricultural plantations with high risk of being abused for timber extraction</li> </ul>	6
Commercial Agriculture	<ul style="list-style-type: none"> <li>• Clearing of forest to establish commercial plantations, predominantly oil palm, (mainly on fertile lowland forests) with proven agricultural use</li> </ul>	3
Mining, infrastructure	<ul style="list-style-type: none"> <li>• Includes forest dieback from Ok Tedi spill</li> </ul>	3
Fire	<ul style="list-style-type: none"> <li>• Caused by humans (hunting, spreading from subsistence burning) and lightning</li> <li>• Forest degradation makes fires more likely</li> </ul>	2
Miscellaneous	<ul style="list-style-type: none"> <li>• Emissions from oil and gas production</li> <li>• Fuel for transportation and energy generation</li> <li>• Emissions from palm oil processing</li> </ul>	3-4

### ***Timber Harvesting***

<sup>31</sup> PNG Joint Program Document.

<sup>32</sup> Shearman et al. 2009.

PNG's timber industry is highly globalized, and has largely focused on the lowland forests in coastal regions of island and the mainland due to their greater accessibility. The more remote and rugged highland provinces have been far less extensively logged. As timber resources on the islands become closer to being fully exploited, logging has shifted to the mainland coastal provinces. Although over 8.6 million hectares of unlogged forest remains accessible to mechanized logging, almost half has already been allocated to the sector.<sup>33</sup>

Most of PNG's commercial forests are controlled by Malaysian timber companies. Approximately 60% is controlled by a single multinational firm, Rimbunan Hijau, based in Sarawak, Malaysia.

In 2009, approximately 2.8 million m<sup>3</sup> of logs were harvested, with approximately 80% exported as round logs and 20% or less processed locally. The major timber export products are sawn timber, plywood, veneer and Balsa wood products.<sup>34</sup> Most products are shipped to Chinese manufacturers as raw logs, and then exported to foreign markets.<sup>35</sup> After China implemented their domestic logging ban in 1998, demand for foreign timber greatly increased and PNG's timber exports increased dramatically to keep pace. The following year exports to China had doubled their pre-ban volume, rising to almost five fold by 2002.<sup>36</sup> By 2005, China accounted for over 75% of PNG's timber exports.

#### ***Subsistence/ Smallholder Agriculture***

The second largest driver determined by Shearman et al. was subsistence agriculture. Rapid population growth has led to additional forest clearance for gardening, in addition to agricultural intensification within non-forest areas at high population densities. Given that the rate of population growth is still increasing – 40% of the population is currently under 15 years old<sup>37</sup> – it is likely that subsistence-related deforestation will also increase. A high proportion of deforestation caused by subsistence agriculture is in contrast to much of neighboring SE Asia, where clearance for oil palm plantation has been a significant driver.

#### ***Agriculture Leases and Commercial Agriculture***

While deforestation from agricultural leases and commercial agriculture is relatively low compared with logging and subsistence agriculture, they have great potential to increase in coming years. Plantation agriculture has been locally significant in West New Britain and Milne Bay though, where it was responsible for 3.2% and 1.1% of deforestation respectively.

Since the Shearman et al. study (2009), commercial plantations – especially oil palm – have been expanding, and the government has planned for substantial growth in production of the four main export crops (palm oil, coffee, cocoa, and copra) over the next twenty years.<sup>38</sup> Oil palm alone is expected to grow by 5-6% per year.<sup>39</sup>

Additionally, the number of Special Agricultural Business Leases (SABL) issued since 2003 have rapidly increased. These leases, which skirt the usual negotiation process as applied

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<sup>33</sup> Shearman et al. 2009.

<sup>34</sup> PNG Joint Program Document.

<sup>35</sup> Laurance et al. (2010)

<sup>36</sup> Graeme Lang and Cathy Hiu Wan Chan, "China's Impact on Forests in Southeast Asia" 36 *Journal of Contemporary Asia* 167 (2006).

<sup>37</sup> Laurance et al. (2010)

<sup>38</sup> Babon (2011).

<sup>39</sup> PNG Climate-compatible Development Strategy.

under FMAs, can cover areas of land in excess of 100,000 hectares.<sup>40</sup> It is currently believed that over 5 million hectares have already been issued<sup>41</sup> with an additional 7-8 million hectares pending – though they are on hold due to a government-issued moratorium.

### **Mining/ Infrastructure**

Typically, infrastructure development has occurred in formerly degraded areas, which has reduced its overall impact on forests to date. Mining, gas, and hydropower are currently relatively minor drivers. Mining has had intense local effects, but the size of the area directly affected has been small – less than 1% of the country – primarily occurring in Western Province. However, there is potential for mining, gas, hydropower and infrastructure to become more significant in the future due to the size of some projects being planned and the related infrastructure (including roads, which increase forest access for subsistence farming). The Xstrata Copper's Frieda River Project for instance is a major copper and gold open-pit project due to begin construction in 2012/2013 in the Upper Sepik (near the border of the Sandaun and East Sepik Provinces), an environmentally-sensitive area.<sup>42</sup> Gold, copper, and nickel production are all expected to double production by 2030.<sup>43</sup>

Natural gas is also growing. PNG Liquefied Natural Gas (PNG LNG) is a major gas project based in the Southern Highlands and Western Provinces northwest of Port Moresby. It includes liquefaction and storage facilities with an initial investment cost of US\$15 billion.<sup>44</sup> There will be over 450 miles of pipelines, including some that will run through the Kikori River catchment to the coast in Gulf province. It is one of the largest on-stream resource projects in the world, and is expected to double the current GDP of PNG.<sup>45</sup> Production is expected to start in 2014. The project is owned and operated by a consortium of major mining companies, including ExxonMobil, Esso, and OilSearch.

Hydropower projects are also being developed in the central provinces and represent a potential future threat to forests. Further research will be needed to quantify the potential area and emissions of planned mining, gas, and hydropower projects.

### **Fires**

While large forest fires lead to less than 5% of forest loss, they are the most important proximate driver of deforestation at high altitudes. Caused by either humans or lightning<sup>46</sup> in grasslands, especially during droughts, they can spread into adjacent forests. It is estimated that much of the 13% of upper mountain forest lost between 1972 and 2002 was associated with anthropogenic fires, especially during the El Niño event of 1997-1998.<sup>47</sup>

## **3. Institutional Framework**

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<sup>40</sup> Babon (2011).

<sup>41</sup> Leggett (2011).

<sup>42</sup> Leggett (2011).

<sup>43</sup> GOPNG. 2010. Climate-compatible Development Strategy.

<sup>44</sup> <http://www.pnglng.com/project/>.

<sup>45</sup> Leggett (2011).

<sup>46</sup> In addition to lightning induced fires, other relevant *force majeure* events include earthquakes, volcanic eruptions, tectonic movements, landslips, flooding.

<sup>47</sup> Shearman et al. (2009).

## Key Findings

- Changes in Government in June 2011 seem to lead to the merger of the Office of Climate Change and Development (OCCD) and the Papua New Guinea Forest Authority (PNGFA) under one Ministry. The merger of OCCD and PNGFA has yet to take place and respective REDD+ related responsibilities are not yet defined but OCCD staff considers this merger a positive step towards increasing harmonization of efforts between departments.
- In the past, the lack of clarity on REDD+ mandates between OCCD and PNGFA has caused considerable duplication of effort. The climate change office has been restructured and rebranded twice in the past five years, leading to some feelings of confusion among donors and the international carbon market community.
- At local level, expectations for REDD+ projects are extremely high. At the international level, PNG representatives have been strongly lobbying against sub-national project activities in favor of a centralized approach. The lack of national guidance on the potential integration of local activities into a national REDD+ strategy has created confusion and friction for local groups. As a result, bottom-up REDD+ project development has not progressed beyond initial planning stages.
- There are challenges in providing basic services in rural areas. PNG suffers from a general lack of institutional and technical capacity for forest governance and land use planning and coordination (at the National and Local level). This could hinder implementation of sound land management initiatives that are in the resource owners' best long term interests.

### 3.1 Overview

The REDD+ landscape in PNG is marked by competing interests between two main government bodies: the Office of Climate Change and Development (OCCD) and the Papua New Guinea Forest Authority (PNGFA). Division of responsibility on REDD+ related matters between OCCD and PNGFA seems partly overlapping and unclear at the time of writing. OCCD is currently working on documents that aim at facilitating REDD+ implementation (e.g. FPIC guidelines, REDD+ guidelines and REDD+ roadmap). However, officially announced REDD+ pilot sites are on areas with Forest Management Agreements in place between FA and the landowners, providing PNGFA with a mandate for implementation. Following a change in Government in August 2011<sup>48</sup> the new Prime Minister at the time installed one Minister of Forestry and Climate Change in charge of both institutions, OCCD and PNGFA; however, at the time of writing a clarification of roles and responsibilities on REDD+ matters between the two institutions was still outstanding. OCCD appears to envisage an upgrade of its status from an 'Office' to an 'Agency' which would equip the unit with legislative powers to develop climate change legislation. Whether and how this will be pursued in the future is as of now unclear. Parliamentary elections are scheduled between April and June 2012, which might result in another change in Government, which could also impact current plans of institutional restructuring.

The structure of OCCD and its previous positioning under the Prime Minister's office is illustrated in Figure 3 below. It is unclear how this may change with the restructuring.

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<sup>48</sup> Former Prime Minister Sir Michael Somare was hospitalized for health reasons in early 2011 and the Deputy Prime Minister Sam Abal was acting in his stead. PNG's Parliament voted to declare the office of Prime Minister vacant and replace the former government with the opposition, led by Peter O'Neil as Prime Minister.

## New institutional arrangements

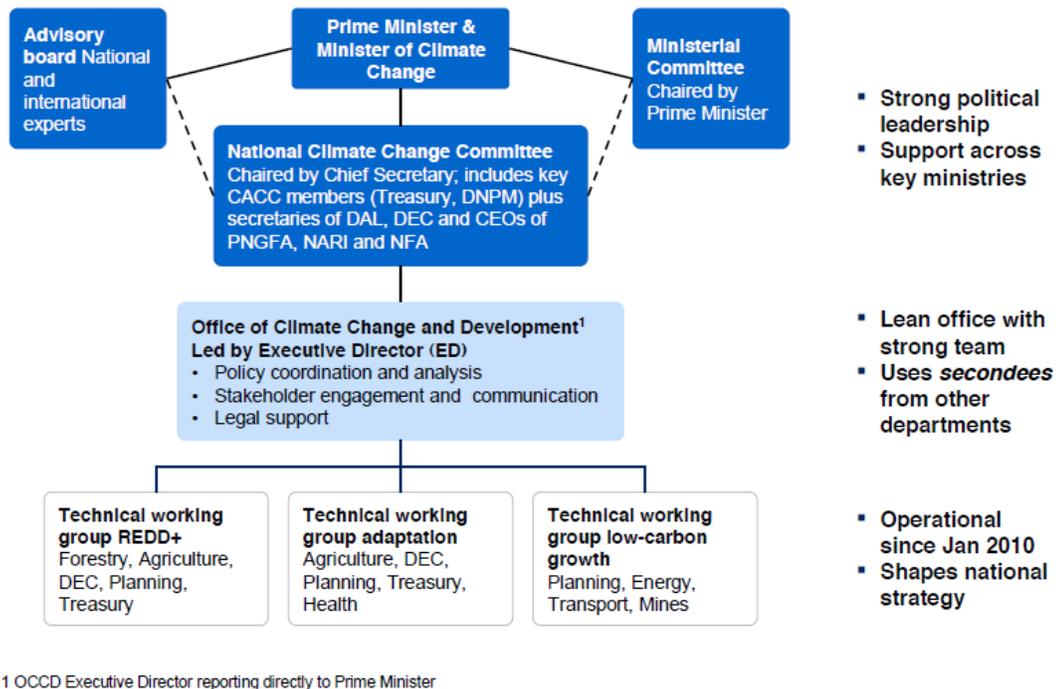


Figure 3: Climate change institutional arrangements (GOPNG, Interim Action Plan for Climate-Compatible Development 2010, p. 27)

### 3.2 Institutions involved in land and forest management

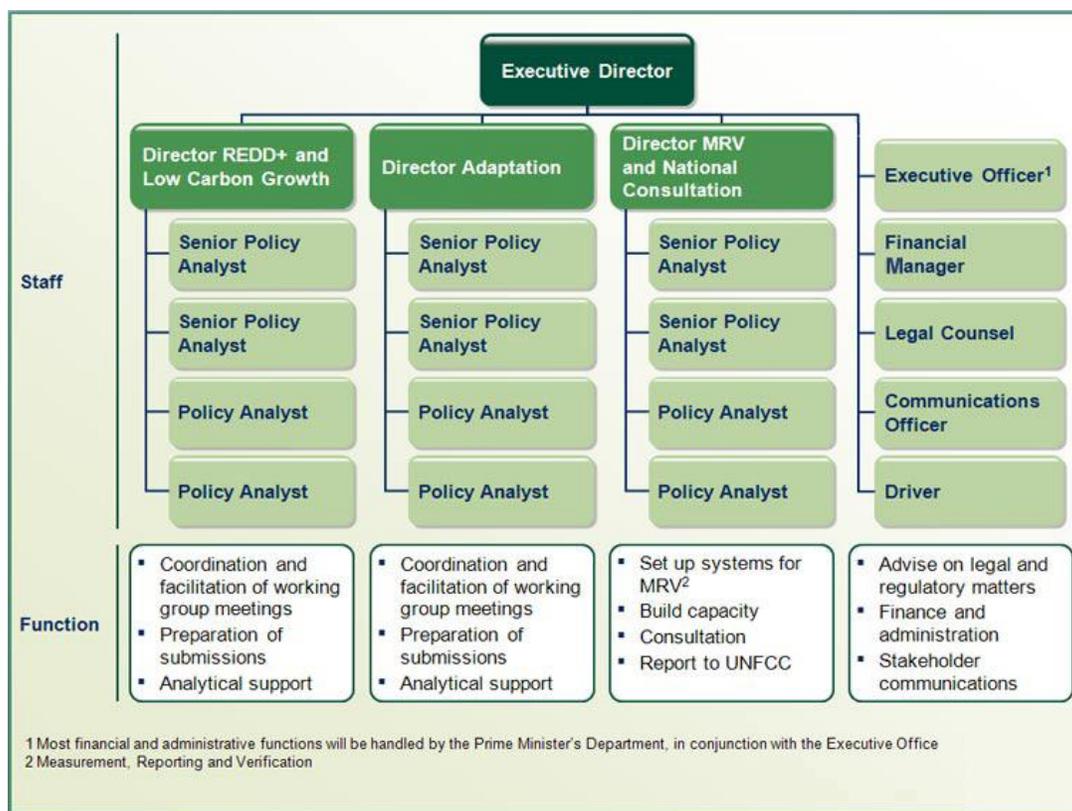
The Office of Climate Change and Development (OCCD) is a relatively new office that was created in March 2010 by the National Executive Council (NEC) and which became operational in August 2010. The OCCD serves as the coordinating entity for all climate change policy in PNG; it is the Designated National Authority under the Kyoto Protocol and the Implementing Partner under the UN-REDD process. The OCCD represents PNG's third attempt at building an office of climate change. It replaces the Office of Climate Change and Environmental Sustainability (OCCES), which was officially disbanded after corruption investigations in early 2009. The OCCES had already replaced the Office of Climate Change and Carbon Trading in May 2008 which had also come under heavy criticism.

NEC Decision 54/2010, which established the OCCD, specifies that the **National Climate Change Committee (NCCC)** and the OCCD as its secretariat take full and exclusive responsibility for all policies and actions concerning Climate Change and Environmental Sustainability.<sup>49</sup> The NCCC, which meets every two to three months, has no legislative power, but makes recommendations to the NEC, which has the power to propose and draft new legislation, which is passed to Parliament for review. Current NCCC board members include the

<sup>49</sup> PNG Joint Program Document.

Secretaries of the Department of Environment and Conservation (DEC) (described below), Lands and Planning, National Planning and Agriculture. Both the Advisory Board and the Ministerial Board take direction directly from the Prime Minister.

The OCCD is currently composed of about 20 staff members (see Figure 4), and was supported by McKinsey & Company, who were there to build capacity and establish a climate policy and legal framework to strengthen the position of the OCCD. In the past, the OCCD benefitted from support by the Office of the Prime Minister, but lacks authority to develop legislation and direct other government departments.<sup>50</sup>



**Figure 4: Organizational Structure of the Office of Climate Change and Development (Source: PNG UN-REDD National Program Submission)**

The OCCD has four immediate tasks:<sup>51</sup>

- Conduct a national and provincial consultation on climate-compatible development, engaging a broad range of stakeholders to determine how to engage communities in a national REDD+ plan;
- Launch Fast Start Action including REDD+ 'readiness activities' and pilot projects for different approaches to mitigation, adaptation, and low carbon growth;

<sup>50</sup> Leggett (2011).

<sup>51</sup> PNG Joint Program Document.

- Prepare the final version of PNG's National Climate-Compatible Development Strategy (CCDS); and
- Determine financing requirements of Fast Start Action and scale-up to establish an overall investment plan, which can form the basis for international negotiations of REDD+ support.

The OCCD is supported in these tasks by four Technical Working Groups (TWGs), which provide policy advice and/or recommendations. The TWGs are chaired by the respective Directors from OCCD and open to invited NGOs and other stakeholders. In formulating policy advice/recommendations, the TWGs can request that specific technical research be conducted by specialist sub-working groups. Currently, there are operational sub-working groups for Forestry, MRV, and Agriculture.

The **Papua New Guinea Forest Authority (PNGFA)** is the agency responsible for the management of PNG's forests and for monitoring and surveillance of forest areas. It essentially functions as an intermediary, obtaining timber rights from landowners, negotiating Forest Management Agreements with timber corporations, and distributing payments to landowners.<sup>52</sup> The PNGFA was established in 1993 under the 1991 Forestry Act, replacing the former Department of Forest, and unifying all Provincial Forest Divisions and the Forest Industries Council.

Under the Forestry Act, there are three key arms of the PNGFA:

- **The National Forest Board (NFB)** advises the Minister for Forests on policies and legislations and gives directions to the National Forest Service through the Managing Director, consistent with the objectives of sustainable forest management. The Board is made up of major stakeholders from the forestry sector, including national and provincial governments, landowners, NGOs, Chamber of Commerce and Industries and the National Council of Women. The chair is the Secretary of the Department of Conservation. For the sake of efficiency, some functions have been delegated to the Managing Director.
- **Provincial Forest Management Committees** were established for each of the provinces and serve as a forum for consultation and coordination on forest management between the national and local levels. The Committees provide recommendations to the National Forest Board on matters regarding forestry-related activities in their respective provinces.
- **The National Forest Service (NFS)** is the implementing arm of the PNGFA, and governed by the National Forest Board (NFB). The NFS is composed of the Office of the Managing Director and six directorates: Corporate Services, Forest Policy and Planning, Project Allocation, Forest Development, Field Services, and the **Forest Research Institute (FRI)**. Within the FRI, research is organized within four programs: (i) sustainable forest management, (ii) planted forests, (iii) forest biology, and (iv) the national botanical garden. The sustainable forest management program has the greatest relevance to REDD+, and includes projects related to tree growth and yield studies, silvicultural techniques, and ecosystem management.

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<sup>52</sup> Laurance et al. (2010).

The **Department of Environment and Conservation (DEC)** is tasked with the administration and implementation of the Environment Act 2000 (see next section). Broadly, they are responsible for protected areas and maintaining biodiversity and the provision of environmental services. The Interim Action Plan for Climate-Compatible Development holds that these responsibilities are shared with the PNGFA,<sup>53</sup> and the two institutions are closely linked; the Secretary of the DEC chairs the National Forest Board, which must provide approval to large timber projects.<sup>54</sup>

The **Departments of Lands and Physical Planning (DLPP)** is responsible for managing alienated and customary land, including providing support for land use planning by the government at the province and district levels. It may also facilitate customary land issues at the discretion of customary landowners. Perhaps most importantly, the DLPP grants agricultural leases to business under the lease-lease back scheme, as a prerequisite for approval by the Department of Agriculture and Livestock (DAL).<sup>55</sup>

The **Department of Agriculture and Livestock (DAL)** mission is to increase agricultural production for domestic consumption and export, thus increasing the well-being and contributing to social economic development. Under the DAL, the Provincial and Industrial Support Services (PISS) provide quality advice and Technical support to the Provinces and Industry so as to further develop and expand Agriculture base. This branch of the DAL acts as a bridge between Research, Extension, Industry and DAL and it has land use management as one of its main functions.<sup>56</sup>

The **University of PNG (UPNG)**'s Remote Sensing Unit supports many of the governmental tasks outlined above, and operates the country's most advanced GIS system.

Development and implementation of domestic policy to support activities to reduce deforestation and degradation has been slow to date. The slow progress can be attributed to three key factors:<sup>57</sup>

- OCCD Directors have historically relied heavily on a single consulting firm that lacked technical experience on REDD+ or environmental policy.
- A lack of direction from former Ambassador for Climate Change and Special Envoy to PNG, Kevin Conrad, and an increasing disconnect between what is being said at the international level and what is actually achievable on the ground in PNG.
- An ongoing conflict between OCCD and PNGFA over control of REDD+.

The PNGFA has expressed that REDD+ is purely a forestry issue which can be addressed under existing legislation – the Forestry Act – and therefore falls under their jurisdiction.<sup>58</sup> Effort has been made to develop four pilot projects on forest management areas. However, this was being done rather in competition than in conjunction with OCCD and eligibility of the projects under a potential REDD+ scheme is uncertain. The PNGFA have also not engaged with the OCCD on a proposed Memorandum of Understanding to agree on joint working practices.

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<sup>53</sup> GOPNG. 2010. Interim Action Plan for Climate-Compatible Development: Document for Public Consultation.

<sup>54</sup> Laurance et al. (2010)

<sup>55</sup> PNG Joint Program Document.

<sup>56</sup> For more information see: <http://www.agriculture.org.pg/about%20us.htm#top>, last accessed on October 24, 2011.

<sup>57</sup> Leggett (2011).

<sup>58</sup> Leggett (2011).

However, with the merger of the two entities under one Ministry it is expected that coordination will improve.

A 2007 International Tropical Timber Organization (ITTO) Review found that while PNG's forest laws are generally strong, the government and forestry industry could not demonstrate sustainable forest management due to a lack of capacity to enforce laws.<sup>59</sup> This presents a major institutional barrier to successful implementation of any REDD+ scheme, and major reforms of the PNGFA will likely be needed.

## 4. Domestic Policies and Legislation

### *Key Findings*

- A consulting firm worked with the OCCD to develop a Climate Compatible Development Strategy. This strategy has been adopted by the Government and proposes an ambitious target of 7% annual economic growth and carbon neutrality by 2050. REDD+, principally implemented through reduced-impact logging and sustainable forest management was expected to make up over 60% of the projected emission reductions. The strategy has been heavily criticized by local stakeholders due to lack of transparency and consultation in the Strategy's development and Government acceptance has been slow.
- Management of forest resources in PNG is centralized by the PNGFA .
- 97% of the land in PNG is owned by communities and governed by customary rules. However, the state has developed procedures to gain access to communities whereby the State may acquire customary land by agreement or compulsory process.
- In PNG, trees can be owned separately from the land. Forest Management Agreements (FMAs) can be used to give ownership of trees to the National Forest Service of the PNGFA, which can then issue logging concessions to agriculture and timber companies on the basis of the FMA.
- Use of FMAs has resulted in control over forest resources being transferred from traditional landowners to the government. Through this process, resource allocation power has been gradually transferred from the landowners to the government.
- Customary communities that own the land form Incorporated Landowner Groups (ILGs) receive royalties from FMAs. ILGs seldom receive complete royalty payments. The formation of ILGs is also a very lengthy and often difficult process due to changes in clan affiliation of local people. This is compounded by a lack of experience with cross-generational contractual obligations within clans as well as prevailing illiteracy for reviewing ILG and FMA contracts.
- The current version of the National Climate Change Policy Framework assigns carbon rights in PNG to landholders; however, the government has the right to develop and sell it.
- Several laws and policies were enacted in PNG after the Forest Commission of Inquiry (Barnett Commission) into Aspects of the Timber Industry was established in 1987. This inquiry provided enough evidence that some timber companies in PNG were operating illegally. The government responded to the findings of the Barnett Commission with a comprehensive program of reform but these efforts have been

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<sup>59</sup> Babon (2011).

insufficient to regulate forestry operations and agriculture in a sustainable and effective way.

## 4.1 Legal framework

### *Forest Classification*

The Draft National Forest Plan (2006) classifies natural forests in PNG into two categories:

- Production Forests: 13.75 million hectares of forest for exploring timber and other forest products;
- Reserve Forests: 15.55 million hectares of forests “not for timber extraction due to inaccessibility or ecological constraints”.

PNG’s Forest Authority (PNGFA) estimates that natural forests (Production and Reserve Forests) amount to about 64% of the total forest area in PNG. The remaining forest area is classified by the Draft National Forest Plan (2006) as Salvage Forests (8%), areas with Afforestation potential (7%) and Protection Forests (1%).<sup>60</sup>

### *Governance structure*

In PNG, management of forest resources is the mandate of the central government through PNGFA. Management of other sectors has been partially decentralized since 1997. The 1995 Organic Law on Provincial and Local Level Governments (OLPLLG) (implemented in 1997) attempted to decentralize government functions and responsibilities by devolving substantial financial management functions and responsibilities, including planning, budget, and finance, to the sub-national level (Provincial, District, and Local Level Administrations and Treasuries). This decentralization process is still far from complete however, especially with regard to management of financial resources.<sup>61</sup> PNG’s Joint Programme Document under the UN-REDD process holds that “lines of authority between the three tiers of government are insufficiently developed, and transparent and accountable procedures and systems to enhance decentralization of service delivery remain a huge challenge.”<sup>62</sup>

### *Land Tenure*

Land ownership and the right to exploit most natural resources in PNG are vested with the people by the **Land Act, 1996** and protected by the Constitution. Under Part II of the Land Act, 1996, only two forms of land are formally recognized: un-alienated land (customary land) and alienated land (state land).<sup>63</sup> In practice, about 97% of land is owned and managed by customary landowners (tribal clan groups), and the remaining 3% is owned either by the State, private companies, individuals or religious groups (e.g. Roman Catholic, Lutheran or United Missions).<sup>64</sup> Yet, it is unclear how much land is still under management by customary owners and how much has been contracted to business.

Customary land tenure regimes are typically characterized by two general sets of principles. First, exclusive individual ownership and inheritance have traditionally been uncommon, and

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<sup>61</sup> PNG Joint Program Document.

<sup>62</sup> Ibid.

<sup>63</sup> PNG Institute of National Affairs. 2010. REDD Capacity and Consensus Building Workshop. 1-3 March 2010, March Beach Resort.

<sup>64</sup> <http://www.forestry.gov.pg/site/page.php?id=11>.

almost all land is vested in land groups, which are usually based on kinship at various scales (e.g. lineages, sub-clans, or clans). Group members typically have usufruct rights to the land for subsistence.<sup>65</sup> Secondly, rights to land were traditionally modified to accommodate changing socio-political, demographic and environmental conditions. As such, no single criterion was sufficient to provide unconditional tenure rights.<sup>66</sup> The introduction of perennial export crops (e.g. oil palm, coffee, and cocoa) has changed these traditional systems and relationships. Usufruct rights are now vested in the same family or individual for extended periods. These changes have led some individuals to claim exclusive access rights and inheritance rights.<sup>67</sup>

Under the Land Act (1996), the State may acquire un-alienated (customary) land through two means:

- By agreement: Under section 10, land can be acquired by agreement provided that the Minister for Lands and the landowner representatives agree to the terms and conditions of the lease, and that the Minister carries out an inquiry to ensure that the land to be acquired is not needed by the landowners.<sup>68</sup>
- By compulsory process: Under section 12, the State can acquire customary land from traditional owners by issuing notice to treat with the landowners, who then have two months to respond. If the land is successfully acquired, the land and all properties belong to the State and the land is freed from all interests, trusts, restrictions, reservations, obligations, contracts, and licenses.<sup>69</sup>

Customary land may also be acquired for lease-leaseback<sup>70</sup> purposes and the granting of **Special Agriculture and Business Leases (SABLs)**. The **Land Groups Incorporation Act, 1974**, growing from the 1973 Commission of Inquiry into Land Matters, was the vehicle that allowed customary groups to hold title as Incorporated Land Groups (ILGs) and manage lands that had been alienated during colonial times (since returned under the Plantation Redistribution Scheme).<sup>71</sup> It should be noted that this title cannot be used as security for commercial borrowing though, and the ILG must engage in a lease-leaseback scheme with the State, in which the lease becomes a tradable asset.<sup>72</sup>

The lease-leaseback construction was designed to stimulate agricultural expansion on customary lands.<sup>73</sup> Under this process, the first lease is negotiated between the landowners and the government, often for a period of 99 years (but not exceeding). The government then tenders the lease to private agricultural companies to develop agricultural projects over the land. There is no prescribed form or regulation that gives effect to section 11 and 102 of the Land Act

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<sup>65</sup> George N. Curry and Gina Koczberski, "Finding common ground: relational concepts of land tenure and economy in the oil palm frontier of Papua New Guinea", 175 *The Geographical Journal* 98 (2009) [hereinafter Curry and Koczberski (2009)].

<sup>66</sup> Curry and Koczberski (2009).

<sup>67</sup> Ibid.

<sup>68</sup> Papua New Guinea Institute of National Affairs. 2010. REDD Capacity and Consensus Building Workshop. 1-3 March 2010, March Beach Resort.

<sup>69</sup> Ibid.

<sup>70</sup> In a lease-leaseback arrangement party A leases property to party B who leases it back to A. Party B will typically execute a project on the property for the benefit of A for the duration of the leases. This is discussed further in the PNG context in the next paragraph.

<sup>71</sup> Tony Power, "Incorporated Land Groups in Papua New Guinea", in *Making Land Work: Volume 2*, AUSAID (2008), available at [http://www.aid.gov.au/publications/pdf/MLW\\_VolumeTwo\\_Bookmarked.pdf](http://www.aid.gov.au/publications/pdf/MLW_VolumeTwo_Bookmarked.pdf).

<sup>72</sup> Ibid.

<sup>73</sup> Leggett (2011).

however, and SABL has been very controversial. Currently, all pending SABLs are on hold until a Commission of Inquiry has ruled on the legality of the legislation.

There are several significant problems with the current SABL process, including:<sup>74</sup>

- Landowners (often based in Port Moresby) claiming to represent communities negotiate leases with the Government without the consent of the communities;
- Tenders have been granted to agricultural companies without first checking their expertise or financial support, or even the feasibility of the proposed developments;
- Forest Clearance Authorities are granted to lease holders under the SABL process with far less rigor than is applied to logging concessionaires, leading to its use to access lumber and skirt the normal logging concession processes; and
- A generally lack of transparency at all stages.

### **Forest Tenure**

Over the last 20 years, forest laws in PNG have evolved towards increasing government control of forest areas, transferring resource allocation power from landowners to the government.<sup>75</sup> The **Forestry Act, 1991** allows for the purchase of trees separate from the land. Under this Act, landowning groups are required to be incorporated (under the Land Groups Incorporation Act) in areas where logging companies have gained logging rights.

A **Forest Management Agreement (FMA)** gives ownership of trees to the National Forest Service of the PNGFA, which then directly negotiates with the logging companies. Rights are acquired for a period of 50 years, and the concession holder can operate within the timber concession for 40 years.<sup>76</sup> The NFS is then also responsible for paying royalties and compensation to the ILGs.<sup>77</sup> According to the Joint Programme Document submitted by PNG to the UN-REDD in many cases royalty payments were received by company representatives but never fully paid to the appropriate landowners.<sup>78</sup>

Most logging and agriculture development projects are taking place within FMAs, and the process of signing FMAs has been heavily criticized for its lack of transparency and outright corruption. The current standards for obtaining consent would not fulfill international standards for free prior and informed consent.<sup>79</sup> They fail to account for traditional land boundaries or existing disputes. FMAs can only be established by the consensus agreement of the ILG, although the incorporation process does not require the mapping of boundaries. Relatedly, FMAs were designed for logging concessions and royalty payments – not benefit sharing mechanisms and MRV.<sup>80</sup> The current FMAs will likely be inadequate for REDD+ activities unless supplemented by additional agreements.

Under the Forestry Act of 1991 (as amended), the PNGFA is required to prepare a **National Forest Plan** to provide a detailed statement of how the national and provincial governments

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<sup>74</sup> Ibid.

<sup>75</sup> PNG Joint Program Document.

<sup>76</sup> Ibid.

<sup>77</sup> Tony Power. 2008. Incorporated Land Groups in Papua New Guinea. In Making Land Work: Volume 2. AUSAID. Available: [http://www.aid.gov.au/publications/pdf/MLW\\_VolumeTwo\\_Bookmarked.pdf](http://www.aid.gov.au/publications/pdf/MLW_VolumeTwo_Bookmarked.pdf).

<sup>78</sup> PNG Joint Program Document.

<sup>79</sup> Leggett (2011).

<sup>80</sup> Ibid.

intend to manage and utilize the country's forest resources. The National Forest Development Program (NFDP) under this Plan is now under implementation.<sup>81</sup>

### ***Carbon Rights***

The **National Climate Change Policy Framework (NCCPF)** dictates that carbon will remain the property of the landowner, but that the development and sale of carbon stock will be the responsibility of the state. Additional research is needed on this topic to assess how the current legislation may treat claims to carbon rights along with the legal efficacy of the NCCPF.

## **4.2 Policies and laws relevant to land use**

### ***Timber Harvesting***

A Commission of Inquiry into Aspects of the Timber Industry (Barnett Commission) was established in 1987 by the Prime Minister to investigate the operations of foreign-based timber companies in PNG. The inquiry concluded in 1989 and provided evidence that some of the timber companies investigated were operating illegally. The report called for:

- Reduction of timber harvesting
- Reformulation of the national forest policy
- Establishment of a nationally integrated forest service
- Development of consultations with stakeholders in the allocation of permits to increase its transparency and reduce corruption
- Formalization of detailed requirements for sustained-yield forestry.<sup>82</sup>

In 1990, following the Barnett Commission of Inquiry several new forest policies and pieces of legislation were introduced in PNG, including:<sup>83</sup>

- **National Forest Policy, 1991:** Covers areas of forest management, forest industry, forest research, forest training and education, and forest organization and administration.<sup>84</sup>
- **Forest Regulation No. 15 (1992):** Specifies the procedure to enable registration of forest industry participants and consultants under the Act.<sup>85</sup>
- **National Forest Development Guidelines (1993):** Issued by the Minister for Forests and endorsed by the NEC, establishing an implementation guide for aspects covered in the Forest Act, especially related to sustainable production, domestic processing, forest revenue, training and education, review of existing projects, forest resource acquisition and allocation, and sustainable development.<sup>86</sup>
- **Logging Code of Practice, 1996:** Became mandatory in 1997.<sup>87</sup> This Code sets the standards and practices to ensure that construction of forest roads and logging is undertaken in a sustainable way.

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<sup>81</sup> PNG Joint Program Document.

<sup>82</sup> Overseas Development Institute (ODI). 2007. What can be learnt from the past? A history of the forestry sector in Papua New Guinea. Papua New Guinea Forest Studies 1. Available at: <http://www.odi.org.uk/resources/download/72.pdf>, last accessed on October 24<sup>th</sup>, 2011.

<sup>83</sup> PNG Joint Program Document.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

- **1996 Forestry Regulations:** Covers all aspects of the industry procedures and control, and provide legal status for the implementation of many of the requirements specified under the Forestry Act 1991 (as amended).

### **Other Policies**

The **Environment Act, 2000** provides the administrative mechanism to evaluate impacts on the environment through an environmental approval and permitting system under the administration of the DEC. In May 2010, the Act was amended, restricting landowners' rights for projects ruled to be of "national interest."<sup>88</sup>

The 2010 amendment to the Environment Act of 2000 could create some barriers if applied to REDD+. Land-use planning at the community level is widely believed to be essential for the implementation of REDD+, especially in PNG given that customary landowners own the majority of the country's forest resources.<sup>89</sup> Despite the more onerous process, ILGs were formed to protect the interests of customary landholders, and the amendment may severely weaken this.

Another important policy regarding deforestation in PNG is the **Climate Compatible Development Strategy** for PNG that was ratified by the NEC in 2010. It is based on opportunity cost analysis and proposes 7% annual economic growth and carbon neutrality by 2050. REDD+, principally implemented through Reduced Impact Logging and Sustainable Forest Management is expected to make up over 60% of the projected emission reductions.<sup>90</sup> The strategy has been heavily criticized.

Other relevant regulation includes:

- The **National Forest Development Guidelines (2009):** Acts as an update to the 2003 version and lays out the objectives for the Forestry Sector. It also recognizes climate change initiatives under the UNFCCC.
- The **Forestry and Climate Change Framework for Action 2009-2015:** Outlines the Government's priorities for sustainable development in the forestry sector.

## **5. Conclusion**

The increasing threats of deforestation and degradation, low capacities of forest and climate change institutions and the poor forest governance make PNG a priority country for REDD+ donor assistance. Support is needed to help the country enter a more sustainable economic growth trajectory and prevent a steep increase in land based GHG emissions, particularly if all pending Special Agricultural Business Leases get executed.

The past Government has been a strong opponent of project-based REDD+ activities at sub-national level, which has stopped local stakeholders from developing pilot projects. However, with the new Government, this view seems to change. Technical staff within OCCD and PNGFA recognizes the importance and opportunities for sub-national pilot projects in PNG, where the clan-based land management system quasi pre-determines a workable project scale. This shift

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<sup>88</sup> Babon (2011).

<sup>89</sup> Ibid.

<sup>90</sup> Leggett (2011).

opens up vast opportunities for additional support from institutional donors, since political guidance and regulatory provisions to stimulate pilot project development is yet incomplete, missing or not practical.

The following list of identified opportunities provides a mix of central level activities and activities in conjunction with projects on the ground, whereby activities 1, 2 and 3 mainly aim to support PNG getting on track with REDD+ readiness as well as supporting the country to open up access to available funding sources. Further, activities 4, 5 and 6 aim to stimulate pilot project development as a means to build up knowledge in country for REDD+ development and implementation and feed this experience into national level legislative processes. The main drivers targeted could potentially be all listed in the assessment as the strengthened resulting governance framework mainly aims to improve sustainable land management planning and implementation including communities as service providers. Thus, further analysis is required during the refinement process to assess which driver should be targeted in particular. Some of these activities would require additional donor support to be fully effective.

The proposed activities listed below should be further discussed with Government and relevant stakeholders to be further refined and turned into country strategies.

1. Advise the government on a way forward to improve the existing REDD+ roadmap that allows deriving a corresponding workplan as well as ways to increase buy-in of local stakeholders and Government. The existing REDD+ roadmap has been developed in a desk exercise but does not spell out priorities and more precise work steps and milestones.
2. Provide technical advice to develop the R-PP, including support for the identification of external consultants and funding sources for R-PP development, which could include the World Bank and AusAID among other potential sources.
3. Support the development and adoption of a workplan to develop a national or sub-national reference level in conjunction with increased support for capacity building. Provide technical advice and assist in leveraging third party donor support for selected parts of the process.
4. Support the development and adoption of guidelines for REDD+ project development and FPIC guidelines to stimulate a bottom-up REDD+ approach for demonstrations.
5. Help develop legislation clarifying carbon tenure and approaches to benefit distribution mechanisms for REDD+ and/ or PES to access potential new funding sources for community based forest protection and management and assure for more equitable distribution of income streams.
6. Support efforts to introduce local level land use planning and conflict resolution mechanisms to Province legislation as initiated in the Adelbert Mountains in Madang Province by The Nature Conservancy (TNC). This project's main outcome is the institutionalization of clan based land use planning in district law.