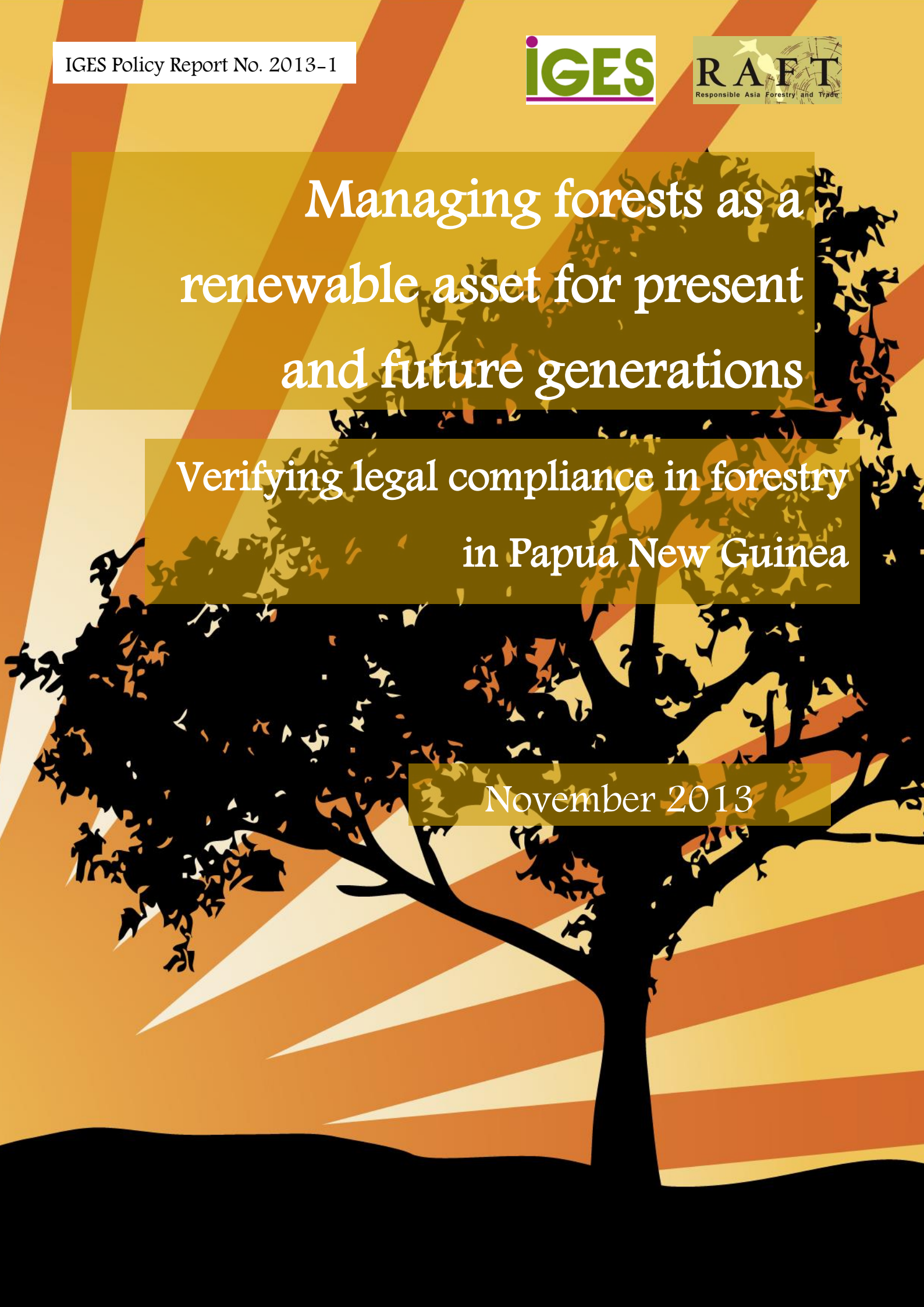


Managing forests as a renewable asset for present and future generations

Verifying legal compliance in forestry in Papua New Guinea

November 2013



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Table of contents

1	Introduction	1
2	Global dialogue and action on illegal logging	5
2.1	<i>US Lacey Act amendments</i>	7
2.2	<i>EU Timber Regulations</i>	7
2.3	<i>Australia Illegal Logging Prohibition Act 2012</i>	8
2.4	<i>China timber legality verification system</i>	9
2.5	<i>Implications for the PNG timber industry</i>	9
2.6	<i>Conclusion</i>	9
3	The illegal logging and sustainability debate in PNG	11
3.1	<i>Claims that illegalities are widespread</i>	12
3.2	<i>Claims that illegalities are overstated</i>	14
3.3	<i>Discussion and conclusion</i>	15
4	Legal framework for forestry development	17
4.1	<i>Forest policy and administration</i>	17
4.2	<i>Timber harvesting</i>	19
4.2.1	<i>Timber Rights Purchases and Local Forest Area agreements</i>	19
4.2.2	<i>Forest Management Agreements</i>	19
4.2.3	<i>Timber Authorities</i>	21
4.2.4	<i>Timber Licences</i>	22
4.2.5	<i>Forest Clearance Authorities</i>	22
4.3	<i>Procedures regarding the scaling, tagging, movement of timber and royalties</i>	22
4.4	<i>Log exports</i>	23
4.5	<i>Conclusion</i>	28
5	PNG's forest resources and timber exports	31
5.1	<i>PNG's forest resources</i>	31
5.2	<i>Forest classification</i>	32
5.3	<i>Areas under concessions</i>	32
5.4	<i>Timber exports</i>	33
5.4.1	<i>Export by type and volume</i>	33
5.5	<i>Main markets</i>	34
5.5.1	<i>Timber exports and type of harvesting authority</i>	36



5.6	<i>Discussion and conclusion</i>	37
6	Potential legality risks of unverified export timber	39
•	<i>Failure to always follow due process in the acquisition, allocation and extension of timber rights</i>	39
•	<i>Shortcomings in compliance with regulations and guidelines in the conduct of forestry operations</i>	41
•	<i>Shortcomings in fulfilment of Project Agreements</i>	43
•	<i>Failure to follow due process in the issuance of Special Agriculture Business Leases</i>	44
•	<i>Transfer pricing</i>	46
6.1	<i>Conclusion</i>	46
7	Legality risk mitigation options for timber buyers	49
7.1	<i>Avoiding clearly illegal and high risk timber</i>	50
7.1.1	Species banned from export.....	50
7.1.2	Unauthorised or suspended activities	51
7.1.3	Timber from SABLs.....	51
7.2	<i>Key document check</i>	51
7.3	<i>Third party legality/ sustainability audits</i>	54
7.3.1	FSC standards.....	55
7.3.2	SGS Timber Legality and Traceability Verification programme.....	57
7.3.3	PNGFA Timber Legality Standard	57
7.3.4	Comparison of the standards	60
7.4	<i>Discussion and conclusion</i>	63
8	Trends and current status of certification in PNG	65
8.1	<i>Conclusion</i>	70
9	Drivers of change	71
9.1	<i>Case study 1: Cloudy Bay Sustainable Forestry Ltd.</i>	71
9.1.1	Overview of company operations	71
9.1.2	Motive for certification	72
9.1.3	Process of acquiring certification.....	74
9.1.4	Costs of certification and major challenges	74
9.1.5	Perceived benefits of certification	75
9.2	<i>Case study 2: Stettin Bay Lumber Company Ltd.</i>	76
9.2.1	Overview of company operations	76
9.2.2	Motive for certification	76
9.2.3	Process of acquiring certification.....	77
9.2.4	Costs of certification and major challenges	77
9.2.5	Perceived benefits of certification	78

9.3	<i>Discussion and conclusion</i>	79
10	Conclusion	81
	Appendix 1: PNG laws, regulations and international conventions affecting forestry, wood processing and wood exports	87
	Appendix 2: Principles included or reflected in the TLS, the FSC NFMS and the FSC Controlled Wood Standards for Forest Management Enterprises	89
	References	111

Executive summary

- This report aims to contribute to the management of PNG's forests as a renewable natural asset for the collective benefit of all Papua New Guineans. It argues that to achieve these ends, illegalities in the forest sector need serious attention. The report aims to (i) provide a review of the illegal logging issue in PNG, (ii) identify the potential legality risks that are associated with unverified PNG timber, (iii) set out options for mitigating these risks, and (iv) provide an update on the development and uptake of legality and sustainability standards in PNG.
- The analysis is based on a literature review, interviews with individuals either involved in the forestry sector or working on forest issues, and site visits to forestry operations and timber processing plants and yards. A draft of the report was sent to a number of selected experts on PNG forestry issues for their comments. A draft of the report was also presented at the PNG Forestry Authority headquarters and the feedback considered when drafting the final version.
- The debate over illegal logging is less about whether logging is taking place in authorised concessions and more about compliance by the State with the laws of PNG in acquiring the timber rights from the landowners and compliance of the permit holders and logging operators with all aspects of the laws of PNG. While there are a variety of views expressed in the literature on legal compliance in the forestry sector in PNG that surely would confuse timber buyers, it is difficult to dismiss all of the evidence of compliance failures that have been reported.
- The potential legality risks of unverified PNG export timber identified in this and earlier reports are associated with failures to follow the required processes in the acquisition, allocation and extension of timber rights; shortcomings in compliance with regulations and guidelines in the conduct of forestry operations and in fulfilment of project agreements; and failure to follow the prescribed processes in the authorisation of SABLs, which are now a significant source of PNG export timber. The extent to which transfer pricing is being practiced is unclear and deserves a thorough investigation. Encroachment into forest outside concession boundaries by logging companies is another *possible* risk, but needs further assessment to understand whether this is a *significant* risk or not. Timber smuggling is not considered a major legality risk.
- In recent years, the Chinese market has become the main destination for PNG's huge annual volumes of log exports, with Vietnamese buyers taking some plantation timber, and countries such as Australia and Japan remaining important for PNG's small volumes of processed wood exports. It is important that these markets send signals to forest managers in PNG that encourage legal and sustainable forestry.
- The legislation on illegal logging introduced in the US, EU and Australia has begun to impact some PNG timber exporters. Some Australian timber importers have requested their PNG suppliers to acquire 3rd party verification of legality, and some



Vietnamese furniture manufacturers supplying the EU have requested their PNG wood suppliers to acquire Forest Stewardship Council certification. This trend can be expected to continue, with efforts to develop a timber legality verification system in China under way.

- In terms of risk mitigation strategies, buyers should avoid clearly illegal and high risk timber, such as species banned from export and logs from unauthorised or suspended operations, as well as avoid relationships with timber businesses that have been prosecuted for serious illegal activities. Timber from Forest Clearance Authorities granted under SABLs should also be avoided (unless considerable proof of legal compliance can be provided) until the Government has concluded its investigation and put in place a comprehensive response to the problems identified.
- The most robust legality risk mitigation measure is to target suppliers that are verified for legal compliance or certified for sustainable forest management under credible third party systems, but only about 7% of export timber is verified legal or certified sustainable. Combining a policy of avoiding clearly illegal and high risk timber with a key document check could be considered as an interim risk mitigation strategy when suppliers are taking measures to have their operations verified as legal.
- A number of timber businesses in PNG have been verified / certified using voluntary third party standards, namely the FSC Chain of Custody standards, the FSC Controlled Wood standards, the FSC National Forest Management Standards for PNG, and SGS's TLTV. PNG timber could also carry the labels of other standards in the coming years. The Rainforest Alliance has just recently released its PNG standard on legal compliance, and the PNGFA is involved in the development of the Timber Legality Standard under an ITTO project.
- To provide a comprehensive assessment of the standards that now exist or are under development in PNG and a comparison between them, and produce the results in a succinct form, would be useful for timber buyers wishing to understand what product claims can be made from these standards. This exercise was beyond the resources of this report. Our analysis was limited to a comparison of the FSC National Forest Management Standards for PNG, the FSC Controlled Wood Standards for Forest Management Enterprises, and a draft of the Timber Legality Standard. The major issue that came out from the analysis is that limiting the scope of a legality standard to legal compliance by timber businesses could be problematic, as the issue of legal compliance in PNG is not just about the private sector, it is also about State agencies fulfilling their obligations under the law (as is most recently evident in the problems surrounding SABLs).
- The total area of production forest that has been certified or is connected with legality verification is low at about 367,148 ha. However, this area has been growing and this growth has accelerated significantly in recent years. While NGOs provided the driving force for the early certifications of forest management in PNG, in recent years several large timber businesses have displayed strong commitment to acquiring legality verification and/or sustainability certification. The major driver for the recent



verifications / certifications is maintaining market access. To maintain the current momentum towards improved forest management in PNG through 3rd party auditing of legality and sustainability will require further positive signals from outside the country. The current initiative in China to develop a legality verification system and to pilot this with PNG is particularly important.

- The analysis undertaken for this report suggests recommendations for several major stakeholder groups. These are:

Timber buyers

- Avoid all clearly illegal and high risk timber. This includes timber banned from export in round wood form, and timber from suspended operations or from timber enterprises found to be involved in major criminal activities. Timber from SABLs should also be considered high risk, unless considerable proof can be secured that the SABLs were organised in accordance with the regulated procedures.
- Target timber enterprises that have had their operations verified as legal (and ideally also sustainable).
- When verified legal or certified sustainable timber is not available, set in place measures to mitigate risks. Organise a key document check and request forest enterprises to have their operations verified as legal, and ultimately certified as sustainable. If no steps towards legality verification are taken by the timber enterprises, find different suppliers.
- Be prepared to pay a premium for certified timber, as timber producers incur large costs to have their operations certified.

Legality verification and sustainability certification schemes

- Consider the scope of legality verification further, as problems related to legal compliance in the PNG forestry sector are not limited to enterprises; they are also associated with the failure of State agencies to carry out their responsibilities.
- Build in-country services to support the certification of sustainable forest management, particularly expert services at reasonable cost on biodiversity and community assessments and monitoring, and phased approaches.

PNG Government

- Review the capacity of the PNGFA to effectively organise and monitor a forestry development. Ensure sufficient budget for critical phases in forestry project development, e.g. landowner awareness and representation, and monitoring of logging operations.
- The PNGFA to apply sufficiently strong penalties to consistently poor performers to provide strong signals on the need for improved legal compliance.
- Ensure a high level of effective stakeholder participation in the continued development of the Timber Legality Standard and its supporting documents. With wide stakeholder participation, develop an effective implementing framework that ensures neutrality, a high level of expertise, transparency and accountability.



- Use remote sensing to monitor possible encroachment into areas outside concession boundaries. The expertise and facilities on remote sensing currently being developed within the PNGFA through support from JICA can possibly be tapped.
- Consider financial incentives, such as reductions in levies and taxes, for forest managers to have their operations certified as sustainable

Support programmes on forest law enforcement, governance and trade

- Provide access to conflict management training programmes for staff of logging companies, rural development NGOs, and Government line agencies to allow for the development of workable agreements and conflict resolution mechanisms between timber companies and local communities.
- Provide training, and information sharing opportunities through buyer-supplier dialogues, to increase the capacity of industry to seek and obtain information required to satisfy due diligence requirements of key markets and buyers.
- Support the development of a national reduced impact logging training platform (this will support proper implementation of the Logging Code of Practice).
- Work with trade federations to efficiently communicate how to undertake due diligence in regard to purchasing timber from PNG.
- Articulate and promote the business case for pursuing verified legal and sustainable forest management and trade practices.
- Promote the testing of approaches to build the capacity of customary owners to manage their forests for sustainable timber production.

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Henry Scheyvens and Federico Lopez-Casero

15 Nov. 2013

The **Responsible Asia Forestry & Trade partnership** (RAFT) is a regional program that provides capacity building and knowledge sharing services to Asia Pacific countries in support of their efforts to promote trade in responsibly harvested and manufactured wood products. RAFT is supported by the Australian and U.S. Governments and implemented by a consortium of leading conservation organizations committed to managing and using forests responsibly. www.responsibleasia.org.

The **Institute for Global Environmental Strategies** (IGES) is an independent think tank and strategic policy research institute that focuses on the development – environment nexus. Through policy research, capacity building, networking and outreach, it aims to contribute to sustainable development solutions in the Asia-Pacific region and globally. IGES provides analytical inputs on core RAFT concerns, such as timber legality and sustainable forest management certification.

List of abbreviations

CAR	corrective action request
CIF	cost, insurance and freight
CNFPIA	China National Forest Product Industry Association
CoC	chain of custody
CTLVS	China Timber Legality Verification System
CW	(FSC) controlled wood
DEC	Department of Environment and Conservation
EU	European Union
EUTR	EU Timber Regulations
FAO	Food and Agriculture Organisation of the United Nations
FCA	Forest Clearance Authority
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
FM	forest management
FMA	Forest Management Agreement
FOB	free on board
FORCERT	Forest Management and Product Certification Service Ltd.
FPCD	Foundation for People and Community Development
FPIC	free, prior, informed consent
FSC	Forest Stewardship Council
ha	Hectare
ILG	incorporated land group
IRECDP	(EU) Islands Region Environmental and Community Development Programme
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organisation
ITS Global	International Trade Strategies Global
JICA	Japan International Co-operation Agency
LAS	Legality Assurance System
LC	legal compliance
LFA	Local Forest Area
LO	legal origin
NGO	non-governmental organisation
OBT	Open Bay Timber Ltd.
PFMC	Provincial Forest Management Committee
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forestry Authority
PNGFP	PNG Forest Products Ltd.
PNGSDP	PNG Sustainable Development Programme Ltd.
PGK	Papua New Guinea Kina



SAAC	sustainable annual allowable cut
SABL	Special Agriculture and Business Lease
SBLC	Stettin Bay Lumber Company Ltd.
SGS	Société Générale de Surveillance
SLIMF	(FSC) Small and Low Intensity Forest Management standard
TLTV	(SGS) Timber Legality and Traceability Verification
TRP	Timber Rights Purchase
US	United States of America
VLC	Verified Legal Compliance
VPA	Voluntary Partnership Agreement

List of tables, figures and boxes

Figure 1: Typology on legality, PNG.....	14
Figure 2: Logs readied for export, East New Britain, PNG.....	16
Figure 3: Tropical lowland forests, West New Britain, PNG.....	16
Table 1: Steps in forest acquisition and allocation associated with an FMA.....	20
Figure 4: Canarium nuts gathered in the forest, Minda, West New Britain, PNG	24
Table 2: Procedures for Exporting Logs 1996	24
Figure 5: PNG official log tag	28
Table 3: Documents required for ship clearance	28
Box 1: Beyond legality to sustainability – Circumventing the sustainability objectives of the Forestry Act 1991.....	30
Table 4: Forest classification in PNG	32
Figure 6: Map of current logging concessions	33
Figure 7: PNG harvested and export timber volumes (m ³).....	35
Figure 8: PNG industrial tropical round wood exports, 2000 – 2009	35
Figure 9: Total area (ha) by different concession types, 2011	36
Table 5: PNG annual log exports, 2006-2011	36
Figure 10: Forest area acquired by the Government for timber concessions.....	37
Table 6: Non-compliances with the Key Standards for Selective Logging in one forestry operation.....	42
Table 7: Non-compliances with one Project Agreement	44
Box 2: Beyond legality to sustainability – the challenge of maintaining infrastructural benefits.....	44
Figure 11: Legality risk mitigation options.....	50
Table 8: Species banned from export in log form	50
Table 9: Key documents for legality risk mitigation	52
Table 10: FSC principles for responsible forest management.....	56
Table 11: TLTV principles	57
Table 12: TLS principles	58
Table 13: RA PNG VLC principles.....	60
Table 14: Verified/certified timber businesses in PNG	66
Table 15: Area under legality verification and sustainability certification.....	68
Figure 12: Location map of Cloudy Bay Sustainable Forestry Ltd.	72
Figure 13: Cloudy Bay kit building display	73
Figure 14: Sawn wood packaged for sale at the 9 mile plant.....	73
Figure 15: Wood processing at the 9 Mile plant	75
Box 3: Cloudy Bay’s future unclear	75
Figure 16: Map of SBLC natural forest concession and planted forest boundaries....	77
Figure 17: Logs being transported from a SBLC plantation	78
Figure 18: Milling at SBLC main plant.....	80



1 Introduction

Natural forests are widely acknowledged as providing a host of environmental services critical for human survival and well-being, from serving as habitats for about 80% of terrestrial biodiversity to climate change mitigation to soil and water conservation to the provision of timber, medicinal and many other products (Achard, 2009, p. 2). Despite these services, global deforestation rates are high and alarming.¹

The underlying drivers of forest loss include weak governance, population growth and migration, and imperfect markets that don't reflect social and environmental forest values, whereas the proximate causes include overharvesting of timber and non-timber forest products, and clearance for subsistence and commercial agriculture (Kissinger, Herold, & Sy, 2012). Amongst the drivers of deforestation, 'illegal logging' has attracted a great deal of attention, not only because illegalities in the forest sector are thought to be widespread in many forested developing countries, but also because they undermine the rule of law as well as discourage legitimate investment in forestry and the

development of mature systems of governance (Tacconi, 2007). However, illegal logging has been a difficult issue to approach through international relations, because (i) the term itself tends to be used emotively and in often ill-defined ways, (ii) tropical developing countries have been sensitive to accusations that they are not managing their forests responsibly by allowing forest crime to take place, and (iii) because a desire to protect their domestic timber industries from cheaper imported wood has been viewed as one reason for the interest of developed countries in the illegal logging issue. This situation began to change roughly a decade ago with developed countries providing assistance to developing countries to strengthen the governance of their forest sectors, and with developing countries beginning to recognise that illegal logging was costing them millions of dollars in lost public revenues. The recent introduction of laws by the US, the EU and Australia that prohibit the trading of illegally harvested timber has provided new impetus to combat forest crime and the resultant trade, as well as to promote legal and sustainable forest management.

Papua New Guinea (PNG) is one of many tropical developing countries where the topic of illegal logging has been hotly debated. Nearly all the forests of PNG are owned by local clans according to customary tenure systems. The State has sought to bring 'development' to rural communities by increasing its control

¹ While the total area of global annual forest loss is somewhat uncertain, the Food and Agriculture Organisation of the United Nations suggests that this was an average of 13 million hectares per year for the period 2000 – 2010 (FAO, 2010).

over forestry. Its basic model of forestry involves securing timber rights from the customary owners, developing forestry projects, offering these up for tender, and then monitoring the forestry operations to ensure they comply with the relevant laws, guidelines and project agreements. The literature indicates that illegalities can be found in all these stages of forestry development.

The Constitution created by PNG's founding fathers requires that natural resources and the environment are conserved and used for the collective benefit all, and replenished for the benefit of future generations. Reflecting this fourth goal of the Constitution, PNG's Forest Policy aims at the management and protection of the forest resources as a renewable natural asset, and the utilisation of the nation's forest resources to achieve economic growth, employment, greater Papua New Guinean participation in industry, and increased viable onshore processing. The Papua New Guinea Vision 2050, a long-term strategy to map out the future direction for the country, sees an important role for forestry, alongside agriculture, fisheries, and eco-tourism, in achieving broad-based economic growth (GoPNG, 2011, p. 3). Vision 2050 calls for sustainable development measures in all sectors, including forestry, and sees the conservation of the country's ancient forests as one way to grow the economy (GoPNG, 2011, pp. 4, 42).

This report aims to contribute to the management of PNG's forests as a renewable natural asset for the collective benefit of all Papua New Guineans. It argues that to achieve these ends,

illegalities in the forest sector need serious attention, which requires both greater commitment to provide the resources necessary to effectively deal with them, as well as support for timber businesses aiming to improve their performance and have their operations verified as legal or certified as sustainable.

This report focuses on the timber trade as a potential driver of sustainable forest management, rather than the broader needs for governance reform in the forestry sector. It aims to (i) provide a review of the illegal logging issue in PNG, (ii) identify the potential legality risks that are associated with unverified PNG timber, (iii) set out options for mitigating these risks, and (iv) provide an update on the development and uptake of legality and sustainability standards in PNG. The analysis is based on a literature review, interviews with individuals either involved in the forestry sector or working on forest issues, and site visits to forestry operations and timber processing plants and yards. A draft of the report was sent to a number of selected experts on PNG forestry issues for their comments. A draft of the report was also presented at the PNG Forestry Authority headquarters and the feedback considered when drafting the final version.

The report begins with a discussion on the global dialogue and action on illegal logging, and provides an outline of the illegal logging legislation introduced by the US, EU and Australia, as well as the development of a timber legality verification system in China. It finds that these initiatives have significant implications for PNG and are



contributing to the momentum needed for reforms in the forestry sector.

Section 3 provides a discussion on the illegal logging debate in PNG, finding that opinions range widely from claims that no illegal logging is taking place to claims that almost all PNG exported timber can be considered illegal. This Section concludes that while the Government's position is that any wood products leaving PNG are legal, there are potential legality risks associated with the production of unverified timber that buyers should not ignore.

Section 4 provides an overview of the legal framework for forestry development. Understanding of the legal framework is necessary for identification of key documents that should be included in a check on the legality of export timber consignments.

Section 5 provides an overview of PNG's forest resources and timber exports in terms of products and markets, noting that logs will continue to dominate PNG's timber exports for the foreseeable future, and that China has grown rapidly to be by far the most important direct market for PNG timber, at the expense of Japan.

Section 6 sets out the legality risks associated with PNG export timber, while section 7 discusses legality risk mitigation options that could be considered by timber buyers. The main legality risks are associated with the way the State acquires timber rights from the customary owners, organises forestry projects and monitors forestry operations. In terms of risk mitigation

options, buyers can take steps to avoid clearly illegal timber and conduct a check on key documents for authorising forestry operations and timber exports. However, a stronger option is to only purchase timber from exporters that source materials from forestry operations verified as either legal or sustainable, and that have a certified chain of custody in place.

The current status and trends in verification of legality and certification of sustainability in PNG are discussed in Section 8, and the drivers for change are discussed in Section 9. A significant change in the landscape of legality verification and sustainability certification can be seen in PNG, with several large timber businesses going through the challenging processes of having their operations verified/certified. A key challenge is how to keep the current momentum going. Market signals are especially important.





2 Global dialogue and action on illegal logging

Illegal logging has been a thorny issue for international relations. Despite a large literature documenting the seriousness of illegal logging activities, throughout the 1980s and early 1990s illegal logging remained a difficult issue to bring up in the international dialogue on forests. One of the earliest guarded references to illegal logging can be found in the second International Tropical Timber Agreement, negotiated between 1992 and 1994, which preferred the phrase “undocumented trade” to outright mention of illegal logging (Humphreys, 2006, p. 147). The phrase illegal logging finally appeared in intergovernmental negotiated text during the second session of the Intergovernmental Panel on Forests in 1996 (ibid.). Two years later, the G8 summit in Birmingham adopted an Action Programme on Forests, which included illegal logging as one of its five themes, signalling that some countries were prepared to take the illegal logging issue seriously.

The Forest Law Enforcement and Governance (FLEG) Ministerial Conference, held in Bali in 2001, stands as a milestone for the international dialogue on illegal logging. The Conference was significant in elaborating political measures to address illegal logging, including better collaboration between law enforcement agencies; promoting governance, including

independence of the judiciary; involving stakeholders and communities in decision-making; and strengthening capacity to prevent, detect and suppress forest crimes.² The FLEG Ministerial Conference in Bali was followed by two other regional FLEG processes, one in Africa and one in Europe and North Asia. Around this time, a number of countries, spearheaded by Indonesia, signed bilateral agreements to promote actions on illegal logging. This set the stage for both producer and consumer countries to embark on a variety of programmes to address the issue.

In the US, erstwhile President George W. Bush launched the President’s Initiative against Illegal Logging in 2002. This initiative focused on assisting developing countries to combat illegal logging, the sale and export of illegally harvested timber products, and corruption in the forest sector.

In May 2003, the European Commission adopted the Forest Law Enforcement, Governance and Trade (FLEGT) Action

² Forest Law Enforcement and Governance, East Asia Ministerial Conference, Bali, Indonesia, 11-13 Sept. 2001, Ministerial Declaration, 2001, paras 11-23.

Plan as a guideline for stopping illegal logging and related trade in global markets. The Action Plan sets out a combination of supply and demand-side measures to tackle the illegal production and trade of wood products. The two primary instruments of the Action Plan are the Voluntary Partnership Agreement (VPA), which was empowered through a regulation in 2007, and the European Union Timber Regulation (2010).

Public procurement policies are another example of consumer country initiatives to tackle the trade in illegally harvested timber. Japan, the Netherlands, Germany, Denmark, the UK, France, Spain, Belgium, Norway and New Zealand all introduced policies to avoid the use of illegal timber in public procurement.

There have also been various initiatives in PNG on the illegal logging issue. In 2006, a multi-stakeholder workshop on forest law enforcement and governance was held in Port Moresby, co-funded by the International Tropical Timber Organisation (ITTO). On the invitation of the PNG Government, in 2007 the ITTO dispatched a diagnostic mission to PNG to report on PNG's progress towards achieving sustainable forest management. The findings of this report highlighted the need for the Government to ensure its administrative agencies are able to properly follow the laws and regulations governing forestry. In 2008, the ITTO provided assistance to trial the Timber Legality and Traceability Verification (TLTV) service at a timber concession in PNG. Currently, the PNG Forestry Authority is implementing ITTO Project PD 449/07 (Rev. 2) Enhancing Forest Law Enforcement in

PNG, which consists of a package of products – legality standard, monitoring forms, industry code of conduct and traceability system – that aim to demonstrate timber legality (see Section 7.3.3). The PNG Forestry Authority will also be involved in the development of a country specific guideline for PNG under the Australian Illegal Logging Prohibition Act 2012. Other initiatives include a decision support system for the forest sector built with assistance from the Australian Government to allow the consolidation and interrogation of data to support better decisions, and the planning of a full national forest inventory (legally required under the Forestry Act 1991) with support from the Japan International Co-operation Agency (JICA).

More recently, several countries/regions have taken 'harder' policy approaches against the trade in illegal timber by enacting legislation that prohibits the selling of wood products associated with the violation of the laws at home and in other countries. These legal initiatives are: in the US, amendments to the Lacey Act in 2008; in the EU, the Timber Regulations, which are applicable from 3 March 2013; and in Australia, the Illegal Logging Prohibition Act 2012. While these legal initiatives share the objective of keeping illegal wood products out of markets, they differ in their details. We provide a brief overview of these initiatives below, as well as of efforts in China to develop a legality verification system.



2.1 US Lacey Act amendments

The Lacey Act, enacted in 1900, makes it unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce fish and wildlife taken in violation of US laws or of any foreign laws. In May 2008, the Farm Bill (Food, Conservation, and Energy Act of 2008) extended the Act to a broader set of plants and plant products (including lumber, furniture and paper) in an effort to combat the trade in illegal timber. The Act applies to products derived from illegal harvesting in the country of origin, including products manufactured in countries other than the country where the illegal harvesting took place. The amendments require importers to submit a 'plant import declaration' with every shipment of plants or plant products. The declaration must state the country of origin/harvest and the species name of all plants contained in the goods.

The amendments establish penalties for violation of the Act, including forfeiture of goods and vessels, fines and imprisonment. Penalties or imprisonment increase with the degree to which someone knew, or should have known, about the illegalities. The Act strongly implies, but does not require, that companies in the US that are trading timber implement management systems to minimise the risk of illegal wood entering their supply chains.

2.2 EU Timber Regulations

The EU Timber Regulations (EUTR) set out three measures to stop illegal timber

from being placed on and traded in the EU market: (i) They prohibit the placing on the EU market of illegally harvested timber and products derived from such timber; (ii) They require EU traders who place timber products on the EU market for the first time to exercise 'due diligence'; (iii) Once the timber is on the market, they require economic operators to keep records of their suppliers and customers to allow traceability of timber products in this part of the supply chain.

The EUTR state that operators are to put in place a 'due diligence system' consisting of a framework of procedures and measures. The three key elements of the 'due diligence system' are:

- **Information:** The operator must have access to information describing the timber and timber products, country of harvest, species, quantity, details of the supplier and information on compliance with national legislation.
- **Risk assessment:** The operator should assess the risk of illegal timber in the supply chain, based on the information identified above and taking into account criteria set out in the regulation.
- **Risk mitigation:** When the assessment shows that there is a risk of illegal timber in the supply chain that risk can be mitigated by requiring additional information and verification from the supplier (European Commission, 2013).

Operators must assess the level of risk on a case-by-case basis, with reference to the



location of harvesting, the level of governance, documentation to verify legal compliance, indications of company involvement in illegal logging, and the complexity of the supply chain (ibid.).

Under the EUTR, the national legislation in producer countries that determines what is legally and illegally harvested timber is legislation covering:

- rights to harvest timber within legally gazetted boundaries,
- payments for harvest rights and timber including duties related to timber harvesting,
- timber harvesting, which includes environmental and forest legislation on forest management and biodiversity conservation, where directly related to timber harvesting,
- third parties' legal rights concerning use and tenure that are affected by timber harvesting, and
- trade and customs, in so far as the forest sector is concerned (European Commission, undated).

The due diligence requirements are automatically met by timber that carries a Forest Law Enforcement, Governance and Trade (FLEGT) license. FLEGT licenses are issued by Governments that have a Voluntary Partnership Agreement (VPA) with the EU and have developed and implemented a national Legality Assurance System (LAS) through the VPA.

2.3 Australia Illegal Logging Prohibition Act 2012

The Illegal Logging Prohibition Act 2012 (the Act), administered by the Department of Agriculture, prohibits the import of illegally logged timber and the processing of illegally logged raw logs. Illegally logged, in relation to timber, means harvested in contravention of laws in force in the place (whether or not in Australia) where the timber was harvested. The penalty for importing illegally logged timber can be up to five years imprisonment.

The Act allows for subordinate legislation to detail the operational aspects of the Act. The *Illegal Logging Prohibition Amendment Regulation 2013* (the Regulation) was tabled in the Australian Parliament on 3 June 2013.

The new requirements, set out in the Regulation, will come into effect on 30 November 2014. Importers and domestic processors will have until this time to ensure they have suitable processes in place in their businesses to comply with the requirements.

The Regulation sets out what is required of Australian importers and domestic processors. It says that before importing a regulated timber product into Australia, an importer must have a due diligence system. Due diligence requirements include the following steps:

- Step 1: Information gathering
- Step 2: Assessing and identifying risk against a timber legality framework (optional) or a country specific guideline (optional)



- Step 3: Risk Assessment (if required)
- Step 4: Risk mitigation (if required)

The Act also contains provisions allowing for inspectors to monitor whether the provisions of the Act have been, or are being, complied with.

2.4 China timber legality verification system

A strong signal would be sent by any serious Chinese initiative to promote the trade in legal and sustainable timber, as China now accounts for over 90% of PNG's log exports (see Section 5). Some movement on the issue of illegal timber can in fact now be seen in China. The State Forestry Administration has proposed a China Timber Legality Verification System (CTLVS) and several delegations have visited PNG to discuss the possible implications of the scheme. The basic concept has the State Forestry Administration as the accreditation body, with licenses being issued by certification bodies for timber in producer countries that meets the CTLVS standard. The long-term aim is to implement the legality scheme through bilateral agreements. Both the Chinese Academy of Forestry and the China National Forest Product Industry Association (CNFPIA), which are under the State Forestry Administration, have been involved in the development of the CTLVS. The CNFPIA published a legality standard in November 2012, based on research conducted by the Chinese Academy of Forestry. The aim of the standard is

ensuring 'negligible risks.' The system being proposed by the CNFPIA includes traceability and documentation covering due diligence, risk assessment, and legal documents required for logging. The CNFPIA is conducting a trial implementation of the CTLVS and PNG has been selected for piloting (Shengfu, 2013).

2.5 Implications for the PNG timber industry

Export statistics indicate that the timber industry in PNG has not been impacted in any significant way by the early initiatives to combat illegal logging. Annual log export volumes reached an all-time high in 2011, and the only significant market shift seems to be an increase in the share of log exports going to China, at the expense of Japan, which is not associated with the illegal logging issue (see Section 5). However, the legislation on illegal logging recently introduced in the US, EU and Australia has begun to impact some PNG timber exporters. Some Australian timber importers have requested their PNG suppliers to acquire 3rd party verification of legality, and some Vietnamese furniture manufacturers supplying the EU have requested their PNG wood suppliers to acquire Forest Stewardship Council certification (see Section 8).

2.6 Conclusion

The basic conclusion from this overview is that international attention on the illegal logging issue is increasing rather than declining, with some countries

introducing strong policy measures to keep illegal timber out of their markets, while at the same time seeking to engage constructively with developing countries to strengthen forest governance. What the full implications are for PNG timber businesses is not yet clear, though a few have already been requested by their suppliers to demonstrate the legality of export timber. This trend can be expected to continue, with efforts to develop a timber legality verification system in China under way.

The following section looks into the illegal logging debate in PNG.



3 The illegal logging and sustainability debate in PNG

There is a great deal of disagreement on the extent of illegalities in the forest sector in PNG, surely making it difficult for timber buyers to understand whether and what legality risks may be associated with PNG timber. There is no formal agreed definition in PNG of legal timber and the expression ‘illegal logging’ is used loosely. The PNG Forestry Authority (PNGFA) states that it uses the FAO/ITTO definition of illegal logging³ (i.e. when wood is harvested, transported, processed, bought or sold in violation of national laws), though others point out that illegal logging has not been clearly defined in PNG based on the views of major stakeholders (Paka, 2011). A team sent to PNG by the ITTO in 2007 found “confusion between what constitutes illegal activity, non-compliance and sustainable logging” (ITTO, 2007, p. viii). In this report we use the expression ‘illegalities in the forestry sector’ to describe significant non-compliance with elements of any laws or international treaties that affect forestry, from the acquisition of forest rights through to final sale or export of the timber.

Serious legality issues in the organisation and implementation of forestry projects emerged after PNG became independent in 1971 (Bird, Wells, van Helden, & Turia, 2007c). A Commission of Inquiry into Aspects of the Timber Industry led by Judge Thomas Barnett found evidence of “blatant corruption at high levels of government and the practice of ministers and senior public servants of negligently, and sometimes deliberately, ignoring and contravening the laws of Papua New Guinea’s Parliament and the policies of its government” (Barnett, 1989). The Commission also found that some loggers were able to “bribe or influence customary landowners, provincial premiers, national and provincial ministers, politicians and public servants in order to gain access to the timber resource due to a lack of planning and pre-determined projects” (ibid.). A new Forestry Act, Forestry Policy and forestry administration were introduced in the early 1990s to deal with these issues.

There are large differences in views on whether legality issues continue to plague forestry in PNG. The Government’s position is that any wood products leaving PNG are legal (Kaip, 2011). Its view is that any logging organised by the State in PNG cannot be called illegal when the PNGFA first must be invited by the landowners to develop a logging project and when the landowners must

³ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA.



also sign consent forms for the harvesting. The PNGFA sees itself as a facilitator of the logging that the landowners are interested in.⁴

However, the debate over illegal logging is less about whether logging is taking place in authorised concessions and more about compliance by the State with the laws of PNG in acquiring the timber rights from the landowners and compliance of the permit holders and logging operators with all aspects of the laws of PNG. While some argue that non-compliances with the law are mostly small and occasional (of the type to be expected in any sector in any developing country), others argue that illegalities in the forestry sector are widespread.

3.1 Claims that illegalities are widespread

Claims that illegalities are widespread in the forestry sector often cite a series of reports that were commissioned by the Government between 2000 and 2005 under agreements with the World Bank.⁵ Based on a review of the findings of

these reports, Forest Trends concluded that “Although all timber harvesting operations may be officially licensed, there are serious issues of legal non-compliance at almost every stage in the development and management of these projects. For these reasons the majority of forestry operations cannot credibly be characterised as complying with national laws and regulations and are therefore ‘unlawful’” (Forest Trends, 2006, p. 2).

Other claims of widespread illegalities can be found in reports published by Greenpeace and other non-governmental organisations (NGOs). In *The untouchables: Rimbunan Hijau’s world of forest crime and political patronage* (2004), Greenpeace claims that most large-scale logging operations in PNG are unlawful as they are in “fundamental breach of a number of basic legal requirements” (International, 2004, p. 7). Greenpeace describes these fundamental breaches as the absence of informed consent of the local resource owners, failure to initiate and allocate logging projects according to the requirements of the Forestry Act, defiance of environmental laws and regulations by the logging operators, and unsustainable timber harvesting (which Greenpeace argues is a specific requirement of both the PNG Constitution and the Forestry Act 1991). In *Bulldozing progress: Human rights abuses and corruption in Papua New Guinea’s large scale logging industry* (2006), the Australian Conservation Foundation (ACF) and the Centre for Environmental Law and Community Rights (CELCOR) describe the PNG logging industry as “synonymous with political corruption, police racketeering and the brutal

⁴ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA.

⁵ These are: *Review of Forest Harvesting Project Being Developed towards a Timber Permit or Timber Authority* (2000-2001); *Review of the forest revenue system* (2001-2002); *Independent review of disputed timber permits and permit extensions* (2003); *Towards sustainable timber production - A review of existing logging projects* (2003-2004); *Compliance audit* (2004-2005).



repression of workers, women and those who question its ways. Its operations routinely destroy the food sources, water supplies and cultural property of those same communities. They provide a breeding ground for arms smuggling, corruption and violence across the country” (ACF & CELCOR, 2006, p. 3).

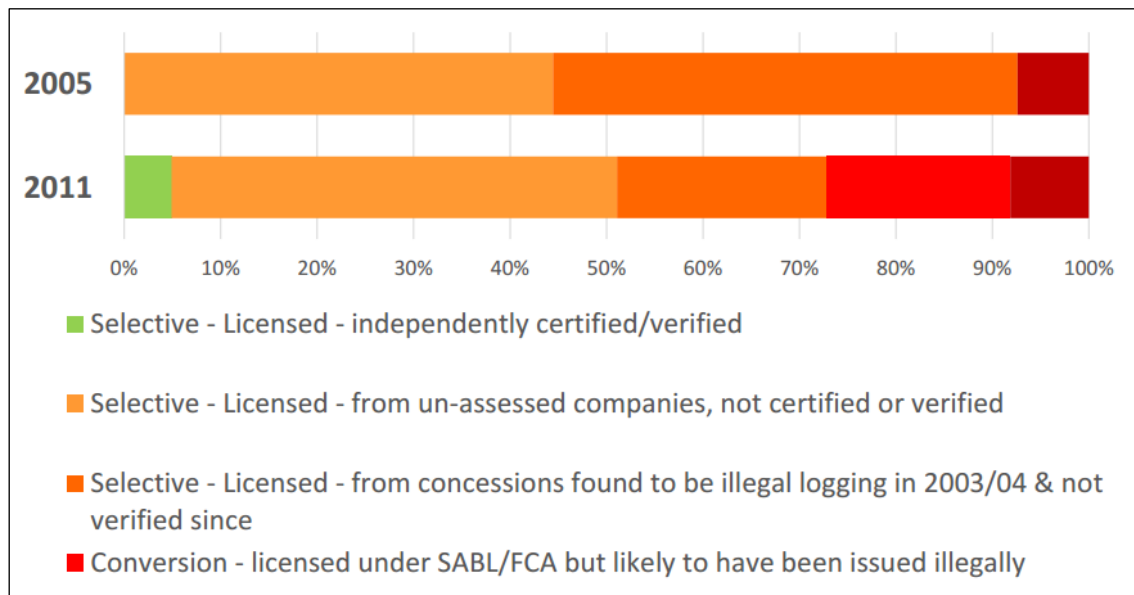
More recent reports show that international attention continues to be focused on legality issues in the PNG forestry sector. In a confidential expert perceptions survey covering about 30 respondents from government, the private sector, NGO and other sectors, a Chatham House study found that 90% of the experts interviewed felt illegal logging to be either a major or the main cause of both deforestation and forest degradation in PNG (Lawson, 2013).⁶ On average, the Government respondents felt illegal logging accounted for 40% of the total harvest, whereas the NGO respondents put this proportion at 70%. The study associated illegal logging in PNG with unlicensed small-scale chainsaw logging to supply the domestic urban market, production of timber under Special Agriculture and Business Leases, and breaches of logging and other regulations. Amongst the experts surveyed, very few noted any improvement in levels of legal compliance, with 30% feeling that the situation is worsening (ibid.). The results of the survey are summarised in Figure 1,

which shows that while there has been a small growth in the volume of verified legal and certified sustainable timber, most licensed forestry operations have not been independently assessed for legality or sustainability, including those found in Government commissioned reports to have major shortcomings in their legal compliance.

An earlier Chatham House report concluded that there is particularly strong evidence regarding the legality of concession allocation in published reports that cannot reasonably be ignored when assessing the legality of the country’s timber exports (Lawson & MacFaul, 2010, p. 104). The report *Green Carbon, Black Trade* by the United Nations Environment Programme (UNEP) and INTERPOL also highlights continued international concern over PNG timber legality (Nellemann & INTERPOL Environmental Crime Programme, 2012).

⁶ The reader should note that the findings from the Chatham House study are preliminary.

Figure 1: Typology on legality, PNG



Source: (Lawson, 2013). Note: SABL = Special Agriculture and Business Lease; FCA = Forest Clearance Authority.

3.2 Claims that illegalities are overstated

A contrasting view is found in several reports⁷ prepared for Rimbunan Hijau, the largest timber business in PNG, by the Melbourne-based private consulting company, International Trade Strategies (ITS) Global, and is shared by the PNG

Forest Industries Association (Tate, 2011). The ITS Global reports argue that claims of widespread legal failures in the forestry sector are unsubstantiated. With regards to one of the five studies that led Forest Trends (2006) to describe the majority of forestry operations in PNG as unlawful, ITS Global argues that the study’s claims are flawed: “Our critique of this draft report demonstrates that its key conclusions were justified by neither its methodology nor data. Our critique also questions the independence of the natural resource economist who wrote key elements of this report” (ITS Global, 2006b, p. 10). The ITS Global report *Whatever it takes: Greenpeace’s anti-forestry campaign in Papua New Guinea* (2006) challenged claims in the Greenpeace reports on illegal logging in PNG, stating “A clear pattern emerged in the Greenpeace reports. Each major

⁷ These are *Masalai i Tokaut and Rimbunan Hijau Watch: A political and deceptive campaign against Rimbunan Hijau* (July 2006); *Whatever it takes: Greenpeace’s anti-forestry campaign in Papua New Guinea* (July 2006); *The World Bank and forestry in PNG* (August 2006); *The economic importance of the forestry industry to Papua New Guinea* (July 2006); *An uncivil society: A review of activist NGOs in PNG* (April 2013).

accusation was based on only one or two claims. In all cases, they were found false, unsubstantiated, severely exaggerated or misrepresented” (ITS Global, 2006a, p. 7). The ITS Global report argues that Greenpeace was placing unrealistic expectations on PNG for all transactions to be fully legal against all laws, regulations and international treaties, and that “in any ordinary sense of the word, the logging is legal” (ibid.).

ITS Global argues that claims of massive illegalities by Greenpeace and others stem from their environmental agendas and are not a balanced representation of the realities in PNG (ITS Global, 2006a, p. 6). ITS Global, on the other hand, has itself been criticised in an open letter by a group of scientists as lacking neutrality.⁸ The letter argues that ITS Global should be viewed as a lobbying or advocacy group for logging and oil palm interests, not as an independent think tank.

3.3 Discussion and conclusion

For timber buyers to make sense of the debate on the illegal logging issue in PNG is surely difficult, given the variety of views expressed in the literature. A timber buyer looking at an ITS Global report might conclude that there is no need for taking any measures to check the legality of exported timber. However,

a timber buyer looking at a Greenpeace report might conclude that he/she would do best to avoid all timber from PNG.

While legal non-compliances can arise from factors that the timber permit holders and forest managers have no control over, such as the weather or customary norms, all of the evidence in the literature of serious non-compliances cannot be easily dismissed. Although the harvesting and export of timber from unauthorised operations does not appear to be a major problem for PNG, there are concerns regarding timber rights acquisition processes, compliance with regulations in the conduct of forestry operations, and compliance with project agreements (see Section 6).

There is no evidence to suggest that the general level of legal compliance in forestry in PNG has changed in any fundamental way in the last 20 or so years. A view common to several reports and expressed by officers in the PNGFA is that PNG has the legal framework and the necessary field manuals for sustainable forest management, but implementing this system is difficult because of a lack of resourcing and pressure placed on the PNGFA by both politicians and landowners. Unless there is serious commitment within the Government to improving legal compliance, the issue of legality will continue to mar PNG’s international reputation on forestry.

Before elaborating on the types of legal non-compliance risks, in the next section we provide a description of PNG’s legal framework for forestry.

⁸ <http://ukabc.org/scientists-denounce-corporate-lobbyists.pdf>, accessed 26 July 2013.



Figure 2: Logs readied for export, East New Britain, PNG



Figure 3: Tropical lowland forests, West New Britain, PNG



4 Legal framework for forestry development

PNG is considered to have a reasonable, if not overly complex, regulatory framework for forest management. Based on a review of the current policies, laws, regulations, guidelines, and other mechanisms, the 2003/2004 Review Team under the Inter-Agency Forestry Committee concluded that “the PNG Government and its regulatory institutions have all the necessary policies, laws, regulations and guidelines required to ensure that sustainable timber production can be achieved” (2003/2004 Review Team, 2004, p. x). Likewise, the ITTO 2007 Diagnostic Mission to PNG noted that “The laws governing the PNG forestry sector are regarded as generally excellent, though with far more steps and complexities than necessary” (ITTO, 2007, p. v).

In this section we outline the major legal instruments that govern forestry operations and the procedures for wood exports. Fundamental to the legal framework for forestry is the recognition by the Constitution of customary rights, including rights to all natural resources, with the exception of minerals, petroleum, water and genetic resources. Through this recognition, 99% of forest lands are owned by the people of PNG according to their customary institutions (Bird et al., 2007c, p. 1). Under Section 132 of the Land Act 1996, customary land in PNG is vested communally in a clan, tribe or

extended family; inherited through lineage (either patrilineal or matrilineal); has boundaries which are established by memory, transmitted through oral tradition, and often use natural features in their establishment; is managed according to customary law; and cannot be sold, leased (except for lease-leaseback) or otherwise disposed of, except to other PNG citizens in accordance with custom (OCCD, 2012, p. 24). Dealings in land are restricted in order to provide members of a community self-sufficiency and security, unite them as a unit, and protect them from becoming a landless class (ibid.).

4.1 Forest policy and administration

Over the past 30 years, the Government has introduced legislation to increase its control over the country’s forest resources. This control is mostly exercised by the State acquiring the rights to the timber resources from the customary owners, designing forestry projects, and then inviting developers to undertake the projects. The customary owners are expected to benefit through royalties, infrastructure and services that the developers provide.

In the early 1990s the Government introduced a new Forest Policy and a new



Forestry Act. The Forest Policy is guided by and based on the fourth goal of the Constitution which is “For Papua New Guinean’s natural resources and the environment to be conserved and used for the collective benefit of us all, and to be replenished for the benefit of future generations.” The main objectives of the Forest Policy are: (i) the management and protection of the nation’s forest resources as a renewable natural asset; and (ii) the utilisation of the nation’s forest resources to achieve economic growth, employment, greater Papua New Guinean participation in industry, and increased viable onshore processing.

The Forestry Act 1991 (amended in 2000, 2006 and 2010) regulates the carrying out of forest industry activities. The Act is supported by a number of guidelines and regulations. These include the National Forestry Development Guidelines (revised in 2009); the Planning, Monitoring and Control Procedures for Natural Forest Logging Operations 1995; the Key Standards for Selective Logging in Papua New Guinea 1995; the PNG Logging Code of Practice 1996; the National Forest Plan 1996; Procedures for Exporting Logs 1996; and the Forestry Regulations 1998 (amended in 2010).

Under the Forestry Act 1991 it is an offence to engage in forest industry activities without being registered as a forest industry participant. The Act stipulates that a Timber Permit, Licence or Timber Authority is required in order to carry out any forest industry activities. These are defined as commercial activities within PNG connected with harvesting

timber, buying unprocessed timber for processing or export, and selling timber.

The PNGFA was created in 1991 under the provisions of the Forestry Act to monitor and ensure compliance with the rules and regulations within the forestry sector, including contracts between the State, landowners and investors. The PNGFA is empowered by the Forestry Act to negotiate Forest Management Agreements with the customary owners, choose developers and negotiate conditions for Timber Permits, Licences and Timber Authorities.

The PNGFA comprises the National Forest Board and the National Forest Service. The National Forest Board includes representatives from various groups in the forestry sector and oversees the activities of the PNGFA. The National Forest Service is in essence responsible for administering the Forestry Act 1991 and is in charge of all aspects of forestry at the national level.

A number of regulatory and administrative responsibilities have been delegated to the provincial level. Provincial Forest Management Committees are responsible for the selection of logging operators and the preparation of Timber Permits; the enforcement of Timber Permit conditions and the Forestry Act; the issuance of Timber Authorities; and overseeing the receipt and distribution of government levies and charges and other benefits due to landowners.

The Department of Environment and Conservation (DEC) also has an important role in forestry. The DEC



exercises functions relating to environmental protection through the approval of development proposals, including approval of Forest Management Agreements. Legislation administered by the DEC also provides for the protection of species and habitats through the establishment of protected areas.

4.2 Timber harvesting

Timber harvesting activities can take place under a variety of authorisations. Some of the active logging concessions were authorised under old legislation in the form of Timber Rights Purchases and Local Forest Areas, and some have been issued under the Forestry Act 1991 through Forest Management Agreements. Under the Act, the removal and sale of logs can also take place under a Timber Authority, a Licence, and Forest Clearance Authorities.

4.2.1 Timber Rights Purchases and Local Forest Area agreements

Prior to the promulgation of the Forestry Act 1991, Timber Rights Purchase (TRP) was the main instrument for large scale timber extraction. The Forestry Ordinance 1936-37 enabled the State to acquire the rights over the resources of a given concession area through TRPs. It could then sell these rights to a timber company. The rights acquired under this system were only for the harvesting of merchantable timber and did not transfer to the State or concessionaires the

responsibility of forest management. The royalty was variously divided between the landowners and the provincial and national governments.

The Private Dealings Act (1971) allowed timber companies to negotiate the rights to forest blocks directly with the customary owners under Local Forest Area (LFA) agreements. LFAs were different from TRPs in that rather than the State acquiring the timber rights, it authorised the customary owners to directly negotiate a logging project with timber companies. Through the mechanism of LFA agreements, customary owners were allowed to form a landowner company to negotiate a Logging and Marketing Agreement directly with a logging contractor, which then only required approval from the Minister.

Problems were recognised with both TRPs and LFAs. Under these authorisations the allowable timber cut was overestimated resulting in unsustainable operations. Also, the customary owners lacked the capacity to negotiate fair agreements with developers (PNGFA, 2009). Both of these processes for forestry development were repealed by the Forestry Act 1991; however, the Act recognised the validity of existing TRPs and LFAs, and logging continues to take place under them.

4.2.2 Forest Management Agreements

The Forestry Act 1991 gives the PNGFA the authority to acquire timber rights from customary owners pursuant to a

Forest Management Agreement (FMA) with the owners, provided that the forest area is included in the National Forest Plan and respective Provincial Forest Plans. All concessions under FMAs are acquired for 50 years. The forest acquisition and allocation process can be summarised in 13 steps covering three phases (Table 1).

Table 1: Steps in forest acquisition and allocation associated with an FMA

Step	Phase
Step 1: Forest Inventory (Forest Resources shall be developed only in accordance with the National Forest Plan)	Acquisition Phase
Step 2: Landowner Awareness Program	
Step 3: Formation of Land Group	
Step 4: Forest Management Agreement	
Step 5: Development Options Study	Allocation Phase
Step 6: Advertisement: Call for Project Proposals	
Step 7: Corporate Formation	
Step 8: Selection of Preferred Developer(s), Negotiations	
Step 9: Developer Feasibility Study	
Step 10: Project	

Agreement	
Step 11: Approval of Environmental Plan Under the Environment Planning Act	Operations Phase
Step 12: Timber Permit	
Step 13: Harvest Authorisation	

Source: Modified from Bird et al. (2007a, p. 53).

The FMA process begins with a forest inventory and landowner awareness activities. If the customary owners agree to a forestry project, the PNGFA will proceed with the incorporation of all the relevant land groups. The Act requires that the title of the customary owners to the land is vested in a land group or groups incorporated under the Land Groups Incorporation Act (1974), or registered under law. Where it is considered impractical to meet these procedures, the Act allows for agents to act on behalf of the groups they represent, as long as they are authorised in a manner that is consistent with the custom of the group they represent and 75% of members give written consent to the group entering the FMA.

Before the PNGFA can assign the timber rights it acquires through an FMA to a registered forest industry participant, the National Forest Board must arrange a Development Options Study over the proposed project area and then advertise a tender for a forest development project. The Development Options Study sets out *inter alia* possible environmental and social impacts of the project and options for forest management and for

landowner participation in the project. After the tender, the Provincial Forest Management Committee (PFMC), in consultation with the landowners, prepares draft guidelines for project development which it submits to the Board for finalisation. The Board uses the guidelines when advertising the forest development project to seek interest from registered forest industry participants, who are invited to submit proposals. The project proposals are evaluated by the PFMC, which submits its report, including recommendations, to the Board. The Board consults with the Minister and then directs the PFMC to negotiate a project agreement. The PFMC submits the project agreement to the Board, and if satisfied with the agreement, the Board signs it on behalf of the PNGFA and request the Minister to grant a Timber Permit to the forest industry participant. Prior to the issuance of a Timber Permit, the developer must submit an environmental plan, an environmental monitoring plan and a list of personnel responsible for the monitoring to the DEC.

The Forestry Act 1991 requires the holder of a Timber Permit to submit to the National Forest Board a project statement (a general outline of the objectives and strategies of the holder of a Timber Permit in relation to the project over the succeeding five years), a 5-year forest working plan, and an annual logging plan. The 5-year plans must be approved by the PNGFA. They include the project statement, forest inventory data, and where permanent roads, log ponds and base camps will be constructed. Once a 5-year plan is

approved, the logging operator must submit its annual logging plan, and on approval by the PNGFA Managing Director, must prepare and submit its set-up (harvest block) plan to the project supervisor for approval. Operations must comply with the PNG Logging Code of Practice and Key Standards for Selective Logging in PNG. The PNGFA places project supervisors in each concession to monitor the forestry operations.

4.2.3 Timber Authorities

Timber Authorities are issued by the Chairman of the PFMC after approval from the National Forest Board for small-scale operations of up to to 5,000 m³. Timber Authorities can only be issued for areas that are outside an existing FMA, and for the following five purposes:

- TA-01: harvesting of less than 5,000 cubic metres annually of timber for domestic processing;
- TA-02: harvesting of timber for road line clearance (for road that does not extend more than 12.5 km outside an FMA);
- TA-03: harvesting of timber for clearing in preparation for agriculture or other land use (for less than 50 hectares of trees);
- TA-04: harvesting of forest produce other than timber; and
- TA-05: harvesting of timber in plantation areas.

Timber harvested under a Timber Authority cannot be exported in log form except for a road line clearance (TA-02), site preparation for an agriculture project



(TA-03) and those harvested in forest plantations (TA-05). Issuance of a Timber Authority does not require the feasibility study, guidelines, advertisement and the other procedures set out for FMAs.

4.2.4 Timber Licences

Under the Forestry Act 1991 the National Forest Board may issue a Licence to a registered forest industry participant that already has a Timber Permit or Authority to conduct a forestry activity that is outside the scope of the Permit/Authority. The maximum term of the Licence is 12 months.

4.2.5 Forest Clearance Authorities

Unlike Timber Permits, which are given for selective logging, Forest Clearance Authorities are for the clear-felling of natural forest. Section 90A of the Forestry Act 1991 allows a person to apply for an Authority to carry out any agricultural or other land use development (other than roadline clearing on an existing forested area) where the amount of proposed clearance of natural forest for the project is greater than 50 ha in total. The application for a Forest Clearance Authority for agriculture or other land use development requires a detailed development plan; evaluation report and certificate of approval from the relevant Government department; a certificate from a financial institution to show the developer has the finances needed for the proposed development and evidence of past experience with similar developments; a verification of

ownership and evidence of landowner consent; and an approval of the environment impact statement by the DEC. Section 90C of the Act allows Forest Clearance Authorities to be issued for roadline clearing, with a similar set of requirements and restrictions.

4.3 Procedures regarding the scaling, tagging, movement of timber and royalties

Procedures for the Identification Scaling and Reporting on Logs Harvested from Natural Forest Logging Operations set out the controls for the scaling of logs at the log landings and the reporting on species and volumes, as well as for self-assessment of royalty payments. Logs must be identified and scaled by a licensed scaler on the log landing in the forest after being trimmed and cut to length. PNGFA project supervisors are required to carry out periodic log scaling checks by undertaking their own scaling and must address any major discrepancies between their checks and those provided by the licensed scalers. The timber business is required to submit monthly or more frequently a *Declaration of Logs Harvested and Royalty Self-Assessment*, which is based on the Log Scaling Record Sheets.

No permit is required to move the timber from the forest, but logs cannot be removed from the log landing unless they are tagged with official PNGFA tags and the scale information has been entered into the official PNGFA Log Scaling Record Sheet. The tags are provided by Société Générale de Surveillance (SGS),



which implements PNG's export log monitoring system.

4.4 Log exports

The steps required for the export of logs are set out in the PNGFA document *Procedures for Exporting Logs 1996*.⁹ This document explains the steps required to ensure that logs are exported and sold at the prevailing market price, and that export shipments are correctly declared with respect to log volumes and species, both of which the PNGFA is responsible for. The 22 steps of *Procedures for Exporting Logs 1996* are described in Table 2.

⁹ The Procedures can be downloaded from <http://www.fiapng.com/Procedures%20for%20Exporting%20Logs.pdf>.



Figure 4: Canarium nuts gathered in the forest, Minda, West New Britain, PNG



Table 2: Procedures for Exporting Logs 1996

Step 1: Exporter to ensure all logs are identified by log tags

The exporter must ensure that log tags are attached to all logs that have been scaled at the log landing in the forest, following the process outlined in the PNGFA publication *Directions for the Identification, Scaling and Reporting on Logs Harvested from Natural Forest Logging Operations*, dated December 1993 or later. The log tags identify the project and the log with a unique number in both readable and barcode form. Each tag has two tear-off sheets which are removed at the time of shipment – one for the SGS Inspector and the other for the exporter.

Step 2: Export price endorsement by the PNGFA

At the time the exporter negotiates a sale of logs, she/he is required to obtain PNGFA Head Office (Marketing Branch) endorsement of the negotiated log prices before a sales contract is finalised. The exporter must notify the PNGFA of the proposed sale and prices, and request formal endorsement (a format for the application form is provided).

Step 3: Exporter to finalise sale contract

Once the log exporter has received the PNGFA's price endorsement, she/he can finalise the sales contract, and must submit a copy of the contract to the PNGFA together with the application for a Log Export Licence.

Step 4: Exporter to apply for a Log Export License



Once the log exporter has received the price endorsement and completed the sale contract, s/he applies for a Log Export License to the PNGFA Head Office (Marketing Branch) using Form 1 of Exports (Control and Valuation) Ordinance 1973.

Step 5: PNGFA processes log export licence application

The PNGFA forwards the Log Export License application to the Department of Foreign Affairs and Trade, who issues the Log Export License to the exporter. This is a formal requirement under the Department's Exports (Control and Valuation) Ordinance 1973.

Step 6: Issuance of log export permit by PNGFA

Once the application for a Log Export Licence has been endorsed by the PNGFA and forwarded to the Department of Foreign Affairs and Trade, the PNGFA will recommend the issuance of the required Log Export Permit by the Minister for Forests, arrange the necessary documentation and forward the Permit to the exporter as soon as it is signed.

Step 7: Exporter to ensure appropriate clause in the letter of credit

The log exporter is required to ensure that the log buyer has included in the Letter of Credit a clause requiring a SGS Security Label to be affixed to the final settlement invoice.

Step 8: Exporter to inform SGS of impending shipment

At the time of applying for a Log Export License, all log exporters are required to notify SGS of all impending log shipments by submitting an information sheet (example provided). The exporter must provide SGS with a minimum notice of 10 working days prior to the ship loading.

Step 9: Log preparation by exporter

The exporter must present the logs to be exported in a manner that they can be readily inspected by SGS.

Step 10: SGS to arrange pre-shipment inspection

SGS will make arrangements to undertake the pre-shipment inspection immediately prior to ship loading.

Step 11: Exporter to prepare a statement of logs to be exported plus a summary

The *Statement Of Logs To Be Exported* lists all the logs to be included in the export shipment and presents for each log the details of species identification, length measurement, average diameter, the calculated net volume (which equals the gross volume where there is no defect allowance), and where there is a defect allowance the defect volume.

Log exporters are required to ensure that royalty payments have been made on all logs that are included in the *Statement Of Logs To Be Exported*. The exporter must provide a hard copy of the *Statement Of Logs To Be Exported* to the SGS Inspector on her/his arrival. The exporter must also provide the log details on a computer diskette.

Step 12: Pre-shipment inspection by SGS

SGS will check:

--Broad consistency of volumes for each species/species groups between a Summary of the *Statement Of Logs To Be Exported* and the details of the composition of the permitted shipment as shown on the Log Export Licence.



--All of the logs destined for the shipment for correct species identification against the *Statement Of Logs To Be Exported*.

--A 10% random sample of the consignment of logs to be exported for correct scaling.

Species identification must be 100% correct, and log volumes checked in the 10% sample must be within +/- 3% of the total of the individual log volumes. When there is a discrepancy of greater than +/-10% by volume between the volume of one or more of the species (Group 1) or species groupings (Group 2, 3 and 4) actually loaded on the ship (as detailed in the SGS Inspection Report), and the permitted volumes as stated in the Log Export License, the PNGFA Boarding Officer may hold up the final clearance of the ship at the Declared Customs Port. Examples are provided of acceptable exceptions (e.g. more heavy logs than anticipated resulting in the ship's Captain ordering a lower loading limit for safety reasons). Regardless, when such an inconsistency occurs, the PNGFA Boarding Officer is required to advise the PNGFA Head Office of the variations and seek its permission to accept these.

Where the results of the pre-shipment inspection do not meet PNGFA criteria, SGS will issue a *Discrepancy Notice*, copied to the PNGFA Project Supervisor, for which corrective action will be specified. Appendix 9 in *Procedures for Exporting Logs* set out the corrective actions prescribed by the PNGFA.

Step 13: Inspection liaison between exporter and SGS

The Camp Manager should discuss the inspection results with the SGS Inspector daily and must be advised on log rejection and replacement requested by buyers.

Step 14: PNGFA to give permission to start ship loading

The PNGFA Project Inspector approves the commencement of ship loading, but only once corrective actions associated with any *Discrepancy Notices* are completed.

Step 15: Tally of actual logs loaded by SGS

Once the SGS Inspector has received a copy of the PNGFA's written permission to commence ship loading, SGS will commence log tallying procedures. During ship loading operations SGS will tally the logs loaded on board the ship by drawing log tags as logs are moved off the wharf/beach and prepare loading tallies/species and species group summaries.

Step 16: Production of the SGS inspection report

Once ship loading has been completed, SGS will produce an *Inspection Report* which will present the official verification of what actually has been loaded. The information therein is used for preparation of Export Entry for Customs (which is the basis for calculation of log export taxes) and the commercial invoice. It is also used by SGS to calculate the value to be entered on the Security Label. SGS produced the *Inspection Report* in triplicate and provides 1 copy to the exporter, 1 to the PNGFA office responsible for final ship clearance (in association with Customs), and retains the other copy.

Final ship clearance can only take place at Declared Customs Ports, which include most provincial capitals. The PNGFA has designated a Forestry Boarding Officer (usually the Provincial Forestry Officer) for each Declared Customs Port. A ship cannot receive final clearance without a copy of the *Inspection Report*.



Step 17: Exporter to prepare shipping documents for vessel clearance

The exporter prepares her/his shipping documents. At the time of vessel clearance, both the PNGFA and Customs will require copies of shipping and commercial documents. The PNGFA Boarding Officer use the *Inspection Report* to check that the exporter's data is correct.

Step 18: PNGFA boarding officer to check consistency of volumes actually loaded with log export licence

The PNGFA Boarding Officer will check the consistency of the volumes actually loaded (as detailed in the *Inspection Report*) with the Log Export Licence. Where there is a discrepancy in the volume by species (Group 1) or species group (Groups 2, 3 and 4) greater than the +/- 10% by volume permitted, the Boarding Officer is to take action as specified in Appendix 9 of *Procedures for Exporting Logs*.

Step 19: Exporter sends documents to SGS Port Moresby Office

The exporter must send the following documents to the SGS Port Moresby Office: Letter of Credit; Commercial Invoice, Bill of Lading, Ship's Timesheet, Export Entry.

Step 20: SGS to attach a security label to the commercial invoice

Based on SGS's *Inspection Report* and the export prices approved by the PNGFA, SGS will enter onto the label the value of the shipment, the Log Export Licence number, and the volume loaded by species and species group and affix the label to the exporter's Commercial Invoice. The exporter will then be able to use the labelled invoice to negotiate payment for the shipment. This ensures that the exporter is paid according to the volume and species inspected by SGS and the prices approved by the PNGFA.

Step 21: Exporter to collect commercial invoice from SGS

Step 22: SGS to produce a full post-shipment report

Since 1994, the Government has contracted Société Générale de Surveillance (SGS) PNG Pty as an agent of the PNGFA to support the log export monitoring and control procedures. The roles of SGS are:

- Providing log tags to be affixed to the end of each log by producers at the time of scaling at the log landing;
- Conducting pre-shipment log inspections to check species identification and log scaling;
- Monitoring ship loading to verify the species and volumes actually loaded;

- Verifying commercial invoices before they can be presented against a letter of credit.

The last of these responsibilities was rendered obsolete as a result of changes in foreign exchange controls (Bird 2007b, 59).

The SGS independent export log monitoring system begins with tags provided by SGS (Figure 5) being attached to the logs at the log landing, before they are removed from the forest. The log exporters must notify SGS in advance of any intended shipments and must make all logs available for



inspection at the point of ship loading. The exporter is required to prepare a statement of log exports, which provides the species and estimated volume of each log. The SGS inspectors do their own identification of species for every log, and scale 10% of the logs. They check their results against the statement of log exports, and if significant discrepancies are found, SGS issues a discrepancy notice specifying corrective actions. As the ship is loaded SGS takes a tally of the logs by removing one of the tear off barcoded sections of each log tag. SGS provides an inspection report as the official verification of what has been loaded, and a post-shipment report, including any details of anomalies.

Figure 5: PNG official log tag



The PNGFA loading officer, Customs, the Exporter and the ship master are all responsible for signing the ship's clearance. Customs is mainly concerned with ensuring that the export tax is paid. This consists of a 28% tax of the free on board (FOB) value and a PGK 8/m³ development levy. Table 3 lists the documents required for clearance for a shipment of logs. The exporter must send a copy of the Bill of Lading and the

commercial invoice to SGS, which it keeps on its database.

Table 3: Documents required for ship clearance

Document	Issued by
Log Tally Sheet	
Copy of Price Endorsement	PNGFA
Copy of Export Permit	PNGFA
Copy of Export License	Department of Trade and Industry
Copy of the Letter of Credit	Consignee's bank
Copy of Customs Duty	
Copy of Bill of Lading	Shipmaster
Copy of Export Summary	

4.5 Conclusion

There has been a strengthening of forest laws in PNG with the introduction of the Forestry Act and its supporting guidelines. The FMA process, which is meant to be the primary process for logging, sets out steps to ensure that areas are identified for forestry development in accordance with national and provincial forest plans, that the State acquires timber rights with the full knowledge and consent of customary owners, that projects are designed on the basis of proper resource assessments, that developers are selected impartially, and that project operations are carefully planned and monitored. However, as the discussion in Box 1 below demonstrates, various legal amendments have impacted the



sustainability objectives of the Forestry Act 1991.

The independent export log monitoring system implemented by SGS has strengthened the administrative framework for timber exports. Through the monitoring system, SGS plays an important role in assisting the Government to collect the revenues it is due from log exports. While not intended

to provide traceability of export logs back to their source, the monitoring system does provide some degree of confidence that exported logs are sourced from authorised forestry operations. However, the system was not intended by itself to allow exporters to make a claim of legality for their export timber.



Box 1: Beyond legality to sustainability – Circumventing the sustainability objectives of the Forestry Act 1991

Since the Forest Act was promulgated in 1991, various Governments have made changes to the laws that give advantages to industry at the expense of sustainability. These include:

Forest Timber Permits Validation Act 2007

The Forestry Act 1991 requires the PNGFA to draw up a National Forest Plan that provides a detailed statement of how the National and Provincial Governments intend to manage and utilise the country's forest resources. However, the National Forest Plan that was developed in 1996 only sets out a National Forest Development Programme for the period 1996 – 2001; hence, it has been argued that for all intents and purposes the Plan has now expired (Bird et al., 2007a, p. 4). Moreover, Section 47(b) of the Act requires a National Forest Plan to be based on a certified National Forest Inventory, which has never been undertaken.

The Forest Timber Permits Validation Act 2007 was promulgated as a remedy to deal with the legal concerns over the out-dated national forest plan and the lack of a certified national forestry inventory. The Act states that no timber permit or other grant issued under the Forestry Act 1991 is invalidated by the absence or expiration of, or any defect in a national forest plan or national forest inventory. This legal solution cannot be considered adequate as it undermines the sustainability objectives of the Forestry Act.

An effort to address the lack of an adequate and current National Forest Plan is now underway. The PNGFA has started work on a national forest inventory with support from the UN-REDD project 'Technical support to the Papua New Guinea Forest Authority to implement a multi-purpose National Forest Inventory,' and a new National Forest Plan is now in its second draft. The quality of the National Forest Plan will be a key issue.

Forestry (Amendment) Act 2007

Amendments to the Forestry Act in 2007 opened up the possibility of Forest Clearance Authorities issued for Special Agriculture Business Leases being used by logging companies to acquire timber rights, without the sustainability requirements of FMAs. Prior to revisions to the Forestry Act 1991 in 2007, the PNGFA was responsible for appointing an independent contractor for undertaking tree-felling under Forest Clearance Authorities. With the revisions, the lease holder can remove the logs, potentially making Forest Clearance Authorities attractive to logging companies looking to secure new sources of timber.

Environment (Amendment) Bill 2010

Amendments to the Environmental Act 2000 in 2010 can be seen as another attempt to prioritise the interests of industry over sustainability. The Environment (Amendment) Bill 2010 allowed retrospective certification and authorisation of activities which may have otherwise been deemed illegal under the Act. The amendments also meant that the authorisation could not be subject to challenge or review in any court, and that developers were protected from any civil claims of damages. The O'Neill Government nullified the amendments in 2012.



5 PNG's forest resources and timber exports

Before discussing the legality risks associated with PNG export timber, we provide an overview of timber exports, including product types and volumes, main markets, and the harvesting authorities under which the wood materials are sourced.

5.1 PNG's forest resources

Forests in PNG can be found from sea level to elevations above 4,000 metres on landscapes that range from seasonal savannah to continuously wet cloud forest. They account for about 60% of the total land area (PNGFA, 2009). The forests on the PNG 'mainland' (the eastern part of New Guinea island) and the forests on the Indonesian side of New Guinea island form the largest contiguous tropical forest area in the Asia Pacific region.

PNG is well-known for biological endemism and diversification and is thought to hold more than 5% of the world's biodiversity (Miller, Hyslop, Kula, & Burrows, 1994; Takeuchi, 1999). Another important global value of PNG's forests is their contribution to climate change mitigation as sinks and stores of carbon. Over 95% of Papua New Guinea's greenhouse gas emissions are associated with land use, land-use change and forestry (OCCD, 2010).

PNG's forests are also important to the national economy. Timber exports are the third-largest foreign-exchange earner after mineral and agricultural exports (Bird, Wells, van Helden, & Turia, 2007b). Forestry employs about 100,000 people and provides government revenues through the log export tax, which averages about 30% of the export value, and a reforestation levy. In 2005, revenue generated by the forest sector totalled about 130 million PGK¹⁰ (Blaser, Sarre, Poore, & Johnson, 2011, p. 227).

Locally, forests are of economic and cultural significance for communities. Ninety-seven per cent of the land and 99% of the forests of PNG are owned by local clans under customary arrangements, unlike in most other developing countries where most forests are owned by the State. Over 80% of PNG's population reside in rural areas (OCCD, 2012, p. 24), mostly as separate communities of only a few hundred people who maintain close relationships with the land and natural resources. Many of PNG's coastal and upland communities have developed intimate

¹⁰ 1 PGK = 0.436 USD on 21 July 2013.

relationships with and knowledge about their forests.

5.2 Forest classification

The Forest Policy 1991 classifies forests into the following five categories according to function:

- Production Forest – identified as timber production areas
- Protection Forests – set aside for protection by virtue of their location, topographic constraints, and ecological, cultural, or environmental considerations
- Reserve Forests – forests not yet otherwise classified, but upon which a decision will be reached later
- Salvage Forest – forest to be cleared for other land use.
- Land suitable for reforestation.

Table 4 shows the area of forest designated according to class. Despite the rich biodiversity of PNG's forests, the functional classification of forests is skewed away from conservation towards timber production. About a third of the forest has been designated as production forest and slightly less has been designated as reserve forests. The total area of protection forests is low. The national extent of protected areas reported by Government departments ranges from 547,000 – 1,940,000 ha (Blaser et al., 2011; Nicholls, 2010). Blaser et al. (2011) note that PNG has no legal national definition of protected areas and that the concept is used vaguely.

Table 4: Forest classification in PNG

Forest classification	Area (ha)	Area (%)
Production Forests	14,645,520	31.5
Reserve Forest and (Protection Forests)	12,442,970	26.8
Afforestation & Salvage Forests	9,223,600	19.9
Others	10,098,290	21.8
Total	46,410,380	100

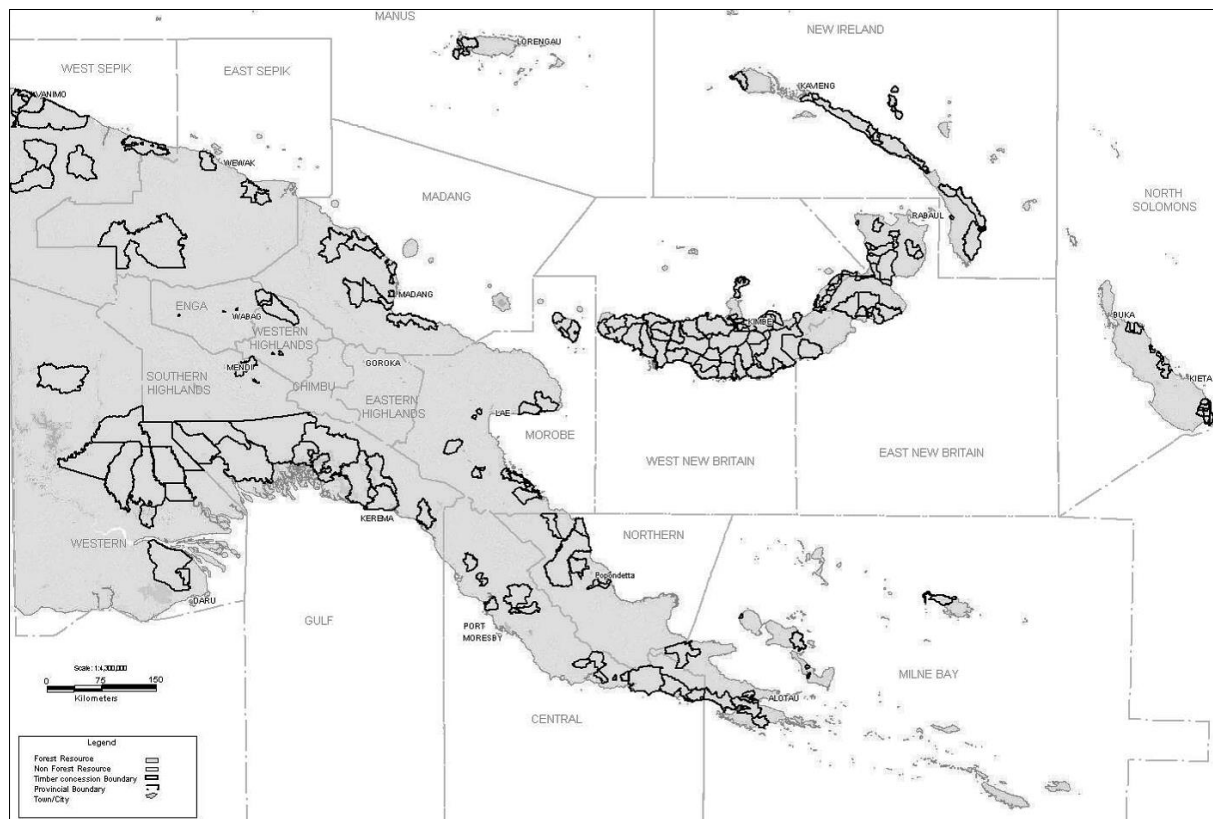
Source: Modified from PNGFA (2013).

5.3 Areas under concessions

Of the area designated as production forest in 2010, the government had acquired timber rights from customary landowners for selective harvesting over about 12 million ha of forest, leaving about three million ha that the State can acquire for the development of new forestry projects. Of the area over which the government had acquired forest rights, 10 million ha were under timber permits (Amos, 2010), though Blaser et al. (2011) suggest that only about 4.9 million ha could be considered to be under active timber extraction licences in 2007. From Figure 6 it can be seen that most of the area in West and East New Britain and New Ireland are under concessions, and that large concessions can be found in most other provinces, including Central, Northwest, Western, Gulf, West and East Sepik, Madang, Morobe, Milne Bay, and Manus provinces, as well as some of the Highland provinces.



Figure 6: Map of current logging concessions



Source: Amos (2013).

5.4 Timber exports

5.4.1 Export by type and volume

Logs from natural forests are PNG's main wood product export. In 2011, 3,180,000 m³ of logs were exported ("ITTO Annual Review Statistics Database," accessed July 2013), whereas between 2000 and 2009 chips and particle exports averaged only 71,200 m³/yr.; non-coniferous sawnwood, 34,300 m³/yr.; veneer sheets, 33,800 m³/yr.; and plywood exports 3,760 m³/yr. ("FAOSTAT," accessed 22 July 2013).

Logs from natural forests will continue to be PNG's main exported wood product. While downstream processing is becoming more important, the high cost structure of the PNG economy is a disincentive to value-added processing (Bird et al., 2007b, p. 13). Also, Chinese timber buyers prefer round wood from PNG because it gives them processing flexibility and because of their lower processing costs.¹¹ Wood exports from planted forests will also not reach anywhere near those from natural forests

¹¹ Interview, SBLC, April 2013.

in the foreseeable future. The area of planted forest remains low at about 62,000 ha¹² and, while a reforestation levy is collected from the logging operations by the State, there is little evidence that this actually pays for reforestation (ibid.).

Both harvested volumes and export volumes of logs in PNG have increased over the past 10 years to reach an historical high in 2011 of 3.5 million cubic metres, well above the previous record of 3 million cubic metres, with a downturn around the 2007-2009 period due to the global financial crisis (Figure 7). The PNGFA reports that the Gulf, Manus, East New Britain, West New Britain and New Ireland provinces are over cutting and may soon exhaust their resources if the same level of cut continues for the next five years (PNGFA, 2013, p. 12).

Large-scale logging operations and log exports are mostly organised by foreign-owned logging companies. There are about 25 foreign-owned logging companies operating in the country, though some of these are part of one large conglomerate that is responsible for about 45% of all logging and log exports (PNGFA, 2009).

5.5 Main markets

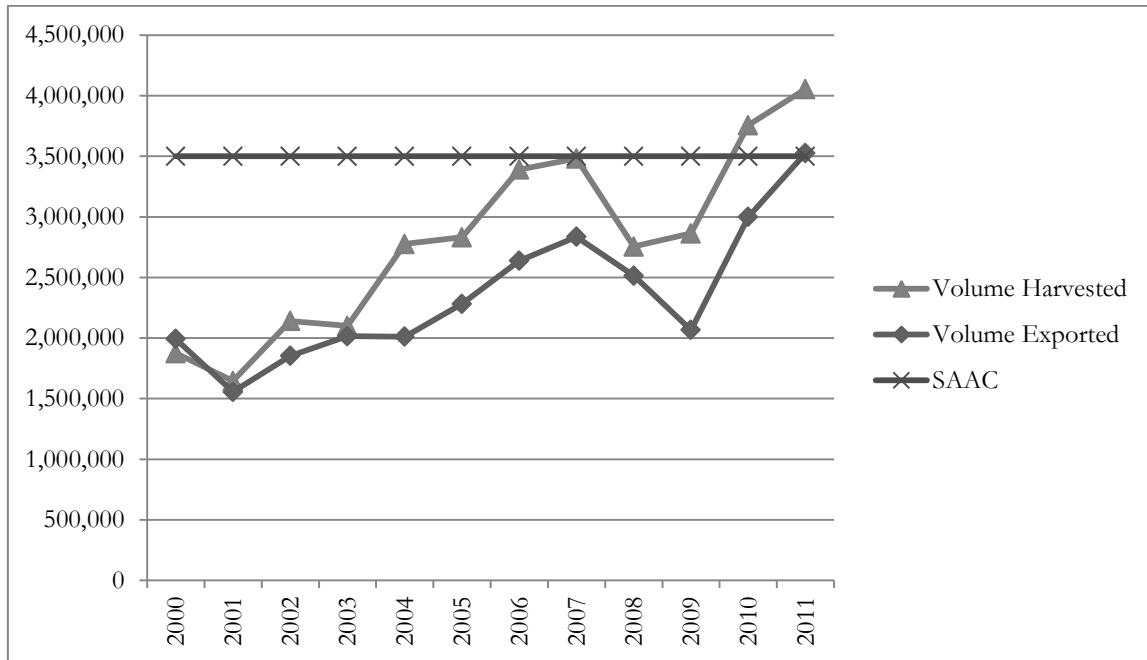
Traditionally, PNG's main wood product export markets have been Japan, China, Viet Nam, Australia, the Republic of Korea, Malaysia, the Philippines and Taiwan. As can be seen from Figure 8, China is now by far the most important destination for PNG's timber, accounting for 93.7% of PNG's exported tropical (non-coniferous) round wood in 2009 ("FAOSTAT," accessed 30 July 2013). In contrast, the significance of the Japanese market for PNG logs has markedly diminished.

Markets outside of China remain important for processed wood products. In 2009, Japan accounted for most of PNG's chip and particle exports, while Australia was the main market for PNG's sawn wood.

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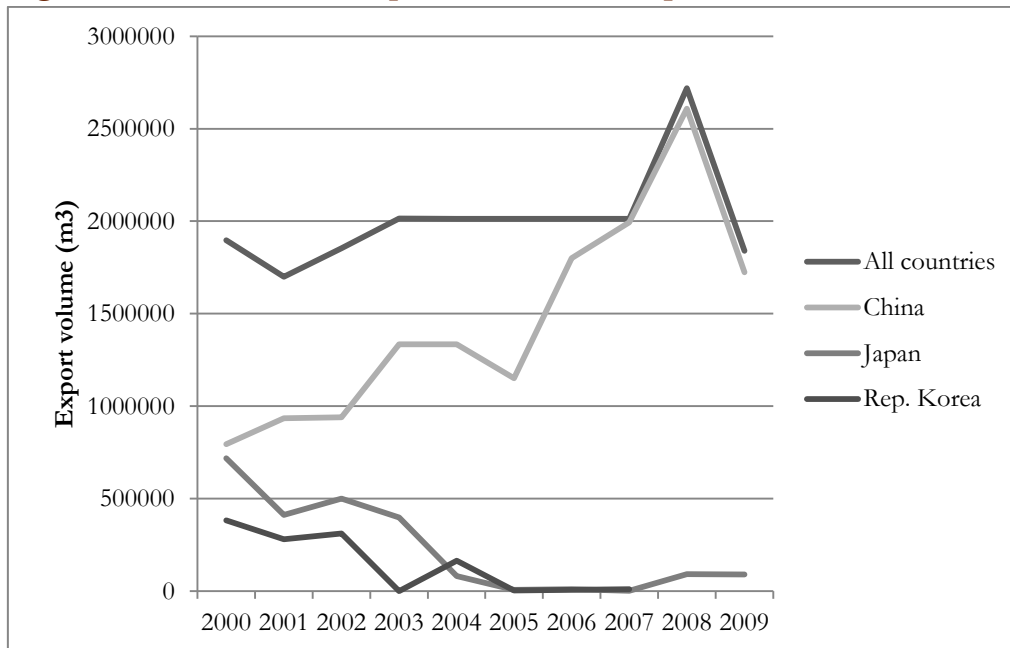
<http://www.forestry.gov.pg/site/page.php?id=13>, accessed 22 July 2013.

Figure 7: PNG harvested and export timber volumes (m³)



Data source: (Amos, 2013); Note: SAAC = sustainable annual allowable cut.

Figure 8: PNG industrial tropical round wood exports, 2000 – 2009



Source: ("FAOSTAT," accessed 22 July 2013).

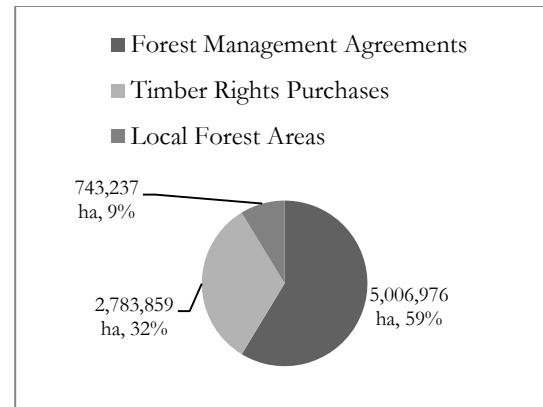
5.5.1 Timber exports and type of harvesting authority

In terms of forest area, the most significant active concession types in order of importance are Forest Management Agreements (59%), Timber Rights Purchases (32%), and Local Forest Areas (9%) (Figure 9). Areas under Timber Authorities cannot be verified due to the nature and type of operations (PNGFA, 2013).

In addition to timber concessions, Forest Clearance Authorities are now also important for log exports. In 2011, Forest Clearance Authorities issued to

permit clearance of forests in areas under Special Agriculture Business Leases (SABLs) accounted for about 19% of total log exports (Table 5).

Figure 9: Total area (ha) by different concession types, 2011



Source: PNGFA (2013).

Table 5: PNG annual log exports, 2006-2011

Year	Total log exports (millions m ³)	Log exports from SABLs (millions m ³)	SABL exports as percentage of total
2006	2.7	nil	Nil
2007	2.8	15,000	0.05%
2008	n/a	126,000	5%
2009	2.1	133,000	6%
2010	2.999	504,000	17%
2011	3.5	650,000	19%

Source: Radio Australia (03 February 2012).

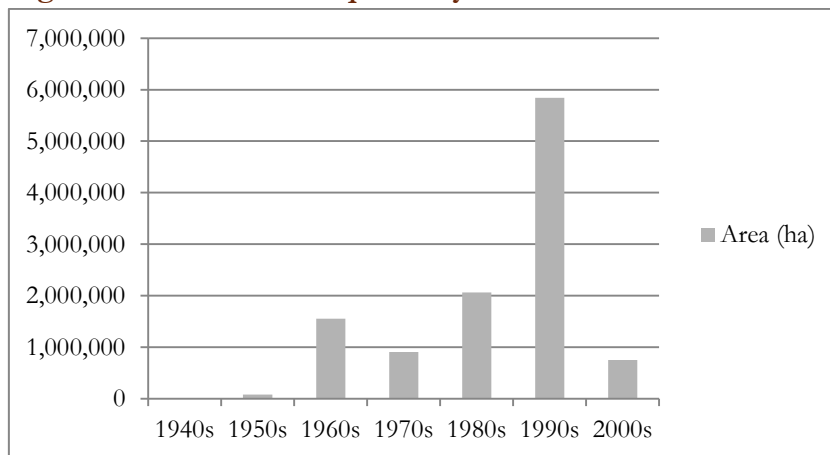
While log exports reached an all-time high in 2011, this should not be taken as a sign of a vibrant and sustainable log industry in PNG. There are several observations that indicate that annual log export volumes will drop in the coming years. First, one fifth of the exported logs in 2011 were from Forest Clearance Authorities, which are a one-time source of timber. Second, many of the

operations in the older concessions were harvesting beyond sustainable levels and have exhausted their timber resources, forcing them to close, and some of the existing concessions are reaching their expiry dates (Blaser et al., 2011; PNGFA, 2009). Third, the development of new concession projects by the Government has slowed significantly and there seems to be little prospect of future

development rates matching concession expiry rates in terms of the area being acquired and lost as concessions. The development of forest concessions by the Government rose sharply in the 1990s

after the Forestry Act was introduced in 1991, but declined thereafter (Figure 10).

Figure 10: Forest area acquired by the Government for timber concessions



Data source: PNGFA (2009).

5.6 Discussion and conclusion

PNG is blessed with a rich forest resource, both in terms of total forest cover and biodiversity. Forests are important locally for the ecosystems services they provide, nationally for job creation and generating public revenue, and globally for their biodiversity values and carbon stocks. Vision 2050 recognises that PNG's natural timber and forest biodiversity and carbon provide important development opportunities (GoPNG, 2011).

In recent years, the Chinese market has become the main destination for PNG's huge annual volumes of log exports, with Vietnamese buyers taking some plantation timber, and countries such as

Australia and Japan remaining important for PNG's small volumes of processed wood exports. It is important that these markets send signals to forest managers in PNG that encourage legal and sustainable forestry. The timber industry is not as vibrant as recent export volumes suggest. To the contrary, some of the older concessions are closing because of overharvesting and the development of forestry projects under FMAs has slowed considerably, with one senior forestry official reporting that it took the PNGFA about 10 years to develop its last project under an FMA (Amos, 2010). Also, conversion for commercial agriculture is threatening large areas of accessible forest.

In the following section we outline the potential legality risks associated with unverified timber.



6 Potential legality risks of unverified export timber

In this section we discuss a variety of potential legality risks associated with unverified PNG export timber that we have extracted from a critical review of the literature and interviews. Timber smuggling, i.e. the outright circumvention of laws to remove timber from a country undetected, is not thought to be one of these. SGS has uncovered no major cases of timber smuggling since it was contracted by the State to conduct the independent export log monitoring system and our literature review found no reporting of large or small volumes of timber being smuggled out of the country, as has been reported elsewhere in the region.

The major potential legality risks affecting timber are associated with failure to always follow due process in the acquisition, allocation and extension of timber rights; shortcomings in compliance with regulations and guidelines in the conduct of forestry operations and in fulfilment of project agreements; and failure to follow due process in organising Special Agriculture and Business Leases. Transfer pricing might also be taking place, though is difficult to detect. Encroachment into forest by logging companies outside concession boundaries is another *possible* risk, but needs further assessment to understand whether this is a *significant* risk or not. The PNGFA has mentioned that

recently it has received notifications based on satellite images of possible encroachment and is now following up on this.¹³

- **Failure to always follow due process in the acquisition, allocation and extension of timber rights**

Before a logging project can take place under an FMA, the customary owners should organise themselves as incorporated land groups (ILGs) following the processes set out in the Land Groups Incorporation Act 1974. For the development of FMAs the National Forestry Service has taken on the responsibility of organising the ILG incorporation, despite this being the duty of the Department of Lands and Physical Planning. When ILG formation is facilitated by outsiders, the PNGFA then takes on the responsibility of ensuring that the members are the legitimate landowners (D. Kaip, personal

¹³ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA.

communications, 01/11/2013). That ILG incorporation processes are often not properly followed is widely reported. Bird et al. (2007c, p. 2) describe the situation as follows:

Two major shortcomings in particular have been noted. The first concerns the issue of prior informed consent. In theory, the Registrar of Land Groups should assist the communities in negotiating the ILG process. However, in forestry projects, this is undertaken by the PNG Forest Authority due to lack of capacity within the office of the Registrar. In some instances logging companies have undertaken this role, raising the danger of conflict of interest. The second concern is that ILGs are obtained without following the correct procedures. Many ILGs are not registered by the Registrar of Land Titles in the Department of Lands and Physical Planning, as the office lacks the capacity to process them. Thus, logging projects may proceed without the landowners having been issued with ILG certificates.

An illustration of the failure of the State to follow due process in the acquisition of timber rights can be seen in the litigation case *Sep Galeva and others v Paiseo Company Limited and others* [2003] OS 427. In this case the National Court ruled a Timber Authority for a road alignment project to be null and

void because *inter alia* there was “no written consent of landowners accompanying the application; the application was not referred to the Provincial Forest Management Committee (PFMC) by PNGFA nor did the PFMC approve or recommend the application; and the PNGFA Managing Director’s decision to approve the license was not supported by a decision of the PNGFA Board” (Bird et al., 2007a, p. 5).

The lapses during the development of Timber Authorities and FMAs are not only associated with the National Forest Service. An ITTO Diagnostic Mission noted that the National Forest Board has occasionally taken decisions without following the processes set out in the Forestry Act 1991, for example, when extending Timber Authorities and Timber Permits without consulting the customary owners (ITTO, 2007, p. v).

There are also concerns that landowners do not always have sufficient information to make an informed decision about whether to agree to a forestry project. While PNGFA officers undertake some landowner awareness prior to the incorporation of ILGs, Bird et al. (2007a, p. 11) conclude that it can be difficult to verify whether all landowners have given their consent based on sound knowledge of the implications of ILG incorporation and logging. The PNGFA officers themselves are sometimes working with many different language groups (PNG has over 800 distinct languages) across many thousands of hectares, including areas difficult to access, with inadequate time to conduct thorough awareness raising activities (ibid.). Timber Authorities are particularly open to abuse



because landowner awareness does not have to be undertaken and applicants need only secure the approval of a clan agent, signed in front of a village magistrate or land mediator.

Bird et al. (2007a, p. iii) found that a lack of procedural clarity for processes regarding resource acquisition and allocation is an important source of legal conflict. They noted that there is a lack of standards for landowner awareness-raising by officers of the National Forest Service (NFS) prior to resource acquisition. They also point out that while the PFMCs must provide a certificate that shows they are satisfied that the true landowners have willingly transferred the timber rights to the State, their ability to do so is constrained by a lack of specific verification guidance and resources. The system of checks and balances intended by having the PFMCs acting independently of the National Forest Service when vetting applications for licenses is thus not being implemented (Bird et al., 2007a, p. 23).

The Land Groups Incorporation (Amendment) Act 2007 was introduced to strengthen ILG formation. The new Act requires that ILG applications contain lists of all proposed members, a sketch of land boundaries, management committees with six to 10 members, and a minimum of 60% of members to be present at meetings for business to be conducted. Whether the responsible agencies can ensure proper

implementation of the new Act will of course depend on much better resourcing.¹⁴

- **Shortcomings in compliance with regulations and guidelines in the conduct of forestry operations**

The literature and our discussions with several timber businesses involved in logging indicate that inadequate compliance with regulations and guidelines in the conduct of forestry operations can be a significant problem. The audits of individual forestry concessions conducted by a review team commissioned by the Government to study current logging projects show that the types of non-compliances with the Key Standards for Selective Logging can be wide-ranging and extensive (Review Team, 2004). The non-compliances with Key Standards in one operation are listed in Table 6 for illustrative purposes.

¹⁴ The Land Groups Incorporation (Amendment) Act 2007 provides for a 5-year transition period, during which existing ILGs can choose to reapply for incorporation following the new provisions.

Table 6: Non-compliances with the Key Standards for Selective Logging in one forestry operation

Planning and control of logging

1. Lack of vine cutting
2. Some commercial size trees not marked for felling
3. Buffer zones not marked to the required width
4. Logging operation within buffer zones of Class 1 and 2 rivers/streams
5. Skidders causing excessive damage to young residuals and opening up large gaps in the canopy because of not following defined skid tracks
6. Excessive soil pushed into watercourses by bulldozers
7. Debris not removed from streams or watercourses
8. In some areas where crossings/ bridges were required, only log clusters were observed
9. Lack of decommissioning within set-ups (log landings/skid tracks/roads including temporary crossings)
10. Lack of chains for the loaded jinkers/ trucks
11. Construction of river dumps or sub-log ponds along the river bank without proper approval process

Log pond

1. Lack of proper approval for the river dumps
2. Excessive clearances for the river dump landings or log ponds with no consideration for buffer zone
3. Lack of decommissioning of the abandoned landings at the river dumps
4. Lack of bund for the fuel storage tanks

Logging camp

1. Lack of appropriate toilet facilities for the national employees
2. Absence of proper toilet facilities at sub-log ponds for employees
3. Lack of safe drinking and cooking water facilities at the camp
4. Very poor and unhealthy housing condition for the national employees
5. Lack of proper waste disposal method observed around the workshop and the national employees housing areas
6. Lack of bund containment for the power generator shed
7. Lack of appropriate employment practices (health and safety) in the workshops and in the logging operation

Source: (Review Team, 2004).



The reason most often cited for non-compliance is that the PNGFA lacks the human and financial resources necessary to monitor the forestry operations. One timber permit holder interviewed for this report lamented that there was seldom a PNGFA project inspector on site to assist on landowner issues. Another observed that the PNGFA project inspector assigned to his concession was not rigorously ensuring that the logging company he had contracted complied with the Key Standards for Selective Logging.

The staffing situation is similarly problematic for the DEC, which is responsible for controlling the environmental impacts of the forestry operations. The DEC has little presence at the provincial level and has no effective monitoring at the project sites. It lacks field staff, financial resources, and logistics (ITTO, 2007, pp. 8-9). The PNGFA staff must thus take on the responsibility for monitoring the environmental performance of the logging operations, in addition to monitoring and supervising harvesting operations, and addressing landowner disputes.

The lack of field staff is not the only problem. That the developers are responsible for providing housing, transportation, schooling and other public services for the Government field officers potentially compromises the ability of the PNGFA project inspectors to make neutral decisions on control matters.

When PNGFA project inspectors do identify and report improper practices in

the logging operations, there are concerns that appropriate actions by their senior staff may not always be taken. Under the Forestry Act 1991, when a project supervisor identifies a non-compliance with a Timber Permit, Timber Authority or Timber License, he/should notify the company and the Head Office of the National Forest Service. However, whether because of costs, lack of legal advice, or other reasons, prosecution is rare (Bird et al., 2007a, pp.14, 51).

The situation described above does not appear to have changed over the past 10 or so years. The budget for monitoring that the PNGFA has stands at 2 million PGK per year, and this has not increased over the past seven years, despite an increasing number of projects to be monitored.¹⁵ The PNGFA reported recently that it had applied penalties to two companies and hopes that this sends a signal to the industry on the need for improved compliance.¹⁶ However, without more resources dedicated to monitoring logging operations, problems with legal compliance will remain.

- **Shortcomings in fulfilment of Project Agreements**

The Project Agreement sets out the infrastructure that the Timber Permit

¹⁵ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA

¹⁶ Ibid.



holder is required to provide. This commonly includes the construction of roads and bridges and may include the building of schools, community health centres, etc. Such infrastructure can be very important to local communities, but the infrastructure is not always constructed to national standards and sometimes not built at all (Bird et al., 2007a, p. 48). For illustrative purposes, the non-compliances of one forestry project with its Project Agreement are listed in Table 7. These are not insignificant as they require major investment in and maintenance of infrastructure that would be important to the local communities and local economy.

Table 7: Non-compliances with one Project Agreement

1. No evidence of compliance with the Project Agreement with respect to three bridges
2. Lack of permanent culverts
3. Lack of sawmill
4. Lack of maintenance of roads and bridges in areas that have been logged out
5. Lack of establishment of an urban development
6. No evidence that sections 4.5 to 4.8 of the Project Agreement had been complied with

Source: (Review Team, 2004).

Box 2: Beyond legality to sustainability – the challenge of maintaining infrastructural benefits

One issue with the infrastructural benefits of logging is that once maintenance stops the infrastructure degrades very quickly because of the tropical climate. The infrastructural benefits generally only last as long as the logging does, as the timber permit holder has no legal obligation to maintain the infrastructure after the expiry of the permit. This is not a legality issue; rather, it is a problem associated with the implementation of the broader development model that the Government is attempting to pursue through its forest policy.

- **Failure to follow due process in the issuance of Special Agriculture Business Leases**

Special Agriculture Business Leases (SABLs) were made possible under the Land Act from 1996 (National Research Institute, 2011). For a SABL to be issued over customary land, the customary landowners must first lease their land to the state, which then leases the land to a lessee for development purposes. The leases are granted by the Department of Lands and Physical Planning, after which approval for the proposed activity must be given by the Department of Agriculture and Livestock. If forest clearance is planned under a SABL,



developers must acquire a Forest Clearance Authority from the PNGFA.

A total of 72 SABLs have been issued over 5.2 million hectares of customary land (Winn, 2012, p. 3). Most of this transfer of rights from the customary owners to developers has taken place in a period of about five years (Papua New Guinea Today, 2013). The duration of rights transfer is mostly for 99 years.

This massive acquisition of land by developers in a short period of time led to concerns that SABLs pose a serious threat to PNG's forests and the well-being of rural communities. About 2.3 million ha of primary and secondary forests are under SABLs, and Forest Clearance Authorities have been issued over 878,764 ha (PNGFA, 2013). SGS estimates that in 2011 log exports from SABLs came from the clearing of about 320,000 ha of forest (Radio Australia, 2 February 2012).

An early warning letter expressing concerns that customary lands were being leased without the consent of the customary owners and without their understanding of the proposed developments¹⁷ was issued by the United Nations High Commission for Human Rights on 11 March 2011. This led acting Prime Minister Sam Abal to appoint a Commission of Inquiry into SABLs and

issue an immediate moratorium on the granting of any new SABLs, Forest Clearance Authorities and Environmental Permits.

The Commission of Inquiry was mandated to investigate the legal authority and procedures involved in the issuing of the SABLs and to examine all the leases. Prime Minister Peter O'Neill has tabled reports from two of the three Commissioners.¹⁸ The Government has appointed a ministerial committee to review the recommendations and findings of the Commission of Inquiry.

The Commission found that only 4 of 42 SABLs investigated had obtained landowner consent, with the remainder being secured through corrupt means (Fox, 2013). It found widespread abuse and fraud, failure and incompetence of government officials to ensure compliance, accountability and transparency from the application stage to registration, processing, approval and granting of the SABLs (Tau, 2013). The Commission was told of bribes and inducements being offered by project developers and representatives of landowner companies to procure SABL titles, and it received evidence of undue political pressures being put on Government officials by senior Ministers and politicians to fast-track SABL applications and issue titles (ibid.). Almost any timber supplied under Forest

¹⁷ http://www.redd-monitor.org/wordpress/wp-content/uploads/2011/03/PapuaNewGuinea_11March2011.pdf, accessed 04 June 2013.

¹⁸ The Commission of Inquiry's final reports are available through the Commission's website (<http://www.coi.gov.pg/sabl.html>).



Clearance Authorities associated with SABLs can thus be considered high risk.

- **Transfer pricing**

Transfer pricing is a way for companies to evade tax by under-declaring values of export consignments or by overstating tax deductible values of their imports (Bird et al., 2007b, p. 27). Transfer pricing could be a significant problem for PNG, but is difficult to detect. The Barnett Report found that in the 1980s transfer pricing was being practiced by nearly all forestry companies (Barnett, 1989). The introduction of the independent export log monitoring system resulted in greater capture of Government revenue from log exports, suggesting that the opportunities for transfer pricing have been reduced. Avoiding taxes by intentionally misclassifying species or misreporting grade is now more difficult (Bird et al., 2007b, p. iv). However, even after the independent export log monitoring was introduced, a review team commissioned by the Government found major and unexplained discrepancies between the declared FOB (free on board) prices plus freight and insurance, and the destination CIF (cost, insurance and freight) for some export consignments (Forest Revenue Review Team, 2002). Bird et al. (2007b, p. iv) argue that the main risk of transfer pricing has shifted to the price endorsement mechanism, and conclude that while transfer pricing is a difficult practice to observe, there are indications of transfer pricing that deserve to be investigated.

Previously, companies were required to send letters of credit to banks in PNG within two weeks of a sale, allowing verification of export values. Due to banking law changes, a lot of companies now use accounts off-shore so the information to check is no longer available.¹⁹

6.1 Conclusion

As mentioned earlier, given the variety of views on illegalities in the forest sector expressed in the literature, it would surely be difficult for timber buyers to make sense of legality risks associated with PNG timber. The discussion above shows that while timber smuggling does not appear to be a major concern for PNG, unverified PNG export timber does carry potential legality risks. These are mostly associated with the inability of Government departments to fully carry out their mandates, whether because of lack of resources, pressure from politicians, or other reasons. The ITTO 2007 Diagnostic Mission to PNG concluded that the most significant legality issues are to do with the Government not fully complying with the laws of PNG when deciding to “designate a forested area for logging purposes; negotiating the agreement with landowners; managing, monitoring and enforcing the agreement; and when extending current agreements” (ITTO,

¹⁹ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA.

2007, p. v). There is no evidence to suggest that the situation has changed in the five years since the ITTO report was released. The failure of certain Government departments to ensure proper processes in the organisation of Special Agriculture Business Leases points to the continuation of systemic problems in land and natural resource management.



7 Legality risk mitigation options for timber buyers

Because of the potential legality risks of unverified timber identified above, buyers could choose not to purchase timber from PNG and to instead target wood producer countries where legality risks are considered lower. The UK Timber Trade Federation took this position in 2006 when it warned its members not to purchase timber originating from PNG and the Solomon Islands, stating that it had found that little evidence could be obtained to provide a minimum guarantee of legality. However, a problem with this approach is that it may merely result in new, less discerning markets being found for the timber, without any progress towards greater legal compliance. In May 2013 the ITTO reported that “China continues aggressively purchasing logs in PNG and many log ships for China are tied up in ports, waiting for logs” (ITTO, 2013, p. 15) indicating that a single unilateral action is likely to have limited impact.

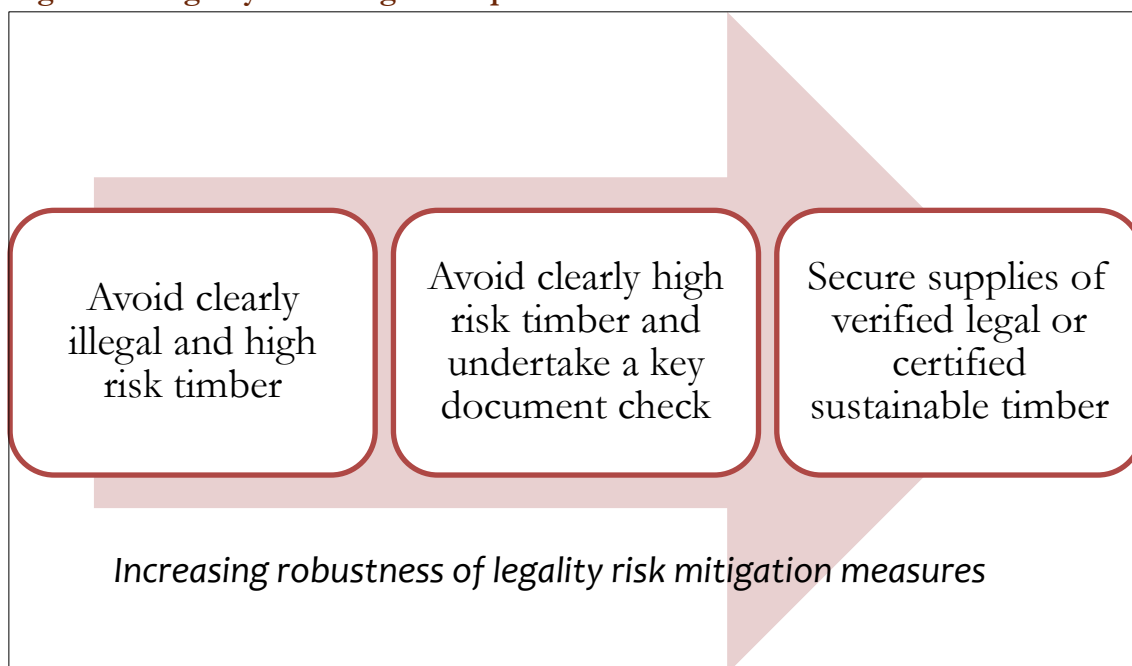
An alternative to avoiding all timber from PNG is for wood buyers to target timber that can be tracked back to forestry

operations that are independently verified as legal (or, more ideally, sustainable). However, little of PNG’s export timber is verified as legal or certified as sustainable, so this option might essentially have the same impact as a buyer deciding not to purchase timber from PNG, i.e., the timber is unlikely to pile up in the log ponds as exporters would find new buyers.

As interim measures, other legality risk mitigation options could be considered that encourage PNG wood exporters to move towards legality verification and sustainability certification. In terms of increasing robustness, these begin with avoiding clearly illegal and high risk timber, moving to avoiding clearly high risk timber plus a key document check, and finally to securing supplies of timber that are verified as legal or certified as sustainable through credible 3rd party processes using comprehensive standards (Figure 11). These various legality risk mitigation options are elaborated below.



Figure 11: Legality risk mitigation options



7.1 Avoiding clearly illegal and high risk timber

Here we use the expression clearly illegal and high risk timber to refer to timber that should always be avoided.

7.1.1 Species banned from export

Species banned from export should clearly be avoided. Table 8 lists the species banned from export in log form.

Table 8: Species banned from export in log form

Common name	Abbreviation	Botanical name
Kauri Pine	AGA	<i>Agathis</i>
Hoop Pine	ARH	<i>Auracaria cunninghamii</i>
Klinkii Pine	ARK	<i>Auracaria</i>

		<i>hunsteinii</i>
Celery-Top Pine	CLP	<i>Phyllocladus hypophyllus</i>
Cordia	COR	<i>Cordia dichotoma</i>
Dacrydium	DAC	<i>Dacrydium nidulum</i>
Ebony	EBO	<i>Diospyros ferrea</i>
Kerosene wood	KEW	<i>Cordia Subcordata</i>
Libocedrus	LIB	<i>Libocedrus pauanus</i>
Podocarp	POD	<i>Podocarpus sp.</i>
Brown Podocarp	POB	<i>Decussocarpus</i>
Highland Podocarp	POH	<i>Dacrycarpus imbricatus</i>
Rosewood	ROS	<i>Pterocarpus indicus</i>
Balsa	BAL	<i>Ochroma lagopus</i>



Blackbean	BLB	
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Source: (PNGFA, 1996, Appendix 2)

7.1.2 Unauthorised or suspended activities

Wood from any business whose activities have been suspended as a result of administrative or judiciary action initiated by either the Government or a third party should clearly be avoided. Any business that has been found involved in significant illegal or criminal conduct should also be avoided. The current status of authorisations to harvest timber (Timber Permits, Timber Authorities, Licenses, Local Forest Areas, Forest Clearance Authorities, or Logging and Marketing Agreements for logging contractors) should also be checked.

7.1.3 Timber from SABLs

In 2013, there was a successful challenge to the National Forest Board's suspension of all Forest Clearance Authorities associated with SABLs. The PNGFA reports that clearing under SABLs has thus restarted. However, unless strong evidence of legal compliance can be secured, any logs sourced from SABLs should be avoided until the Government has formulated and implemented a comprehensive response to deal with the issues laid out in the Commissions of Inquiry reports.

7.2 Key document check

A key document check does not cover all documentation; rather, it focuses on the documents most important for the

authorisation and conduct of forestry operations, timber processing, and export that could be checked as part of a legality risk mitigation strategy. For markets that are now controlled by laws explicitly prohibiting trade in illegal timber, the laws may provide an indication of what documents should be checked. For example, as explained in section 2.2 the EU Timber Regulations set out the scope of national legislation that determines what is legally and illegally harvested timber (e.g. legislation covering harvesting rights, payment of fees, customs and export, etc.).

Table 9 provides a generic list of key documents. Other documents could be added to increase the comprehensiveness of the check, though a point would be reached where the check becomes too complex and beyond the capacity of the timber buyer.

The main holders of key documents associated with forestry and timber exports are:

- Timber businesses
- Provincial Forest Offices
- SGS PNG
- PNGFA Head Office

With regards to the documents held by the PNGFA Head Office, the Forest Act 1991 requires the PNGFA to maintain a Public Register containing:

- Summaries of decisions of the Board containing brief facts and the resolutions thereto (as long as they are considered appropriate for the public domain)



- Maps relating to forests
- Details of
 - Registered Forest Industry Participants and Consultants
 - Licenced Scalers
 - Registered timber processing plants, including an extract of the relevant certificate of registration of licence;
 - Timber Permit holders
 - Timber Authority holders
 - Timber Licence holders
 - Holders of Forest Clearance Authorities
 - Holders of authorities to carry out large scale agricultural or other land use projects
 - Authorities to carry out large scale roadline projects, including an extract containing a description of the timber area, the name of the permit or authority holder, the permit or authority number and the duration of the permit or authority
 - Forest potential areas including an extract containing their details and the unallocated areas
 - Forest Management Agreements and field reports relating to the

signing of the Agreements with resource owners.

A key document check has limitations. From a key document check, whether the regulated procedures were properly followed to issue authorisations or whether logging operations comply with regulations and guidelines, both of which we have identified as major concerns in PNG, cannot be fully ascertained. Also, without certification of chain of custody, there is a small risk that unauthorised timber could enter the supply chain. Consequently, a claim that timber is fully legal cannot be made from a key document check. Rather, a key document check allows the timber buyer to claim that he/she has made an effort to check that the major authorisations, approvals, licenses, etc. have been secured by the timber businesses, that they have the necessary registrations to be involved in forestry, that they have paid all required royalties, duties and fees, etc. Given its limitations, a key document check should be considered an interim legality risk mitigation strategy for unverified PNG export timber.

Table 9: Key documents for legality risk mitigation

Key document	Issued by	Location
Right to participate in commercial activities		



Business Registration with the Investment Promotion Authority.	Investment Promotion Authority	Timber business
Registration as a Forest Industry Participant.	PNGFA	List of Forest Industry Participants kept by PNGFA Head Office
Certificate Permitting Foreign Enterprise to carry out business activity	Investment Promotion Authority	Timber business
Concession right		
Forest Management Agreement (FMA)	Minister of Forests	PNGFA Head Office, Timber business
Or		
Timber Rights Purchase (TRP) agreement		PNGFA Head Office, Timber business
Or		
Local Forest Area (LFA) agreement	Minister of Forests	PNGFA Head Office, Timber business
Authorisation to harvest timber		
Timber Permit (for FMA or TRP)	Minister of Forests	PNGFA Head Office
Or		
Timber Authority	Chairman of the Provincial Forestry Committee	PNGFA Head Office, Timber business
Or		
Timber Licence	National Forest Board	PNGFA Head Office, Timber business
Or		
Forest Clearance Authority	Minister of Forests	PNGFA Head Office, Business
Agreements		
Project Agreement	National Forest Board	Timber business
Logging and Marketing Agreement (only if Timber Permit holder sub-contracts logging to a logging company)		Timber permit holder, Logging company
Environmental permits		
Environmental Plan	Minister for Environment and Conservation	DEC Head Office, Timber business
Environmental Management and Monitoring Program, with endorsement	DEC	Timber business
Environmental Impact Statement (only required for Level 1 FMAs where annual production exceeds 70,000m ³)	DEC	Timber business



Waste Management Plan, with endorsement	DEC	Timber business
Endorsed harvesting plans		
5 year logging plan	PNGFA Managing Director	Timber business, Provincial Forest Office
Annual logging plan	PNGFA Managing Director	Timber business, Provincial Forest Office
Supplementary agreements for logging operations		
Agreements for use of land or log pond, use of airstrip, use of base camp, supply of gravel for roading, etc.		Timber business
Timber processing		
Forest Industry Licence for sawmills		Timber business
License for treatment plants		Timber business
Wood exports		
Inspection Report (only for logs)	SGS	SGS Office Port Moresby, Timber business, Provincial Forest Office
Export Licence	Department of Commerce and Industry	Timber business, Provincial Forest Office
Export Permit	PNGFA	Timber business, Provincial Forest Office
Phytosanitary Certificates	National Agriculture Quarantine and Inspection Authority	
Export Declarations	Customs	

7.3 Third party legality/sustainability audits

The advantages of a proper third party audit over a key document check by the timber buyer are that (i) the auditor is accredited as having the expertise to conduct a professional audit, (ii) a comprehensive, published standard is used, (iii) the methods of auditing include not just document checks, but also interviews with the key parties and site

inspections, and (iv) the public is given the opportunity to provide views on the results of the audit. The voluntary legality/sustainability schemes that are available or under development in PNG are the Forest Stewardship Council standards, the Timber Legality Traceability Verification programme developed by SGS, the Timber Legality Standard being developed by the PNGFA, and the recently released Rainforest Alliance Standard for Verification of Legal Compliance (VLC)



for Forest Management Enterprises (FME) in Papua New Guinea.

7.3.1 FSC standards

The FSC was founded in the early 1990s as the World's first forest certification scheme that operates at a global level, i.e. forests of any type in any country can be certified under the scheme. A number of FSC certificates have been issued to forestry operations and wood processors in PNG. The types of certificates issued are chain of custody certificates, 'controlled wood' certificates, and forest management certificates. No certificates have been issued under the other global forest certification scheme, the Programme for the Endorsement of Forest Certification schemes (PEFC), which has been less widely applied in tropical developing countries.

7.3.1.1 FSC chain of custody standard (FSC-STD-40-004 V2-1 EN)

The FSC chain of custody standard specifies the management and production requirements for chain of custody control with respect to sourcing, labelling (where applicable) and sale of products as FSC certified. Several companies in PNG have FSC chain of custody certificates. These allow the certificate holder to make a claim that he/she is controlling the movement and processing of timber in a manner that allows wood materials from FSC certified forests to be traced back to the forests of origin.

7.3.1.2 FSC controlled wood standard

The FSC controlled wood standard has also had some uptake in PNG. The

controlled wood standard aims to provide assurance that timber has been sourced in a controlled manner to avoid timber that is illegally harvested, harvested in violation of traditional and civil rights, harvested in forest management units in which high conservation values are threatened by management activities, harvested in areas in which forests are being converted to plantations or non-forest use, or harvested from forests in which genetically modified trees are planted.²⁰ The standard was developed to allow mixing of FSC certified and uncertified but nevertheless 'controlled' wood materials.

There are two processes for controlled wood recognition, both of which are being applied in PNG. The first is the FSC Controlled Wood standard for forest management enterprises (FSC-STD-30-010 (Version 2-0) EN). This standard specifies basic requirements applicable at the forest management unit level for forest management enterprises to demonstrate that the wood it supplies is 'controlled.' The second is the FSC standard for company evaluation of FSC Controlled Wood (FSC-STD-40-005 V2-1 EN). This standard aims to support the development of responsible sourcing policies by allowing companies to supply FSC Controlled Wood to FSC certified chain of custody companies for the purpose of mixing with FSC certified material.

²⁰ <https://ic.fsc.org/controlled-wood-standards.174.htm>, accessed 05 June 2013.



7.3.1.3 FSC National Forest Management Standard for PNG

The FSC forest management standard aims to promote forest management that is environmentally appropriate, socially beneficial, and economically viable. The FSC generic forest management standard is a set of 10 principles (Table 10) that set out the FSC's vision of responsible forest management. Regions and countries can develop the standard further to reflect their conditions by adding indicators for each criterion.

PNG is the only developing country in the Asia-Pacific region to have an FSC endorsed forest management standard. This was developed by the PNG Forest Stewardship Council National Standards Working Group. Version 1.1 (dated May 2010) of the FSC National Forest Management Standards for PNG is currently being reviewed to accommodate changes in the FSC generic forest management standard.

Table 10: FSC principles for responsible forest management

1. Compliance with laws and FSC Principles – to comply with all laws, regulations, treaties, conventions and agreements, together with all FSC Principles and Criteria.
2. Tenure and use rights and responsibilities – to define, document and legally establish long-term tenure and use rights.
3. Indigenous peoples' rights – to identify and uphold indigenous peoples' rights of ownership and use of land and resources.

4. Community relations and worker's rights – to maintain or enhance forest workers' and local communities' social and economic well-being.
5. Benefits from the forest – to maintain or enhance long term economic, social and environmental benefits from the forest.
6. Environmental impact – to maintain or restore the ecosystem, its biodiversity, resources and landscapes.
7. Management plan – to have a management plan, implemented, monitored and documented.
8. Monitoring and assessment – to demonstrate progress towards management objectives.
9. Maintenance of high conservation value forests – to maintain or enhance the attributes which define such forests.
10. Plantations – to plan and manage plantations in accordance with FSC Principles and Criteria.

Source: <https://ic.fsc.org/the-ten-principles.103.htm>, accessed 27 July 2013.

Following the FSC system for developing National Initiatives, the PNG Working Group comprises three chambers that provide views from the social, environment and economic sectors. Representatives from the forest industry, the PNGFA, research institutions, community organisations, educational institutions, and NGOs were involved in the development of the FSC National Forest Management Standards for PNG. The original National Working Group members are listed on page two of the Standards. Interviews with stakeholders were conducted in 1993 to form the

chambers of the Working Group. The response from the large timber businesses was poor (Bun & Bewang, 2004, p. 15) and none of the large timber businesses in PNG were part of the Working Group.

The FSC certifications in PNG have been conducted by SGS, Woodmark, and SmartWood.

7.3.2 SGS Timber Legality and Traceability Verification programme

The Timber Legality and Traceability Verification (TLTV) programme was developed by SGS as an independent verification service designed to provide assurance that timber has been legally acquired, produced or sold by a timber business. Since 2010 SGS has offered the TLTV service in two steps: Verification of Legal Origin, which identifies the forestry operation as legally authorised, and Verification of Legal Compliance, which verifies compliance with the laws governing forestry. Two years after acquiring Verification of Legal Origin, the holder must acquire Verification of Legal Compliance. The generic SGS legality principles are listed in Table 11.

Table 11: TLTV principles

- | |
|---|
| <ol style="list-style-type: none"> 1. Legal right of the company to conduct business 2. Right of workers and local communities 3. Approval for forestry activities |
|---|

- | |
|--|
| <ol style="list-style-type: none"> 4. Payment of all forest related charges and taxes 5. Forest harvesting regulations 6. Marketing and timber processing regulations 7. Registrations maintained by the company |
|--|

Source: (Telfer, Undated).

In 2007, SGS began to develop a TLTV standard specifically for PNG. The principles and criteria of the generic SGS TLTV standard were used as a template, and indicators, verifiers and guidance were tailored to the specific circumstances of PNG. Public consultations on the draft PNG TLTV standard were held with various stakeholders. The auditing for TLTV assessments in PNG was conducted out of the SGS Port Moresby Office.

Due to lack of demand, SGS has decided to stop providing its TLTV service, though current certificates will remain active through to their expiry. Several timber businesses in PNG have TLTV verification.

7.3.3 PNGFA Timber Legality Standard

The Timber Legality Standard (TLS) is being developed as part of a package of outputs under an ITTO funded project managed by the PNGFA, with work contracted out to SGS PNG, Helveta and Pacific Island Projects. The package consists of a wood products tracking and chain of custody verification system, a database to assist the monitoring and reporting on the flow of timber products,



a legality standard and an industry code of conduct for legal forestry activities. Drafts of the legality standard, national and local monitoring forms to facilitate use of the standard, and an industry code of conduct have been produced. The outcomes of the ITTO project will be presented by the PNGFA at the International Tropical Timber Council (ITTC) in November 2013. The PNGFA plans to propose a 3-year follow-on phase to the ITTC.

The first draft of the TLS (Version 1.1) is dated 18 September 2012. The members of the standards' technical committee were drawn from the Government, industry, landowners, and NGOs. The members are listed on page 2 of the standard and include several of the large timber businesses. The TLS drafters state that the TLS is aligned with the EU-FLEGT Action Plan's social, environmental and economic 'principles' and complements the voluntary standards that have been developed for PNG by FSC and SGS (PNGFA, 2012).

The aim of the TLS is that PNG's forest industry participants are complying with all relevant social, environmental and economic laws and regulations. It consists of six principles (Table 12).

Table 12: TLS principles

1. The business complies with rights to harvest timber within forest areas that are legally acquired.
2. The business complies with requirements regarding forest

management, including compliance with relevant environmental, labour and community welfare legislation.

3. The business complies with requirements concerning business operations, taxes, import and export duties, royalties and fees directly relating to timber harvesting and timber trade.
4. The business complies with requirements concerning tenure or use rights to land and resources that may be affected by timber harvest rights, where such rights exist.
5. The business complies with requirements for processing, transport, trade and export procedures.
6. The business maintains the necessary registers.

Source: (PNGFA, 2012).

It is intended that two standalone documents will accompany the TLS – the National and Local Monitoring Forms – and that together the three documents will stand side-by-side and can be applied to all commercial timber operations in PNG, from small scale sawmills to large scale logging and milling operations (PNGFA, 2012, p. 2). The National Monitoring Form is intended to serve as a checklist for auditors. It provides the verifiers for each indicator as well as guidance on documents that should be checked and on who should be interviewed. The aim of the Local Monitoring Form is to enable local stakeholders to assist the PNGFA with parts of its work.

The TLS was 'field tested' by SGS at Stettin Bay Lumber Company. The view of PNGFA officers is that the TLS could

be rolled out as a national system and incorporated into the regulations.²¹ Work on the traceability system highlighted the problem PNG has with inadequate information technologies at regional and provincial levels.²²

7.3.3.1 Rainforest Alliance Standard for VLC of FMEs in PNG

The Rainforest Alliance is a non-governmental organisation that has a relatively long history of involvement in forest certification. Its published aims are to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behaviour.

The Rainforest Alliance Standard for Verification of Legal Compliance (VLC) for Forest Management Enterprises (FME) in Papua New Guinea is dated 24 October 2013 (VER-26)²³, making it the newest standard developed for PNG that is ready-to-use. A consultant was employed to incorporate PNG-specific indicators into the generic Rainforest Alliance Generic VLC Standard for FMEs version 12 April 2013. The standard was then distributed to a selection of stakeholders and posted on

the Rainforest Alliance website for 60 days for public comment (C. Tomimura, personal communications, 12/11/2013).

The Rainforest Alliance VLC principles for PNG consist of nine principles for verified legal compliance, four principles for chain of custody, and three principles for multi-site management (Table 13).

²¹ Feedback received during presentation of a draft of this report on 30 Oct. 2013 to PNGFA.

²² Ibid.

²³ Available at http://www.rainforest-alliance.org/sites/default/files/site-documents/forestry/documents/VER-26_RA_VLC_Standard_for_FMEs_PNG_24_Oct13.pdf (accessed 11-11-2013)



Table 13: RA PNG VLC principles

<p>Part I: Principles and Criteria for Verification of Legal Compliance</p> <p>Principle 1: Legal Right to Harvest</p> <p>Principle 2: Approved Planning Authorisations and Operations</p> <p>Principle 3: Payment of Relevant Fees and Taxes</p> <p>Principle 4: Transport and Trade</p> <p>Principle 5: Fulfilment of Harvesting Regulations</p> <p>Principle 6: Fulfilment of Environmental Regulations</p> <p>Principle 7: Worker’s Rights</p> <p>Principle 8: Third Parties rights</p> <p>Principle 9: Control of Unauthorised Activities</p> <p>Part II: Principles and Criteria for Chain of Custody (CoC)</p> <p>10 Quality System Criteria</p> <p>11 Material Handling and Segregation</p> <p>12 Shipping and Sales Criteria</p> <p>13 Claims and Public Information</p> <p>Part III: Multi-site Management Requirements</p> <p>14 Documented Procedures and Responsibility</p> <p>15 Records</p> <p>16 Site Management and Auditing</p>
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7.3.4 Comparison of the standards

An analysis of the legality and sustainability standards that could be useful to timber buyers would include (i) assessment of the comprehensiveness and detail of the standards, and (ii) comparison between the standards. To go through the laws of PNG that affect forestry and the timber trade and determine whether the standards are

sufficiently comprehensive and detailed is beyond the resources for this report. To compare all the standards in detail would be another very large exercise. For this report, we undertook a comparison of the Timber Legality Standards, the FSC National Forest Management Standards for PNG (hereafter referred to as the FSC NFMS), and the FSC Controlled Wood Standards for Forest Management Enterprises, based on a juxtaposition of their principles, criteria and most relevant indicators, and with reference to the laws and regulations of PNG (see Appendix 2).²⁴

The differences noted between the standards are explained below. We make some reference to the Rainforest Alliance Standard for VLC for PNG in the discussion, though, as stated above, this was not included in the in-depth comparative analysis.

- **Scope of legal compliance**

The TLS focuses on the obligations of timber businesses, whereas the FSC NFMS gives attention to both the obligations of forest managers and the State agencies responsible for logging operations. Like the TLS, the Rainforest Alliance VLC standard for PNG also focuses on compliance with the laws by timber businesses. As a “Note” it explains “Many of existing or expired timber permit areas have been acquired

²⁴ In case of the FSC Controlled wood standard, which is not structured according principles, criteria and indicators but to sections, the relevant sections were included.

through improper process. This can be verified with PNGFA . . . ” but provides no guidance on how to check whether proper processes were followed.

While from a practical perspective, the approach of limiting the scope of the standard to legal compliance by timber businesses is understandable, there are reasons for doubting that it can provide comprehensive assurance of legality in PNG where the State agencies have often fallen short in complying with the laws of the country. As explained in Section 6, the seriousness of this issue has been highlighted in the findings of the Commission of Inquiry into SABLs.

The implications of limiting the scope to legal compliance by timber businesses becomes further evident when examining how the FSC NFMS and the TLS treat the issue of free, prior, informed consent (FPIC), which is implicit in the FMA processes. Under Principle 3, the FSC NFMS requires that where landowners are represented through ILGs or other bodies, that these bodies are formed transparently, and with the FPIC of landowners. A similar requirement for FPIC is made for situations in which landowners do not have a legally recognised landowner body. The FSC NFMS also requires that no dispute over FPIC processes exist.

In contrast, while the TLS recognises that communities will maintain the rights over their resources unless they transfer these rights to State agencies with FPIC, it contains no checks on whether the State agencies ensured that FPIC was properly implemented when they acquired the timber rights from the landowners.

This same concern arises with how the two standards deal with landowner companies. The forestry sector in PNG has long been troubled by improper behaviour of landowner companies; however, this is ignored in the TLS, seemingly because it is the responsibility of the State, not “timber businesses,” that landowner companies comply with the law. In contrast, the FSC NFMS requires that all landowner companies comply with the law in holding annual general meetings, electing members of the board, distributing shares to shareholders, keeping independently audited accounts, controlling unauthorised expenditures, preventing unlawful enrichment of directors and avoiding conflict of interest. Other clauses in the FSC NFMS refer to how landowner companies distribute benefits and representation structure.

The observations above regarding the TLS also apply to the Rainforest Alliance VLC standard for PNG.

- **Socio-economic wellbeing of workers and local communities**

Both the TLS and Rainforest Alliance standard provide criteria on the rights and welfare of workers, but the FSC NFMS is more demanding in calling managers to (i) provide communities with opportunities for employment, training and other services, (ii) conduct evaluations of social and economic impacts, (iii) maintain consultations, and (iv) respect the rights and interest of women.

- **Efficient use of multiple forest products and services**

The FSC NFMS goes beyond the regulatory requirements governing



forestry by calling upon forest management and marketing operations “to encourage the optimal use and the local processing of the forests’ diversity of products” (criterion 5.2) and “to strengthen and diversify the local economy, avoiding dependence on a single forest product” (criterion 5.4).

- **Management plan requirements**

The TLS and Rainforest Alliance VLC standard refer to the development and official approval of a management plan where obligatory, whereas the FSC NFMS requires a management plan for all forestry operations, regardless of the type of authorisation.

- **Monitoring and assessment**

The FSC NFMS stipulates monitoring and assessment of the forest condition, forest products yield, chain of custody, management activities and social and environmental impacts. The TLS does not include an equivalent requirement for monitoring, but the regulations in the Forestry Act 1991, the National Forestry Development Guidelines and the Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit apply. Beyond these legal requirements, the FSC NFMS requires the establishment of minimum indicators for research and data collection for monitoring and public availability of the summary of the monitoring results.

- **Maintenance/enhancement of high conservation value forests**

Overall, the FSC standards appear stricter on biodiversity conservation, particularly relating to high conservation value

forests’, than the current legal requirements in PNG. FSC Principle 9 requires that management activities in high conservation value forests shall maintain or enhance attributes that define such forests, and that a precautionary approach should guide decisions related to such forests. The FSC Controlled Wood Standards for Forest Management Enterprises aim to avoid timber from forestry activities that negatively impact high conservation forest values. A toolkit for high conservation value forest was developed for PNG and has been endorsed by the PNG FSC National Standards Working Group.²⁵

- **Plantations**

Principle 10 of the FSC NFMS standards requires that plantations reduce pressure on and promote the restoration and conservation of natural forests. This principle is not reflected in PNG laws and thus is not provided for in the TLS.

- **Quality management system requirements**

The FSC Controlled Wood Standard for Forest Management Enterprises sits between a legality standard and a standard for sustainable forest management. It is also the only of the compared standards that explicitly requires the establishment of a quality management system. It prescribes

²⁵ Can be accessed from http://www.hcvnetwork.org/resources/national-hcv-interpretations/hcvf%20toolkit_first%20edition.pdf.



procedures and/or work instructions covering all the applicable elements specified in the standard, including specifying the person (or position) responsible for implementing each procedure and/or work instruction.

7.4 Discussion and conclusion

The most robust method for a claim of legality is to have a reliable audit conducted of the forest management and subsequent transformation and movement of the timber using a comprehensive 3rd party standard. Responsible timber buyers can target suppliers with legality verification or sustainability certification, or request their suppliers to have audits conducted. As an interim measure, buyers can avoid outright illegal timber and timber businesses that have been prosecuted for illegal conduct, as well as undertake a key document check to ensure their suppliers have the legal authorisations for their operations, have paid the required royalties and fees, and have gone through the necessary export procedures.

There are significant differences between legality and sustainability standards that responsible timber buyers need to be aware of. For example, the Forestry Act 1991 brought with it the FMA process, which aims to ensure that forestry operations are sustainable. However, the effect of the Act was weakened by the extension of Local Forest Areas and Timber Rights Purchases, which do not incorporate sustainability. Responsible timber buyers should thus encourage their suppliers to ultimately aim for

certification of their operations against a credible sustainability standard, with verification against a legality standard as a step in this process.

The Timber Legality Standards currently being developed by the PNGFA aims to be an agreed legality standard for PNG. However, the process of how an “agreed national legality standard” is formulated needs very careful consideration. It is not clear whether the stakeholders represented in the formulation of the standard can be said to result in an “agreed national standard.”

For legality standards, further consideration is required on whether limiting the scope of verification to legal compliance by the timber businesses can provide a comprehensive claim of legality, given the deficiencies found at times in how the State organises and monitors forestry developments.

Another concern is that the ITTO project did not provide a clear design for the implementation of the TLS. The National and Local Monitoring Forms identify auditors licensed by the National Forest Service and auditors licensed by a third party as suitable monitors for the Forms. However, the NFS would first have to establish its own robust accreditation process to certify auditors. This may be beyond the current capacity of the NFS, and given that it has a stake in forestry, is probably not an appropriate role for it to play.

The following section provides details on the uptake of legality verification and certification in PNG.



8 Trends and current status of certification in PNG

In this section we consider the trends and current status of certification in PNG. Tables 14 and 15 provide information on the certified timber businesses in PNG, including the type and status of certification, and the certified forest area. This information allows for the following observations on the uptake of legality verification, chain of custody systems, and forest certification in PNG.

- **Forest area under legality verification or sustainability certification is low, but significant increase has taken place in the last few years**

The first observation is that the total area of production forest that has been certified or is connected with legality verification is low at about 367,148 ha (Table 14). This represents about 7.5% of the 4.9 million ha that Blaser et al. (2011) considered to be under active timber extraction licences in 2007.

A second observation is that while the total area under some type of legality or sustainability verification/certification scheme is low, the area has been growing and this growth has accelerated significantly in recent years. As shown in Table 14 and Table 15, this is mostly due to the verification/certification of operations conducted by large timber businesses. This observation contrasts with the conclusion in a recent Chatham

House survey that there is little sign of growth in verification and certification (Lawson, 2013).



Table 14: Verified/certified timber businesses in PNG

Timber business	Type of verification/certification	Validity / Status	Major wood products	Description
Forest Management and Product Certification Service Ltd (FORCERT)	FSC CoC and FM (SLIMF)	09 Aug 2011 – 08 Aug 2016 Suspended (Objective evidence to close out Corrective Action Requests prepared and to be submitted shortly)	Mixed species of sawn wood from natural forests	FORCERT holds FSC CoC and FM Group Certificates, which it has used to certify a number of community-based timber operations and timber yards, focusing on Aitape District, Bougainville, East New Britain, Madang, Morobe, Southern New Ireland and West New Britain. It employs a stepwise approach under which communities can start with FairTrade recognition for their timber production, then move to a FSC Pre-Certified status (equivalent to FSC controlled wood standards), and from there move on to acquiring full forest management certification.
Foundation for People and Community Development (FPCD)	FSC CoC and FM	May 2007 – 2012 Expired	Mixed species of sawn wood from natural forests	FPCD is a national NGO that supports local communities in Madang Province to manage their forests according to FSC principles and to market their certified timber. It holds a FSC CoC and FM group certificate under which several community-based forestry operations were certified. The certificates expired in 2012.
Cloudy Bay Sustainable Forestry Ltd	FSC CW (company standard) <hr/> FSC CoC and FM	21 Oct 2011 – 20 Oct 2016 Valid <hr/> 31 May 2013 – 30 May 2018 Valid	Wood from natural forests, all processed (no log exports) <hr/> Engineered wood products, wood for construction, packaging, furniture,	Cloudy Bay Sustainable Forestry Ltd, a subsidiary of PNG Sustainable Development Program Ltd., holds a license for 100% downstream processing and manages over 148,900 ha of forests in Abau District, 250 kilometres south east of Port Moresby.



		etc.		
Open Bay Timber Ltd. (OBT)	FSC CW (forest management)	11 Oct 2012 – 10 Oct 2017	Logs and sawn wood	OBT first acquired Controlled Wood certification on 31 March 2008. It is a wholly-owned subsidiary of Kowa Lumber Co., Ltd., an importer, exporter and seller of timber, and itself a wholly-owned subsidiary of Sumitomo Forestry Co., Ltd. (headquarters in Tokyo). The certification covers 11,770 ha of <i>Eucalyptus deglupta</i> of the total 31,260 ha in East New Britain under OBT management. OBT's main market is the timber and furniture market in Viet Nam.
	FSC CoC and FM	12 Sept 2011 – 11 Sept 2016	Valid	
Stettin Bay Lumber Company Ltd. (SBLC)	SGS TLTV (LO)	24 Jan 2010 – 23 Jan 2012	Logs and sawn wood from natural and	SBLC sells FSC certified <i>Eucalyptus deglupta</i> from its plantations that cover about 10,000 ha in West New Britain to furniture manufacturers in Viet Nam. Its Timber Permit for natural forest extends over parts of West and East New Britain provinces, and covers a total area of 434,500 ha.
	SGS TLTV (CoC)	28 Feb 2011 – 27 Feb 2016	planted forest	
	FSC CW (company standard)	23 Aug 2011 – 22 Aug 2016	Valid	
	FSC CW (forest management)	Valid		
Saban Enterprises Ltd. (SEL)	SGS TLTV (CoC, LC)	24 Nov 2008 – 23 Nov 2013	Logs and sawn wood (mixed PNG hardwoods)	SEL, an affiliate company of the Rimbunan Hijau Group, is the contractor for the Sagarai-Gadaisu forestry concession. It owns and manages a sawmill at Alotau, which processes timber for domestic sales and export. SEL was the first company in PNG to acquire TLTV. The application was supported under an International Tropical Timber Organisation (ITTO) project from June 2007.
PNG Forest Products Ltd.	SGS TLTV (LO, LC)	3 Feb 2010 – 2 Feb 2015	Plantation pinewood products: plywood, sawn wood, round poles, furniture, etc.	PNG Forest Products evolved from Bulolo Gold Dredging Limited that commenced operations in large scale alluvial mining in 1932. All of its wood products are manufactured from pine plantations in Bulolo and Wau. The main species are Hoop pine (<i>Araucaria cunninghamii</i>), Klinki pine (<i>Araucaria hunsteini</i>) and Caribbean pine (<i>Pinus caribaea</i>).



PNG	SGS TLTV (LO)	14 Feb 2011 –	The certificate covers 6,100 ha in Akamkus.
Tropical		13 Feb 2013	
Hardwoods		Expired	

Source: FSC Certificate Database (accessed 24 July 2013); Bruce Telfer - interviews 2012 and 2013; Cosmas Makamet - personnel communication, July 2013; Beresnev (2009); <http://www.forcert.org.pg/>, accessed 26 July 2013; <http://www.fpcd.org.pg/>, accessed 26 July 2013; <http://www.cloudybay.com.pg/>, accessed 26 July 2013; Sumitomo Forestry Co. Ltd. (2011); UNITECH Development Company Pty Ltd. (2003); <http://www.pngfp.com/index.php>, accessed 26 July 2013. Acronyms: FM = Forest Management, CoC = Chain of Custody, SLIMF = FSC Small and Low Intensity Forest Management standard, CW = Controlled Wood, LO = legal origin, LC = legal compliance.

Table 15: Area under legality verification and sustainability certification

Company	Type of certificate	Area	Notes
Valid certificates			
Cloudy Bay Sustainable Forestry Ltd	FSC CW, CoC and FM	148,900	
Open Bay Timber Ltd.	FSC CW, CoC and FM	11,770	
Stettin Bay Lumber Company Ltd. (SBLC)	FSC CW	130,991	
Saban Enterprises Ltd.	SGS TLTV (LC)	64,773	
PNG Forest Products	SGS TLTV (LP, LC)	10,714	
Total		367,148	
Suspended or expired certificates			
PNG Tropical Hardwoods	SGS TLTV (LP)	6,100	Expired
FORCERT	FSC CoC and FM	19,215	Suspended but expected to be revalidated
FPCD	FSC CoC and FM	2,705	Expired, but intending to apply for new certificates
Total		28,020	

Note: Care was taken to avoid the double counting that arises when more than one type of certificate has been issued for the same area

- **Certification pioneered by NGOs but some large timber businesses now displaying commitment to certification**

In recent years, some large timber businesses in PNG have made a serious commitment to certification, and this has paid off in terms of the success they have achieved in acquiring certificates.

Certification in PNG was pioneered by NGOs, rather than large timber businesses. The first certification was a FSC Group Certificate granted to the Pacific Heritage Foundation in Rabaul, East New Britain, for the Bainings community forestry programme, which covered 12,500 ha. The Pacific Heritage Foundation began marketing the certified timber in 1995, but folded in 2003 because of management issues. The following certifications were also associated with initiatives outside the mainstream logging sector. In 1998, the EU Islands Region Environmental and Community Development Programme (IRECDP) acquired a FSC Group certificate covering 4,310 ha of forest under community management. The certificate expired, but the same communities were to later receive support under the Forest Management and Product Certification Service Ltd. (FORCERT). FORCERT itself grew out of a national study on the need for forest certification in PNG initiated by the Eco-Forestry Forum, another NGO initiative. FORCERT acquired a FSC forest management Group Certificate in 2005 for an initial 19,215 ha. The Foundation for People and Community Development (FPCD), a national NGO supporting

community-based forestry in Madang, was the next organisation to acquire certification. FPCD was awarded a FSC Group Certificate in June 2007 for its Indigenous Community Forest Group Certification Scheme, which initially covered 2,705 ha. A common feature of the approach taken by the Pacific Heritage Foundation, the IRECDP, FORCERT, and FPCD is that they all acted or act as the managers of FSC Group Certificates under which community-based forestry operations were/are certified. In addition to providing the early driving force for the certification of forest management, NGOs were also the drivers behind the development of the FSC National Forest Management Standards for PNG (Bun & Scheyvens, 2007).

Open Bay Timber Ltd. was the first large timber business in PNG to acquire any type of legality verification or sustainability certification when it was certified for FSC controlled wood in March 2008. Later in the same year, Saban Enterprise Limited, a subsidiary of the Rimbunan Hijau (PNG) Group, acquired TLTV chain of custody and legal compliance verification.

From 2010 onwards, there has been quite a significant change in the verification and certification landscape in PNG, with several large timber businesses acquiring certificates. Cloudy Bay Sustainable Forestry Ltd., Stettin Bay Lumber Company Ltd. (SBLC) and PNG Forest Products Ltd. (PNGFP) all acquired verification / certification in this period.



These companies, intentionally or unintentionally, all pursued a ‘stepwise’ or ‘phased approach,’ beginning with narrower standards, then moving on to standards with a wider scope. Open Bay Timber Ltd. (OBT) was earliest on the stepwise route when it first acquired FSC controlled wood certification in 2008 for its plantations. Three years later, OBT acquired FSC chain of custody and forest management certification. Cloudy Bay Sustainable Forestry Ltd. later took this same route, becoming the first company in PNG to show that a large-scale natural forestry operation could be certified against the FSC forest management standards. SBLC initially took a somewhat different route by beginning with TLTV. It then acquired FSC controlled wood certification and is now aiming for FSC forest management certification, for which a scoping visit was conducted. PNGFP acquired TLTV legal production and legal compliance in 2010, and now plans to acquire FSC controlled wood certification.²⁶

Through the pioneering efforts of NGOs and more recently the efforts of a few of the large timber businesses, there has been a significant change in the landscape of legality verification and sustainability certification in PNG.

8.1 Conclusion

Forest certification has been slow to take off in PNG, though this is common across many developing countries because of *inter alia* the low standards of many forest operations resulting from weak compliance with forest laws, the high complexity of biodiversity in tropical forests which makes certification expensive, and disputes over land and forest tenure. In PNG, the early momentum for certification came from NGOs, rather than established timber businesses. Using FSC group certification, they developed schemes to support local communities to manage their forests according to FSC principles, and mill the timber for local and export markets. More recently several large timber businesses have invested significant resources to acquire forest management certification.

The successes of a few large timber businesses in having their operations certified are important. They demonstrate that it is possible for large plantation and natural forest operations in PNG to meet high international standards.

In Section 9 we consider the drivers of change behind the growing interest in forest certification and legality verification.

²⁶ Interview, SGS-PNG, May 2013.



9 Drivers of change

In this section we provide two case studies of timber businesses in PNG – Cloudy Bay Sustainable Forestry Ltd. and Stettin Bay Lumber Company Ltd (SBLC) – that have acquired or are on the pathway to acquiring forest management certification. We then consider the driving forces behind the growing interest in forest management certification and legality verification.

9.1 Case study 1: Cloudy Bay Sustainable Forestry Ltd.²⁷

9.1.1 Overview of company operations

Cloudy Bay Sustainable Forestry Ltd. (hereafter Cloudy Bay) is a wood fibre development and processing company that was originally established in Popondetta, Oro Province in the early 1970s. During 1987-1998, the company relocated to 9 Mile on the outskirts of Port Moresby (Figure 12).

PNG Sustainable Development Programme Ltd. (PNGSDP), a trust company that holds 63.4% of the shares of Ok Tedi Mining Ltd., acquired 80% of Cloudy Bay shares in 2007 and the remaining 20% in 2010. PNGSDP is responsible for managing the funds coming from Ok Tedi Mining Ltd. that are assigned for the development of PNG. Cloudy Bay Sustainable Forestry Ltd. is one of its three subsidiaries. PNGSDP purchased Cloudy Bay to demonstrate a sustainable forestry operation and to show how a company could operate at high standards in PNG while maintaining commercial viability.

The development mandate of PNGSDP is reflected in the goal of Cloudy Bay, which is to be “a profitable and sustainable forestry company through the sale of value added products and to be recognised as a leader in sustainable forestry in Papua New Guinea.”²⁸ It aims to achieve this through the adoption of certified best operating practices; proactive management of land owner relationships; and continuous development of the company, its employees, and the forests and communities in which it operates (ibid.).

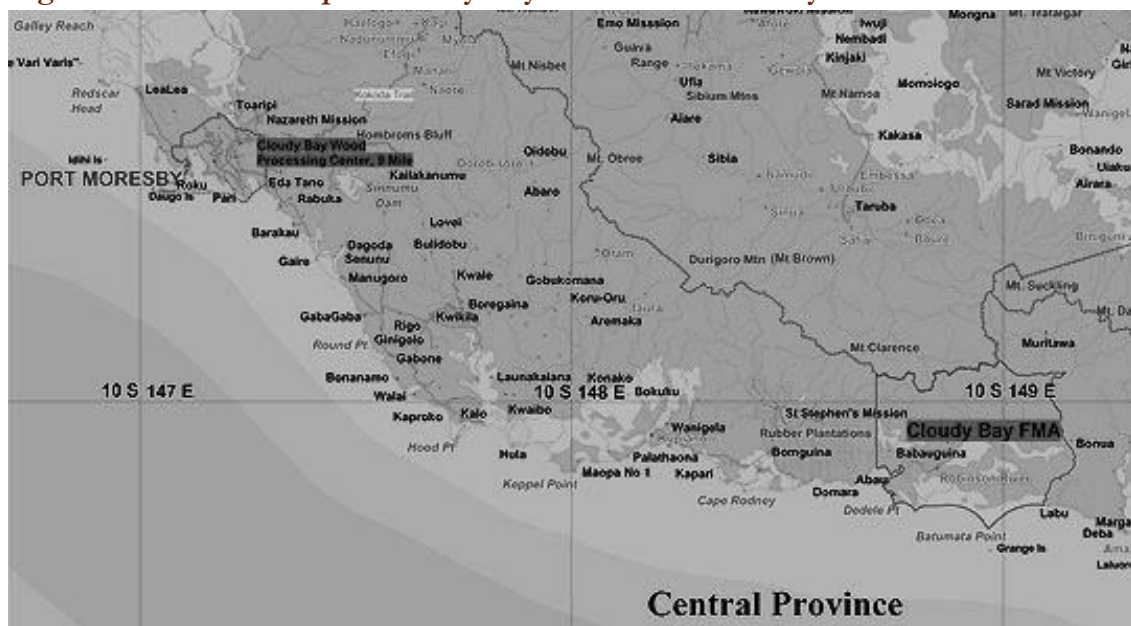
²⁷ The major sources of information for this case study are interviews with Mike Janssen, Managing Director, a visit to the Cloudy Bay Wood Processing Centre at 9 Mile in February 2013, and the Cloudy Bay website.

²⁸ <http://www.cloudybay.com.pg/goals.php>, accessed 30 July 2013.

Cloudy Bay originally conducted logging under a number of Timber Permits and later expanded its operations to include milling, planing, dressing, moulding, kiln drying and pressure treating. It established a joinery division that produces furniture and kitchen units, and a building division that offers 12 types of structural buildings, including houses, aid posts and schools. It is the project

developer for a Forest Management Agreement in Central Province for which it holds the first 100% downstream processing license issued by the PNGFA. Under this license all logs must be processed on site.

Figure 12: Location map of Cloudy Bay Sustainable Forestry Ltd.



Source: <http://www.cloudybay.com.pg/location.php>, accessed 30 July 2013.

9.1.2 Motive for certification

The main interest of Cloudy Bay in forest certification was that it could be a tool to demonstrate high standards of forest management in natural forest in PNG. Forest management certification is but one of several types of certification that Cloudy Bay has pursued to ensure and

demonstrate that it operates at a level equivalent with international standards.

The potential market benefits of forest certification, e.g. maintaining market access or securing premium prices, were at most of secondary interest for Cloudy Bay. Cloudy Bay initially thought that it would export about 30% of the timber, but as the domestic construction market is very strong, most of its wood products are sold in Port Moresby. Only 2% of the timber, equivalent to one container every

few months, is exported. This is sent to the joinery market in Australia.

Figure 13: Cloudy Bay kit building display



Figure 14: Sawn wood packaged for sale at the 9 mile plant



9.1.3 Process of acquiring certification

Cloudy Bay management decided against applying for TLTV as the standards are developed by the certifier, and because they are limited to legal compliance. They instead decided to target FSC certification and have found the FSC approach to be very thorough.

Prior to applying for certification, Cloudy Bay management organised a study ('gap assessment') in 2009 to identify issues that they would need to pay attention to acquire FSC certification. Cloudy Bay managers now realise that this was a mistake and added unnecessary costs. If they were to repeat the process, they would drop the idea of an informal gap assessment and arrange for a 'pre-assessment' by an FSC certified auditor, who would later return to do the full FSC assessment.

Over the next two years, Cloudy Bay worked on filling the gaps identified in the initial study and in March 2011 had a FSC pre-assessment audit conducted. Cloudy Bay acquired FSC controlled wood certification later in the same year. In December 2012, an audit for FSC forest management certification was conducted by Woodmark, which issued 12 minor corrective action requests (CARs). One major CAR was issued as three criteria for one FSC principle (Principle 8 on monitoring) were not met. Cloudy Bay worked on the CARs and finally acquired FSC chain of custody and

forest management certification on 31 May 2013.

9.1.4 Costs of certification and major challenges

Senior management at Cloudy Bay describe the certification process as expensive. In part, the high costs may be associated with having an informal gap assessment done. However, even if some costs could be reduced or avoided, the certification process for Cloudy Bay would still be high because of the monitoring requirements. Cloudy Bay management identifies these as the main certification compliance costs it incurred. The biodiversity monitoring has included surveys of bats, rodents, grasses, and the Harpy Eagle (*Harpia harpyja*), before, during and after logging. Social and environmental monitoring are also expensive as the company is not allowed to use its own staff and must employ consultants.

The certification has been subsidised. The Tropical Forest Trust, a non-profit organisation that assists companies and communities on sustainable product chains, assisted Cloudy Bay in securing funding from the Borneo Initiative. This Initiative provides funding support to forest enterprises in Indonesia and neighbouring countries to have their forest management certified. Roughly half of Cloudy Bay's total certification auditing and compliance costs were reimbursed by the Borneo Initiative.



Figure 15: Wood processing at the 9 Mile plant



9.1.5 Perceived benefits of certification

As yet, Cloudy Bay has enjoyed no direct market benefits from certification. Cloudy Bay's Australian buyers do not have chain of custody certification, thus the Cloudy Bay wood products cannot carry the FSC label when sold or used by these buyers.

Cloudy Bay management see two main benefits of FSC certification. First, it has improved the management of Cloudy Bay's internal systems. Second, it has provided Cloudy Bay with a better understanding of the natural environment in its concession, the impacts of its forestry operations on the environment, and how to mitigate these.

Box 3: Cloudy Bay's future unclear

On 18 September 2013 the Peter O'Neill Government passed legislation through parliament transferring all the shares in the Ok Tedi mine to the State. The new legislation cancels PNGSDP's shares in Ok Tedi Mining Ltd. and issues new shares to the government, giving it complete control. This makes the future of Cloudy Bay unclear as it is one of the three subsidiaries of PNGSDP, which, until the nationalisation by the O'Neill Government, held 63% of the Ok Tedi shares.



9.2 Case study 2: Stettin Bay Lumber Company Ltd.²⁹

9.2.1 Overview of company operations

Stettin Bay Lumber Company Ltd. (SBLC) was established by the Japanese company Nisso Iwai, with the Government as a minority shareholder, and was later sold to a Malaysian investor. It has been operating in PNG since 1970, and has been logging in natural forest as well as harvesting timber from its own plantations.

SBLCs Timber Permit for natural forest extends over parts of West and East New Britain provinces and covers a total area of 434,500 ha (Figure 16). The Permit expires in 2014 and SBLC management stated that there is no plan to continue logging in natural forest beyond this date.

The SBLC plantations cover about 10,000 ha in West New Britain. Most of this area is under a 99 year lease. SBLC has planted various species over the years, but is now focusing on Balsa (*Ochroma pyramidale*), Kamarere (*Eucalyptus*

deglupta), Pellita (*Eucalyptus pellita*) and Teak (*Tectona grandis*). The plantations contain old stands of *Acacia mangium*, *Calophyllum* and *Terminalia Brassii*, which will not be replanted.

SBLC sells round wood to Chinese buyers and FSC certified Kamarere from its plantations to furniture manufacturers in Viet Nam. It also produces moulded products, but only for the local market.

9.2.2 Motive for certification

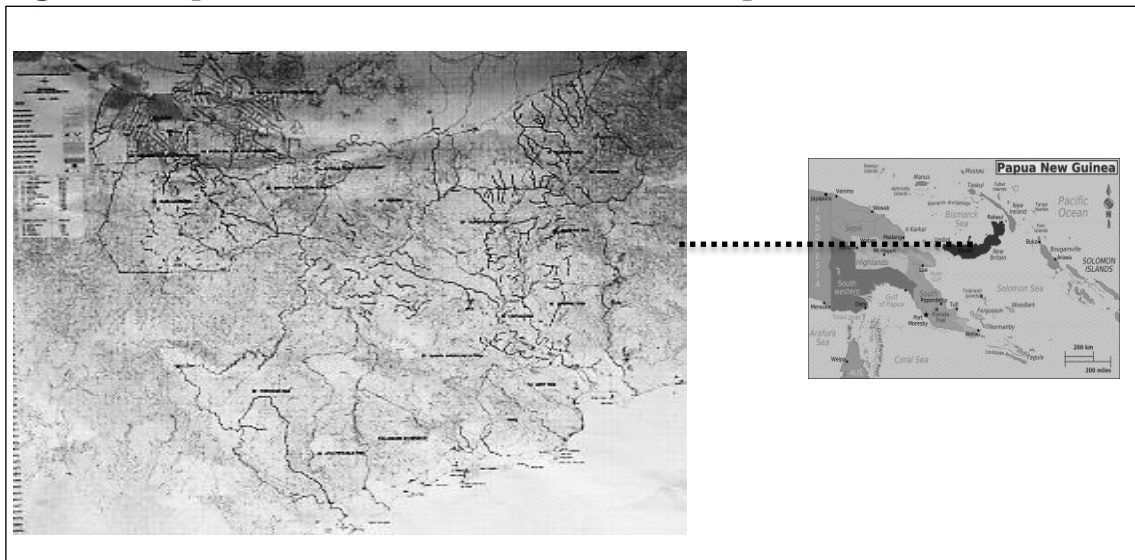
SBLC decided to acquire legality verification for its operations after a request from an Australian buyer for assurance of timber legality. SBLC acquired TLTV, but later decided to apply for FSC controlled wood certification after requests from Vietnamese buyers for FSC certified wood. SBLC management has observed that Vietnamese timber buyers are more likely to request FSC certified timber than Chinese buyers, though it has noted a gradual growth in inquires about FSC certified timber availability from the latter. SBLC has also had some requests for FSC certified timber from Filipino buyers.

SBLC sees certification as important for market access over the long term. It sees itself as a frontrunner amongst PNG timber businesses, and believes that because of changing market dynamics, all timber exporters in PNG will eventually have to acquire certification to ensure continued market access.

²⁹ The information in this case study is from meetings with the Peter Yiu (General Manager), the Chief Financial Officer, and three SBLC foresters, a 2-day visit to the main timber processing plant and plantations, and internal SBLC literature.



Figure 16: Map of SBLC natural forest concession and planted forest boundaries



9.2.3 Process of acquiring certification

In terms of third party verification / certification, SBLC has progressed from standards with a narrower scope that are less difficult to comply with, to standards with a broader scope. After acquiring TLTV and then FSC controlled wood certification, SBLC is now aiming at FSC forest management certification. An audit for FSC forest management was conducted, and this resulted in many corrective action requests. The SBLC managers and foresters describe the road to FSC forest management certification as a long one.

9.2.4 Costs of certification and major challenges

SBLC has not received any financial support and has not calculated the total costs it has incurred for certification. It explains that the costs are many and varied, and that to do a total costing

would be difficult. For example, SBLC explains that even the costs for skidding logs in compliance with the FSC standards would be higher than normal practices for skidding in PNG, as greater care has to be taken to reduce environmental impacts.

SBLC describes the compliance costs as far exceeding the auditing costs for certification. SBLC states that the largest compliance costs it has incurred are associated with developing a chain of custody system and the upgrading of roads and road maintenance. SBLC was outsourcing the logging operations to a contractor, who was responsible for the road works. However, the contractor refused to accept SBLC requests to conduct more frequent road maintenance to comply with the FSC standards and discontinued its contract with SBLC. SBLC has taken over the logging operations.

SBLC has also found the costs of biodiversity surveys, whether conducted



by international or national consultants, to be high. For some survey work, SBLC brought in experts from Bogor University

(Indonesia) as they were less expensive than experts available in PNG.

Figure 17: Logs being transported from a SBLC plantation



9.2.5 Perceived benefits of certification

- *Sustainable business*

SBLC management believes that one of the greatest benefits with FSC certification is the development of a good system for sustaining the forest and thus sustaining the timber business. By following FSC standards on timber harvesting, SBLC believes that it will be able to sustain its timber operations.

- *Rigorous approach to forest management*

Both the SBLC management and SBLC foresters are enthusiastic about what they see as FSC's rigorous approach. They explain that prior to preparing the company for certification, SBLC forestry operations were based on a combination of the PNG Logging Code of Practice (LCOP) and what might be termed 'common sense.' They found monitoring of compliance with the LCOP by the PNGFA project inspectors to be inadequate. This meant that there was a lot of latitude for inconsistencies to arise in the conduct of operations and no



guarantee that good practices would be implemented by their logging contractor. The SBLC foresters explained that the PNGFA project inspectors know the LCOP and thus know when a logging operation is not in compliance with any part of the Code, but that they may choose to turn a blind eye to some non-compliance. They explained that if an FSC auditor identifies non-compliance, then they know for sure that a corrective action request will be issued and that the company will have to respond to this.

- *Improved attitude of employees and greater pride in forestry profession*

Both the SBLC management and foresters find that the biggest change arising from certification is in the attitude of company employees at all levels. They believe that company employees are now aware of the correct way of doing their work, and understand that there are likely to be consequences if they do not follow procedures.

A benefit of FSC certification described by the SBLC foresters is that it has increased their pride in their profession. One forester stated that before SBLC committed itself to acquiring FSC certification, he felt uncomfortable being associated with forestry. He feared that he would be seen as connected with large-scale forestry operations that were destroying the environment.

- *Other benefits*

Other changes noted by the SBLC management are that policy and operating

procedures are now much better documented and that the documentation is ready to be shared when anyone makes an inquiry. Also, SBLC now has better procedures for communicating with landowners. A new unit was set up within the company to deal with landowner issues, and the internal procedures now require this unit to document all landowner grievances and to respond to these in an appropriate way within two weeks.

- *But no significant premium prices*

While SBLC management and foresters describe various ways in which the company is benefiting from involvement in certification processes, it has not enjoyed any immediate financial gain from having TLTV and FSC controlled wood certification, other than maintaining market access. Buyers that requested FSC certified timber were either not prepared to pay a premium or at most a 5% premium, which SBLC management describes as insignificant.

9.3 Discussion and conclusion

The case studies above as well as the literature reviewed and interviews conducted for this report provide some indication of the drivers of change that are leading a few large timber business in PNG to pursue legality verification or sustainability certification. The drivers for change are coming from two sources – market access and corporate social responsibility policies – the former of



which appears by far the most important. The recent market drivers for verification and certification are mostly associated with the laws introduced in the US, EU and Australia to combat the trade in illegally harvested timber.

Regarding market access, buyers in both Australia and Viet Nam requested SBLC to provide some type of verification / certification, with the buyers in Viet Nam specifically requesting FSC certified wood materials; Open Bay Timber Ltd. acquired FSC certification to maintain access to the timber and furniture markets in Viet Nam; and Saban Enterprises Ltd. and PNG Forest Products Ltd. acquired TLTV to maintain access to Australian markets.

For Cloudy Bay, the main driver for certification was not related to markets, but rather with corporate objectives to act as a demonstration for the

management of natural forests in PNG in accordance with global standards, to be a responsible employer, and to provide developmental benefits in and around its area of operation. The early FSC group certifications of NGO support schemes for community-based forestry operations were also inspired by environmental and social objectives.

The drivers for change towards greater legal compliance and more sustainable forestry operations in PNG that come from outside the country compliment any initiatives within the country to improve forest governance. The challenge is how to keep the current momentum going, as, while a few large timber businesses have made significant commitments, most have not displayed a willingness to make the scale of investment needed to have the legality or sustainability of their forest management verified.

Figure 18: Milling at SBLC main plant



10 Conclusion

Illegalities in the forestry sector in PNG clearly undermine the objectives of the country's Constitution, Vision 2050 and the Forest Policy, which all aim at managing forests as a renewable natural asset for the benefit of present and future generations of Papua New Guineans. However, finding solutions is difficult as groups on both sides of the debate on illegal logging in PNG have not been able to sit together to find ways to move forward on the issue. This divide is not a simple one that involves industry on one side and environmental NGOs on the other; there are a few good examples of individuals in the industry and in environmental NGOs in PNG collaborating to improve industry performance. Commitment from the Government to properly resource the agencies responsible for land and forest management, the willingness of the forestry industry to improve performance, and the willingness of environmental NGOs to work constructively with timber businesses on performance issues are key to moving PNG towards legal and sustainable forestry.

While there are a variety of views expressed in the literature on legal compliance in the forestry sector in PNG that surely would confuse timber buyers, it is difficult to dismiss all the evidence of compliance failures that have been reported. There are significant potential

legality risks associated with unverified PNG timber. Recent reports by UNEP, INTERPOL and Chatham House as well as strong measures to combat the trade in illegally logged timber taken by the EU, US and Australia, suggest that this issue will attract increasing international attention.

The legality risks of unverified PNG export timber identified in this and earlier reports are associated with failures to follow the required processes in the acquisition, allocation and extension of timber rights; shortcomings in compliance with regulations and guidelines in the conduct of forestry operations and in fulfilment of project agreements; and failure to follow the prescribed processes in the issuance of Forest Clearance Authorities under SABLs. The extent to which transfer pricing is being practiced is unclear and deserves a thorough investigation. Encroachment into forest by logging companies outside concession boundaries is another possible risk, but needs further assessment to understand whether this is a significant risk or not. Timber smuggling is not considered a major legality risk.

In terms of risk mitigation strategies, buyers should avoid clearly illegal and high risk timber, such as species banned from export and logs from unauthorised or suspended operations, as well as avoid



relationships with timber businesses that have been prosecuted for serious illegal activities. Timber from Forest Clearance Authorities granted under SABLs should also be avoided (unless considerable proof of legal compliance can be provided) until the Government has concluded its investigation and put in place a comprehensive response to the problems identified.

The most robust legality risk mitigation measure is to target suppliers that are verified for legal compliance or certified for sustainable forest management under credible third party systems, but only about 7% of export timber is verified legal or certified sustainable. Combining a policy of avoiding clearly illegal and high risk timber with a key document check could be considered as an interim risk mitigation strategy when suppliers are taking measures to have their operations verified as legal.

A number of timber businesses in PNG have been verified / certified using voluntary third party standards, namely the FSC Chain of Custody standards, the FSC Controlled Wood standards, the FSC National Forest Management Standards for PNG, and SGS's TLTV. PNG timber could also carry the labels of other standards in the coming years. The Rainforest Alliance has just recently released its PNG standard on legal compliance, and the PNGFA is involved in the development of the Timber Legality Standard under an ITTO project.

To provide a comprehensive assessment of the standards that now exist or are under development in PNG and a

comparison between them, and produce the results in a succinct form, would be useful for timber buyers wishing to understand what product claims can be made from these standards. This exercise was beyond the resources of this report. Our analysis was limited to a comparison of the FSC National Forest Management Standards for PNG, the FSC Controlled Wood Standards for Forest Management Enterprises, and a draft of the Timber Legality Standard. The major issue that came out from the analysis is that limiting the scope of a legality standard to legal compliance by timber businesses could be problematic, as the issue of legal compliance in PNG is not just about the private sector, it is also about State agencies fulfilling their obligations under the law (as is most recently evident in the problems surrounding SABLs).

While NGOs provided the driving force for the early certifications of forest management in PNG, in recent years several large timber businesses have displayed strong commitment to acquiring legality verification and/or sustainability certification. The major driver for the recent verifications / certifications is maintaining market access, and this is associated with the laws on illegal logging introduced by the US, EU and Australia. To maintain the current momentum towards improved forest management in PNG through 3rd party auditing of legality and sustainability will require further positive signals from outside the country. The current initiative in China to develop a legality verification system and to pilot this with PNG is particularly important.



As Cloudy Bay Sustainable Forestry Ltd. has shown, certification of medium to large-scale natural forest management in PNG against internationally recognised sustainability standards is possible, but requires a high level of sustained commitment in terms of policy and resources. How to make forest management certification more accessible to forest managers without compromising standards needs to be studied. Expert services to support impact and monitoring assessments required for forest management certification should be developed in the country. Another useful support service for industries aiming to acquire forest management certification would be to offer well-structured phased approaches with clear time-bound targets, beginning with legality verification and aiming ultimately for certification of sustainable forest management.

The analysis undertaken for this report suggests recommendations for several major stakeholder groups. These are:

Recommendations

Timber buyers

- Avoid all clearly illegal and high risk timber. This includes timber banned from export in round wood form, and timber from suspended operations or from timber enterprises found to be involved in major criminal activities. Timber from SABLs should also be considered high
- risk, unless considerable proof can be secured that the SABLs were organised in accordance with the regulated procedures.
- Target timber enterprises that have had their operations verified as legal (and ideally also sustainable).
- When verified legal or certified sustainable timber is not available, set in place measures to mitigate risks. Organise a key document check and request forest enterprises to have their operations verified as legal, and ultimately certified as sustainable. If no steps towards legality verification are taken by the timber enterprises, find different suppliers.
- Be prepared to pay a premium for certified timber, as timber producers incur large costs to have their operations certified.

Legality verification and sustainability certification schemes

- Consider the scope of legality verification further, as problems related to legal compliance in the PNG forestry sector are not limited to enterprises, but also are associated with the failure of State agencies to carry out their responsibilities.
- Build in-country services to support the certification of sustainable forest management, particularly expert services at reasonable cost on biodiversity and community assessments and



monitoring, and phased approaches.

PNG Government

- Review the capacity of the PNGFA to effectively organise and monitor a forestry development. Ensure sufficient budget for critical phases in forestry project development, e.g. landowner awareness and representation, and monitoring of logging operations.
 - The PNGFA to apply sufficiently strong penalties to consistently poor performers to provide strong signals on the need for improved legal compliance.
 - Ensure a high level of effective stakeholder participation in the continued development of the Timber Legality Standard and its supporting documents. With wide stakeholder participation, develop an effective implementing framework that ensures neutrality, a high level of expertise, transparency and accountability.
 - Use remote sensing to monitor possible encroachment into areas outside concession boundaries. The expertise and facilities on remote sensing currently being developed within the PNGFA through support from JICA can possibly be tapped.
 - Consider financial incentives, such as reductions in levies and taxes, for forest managers to have their operations certified as sustainable
- Provide access to conflict management training programmes for staff of logging companies, rural development NGOs, and Government line agencies to allow for the development of workable agreements and conflict resolution mechanisms between timber companies and local communities.
 - Provide training, and information sharing opportunities through buyer-supplier dialogues, to increase the capacity of industry to seek and obtain information required to satisfy due diligence requirements of key markets and buyers.
 - Support the development of a national reduced impact logging training platform (this will support proper implementation of the Logging Code of Practice).
 - Work with trade federations to efficiently communicate how to undertake due diligence in regard to purchasing timber from PNG.
 - Articulate and promote the business case for pursuing verified legal and sustainable forest management and trade practices.
 - Promote the testing of approaches to build the capacity of customary owners to manage their forests for sustainable timber production.

Support programmes on forest law enforcement, governance and trade



Appendix 1: PNG laws, regulations and international conventions affecting forestry, wood processing and wood exports

Companies Act
Conservation Areas Act (1978)
Convention on International Trade in Endangered Species of Wild Fauna & Flora (international)
Customs Act 1951
Customs Excise Act 1956
Customs Excise Tariff Act 1956
Customs Regulations 1951
Electricity Industry Act 2002
Environment (Fees and Charges) Regulation 2002
Environment (Permits and Transitional) Regulation 2002
Environment (Prescribed Activities) Regulation 2002
Environment (Procedures) 2002
Environment (Water Quality Criteria) Regulation 2002
Environment Act 2002
Environment and Protected Areas Policy (2012)
Forestry (Budget Amendment) Bill 2007
Forestry (Budget Amendment) Bill 2007
Forestry [Timber Permit Validation] Bill 2007
Forestry Act 1991 and Amendments 2000, 2005, 2007 and 2010
Forestry Regulations 1998
Forestry Regulations 2001
Goods and Services Tax Act 2003
Goods and Services Tax Regulation 2005
Guidelines for Issuing Timber Authorities
Import Export Tariff 2012
Income Tax (Rates) Act 1975 and 1976
Income Tax (salary or Wages) (Rates) Act 1979
Income Tax Act 1959
Income Tax Regulation 1959
Industrial Organisations Act and Regulations
Industrial Safety, Health and Welfare Act and Regulations
Labour and Employment Act and Regulations
Land Dispute Settlement Act
Land Groups Incorporation Act (1974) and Amendment 2009
Land Registration (Customary Land) (Amendment) Act 2009a
Landowner Company Associations Act
Lands and Physical Planning Act (1988)
Licencing of Heavy Vehicles Act 1977



Licencing of Heavy Vehicles Regulations 1977
Marine Pollution Bills 2009
Merchant Shipping Act 1975
Merchant Shipping Regulations 2009
Motor Traffic Act 1950
Motor Traffic Regulation 1967
NAQIA Act and Regulations
National Forest Plan
National Minimum Wages and Allowances as from 29 March 2006
National Parks Act (1984)
Operations under Timber Permit: November 1995
Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit: November 1995
PNG Logging Code of Practice: April 1996
Procedures for Exporting Logs: April 1996
Procedures for the Identification, Scaling and Reporting (including Royalty Self-Assessment) on Logs Harvested from Natural Forest Logging Operations: September 1996
Public Health Act
Quarantine Act and Regulations
Revised Waste Management and Assessment Procedures
Superannuation Act 2000
Valuer General's List for Crop Compensation
Worker's Compensation Act and Regulations

Source: PNG Timber Legality Standard National Monitoring Form, Version 1.1, Sept. 2012.



Appendix 2: Principles included or reflected in the TLS, the FSC NFMS and the FSC Controlled Wood Standards for Forest Management Enterprises

Main elements included/reflected in at least one of the compared standards	TLS	FSC NFMS	FSC Controlled wood standard for forest management enterprises
Compliance with national laws and international treaties and conventions	The business complies with requirements regarding forest management, including compliance with relevant environmental, labour and community welfare legislation. (Principle 2)	Forest Management shall comply with all applicable laws of Papua New Guinea including customary laws, international treaties and conventions, and these National Forest Management Standards. (Principle 1)	-
	The Business has clearly identified authorised harvesting areas and positioned its planned forest activities in accordance with approved plans or regulations. (Criterion 2.1)	- (Forest management shall respect all national, provincial and customary laws and administrative requirements (Criterion 1.1)	
	The Business's operations and activities are geographically implemented in accordance with approved plans. (Criterion 2.2)	Operational guidelines and procedures are in place applying the requirements of all relevant legislation and regulations (Indicator 1.1.4)	
	The Business marks and records trees and logs in accordance with relevant regulations. (Criterion 2.4)	- (PNG Logging Code of Practice, which prescribes marking of merchantable trees suitable for harvesting, applies [C. 2.1 (4), p.36])	
	The Business can prove that the quantity or volume of harvest is compliant with the authorised amounts. (Criterion 2.5)	-	
	The Business can prove that the abandonment of trunks or portions of	Proof is put forward that where they exist in relation to the forest management unit landowner companies comply with the law. (Indicator 1.1.7)	



	trunks is consistent with applicable regulatory requirements. (Criterion 2.6)	5.3.1 Forest management has in place a policy that sets rates of waste for each stage of the forest operation and that there is a formal procedure for recording and monitoring compliance with these rates.	
	The Business respects areas where logging is prohibited or restricted. (Criterion 2.7)	- (PNG Logging Code of Practice, which defines areas for selection logging, applies [p.5]: “areas which are not excluded by the following criteria: <ul style="list-style-type: none"> • slopes steeper than 30 degrees • in areas of high relief on slopes steeper than an average of 25 degrees • permanently inundated land • limestone country • mangrove areas”. 	
	Felling strictly complies with species and trees as authorised, restricted or imposed by applicable international conventions, national or local regulations, and the management plan. (Criterion 2.3)	The provisions of all binding international agreements such as CITES, ILO conventions, ITTA and the Convention on Biological Diversity, shall be respected in so far as Papua New Guinea is a signatory to these agreements. (Criterion 1.3) (Species banned from export in log form are listed in Procedures for Exporting Logs 1996)	
	-	Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purpose of certification, on a case by case basis, by the certifiers and the involved or affected parties. (Criterion 1.4)	
	The Business takes adequate measures to prevent any unauthorised activities by third parties within or around the forest areas under its control. (Criterion 2.10)	Forest management units shall be protected from illegal harvesting, settlement, and other unauthorised activities. (Criterion 1.5)	



	-	Forest managers shall demonstrate a long-term commitment to adhere to these National Forest Management Standards. (Criterion 1.6)	
Compliance with tenure and use rights	The business complies with requirements concerning tenure or use rights to land and resources that may be affected by timber harvest rights, where such rights exist. (Principle 4)	Long term tenure and use-rights to the land and forest resources shall be clearly defined, documented and legally established. (Principle 2)	-
	1.1 The business has legal access and harvesting rights to the forest land on which it operates 1.2 the business has obtained the necessary approvals for its forest and related operations	Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated. (Criterion 2.1)	
	Local communities with legal or customary tenure or use rights maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free, prior and informed consent to other agencies. (Criterion 4.1)	Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies. (Criterion 2.2)	
	Appropriate mechanisms are employed to resolve disputes over tenure claims and use rights (Criterion 4.2)	Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified. (Criterion 2.3)	The Forest Management Enterprise shall implement a consultation process to identify potential conflicts relating to land tenure or land use rights of traditional or indigenous peoples groups in the areas affected by the Forest Management operations. (Section 4.4)



Compliance with timber harvesting rights	The business complies with rights to harvest timber within forest areas that are legally acquired. (Principle 1)	- (No principle specifically on harvesting)	-
	The Business has legal access and harvesting rights to the forest land on which it operates. (Criterion 1.1)	2.1.1 There is evidence showing the legal status of all land and forest that demonstrates legal, long-term rights to manage the land and/or utilise its forest resources.	
	The Business has obtained the necessary approvals for its forest and related operations. (Criterion 1.2)	Copies of all licenses, permits and other documents issued under statute or regulation and relating to the forest management unit are kept in the site office and made available to forest managers and other stakeholders. (Indicator 1.1.6)	
	The Business can demonstrate that its approval(s) for forest and other related operations was (were) properly obtained. (Criterion 1.3)	-	
Compliance with requirements concerning business operations, taxes, import/ export duties and royalties	The business complies with requirements concerning business operations, taxes, import and export duties, royalties and fees directly relating to timber harvesting and timber trade. (Principle 3)	All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid. (Criterion 1.2)	All harvesting shall take place in compliance with all laws applicable to harvesting in the jurisdiction in accordance with the criteria outlined in table 1. (Section 3.1)
	The Business is formally registered with relevant government authorities and requires that contractors and subcontractors used in its operations are legally constituted. (Criterion 3.1)	- (1997 Companies Act, Sections: 12. Right to apply for registration, 13. Application for registration, and 14. Registration, applies)	a) Evidence of legal authority to harvest
	The Business is a legitimate operator in the forestry or timber business. (Criterion 3.2)	-	b) Evidence of compliance with applicable management requirements
	The Business consistently submits its official declarations to the appropriate	- (1997 Companies Act, e.g. Section 2 (2): “Where– (a) in	c) Specification of applicable harvesting restrictions
			d) Evidence that timber is harvested from authorised areas
			e) Evidence of timber sales
			f) Evidence of payment of



	authorities in a timely manner. (Criterion 3.3)	relation to a company or an overseas company, any document is required to be submitted or any thing is required to be done in regard to the Registrar within a period specified by this Act...”, applies)	royalties or other fees g) Evidence of compliance with applicable provisions and requirements of CITES
	The Business consistently settles due payments to the appropriate authorities in a timely manner. (Criterion 3.4)	1.2.1 There is evidence that required payments of all legally prescribed fees, royalties, levies, taxes and other charges have been made openly and transparently and to the appropriate recipient. (Indicator 1.2.1) [7 subindicators of 1.2.1]	h) [...] All species, qualities and quantities shall be classified and measured according to legally prescribed or acceptable standards. (Section 3.2)
	The Business’s data, registers, accounts and official declarations accurately reflect its operations. (Criterion 3.5)		
Compliance with requirements for processing, transport, trade and export procedures	The business complies with requirements for processing, transport, trade and export procedures. (Principle 5)	- (not applicable; separate FSC Standard for Chain of Custody Certification and FSC Standard for Company Evaluation of FSC Controlled Wood)	All harvesting shall take place in compliance with all laws applicable to harvesting in the jurisdiction in accordance with the criteria outlined in table 1. (Section 3.1): [...]
	The Business ensures that the processing, transport, and delivery of products to customers comply with relevant legal requirements. (Criterion 5.1)	-	h) Evidence of compliance with requirements in relation to transportation of timber
Necessary registers (of relevant acts, regulations and codes of practice; dispute register)	The business maintains the necessary registers. (Principle 6)	Copies of all licenses, permits and other documents issued under statute or regulation and relating to the forest management unit are kept in the site office and made available to forest managers and other stakeholders. (Indicator 1.1.6)	
	The Business maintains a current register of relevant acts, regulations and codes of practice and communicates such registers within the business. (Criterion 6.1)	All forest management units have in their (a) Headquarters, and (b) in their site office; Or in the case of small-scale operations (c) have access to complete copies of: [...] or any new Acts, Regulations, Codes or Standards superseding these mentioned documents. (Indicator 1.1.1)	



		[In addition to the requirements of 1.1.1, for forest management units which produce or are likely to produce more than 5000 cubic meters of timber in any 12 months period, the requirements of indicator 1.1.2] Procedures and clear assignment of responsibilities are in place to ensure that all copies of legislation, regulations and procedures are up to date and the changes are communicated throughout the forest management organisation. (Indicator 1.1.5)	
	The Business maintains up to date dispute registers. (Criterion 6.2)	Records exist of all previous and on-going genuine disputes over tenure and use rights (Indicator 2.3.3)	
Compliance with indigenous peoples' rights	(Criteria 2.11 and 4.1 regarding local communities with legal or customary tenure or use rights apply)	The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected. (Principle 3)	There is evidence of no violation of the ILO Convention 169 on Indigenous and Tribal Peoples taking place in the FMUs under control of the forest enterprise (Section 4.1).
		Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies. (Criterion 3.1)	
		Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples. (Criterion 3.2)	
	2.1.2 The business can show that positioning and mapping of cultural sites has been clearly identified in cooperation with landowners	Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognised and protected by forest managers. (Criterion 3.3)	
	-	Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest	



		operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence. (Criterion 3.4)	
Social and economic rights and wellbeing of workers and local communities	2.11 The business respects the rights of local communities 2.12 The business respects the rights of workers as derived from relevant national or international regulations	Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities. (Principle 4)	
	-	The communities within, or adjacent to, the forest management area should be given opportunities for employment, training and other services. (Criterion 4.1)	
	The Business respects basic working conditions as prescribed by law and the regulatory requirements relating to health and safety. (Indicator 2.12.2)	Forest management shall meet or exceed all applicable laws and regulations covering the health and safety of employees and their families. (Criterion 4.2)	
	The business respects the rights of workers as derived from relevant national or international regulations (Criterion 2.12)	The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO). (Criterion 4.3)	There is evidence of no violation of the International Labour Office (ILO) Fundamental Principles and Rights at Work in the FMU. (Part 2: Section 4.1)
	The Business protects the rights of its contractors' or subcontractors' workers to the best of its ability (Criterion 2.13)	- [Indicator 1.1.8 requires contractors, subsidiaries and affiliates to comply with all applicable laws . . . , but not specific to rights]	
	-	Management planning and operations shall incorporate the results of evaluations of social and economic impacts. Consultations shall be maintained with people and groups directly affected by management operations. (Criterion 4.4)	The Forest Management Enterprise shall ensure that where stakeholder consultation is required by the Forest Management Enterprise in relation to implementation of this standard, procedures for consultation include at least the



			<p>following</p> <ul style="list-style-type: none"> a) key stakeholder shall be identified and invited to participate [...] b) excluded groups shall be given particular attention [...] c) the consultation process shall be opened to parties claiming an interest in or affected by implementation of this standard d) all identified parties shall be provided with access to sufficient information e) Forest Management Enterprise shall maintain records to demonstrate completeness of their consultation process [...] f) The Forest Management Enterprise shall be responsive to stakeholder questions or concerns. (Section 1.3)
	4.3.1 Genuine disputes over customary land tenure, customary rights to use the forests, and customary rights to use forest resources are settled according to the relevant law [no specific statement on compensation]	Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage. (Criterion 4.5)	
	-	The rights and interests of women shall be fully respected in all forest management decisions. (Criterion 4.6)	
Efficient use of multiple forest	-	Forest management operations shall encourage the efficient use of the forest's multiple products and	



products and services		services to ensure economic viability and a wide range of environmental and social benefits. (Principle 5)	
	<p>- [Environmental, social, and operational costs of production are affected by legal requirements in: Logging Code of Practice, Section C [Selection Logging]: Objective: "... To maintain forest productivity , by identifying and protecting future crop trees (residuals) and excluded trees, while minimising the impacts on soil, water and other environmental values." Meeting various requirements in: 2000 Environment Act and Regulation; Forestry Regulations; 2003 Goods and Services Tax Act/Regulation; Income Tax Act/Regulation; National Minimum Wages and Allowances Worker's Compensation Act and Regulations, etc.]</p>	<p>Forest management should strive towards economic viability, while taking in to account the full environmental, social, and operational cost of production, and ensuring the investments necessary to maintain the ecological productivity of the forest. (Criterion 5.1)</p>	
	-	<p>Forest management and marketing operations should encourage the optimal use and the local processing of the forest's diversity of products. (Criterion 5.2)</p>	
	<p>2.6 The business can prove that the abandonment of trunks or portions of trunks is consistent with applicable regulatory requirements</p>	<p>Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources. (Criterion 5.3)</p>	
	-	<p>Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a</p>	



		single forest product. (Criterion 5.4)	
	- [2.8 The business preserves biodiversity and elements of 2.9 The business minimises negative environmental impacts, applies]	Forest management operations shall recognise, maintain and, where appropriate, enhance the value of the forest services and resources such as watersheds, fisheries and marine resources. (Criterion 5.5)	
	- [Annual plan and set-up plan developed according to Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit]	The rate of harvest of forest products shall not exceed levels that can be permanently sustained. (Criterion 5.6)	
Environmental impact mitigation (Conserving biological diversity, water resources, soil, unique/fragile ecosystems/ landscapes and maintaining ecological functions)	2.8 The business preserves biodiversity 2.9 The Business minimises negative environmental impacts.	Forest management shall conserve biological diversity and its associated values, water resources, soils and unique and fragile ecosystems and landscapes and, by so doing, maintain the ecological functions and the integrity of the forest. (Principle 6)	
	[The following apply: 2000 Environment Act, e.g. sections: 50. Notice to Undertake Environmental Impact Assessment. 51. Environmental Impact Assessment. 52. Inception Report. 53. Environmental Impact Statement. 54. Assessment. 55. Public Review and Submissions. 56. Acceptance of Environmental Impact Statement.]	Assessment of environmental impacts shall be completed – appropriate to the scale, intensity of forest management operations and the uniqueness of the affected resources – and adequately integrated into the management systems. Assessments shall include landscape level considerations as well as stand level impacts and impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations. (Criterion 6.1)	
	The Business preserves biodiversity. (Criterion 2.8) 2.8.1 The Business protects	Safeguards shall exist which protect rare, endemic, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones	



	endangered species (flora, fauna, other) as provided for under CITES 2.8.2 The Business protects biodiversity as provided for by national legislation under the Convention on Biological Diversity (ratified by the PNG Government).	and protection areas shall be established, appropriate to the scale and the intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled. (Criterion 6.2)	
	- (The following applies: 2000 Environment Act, Section 4: “The objects of this Act are – [...] and safeguard the life-supporting capacity of air, water, land and ecosystems”)	Ecosystem functions and benefits such as forest regeneration and succession, genetic species and ecosystem diversity and the natural cycle that affect the productivity of the forest ecosystem, shall be maintained intact, enhanced or restored. (Criterion 6.3)	
	-	Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources. (Criterion 6.4)	
	- (PNG Logging Code of Practice applies)	Written guidelines shall be prepared and implemented to; control erosion; minimise forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources. The operation shall meet or exceed all the standards as contained in the PNG Logging Code of Practice. (Criterion 6.5)	
	- (Controls set out in 2000 Environment Act (Section 133: “...subject to this Act, the Regulations may prescribe in relation to environmental contaminants...”) and Regulations	Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food	



	Environmental Contaminants (Pesticides) Regulation 1988)	chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks. (Criterion 6.6)	
	1996 Logging Code of Practice (Section D on Waste Management: 3. Toxic Materials, Practices: “ (1) ...preferably returned to municipal/township dumps/tips, returned to the manufacturer or buried in the waste pit. (2) Where on-site burial of toxic materials & their containers is the only alternative, the location of the pit must be clearly indicated (including signs in all the local languages), and the pit securely fenced.”) Revised Waste Management and Assessment Procedures	Chemicals, containers, liquid and solid wastes, including fuel and oil, shall be disposed of in an environmentally appropriate manner at of-site locations. (Criterion 6.7)	
	- (Biosafety and Biotechnology Bill under development; draft includes development and use of genetically modified organisms) (PNG Govt. 2005, p. 10; PNG Govt. 2011)	Use of biological control agents shall be documented, minimised, monitored, and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited. (Criterion 6.8)	
	-	The use of exotic species shall be controlled and actively monitored to avoid adverse ecological impacts. (Criterion 6.9)	
	- (Forestry Act 1991 regulates forest conversion under Forest Clearance	Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion; i. entails a very limited portion of the forest	



	Authorities, but few environmental prescriptions)	management unit; and ii. does not occur in high conservation value forest areas; and iii. will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit. (Criterion 6.10)	
Management plan (including long-term objectives and means of achieving them, is written, implemented and kept up to date)	Where obligatory, the Business has developed a forest management plan and has received due official approval for it. (1.2.2)	A management plan, appropriate to the scale and intensity of the operations, shall be written implemented and kept up to date. The long-term objectives of management and the means of achieving them shall be clearly stated. (Principle 7)	
	- (2.7.1 The business respects the integrity of protected areas where forest activities are prohibited or restricted on the basis of official land use planning and classification)	The forest management plan shall be derived from an overall land use plan that has been completed with genuine community participation with proper knowledge and understanding. (Criterion 7.1)	
	- (Five Year Plan, Annual Logging Plan and Set-up Plans apply)	The management plan and supporting documents shall provide: i. Management objective ii. Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands iii. Description of silviculture and/or other management system based on the ecology of the forest in question and information gathered through resource inventories iv. Rationale for rate of annual harvest and species selection	



		<ul style="list-style-type: none"> v. Provisions for monitoring of forest growth and dynamics vi. Environmental safeguards based on environmental assessments vii. Plans for the identification and protection of rare, endemic, threatened and endangered species viii. Maps describing the forest resource base including protected areas, planned management activities and land ownership ix. Description and justification of harvesting techniques and equipment to be used (Criterion 7.2) 	
	- (Logging plans developed annually and forest management plans updated every 5 years)	The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing legal, environmental, social and economic circumstances. (Criterion 7.3)	
	-	Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan. (Criterion 7.4)	
	-	While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.2. (Criterion 7.5)	
Monitoring and assessment (of forest condition, forest products yield, chain of custody, management activities and social & environmental impacts)	- (1991 Forest Act [especially Division 6 on “Forest Management Controls” Sections 99-102], the National Forestry Development Guidelines and Monitoring, and the Control Procedures for Natural Forest Logging Operations under Timber	Principle 8: Monitoring shall be conducted, appropriate to the scale and intensity of the forest management, to assess the condition of the forest, yields of the forest products, chain of custody, management activities and their social and environmental impacts. (Principle 8)	



	<p>Permit: “One of the main responsibilities of the PNG Forest Authority (PNGFA) is the monitoring and control of natural forest logging operations in the field. Monitoring and control is undertaken in particular to ensure that:</p> <ul style="list-style-type: none"> • Logging proceeds in an orderly manner and in accordance with the terms and conditions specified in the Timber Permit • Environmentally and socially sensitive areas are excluded from logging • Logging takes place in accordance with sound silvicultural and environmental principles” [p.1]) 		
	<p>(1991 Forestry Act: Section 102 on Annual Logging Plan, Subsection (3): “A Forest Inspector or Forest Officer shall check on work as prescribed and, where satisfied that a unit of work has been completed as detailed in the annual logging plan, shall issue a certificate to that effect.”</p>	<p>The frequency, intensity and form of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessments of change. (Criterion 8.1)</p>	
	<p>Section 103 on “identification and measurement of timber felled under timber permit or timber authority”: (4) “A Forest Inspector may, at any time, measure or estimate the volume and quantity of timber felled and, for</p>	<p>Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:</p> <ol style="list-style-type: none"> i. Yield of all forest products harvested ii. Growth rates, regeneration and condition of the forest iii. Composition and observed changes in the 	



	the purposes of determining royalty or other charges payable in respect of such timber, such measurement or estimate shall prevail, notwithstanding that the timber has been measured in accordance with Subsection (1).)	<p>flora and fauna</p> <p>iv. Environmental impacts of harvesting and other operations</p> <p>v. Social and economic impacts of harvesting and related operations</p> <p>vi. Costs, productivity and efficiency of forest management (Criterion 8.2)</p>	
	-	Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the “chain of custody” (Criterion 8.3)	
	-	The results of monitoring shall be incorporated into the implementation and revision of the management plan (Criterion 8.4)	
	-	While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2. (Criterion 8.5)	
Maintenance/ enhancement of High Conservation Value Forests	-	Management activities in high conservation value forests shall maintain or enhance the attributes that define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach. (Principle 9)	Forest management activities in the FMU shall not threaten high conservation values in accordance with Section 5.2. (Section 5.1)
	-	Assessment to determine the presence of the attributes consistent with High Conservation Value forests will be completed, appropriate to the scale and intensity of forest management. (Criterion 9.1)	The Forest Management Enterprise shall keep records of evidence to demonstrate compliance with Section 5.1 above. Evidence shall include but is not restricted to: <ul style="list-style-type: none"> a) records of an assessment (e.g. ecological assessment, environmental impact assessment or wildlife census, social assessment) appropriate



			to the size of the FMU and intensity of management to identify the presence of high conservation values.
	-	The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for their maintenance. (Criterion 9.2)	b) evidence of consultation with stakeholders in relation to the precautionary measures, including NGOs and parties that are involved with or have an interest in the forest area with respect to social or environmental aspects. Where relevant, the assessment shall include consultation with representatives and members of communities and indigenous peoples living in or adjacent to the FMU.
	-	The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary. (Criterion 9.3)	
	-	Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes. (Criterion 9.4)	c) a list of the high conservation values thus identified in the FMU, together with evidence indicating that high conservation values are not threatened in the FMUs. (Section 5.2)
Plantations to reduce pressure on, and promote restoration/conservation of natural forests	-	Plantations: Plantations shall be planned and managed in accordance with all these Principles and Criteria, 1 to 10. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressure on, and promote the restoration and conservation, of	No conversion of natural and semi-natural forests and other wooded ecosystems such as woodlands and savannahs to plantations or non-forest uses take place, except as permitted by section 6.3. (Section 6.1)



		natural forests (Principle 10)	
	-	The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan. (Criterion 10.1)	
	-	The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands within the natural landscape. (Criterion 10.2)	
	-	Diversity in the composition of plantations is preferred so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures. (Criterion 10.3)	
	-	The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts. (Criterion 10.4)	



	-	A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover. <i>Restoration efforts shall be supported by the results of 8.2.2. (Criterion 10.5)</i>	
	-	Measures shall be taken to maintain or improve soil structure, fertility and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns. (Criterion 10.6)	
	-	Measures shall be taken to prevent and minimise outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilisers. Plantation management should make every effort to move away from chemical pesticides and fertilisers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7. (Criterion 10.7)	
	-	Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not	



		have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access. (Criterion 10.8)	
	-	Plantations established in areas converted from natural forest after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible, directly or indirectly, for such conversion. (Criterion 10.9)	
	-	All ownership and use rights pertaining to the land on which the plantation is located, and the trees located on the land, shall be clearly defined, documented and legally established. Furthermore, the economic benefits and responsibilities of the landholders, forest developers, and other stakeholders involved in the plantation shall be clearly defined, documented, and legally established. (Criterion 10.10)	
No wood from forest management units in which genetically modified trees are planted			The Forest Management Enterprise shall ensure that no planted genetically modified (GM) trees are present in the FMU. (Section 7.1)
Quality management system requirements			The Forest Management Enterprise shall have procedures and/or work instructions covering all the applicable elements specified in this standard. (Section 1.1)
			The Forest Management Enterprise shall identify the person (or position) responsible for



			implementing each procedure and/or work instruction (Section 1.2)
(Stakeholder consultation)			(Stakeholder consultation under element 8 above)
(Supplying FSC controlled wood)			<p>The Forest Management Enterprise shall include the following information on all invoices issued for sales of FSC Controlled Wood products:</p> <ul style="list-style-type: none"> a) The name and address of the buyer b) The date on which the invoice was issued c) Description of the product d) The quantity of the products sold e) Reference to the product's batch and/or to related shipping documentation f) Sufficient to link the invoice to the goods received by the customer g) The certification code issued by an FSC accredited Certification Body. <p>(Section 1.4) Invoices and shipment documents for sale of controlled wood shall always include the claim "FSC Controlled Wood" [...] (Section 1.5). The Forest Management Enterprise</p>



			shall ensure that claims in relation to FSC Controlled Wood meet the requirements specified in appendix 3 of this standard (Section 1.6).
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Note: “-” means no equivalent principle, criterion or indicator.

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