

A MAJOR LIABILITY

Illegal logging in Papua New Guinea threatens China's timber sector and global reputation

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ACRONYMS

FCA	Forest Clearance Authority
FMA	Forest Management Agreement
SABL	Special Agriculture and Business Lea
$T\Lambda$	Timbou Authority

L Special Agriculture and Business Lease
Timber Authority
Timber Rights Purchase

Front cover: About 60% of all tropical logs imported by China come from PNG and the Solomon Islands. ©Global Witness 2017

EXECUTIVE SUMMARY

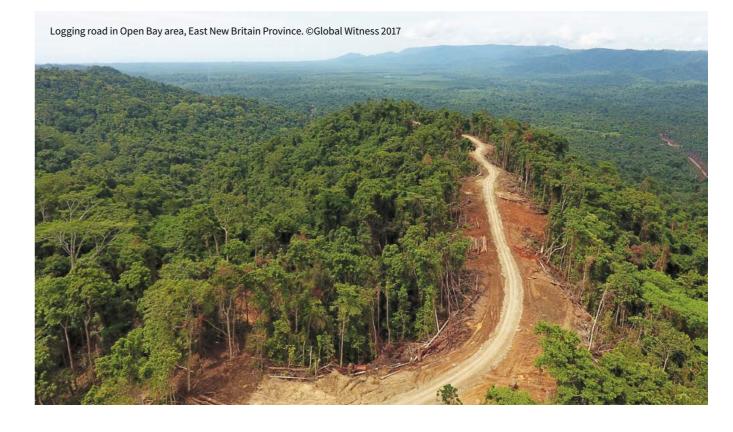
China's Belt and Road Initiative now includes over USD 1 trillion of planned investments spanning the globe. Papua New Guinea (PNG) is one of the newest members of this infrastructure and trade program, and its inclusion formalizes an increasingly substantial economic relationship between the two countries. China owns nearly one-quarter of PNG's debt, and has recently announced plans to launch agriculture and roadbuilding projects worth billions that have the potential to transform PNG's rural countryside.

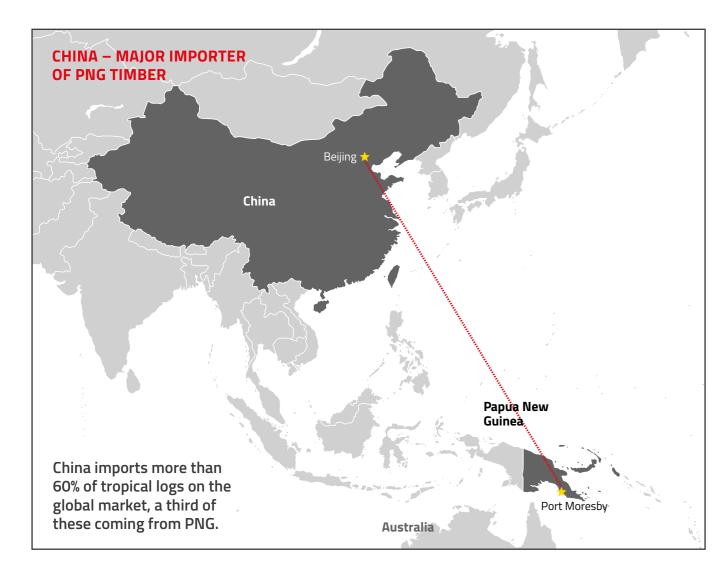
These ambitious plans abroad are beginning to be informed by China's goals of an 'ecological civilization,' where environmental factors as well as economics are acknowledged as significant in decision-making. Environmental or 'green' guidance for Belt and Road projects is emerging, alongside domestic policies mandating Chinese manufacturers to reduce pollution and increase efficiency, and the country has made public commitments to tackling climate change.⁴

While these steps are promising, China should place stronger safeguards on its overseas footprint, to ensure the legal and responsible use of natural resources sourced abroad and establish itself as a reputable and responsible business partner. This is especially important in China's relations with countries like Papua New Guinea that struggle with entrenched corruption and problems with the rule of law. Their bilateral timber trade offers an example of the legal and reputational risks China incurs by not mandating careful checks on its sourcing of raw materials.

PNG is China's single largest supplier of tropical logs, and sends almost all its log exports to China.⁶ As this report shows, despite sustained criticism of illegalities in its forest sector, PNG has not done what's needed to ensure its log exports comply with its laws. In turn, this exposes China to significant risks which have not yet been addressed. In contrast to other major economies like the U.S. and EU, China has no law keeping illegal timber out of its markets. Our previously published investigation into Chinese flooring manufacturing using wood from PNG found almost no companies that verified the wood they used was legal.⁷

In this report, Global Witness documents systemic instances of illegalities in the allocation and operation of different types of logging and forest clearance projects in PNG. In some cases, all of the operations examined, by project type, were apparently operating illegally. Since all China's major wood export markets have banned the imports of illegal timber, the use of illegal wood in Chinese manufacturing can deter importers from buying products made in China.



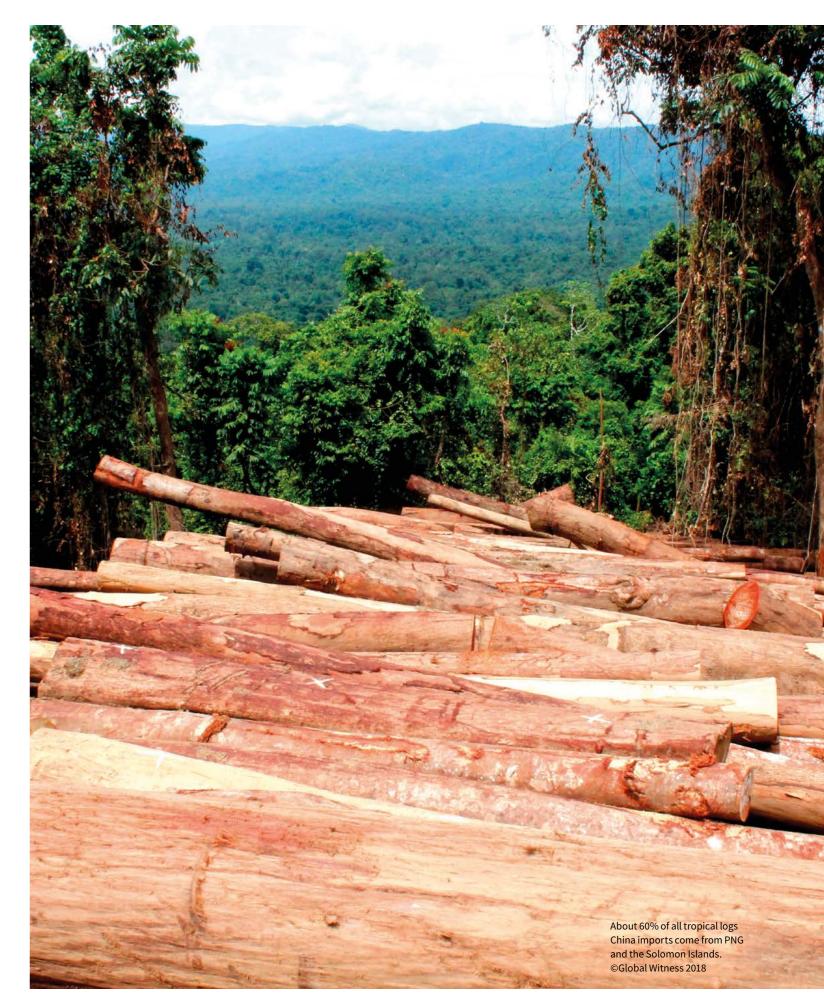


Global Witness analyzed examples of four types of logging and clearance projects. As a class, these project types represent over 85% of PNG's log exports. 8 We found that:

- All operators of the four Forest Management Agreements (FMA) we examined appear to have repeatedly broken the law. The FMAs we examined are the four largest that are currently exporting timber and accounted for 16% of all of PNG's log exports in 2017.
- All operators of the four Timber Rights Purchases (TRP) we examined appear to have repeatedly broken the law. The four TRPs we examined are among the largest of this type currently exporting timber and accounted for 16% of all of PNG's log exports in 2017.
- Serious questions surround the processes of issuing and overseeing Forest Clearance Authorities and Timber Authorities, which together account for approximately 28% of all PNG's log exports. In particular, the PNG Forest Authority does not monitor operations conducted under Timber Authorities, meaning it cannot assess their compliance with the law. We also found multiple instances of operators of Timber Authorities exporting more timber than legally allowed.

The findings show how responsible buyers cannot rely on paperwork alone to assure themselves that timber has been produced legally. Even though almost all timber is produced under a government permit or authority, that does not mean it is actually legal. An apparently valid logging permit may well have been issued illegally, or be held by a company whose logging operations are breaking the law, as this report shows. Responsible purchasers must understand that timber – and products containing timber – from PNG's forests should be automatically considered high risk.

The report provides recommendations for Papua New Guinea and the buyers of its timber – notably China – to combat this illegal trade. In particular, we recommend that China pass legislation requiring its timber importers to carry out due diligence on their timber imports to minimize the risk that the timber was obtained illegally in its country of harvest. Failure to screen illegal timber from its markets risks damaging China's global reputation as a responsible partner and exposing its timber sector to commercial and legal peril.



INTRODUCTION

CHINA'S GREEN AMBITIONS

China is taking serious steps to address domestic environmental degradation and to reduce pollution and carbon emissions. At a national conference on environmental protection in 2018, President Xi Jinping reiterated China's goal of building an 'ecological civilization' and leading in global climate governance, and drew links between a healthy environment and improved national security.¹⁰

But China is overlooking an important aspect of its ecological footprint: the raw materials that it consumes. While the country has enacted 'Green Supply Chain' policies to reduce waste and pollution in manufacturing sectors, these do not yet require commodities sourced from abroad to be legal and sustainable.¹¹ At the same time, China's Belt and Road Initiative extends its trade and investment partnership ambitions to many dozens of countries, and increases its footprint in countries such as Papua New Guinea (PNG). 12, 13

China is the largest global importer and manufacturer of wood products.14 But with nearly half of its wood coming from outside its borders, China has a significant role to play in the future of the world's forests.¹⁵ It is the destination for about two-thirds of all tropical logs globally, many of which come from countries like PNG that are struggling to address governance and rule of law issues. 16 If China, the most important actor in the global timber trade, buys its wood with 'no questions asked,' it risks undermining efforts by its trading partners to improve governance, prevent environmental degradation, and achieve the UN Sustainable Development Goals.

PNG is China's single largest supplier of tropical logs: it shipped over 2.8 million cubic meters (m³) of logs there in 2017. The U.S. and EU, in turn, are China's largest markets for its plywood and wood furniture exports.¹⁸ While China has not yet banned the import of illegal timber, the U.S. and EU have. This means if products containing illegal timber are imported into U.S. or EU markets, its importers risk prosecution and fines under the US Lacey Act or EU Timber Regulation (EUTR). Globally, most of the major timber markets have similar legislation in place.

This makes China's trade in timber from countries suffering from corruption and weak governance, like PNG, a risky one.¹⁹ Chinese business can suffer when importers shy away from products made in China due to fears of prosecution or non-compliance with timber import laws. In 2016, giant American flooring retailer Lumber Liquidators was found guilty of a felony charge related to its import of flooring made in China using illegal wood, and paid over USD 13 million in criminal charges, community service payments, and forfeited assets.²⁰ In 2015, the UK EUTR enforcement agency carried out checks on importers of Chinese plywood that suggested potentially widespread industry noncompliance with the EUTR's due diligence requirement.²¹

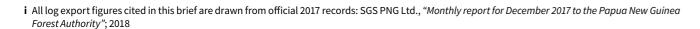
PNG TIMBER: STILL HIGH RISK

Papua New Guinea is a developing, tropical country of eight million people, most of whom depend directly on the land for their sustenance, livelihoods, and cultural traditions.²² The country's constitution and laws recognize how critical this access is to its citizens, and guarantee that indigenous Papua New Guineans have control over the land and forests they have traditionally lived on and used.23

About 70% of PNG - some 278,000 km² - is covered by forest. Those forests sustain PNG's people, provide habitat for some of the world's rarest plants and animals, and provide invaluable ecosystem services to the country and region.²⁴ Along with other primary tropical forests, the forests of PNG play a critical role in the global fight against climate change, storing an estimated five gigatonnes of carbon.²⁵

The scale of the PNG-China timber trade, the risks around it, and the importance of forests to the people of PNG make it critical to manage these resources responsibly and legally. Instead, PNG's forest sector has been plagued for decades by allegations of corruption and lawbreaking, characterized by a systemic failure to protect communities' interests and indigenous land rights. In the late 1980s, the government-commissioned Barnett Commission of Inquiry documented widespread illegalities and corruption in the forest sector.²⁶ This led to the introduction of the 1991 Forestry Act which requires logging concessions to respect land rights and abide by less harmful logging practices.

However, a later series of reviews commissioned by the PNG government found that the majority of logging operations they reviewed were breaking the law.²⁷





PNG exports dozens of hardwood species, including Calophyllum spp., pencil cedar (Palaquium spp.), taun (Pometia pinnata), malas (Homalium foetidum), and kwila (Intsia bijuga) to China to supply manufacturers of plywood, furniture, and flooring. ©Global Witness 2017

Subsequent independent assessments have consistently documented a high risk of illegality.²⁸ In 2017, an assessment of legality risks in most of the world's timberproducing countries found PNG's timber to be among the riskiest, with potential illegalities including corruption and bribery in the issuance of permits, failure to follow the Logging Code of Practice, and logging without the consent of indigenous landowners.29

It is essential for buyers of PNG timber to understand that the existence of an official, valid permit is not a guarantee of the timber's legality. As numerous investigations, legal court cases, and complaints by landowners and civil society show, these permits themselves may have been issued illegally. Responsible purchasers must understand that timber – and products containing timber – from PNG's forests should be automatically considered high risk.

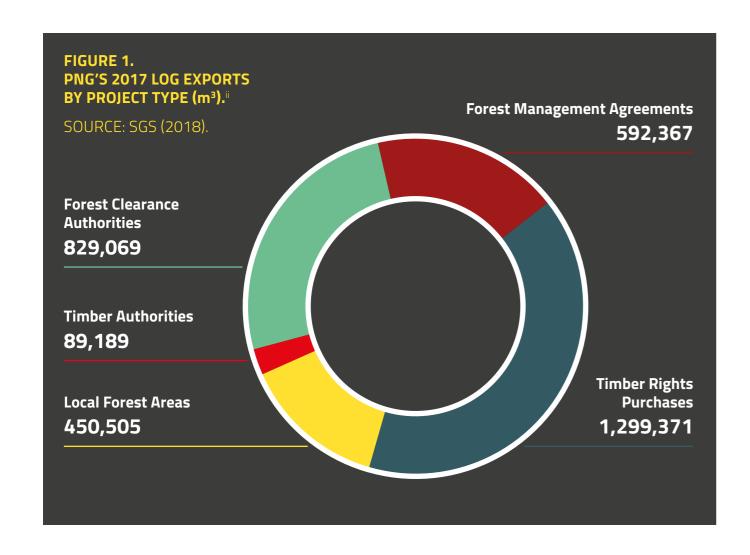
This brief examines instances of apparent illegalities that Global Witness has documented in four types of logging and clearance operations, and their damaging effects on people's land rights and the environment. Every project named in this brief was either issued in violation of the legally required standard process and/or appears to have violated the Forestry Act in its operations.

WHAT IS ILLEGAL TIMBER?

The EU Timber Regulation considers any timber or timber product not produced in accordance with the laws of the producing country to be illegal.³⁰ The U.S. Lacey Act bans the import of timber cut in violation of producer countries' laws regarding forestry, taxation, and exports.³¹ In Papua New Guinea, this may include logs cut on land where indigenous landowners have not given their consent to logging, a violation of its constitution, or cut in violation of the Forestry Act, among other potential lawbreaking.

EXAMPLES OF ILLEGALITIES BY PROJECT TYPE

This brief draws on field and desktop research into four different types of logging or clearance projects – Forest Clearance Authorities (FCA), Timber Authorities (TA), Timber Rights Purchases (TRP), and Forest Management Agreements (FMA). Research into FCAs and TAs was carried out in 2017 and 2018, and Global Witness commissioned a remote sensing-based analysis of past and current logging practices in selected TRPs and FMAs in 2018. See Methodology for more details.



ii Before the Forestry Act (1991), customary landowners could directly negotiate logging agreements with a logging company in so-called 'Local Forest Area' (LFA) agreements. The Barnett Commission of Inquiry into PNG's forestry sector found widespread corruption and exploitation of customary landowners under LFAs (Barnett 1989a, b).

PROJECT TYPE:

TIMBER RIGHTS PURCHASES

Timber Rights Purchases in 2017 numbers:

- Percentage of total log exports from Timber Rights Purchases: 40%
- Number of currently exporting Timber Rights Purchases: 29
- ▶ Log exports from Timber Rights Purchases: ~1.299 million m³
- Number of Timber Rights Purchases that we examined: 4, responsible for 40% of all log exports from TRPs in 2017
- Number of Timber Rights Purchases we found to be apparently breaking the law: 4 (100% of those examined)
- Legality issues: Some Timber Rights Purchases have been extended, possibly illegally, and undermining the aims of the Forestry Act. All of the examples we analyzed appear to have broken the Forestry Act repeatedly in their operations.

In 2013, the Papua New Guinea Forest Authority wrote candidly that "Most if not all older timber projects acquired under the provision of the old Forest Act [...] were mostly not sustainable forestry operations." ³²

Timber Rights Purchases (TRPs) were some of the projects to which the Forest Authority referred. These large logging operations were not designed to be sustainable or to safeguard the interests of indigenous citizens. In signing a TRP, customary landowners ceded power to the State to negotiate benefits from developers. Dozens of them were signed before PNG's independence in 1974, when customary land rights protections were written into its constitution. Many TRPs last 40 years or longer.

Part of the intention of the 1991 Forestry Act was to transition the industry to less destructive practices by introducing the concept of logging based on management plans and operating only in single, annual cutting, Forest Management Agreement areas with a rotational cycle of 35 years. Under the Act, Timber Rights Purchases were allowed to continue until their original expiration dates. The contracts and the permits associated with them, many are still operational. In 2017, log exports from Timber Rights Purchases were more than twice as high as those from Forest Management Agreements.

As with all logging titles, companies logging Timber Rights Purchase areas are issued a Timber Permit that specifies the amount of wood that can be produced. These permits can be renewed after a ten-year period. These permits to the sustainability requirements introduced under Forest Management Agreements (see below), a TRP holder could theoretically log the entire concession area within the timeframe of their Timber Permit. In an email to Global Witness, the PNG Forest Authority stated that all TRPs are required to adhere to the requirements of the Forestry Act, Forestry Regulation, the PNG Logging Code of Practice, and the PMC Manual, but that it does not apply a 35-year cutting cycle to TRPs. In the produced in the produc

While TRPs were allowed to expire within their original contractual timeframe, there was originally no legal provision for extending the Timber Permits used for logging them. The independent reviews of PNG's forest sector conducted between 2000-2005 found many instances where a Timber Permit had been extended under "legally questionable" circumstances.³⁹ Eventually, the Forestry Act was amended in 2005 to allow Timber Permits to be extended, provided that certain conditions were met, retroactively making these extensions legal.⁴⁰

Recent actions by the PNG National Forest Board are even more blatant circumventions of the Forestry Act. The Board has begun issuing extensions of the Timber

iii However, Section 241 of the Forestry Regulation 1998 obliges all TP holders, including those of TRPs, to adhere to "'Papua New Guinea's Logging Code of Practice', the 'Planning, Monitoring and Control Procedures for Natural Forest Logging Operations, under a timber permit' manual and the 'Procedures for Exporting Logs' manual (or any revisions thereof)," i.e. to respect the sustainability principles and measures set out for FMAs from 1998 forward.

Rights Purchases themselves. Global Witness has obtained documents signed in 2016 between the PNG Forest Authority and logging company Vanimo Jaya Ltd. approving the 'extension' of two TRPs, which had expired years earlier, from 2016-2019 (Appendix 3).41 There is no provision for extending these agreements in the Forestry Law. According to one Forest Authority official, the Board is justifying TRP extensions based on a Supreme Court ruling from 2017.⁴² This explanation, if correct, does not justify extensions made prior to that decision.

Global Witness also has evidence that upon request Vanimo Jaya paid the Forest Authority PGK 250,000 (approximately USD 75,000) for each extension (Appendix 4). There is no provision in the Forestry Act for such fees.

It is unclear what, if any, steps were taken in extending these TRPs to ensure landowner consent to these TRPs. We asked the Forest Board, Forest Authority Managing Director, and Vanimo Jaya how these extensions were justified, but received no response.

Analysis of satellite images of four major Timber Rights Purchases reveals that they all appear to have violated the Forestry Act on multiple occasions. Analysis of one concession is provided in detail below. See Appendix 1 for a summary of findings.



SPOTLIGHT:

Wawoi Guavi, TRP 01-07, Western Province

Permit Holder: Wawoi Guavi Timber Company Ltd., a subsidiary of Rimbunan Hijau (PNG) Ltd. **2017 log exports:** 133,901 m³, worth PGK 38,361,844 (~USD 11.8 million)

Wawoi Guavi TRP is a set of three logging blocks totaling 4,213 km².⁴³ The earliest of these blocks was established in 1981 and the last in 1989, meaning the entire TRP was established before the 1991 Forestry Act came into force.44

We detected the following apparent illegalities:iv

- 241 roads or portions of road where forest was cleared wider than 40 m after 1998, making them violations of the Forestry Act. An additional 70 roads or portions of roads where forest was cleared wider than 40 m were constructed prior to 1998.
- 141 instances of logging or road building inside buffer zones around streams or wetlands occurred after 1998, making them violations of the Forestry Act. 65 of these occurred after 2013.
- ♦ 6 instances of logging inside swamps. All of those instances happened after 2005 and are therefore violations of the Forestry Act.

These findings mean that the Wawoi Guavi TRP appears to be operated in frequent violation of the law and that the timber it exports should be considered illegal or highly likely to be illegal.

We asked companies operating in these TRPs, including Rimbunan Hijau, to comment on these allegations. Rimbunan Hijau rejected our allegations of their violations of the Forestry Act, citing a study by the Japan International Cooperation Agency that they claimed stated that Landsat images 'do not produce reliable assessments of land use.' They stated that they abide by all relevant laws and regulations and take environmental regulations seriously. No other companies operating in the TRPs we analyzed responded. See Appendix 5 for Rimbunan Hijau's full response.



Analysis commissioned by Global Witness found that Rimbunan Hijau appears to have violated the Forestry Act dozens of times in the Wawoi Guavi TRP between 1998-2018. This satellite image shows a logging road constructed to collect logs from logging operations within the buffer zone of a Class 1 stream. Satellite image taken 2017-03-09 at (-7.19085, 142.77734). ©DigitalGlobe 2018



Roadside log landing in the Turubu area of East Sepik Province. ©Global Witness 2016

PROJECT TYPE:

FOREST MANAGEMENT AGREEMENTS

Forest Management Agreements in 2017 numbers:

- Percentage of total log exports from Forest Management Agreements: 18%
- Number of currently exporting Forest Management Agreements: 7
- Log exports from Forest Management Agreements in 2017: 592,367 m³
- Number of Forest Management Agreements that we examined: 4, accounting for 85% of all log exports from FMAs in 2017
- Number of Forest Management Agreements we found to be apparently breaking the law: 4 (100% of those examined).

The 1991 Forestry Act introduced a new kind of large logging concession in the form of Forest Management Agreements (FMA). These agreements were intended to secure more sustainable logging practices based on management plans for 35-year cutting cycles, fiveyear and annual work plans, and adherence to the Logging Code of Practice and procedure guides (see above). The shift to Forest Management Agreements was also intended to better protect landowner rights. They explicitly require landowner consent and allow landowners to stipulate areas to be excluded from logging as part of the agreement.⁴⁵

Acquiring and implementing a Forest Management Agreement is a lengthy, 34-step process.⁴⁶ No doubt partly because of this, despite the intent of the Forestry Act to move the forest sector toward more sustainable practices that respected landowner rights, there are currently only seven FMAs exporting timber.⁴⁷

Analysis of satellite images of four Forest Management Agreements reveals that they all appear to have violated the Forestry Act on multiple occasions. Analysis of one concession is provided in detail below. See Appendix 1 for a summary of findings.



The vast majority of PNG's logs are exported to China. ©Global Witness 2018

SPOTLIGHT:

Rottock Bay Consolidated, FMA 14-02, West New Britain Province

Permit Holder: Cakara Alam (PNG) Ltd.

2017 log exports: 125,818 m³ worth PGK 31,797,574 (~USD 9,486,810)

Rottock Bay Consolidated consists of four logging concessions grouped into one totaling 2,083 km².⁴⁸ Cakara Alam began logging this area at least as early as 1996, when the first logging roads appear in Landsat images of the concession. Our analysis indicates that 29%

(594 km²) of the concession's 1996 forests was situated on karst limestone, and 3% (61 km²) on areas of high relief (defined as slopes > 25°). Logging in either of these types of areas is prohibited under the Logging Code of Practice.49



Logging and road construction close to a Class 1 stream in Rottock Bay Consolidated FMA. Satellite image taken on 2016-09-15 at (-5.89335, 149.16317). ©DigitalGlobe 2018



Logging on karst limestone in Rottock Bay Consolidated FMA. Karst landscapes are delicate and easily damaged by logging activities. It is illegal to log on them under the Forestry Act. (Satellite image taken on 2017-11-08 at (-5.8589, 149.26406). ©DigitalGlobe 2018

We detected the following apparent illegalities:

- ≥ 19 roads or portions of road where forest was cleared wider than 40 m, of which all were constructed in 2007 or later, making them violations of the Forestry Act.
- ♦ 9 instances of logging inside buffer zones around streams, all of which happened in 2008 or later, making them violations of the Forestry Act.
- 2 instances of logging on areas of high relief. These were done between 2006 and February 2018, making each of them a violation of the Forestry Act.
- ► Logging on 144 km² of karst limestone between 2006 and February 2018, a violation of the Forestry Act.
- An area greater than 1/35th the size of the entire concession was logged in 2014 and 2015, a violation of the Forestry Act.

These findings mean that the Rottock Bay Forest Management Agreement is likely being operated in frequent violation of the law and that the timber it exports should be considered illegal or highly likely to be illegal.

We asked companies operating in these FMAs, including Cakara Alam, to comment on these allegations. Cakara Alam categorically denied our allegations of their violations of the Forestry Act and wrote, 'Our logging operations are strictly guided and constantly monitored by field forest officers on the basis of PNG Logging Code of Practice.' No other companies operating in the FMAs we analyzed responded. See Appendix 5 for Cakara Alam's full response.



After a logging company has moved on, large areas used to store logs felled in selective tree cutting operations are left behind. @Global Witness 2018

PROJECT TYPE:

FOREST CLEARANCE AUTHORITIES

Forest Clearance Authorities in 2017 numbers:

- Percentage of total log exports from Forest Clearance Authorities: 25%
- Number of currently exporting Forest Clearance Authorities: 16
- Log exports from Forest Clearance Authorities in 2017: 829,069 m³
- Number of Forest Clearance Authorities associated with controversial Special Agriculture and Business Leases (SABLs), some of which are alleged to have broken the law and violated land rights: 8.⁵⁰ Several others were recently granted in violation of due process or landowner rights, and/or are violating the Forestry Act in their operations.

Forest Clearance Authorities (FCAs) were introduced in a 2000 amendment to PNG's Forestry Act.⁵¹ They allow forests to be clear-cut, which is a contradiction of the Act's stated aim of securing the sustainable use of PNG's forests.

FCAs can be issued for agricultural or other land-use projects to clear-cut forested areas of more than 50 ha, and were granted to holders of the controversial SABLs to allow conversion of forests into agribusiness plantations [see Box on p. 15]. 52 The PNG government has stopped granting these leases, but it has continued to issue Forest Clearance Authorities: in 2016 and 2017, eight new FCAs described as agriculture projects appeared in PNG's timber export records.53 The systemic violations of land rights associated with earlier FCAs, and the government's failure to remedy those violations, raise questions about how this new set of permits was granted. No public records are available to show how the companies involved secured the rights to clear this land and how – or whether – landowner consent was secured. In 2017, these eight FCAs exported over 430,000 m³ timber.⁵⁴

In 2017 and 2018, we asked the Papua New Guinea Forest Authority to explain the legal basis for issuing new clearance permits. We received no response.

Global Witness' field investigations suggest that, as with some SABLs, at least some of these new Forest Clearance Authorities are not being used to convert forests for agricultural projects but to get access to valuable timber. In 2017, we traveled to East New Britain Province to confirm satellite imagery that showed there was extensive logging rather than clearance in the Makolkol and Dengnenge FCAs. The absence of large-scale agricultural clearance happening in those titles,



Companies create huge networks of logging roads to access valuable timber, like this one in the Open Bay area of East New Britain Province.

©Global Witness 2017





Logging road in Open Bay area, East New Britain Province. ©Global Witness 2017



In selective logging operations, companies skid logs out of the forest to nearby roads. ©Global Witness 2018



Malaysian-owned company Kerawara Ltd. exported timber worth over PGK 16 million (~USD 5 million) from an FCA (15-10) in East New Britain Province in 2017, but it appears to be logging the forest rather than clearing it for agriculture, which is illegal under the terms of this permit. Satellite image taken on 2018-04-17 at (-4.70355, 151.82505.). ©DigitalGlobe 2018

and in the new FCA in East Sepik Province (see below), strongly suggests that these permits were obtained fraudulently.

There are also concerning signs that due process has been violated when issuing some recent FCAs. We have previously reported on the new FCA (11-03) in the Turubu area of East Sepik Province, which was granted to a company the Supreme Court found guilty of illegal logging in the same area. ⁵⁵ In 2017, ten months after it was issued, senior lands and agriculture provincial officers told us that they were unaware of the existence of this new FCA, despite the fact that provincial-level approval is required for an FCA to be issued. ^{56,57}



SPOTLIGHT:

Wanigela Tree Planting Project, FCA 05-04, Oro Province

Permit Holder: Northern Forest Products Ltd.

The Wanigela project is a case study in how a clearance permit may be issued illegally: without landowner consent and in violation of due process. In 2014, landowners in the Collingwood Bay area of Oro Province won a prolonged court battle against developers holding a SABL over their land. ^{58,59} Three years later, an FCA for over 42,000 ha was issued in the Collingwood area to Northern Forest Products Limited, prompting an outcry from landowners who claimed they had not approved this new project. ^{60,61}

Oro Province Governor Gary Juffa alleged in a Parliamentary session that a foreign logging company had landed machinery in Collingwood Bay to conduct what he described as an illegal logging operation. ⁶² In February 2018, the Managing Director of the Forest Authority, Tunou Sabuin, stated that the Chairman of the National Forest Board had issued the permit before the Provincial Council had met to deliberate on it, and that no public hearing had been conducted, both of which are violations of the Forestry Act. He recommended that the FCA be canceled, and stated that the logs already cut would be seized. ⁶³

"It is apparent that this so called agriculture project is a mere scam for illegal logging."

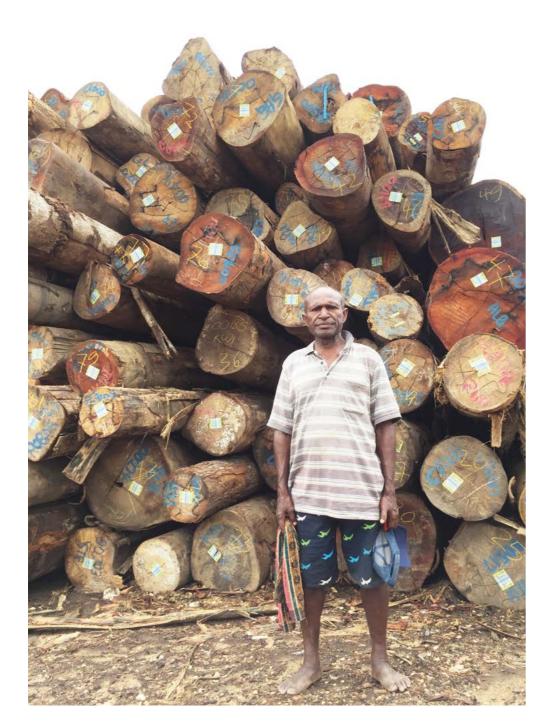
Governor of Oro Province, Gary Juffa⁶⁴

In a subsequent interview, Mr Sabuin reportedly changed tack and denied that the permit was issued illegally. ⁶⁵ The Oro Province administration impounded the equipment and logs that had already been cut, and arrested thirteen workers allegedly employed by the company without proper work permits; reportedly acting on a directive from the Forest Authority. ⁶⁶ The Forest Authority then disavowed having advised the administration that the operation was illegal. ⁶⁷ Governor Juffa continues to oppose the project and recently claimed that no community hearing was held before the project was approved. ⁶⁸ Meanwhile, landowners are instituting legal proceedings opposing the project. ⁶⁹

SPECIAL AGRICULTURE AND BUSINESS LEASES

According to the constitution and laws of PNG, its citizens should decide what happens to the forests they legally control.⁷⁰ But the recent scandal around Special Agriculture and Business Leases (SABL) demonstrated a catastrophic failure on the part of the PNG government to uphold its laws. These leases were granted on indigenous land to commercial entities over an estimated 12% of PNG's land area, and associated with permits that allowed their holders to clear-cut forests.⁷¹ In recent years, timber produced under the leases accounted for as much as 30% of the country's log exports.⁷² The PNG government commissioned an independent inquiry into SABLs in 2011 that documented numerous legal violations, including logging without the consent of landowners, and recommended that 38 out of the 42 of the leases it published findings for be revoked, or suspended and renegotiated.⁷³ The UN High Commissioner on Human Rights has called on PNG to address this ongoing crisis.⁷⁴ Despite the government's promises to revoke illegal SABLs, however, it has done little.⁷⁵ The value of timber exported from SABLs has exceeded USD 1 billion.⁷⁶ No one has been held accountable.

We asked companies operating in new FCAs to comment on these allegations. A law firm responding for KK Connections Ltd. stated that FCAs 15-09 and 15-10 had been obtained after acquiring landowner consent and presenting applications to the Provincial Forest Management Council and National Forest Board. It did not respond to our allegations that FCA 15-10 is being selectively logged rather than converted for agriculture. No other companies operating in the FCAs we analyzed responded. See Appendix 5 for KK Connections' full response.



Turubu Ecoforestry Forum chairman Augustine Mondu says that landowners in his area of East Sepik Province have not given their consent to logging on their land. He wrote to Global Witness, "Our normal way of life in using natural resources cautiously and sustainably has gone. Our customary and ownership rights are disrespected and our traditional way of life is being completely damaged."77 @Global Witness 2018

PROJECT TYPE:

TIMBER AUTHORITIES

Timber Authorities in numbers:

- Percentage of total log exports from Timber Authorities: **Just under 25%**
- Number of currently exporting Timber Authorities: 15
- Log exports from Timber Authorities in 2017: 89,189 m³
- Number of Timber Authorities we estimate cleared more legally allowed in 2017: 2
- Number of Timber Authorities for which the PNG Forest Authority can verify operations: 0
- Conclusion: Lack of official oversight of their operations means that timber from roadline and agricultural TAs cannot be verified as legal and should be considered off-limits to responsible buyers.

Timber Authorities (TA) can be granted for small-scale logging or forest clearing for agricultural or road-building purposes. They are limited to clearing timber from an area not greater than 50 hectares when used for agricultural purposes, and from an area up to 12.5 km long and 40 m wide (also equivalent to 50 ha) for road-building. The law does not state the volume of timber that may legally be harvested from these types of Timber Authorities. However, calculations of the amount of timber that can be cleared from PNG forest suggest that the absolute upper limit is 211 m³/ha. This means that the maximum amount of timber that can possibly be harvested from a 50-ha TA is 10,550m³.

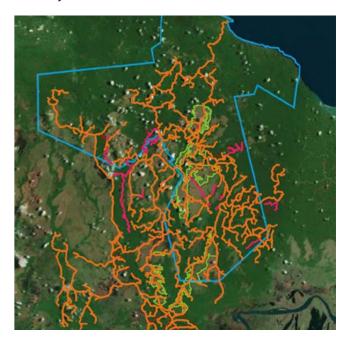
Companies operating 15 Timber Authorities exported timber in 2017. Of these, we calculate that two TAs exported more than they are legally allowed to cut:

- Summit Agriculture Ltd., a Malaysian-owned company operating in East Sepik Province's Turubu area, exported 19,101 m³ from a single "road-alignment" TA in 2017.^{79,80}
- Achim Agro Ltd., a Malaysian and Taiwanese-owned company, exported 17,207 m³ from a single TA in 2017.^{81,82}

The most problematic element of Timber Authorities is that the Forest Authority has stated that the "area operating under Timber Authorities cannot be verified," despite the fact that applications to the Forest Authority for TAs need to include maps of the proposed area and that the Forest Authority is obliged to control all logging operations in

vi TAs can also be granted for timber to be harvested for domestic processing only (with an annual maximum of 5,000 m³), and for harvesting non-timber forest products or harvesting forest plantations (Section 87 of the Forestry (1991) Act). the country. 83,84 In an email to Global Witness, the Forest Authority stated that it does not monitor TA operations in the field because of their small scale. 85

If the agency charged with overseeing forestry operations does not verify legality of the logging operations, how can other stakeholders including the provincial government, civil society, landowners, and – critically - buyers of that timber – know those operations are legal? The answer is that they cannot.



Extensive logging roads (in pink and orange) are visible throughout and outside the boundaries (blue) of former FCA 11-01 in East Sepik Province. Summit Agriculture Ltd. exported nearly twice as much timber as legally allowed from a Timber Authority possibly in this area in 2017. ©Global Witness 2018

SPOTLIGHT:

Niagram Road Alignment, TA 11-36, East Sepik Province

Permit Holder: Summit Agriculture Ltd.

2017 log exports: 19,101 m³, worth PGK 4,419,617 (~USD 1.4 million)

No information is publicly available about the issuance of this Timber Authority. It is held by the company exporting timber from the new Forest Clearance Authority issued over the contested Turubu area in East Sepik Province, Summit Agriculture Ltd (see above). Global Witness previously reported on the extensive logging outside the boundaries of that former SABL, which continued into 2018. 86 It is possible that some of that logging happened under TAs, including TA 11-36; but as described above, the Forest Authority does not monitor TA operations and cannot verify them. Even if the Forest Authority had

monitored Summit Agriculture's operations in TA 11-36, by our calculations the operation exported almost twice as much as it was allowed to in 2017.

We asked companies operating in road-line or agricultural TAs to comment on these allegations. Several companies operating in these TAs responded to us, but none addressed our allegations regarding excessive log exports or the lack of monitoring of TAs by the PNG Forest Authority. See Appendix 5 for their responses.



First stage of an alleged new road line project, also serving as a forest access road; Turubu area, East Sepik Province. @Global Witness 2018

CONCLUSIONS

Do not do to others what you would not have them do unto you.

Traditional Confucian teaching

As China expands its global footprint through the Belt and Road Initiative, and also requires its domestic sectors to do more in protecting the environment, it must expand its domestic green policies abroad and require stronger safeguards on how raw materials used by Chinese companies are sourced. This is especially important in countries like Papua New Guinea that struggle with enforcing their own laws.

Illegal logging is so prevalent in Papua New Guinea that its buyers – the vast majority of which are Chinese companies – should assume that all logs coming from the country are at high risk of being illegally produced and should only proceed to purchase the timber if they can fully assess and mitigate that risk. Such due diligence checks should not rely solely on documentation issued by PNG authorities, as these documents can be issued unlawfully, as demonstrated in this report. Instead, a risk assessment will need to include consultations with stakeholders, including local landowners; on-site verification; and potentially laboratory testing to confirm the species and provenance of the timber.

Our analysis of examples of four major types of PNG logging and clearance projects, representing operations responsible for 85% of the country's 2017 log exports, reveals widespread illegalities, including violations of forest owners' rights. In particular:

- Operators of most major **Forest Management Areas**, intended to be the most sustainable of the country's logging authorisations, appear to break the law regularly, including by logging in prohibited and ecologically sensitive areas.
- Operators of **Timber Rights Purchases** that we examined appear to break the law regularly, including by logging in prohibited and ecologically sensitive areas. These projects were intended to have been phased out after the passage of the Forestry Act but continue to export the majority of its timber.

- Solution Forest Clearance Authorities, the clearance permits associated with controversial SABLs, are still being issued. In some cases, they appear to have been issued in violation of due process, or as fraudulent cover for logging.
- The PNG Forest Authority itself admits that it cannot verify the area operated under **Timber Authority** logging operations, making it impossible to verify whether the operators of road-line or agricultural Timber Authorities are complying with the law.

Papua New Guinea's forest sector has been the subject of several extensive independent assessments prompted by widespread allegations of illegalities and corruption within the last three decades. Despite these assessments and inquiries, our review of recent developments in the forest sector show that the PNG government has still not learned the hard lessons of the past.

This is a critical issue for PNG's people, for its timber industry, and for the buyers of that timber – the majority of which are Chinese companies – that want to ensure the wood they use is legally produced. For China, failure to do this will mean that it risks damaging its global reputation and commercial interests, as all of its major export markets ban the import of illegal timber products. For its part, the PNG government still has a chance to remedy these critical problems and protect its people and environment while becoming a reputable timber-trading partner.



Logs awaiting transport on the Sepik River for export, mainly to China. ©Global Witness 2018

RECOMMENDATIONS



CHINA

- The Chinese government should put in place mandatory measures requiring all timber importers to carry out due diligence to ensure they do not import timber produced in violation of source country laws. The measures should require importers to go beyond official documents as proof of legality and require importers to investigate and verify the conditions under which the timber was produced. At present, such due diligence would mean not buying timber from any of the operations named in this report. The measures should also require companies to publish their due diligence policy and procedures.
- The Chinese government should expand its national Green Supply Chain policies to include requirement on the sourcing of timber and other raw materials abroad, by establishing mandatory requirement for these materials to be sourced legally.



PAPUA NEW GUINEA

- The PNG government should immediately place a moratorium on issuing all new logging and forest clearance permits.
- The PNG government should place a moratorium on all existing logging operations and review the issuance of their permits and the operations themselves for legal violations. Permits found to have been issued illegally should be cancelled.
- The PNG Forest Authority should thoroughly and regularly oversee the operations of all logging and clearance operations and ensure that companies operate according to the law.
- In conjunction with the PNG Forest Authority, the PNG judiciary should hold those responsible for breaking the law to account, by investigating, prosecuting, and fining companies, and/or fining or jailing company directors, officers, and government officials involved.
- The PNG government should also attempt to reclaim the proceeds of any timber deemed to have been cut illegally and establish a mechanism to return these funds to affected landowners.
- The PNG Forest Authority should create a publicly accessible electronic system of documents related to the issuance and oversight of logging and clearance permits and operations, including verification of landowner consent and findings from the agency's checks on operations. This will allow landowners to monitor how their own land is being used and challenge any unauthorized uses, and also facilitate thorough due diligence by timber buyers.
- PNG's new Timber Legality Standard should include clear verifiers for the free, prior, and informed consent of landowners for any logging or forest conversion projects taking place on their land.

METHODOLOGY

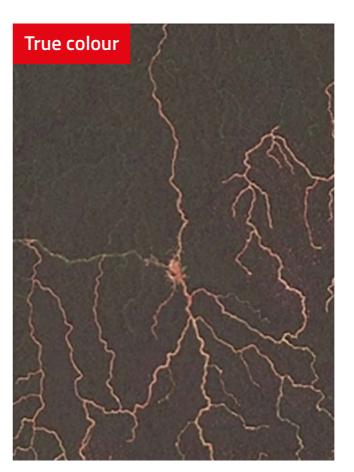
Global Witness commissioned a study of four Timber Rights Purchases and four Forest Management Agreements that, together, exported 1.02 million m³ timber in 2017, or almost 30% of PNG's total exports.⁸⁷ This study used satellite imagery to assess the legality and sustainability of logging operations, and examined whether:

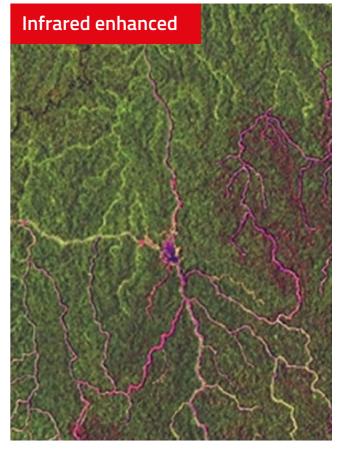
- Roads wider than 40 m (the maximum allowed) had been built
- Companies had logged in buffer zones around waterways or in prohibited areas such as wetlands
- ≥ Logging in Forest Management Agreements adhered to requirements on the speed and extent of logging
- Operations were producing the amount of timber required under their agreements with the Forest Authority⁸⁸

Landsat imagery covering each concession was acquired from multiple dates between 1972 and 2018. Where possible, at least one Landsat image was acquired for every year since production began in the concession. For Landsat 7 and Landsat 8, the images were pan-sharpened to 15 m resolution, for Landsat 4 and 5, image resolution was 30 m. All distances and areas were calculated using the Universal Transverse Mercator (UTM) map projection and the WGS84 datum. Forest area for 2002 and 2014 was obtained from high resolution forest maps of PNG (Shearman et al., 2009, Bryan et al., 2015).

MAPPING THE AREA LOGGED

The same technique used to map logged forests in the State of the Forests of PNG reports (Shearman et al., 2008, Shearman et al., 2009, Bryan et al., 2015) was used to map the first harvest in each concession. Each Landsat image acquired over the concession was infra-red enhanced which shows selective logging as a distinctive appearance. Canopy gaps, dead vegetation and cleared areas caused by active harvesting (tree-felling and skid tracks) show up clearly in the imagery, as do logging roads. Whereas canopy gaps and skid trails are quickly covered by regrowth after logging stops, logging roads are visible





Landsat 8 image of the same area showing how it appears to the human eye (true colour, left) and how it appears when it is infrared enhanced (right). Logging roads can be seen across both images. Older logging roads can be seen in the upper left of both images, but show up much more clearly in the infrared enhanced image. Canopy gaps and cleared areas caused by active harvesting (tree felling and skid tracks) can be seen in the middle right of the images, but show up much more clearly in pink/purple in the infra-red enhanced image. Forests appear green.

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in Landsat imagery decades after logging, and can be used to identify which areas of forest have been logged. The boundary between logged and unlogged areas (the 'timber extraction radius') was manually digitised using the ArcGIS program.

REPEAT HARVESTING WITHIN 35 YEARS

The year of the Landsat image showing the first appearance of logging roads and/or active harvesting was deemed to be the year when the first harvest occurred. Any active harvesting appearing in Landsat images recorded after the first harvest was also mapped in the ArcGIS software, deemed to be re-entry logging; the date that the image was recorded was deemed to be the date that the second harvest occurred. The number of years between the first and second harvests was deemed to be the actual cutting cycle. All areas of re-entry logging within 35 years apparent in the imagery were identified.

PROHIBITED AREAS

Swamps and mangroves were identified in the imagery using the 2014 vegetation map created for the State of the Forests of PNG reports (Shearman et al., 2008, Bryan et al., 2015). Karst limestone country was identified from the Landsat imagery and a landform map of PNG (Bryan et al., 2008). Areas of high relief with slopes greater than 25 degrees were identified using a 90 m digital elevation

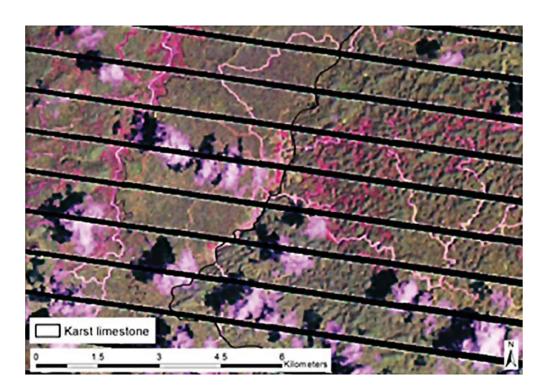
model (Shearman et al., 2008). Any logging roads or active harvesting within prohibited areas observed in Landsat imagery was mapped, and the date recorded.

BUFFER ZONES

Logging roads or active harvesting within buffer zones as required by the Forestry Act 1991 was detected using Landsat imagery. While newer Landsat 7 and 8 imagery can be pan-sharpened to 15m resolution, older imagery has only 30 m resolution. Therefore, only very large Class 1 streams show up in the imagery, and logging or road developments within buffer zones around smaller Class 2 streams and smaller Class 1 streams could not be checked. Any roads built across streams at bridges or water crossings were excluded, as these are permitted under the Act.

ROADS

To measure road clearing greater than 40 m wide, each concession was divided into a grid of 10 km by 10 km squares. This grid was overlaid onto Landsat imagery of the concession. Road width that could clearly be identified in the imagery significantly exceeding 40m was measured in ArcGIS, along with the date it was observed. All roads within each 10 km² grid cell with an average width greater than 40 m were counted. The average number of noncompliant roads within a 10 km² area was then calculated.



Logging in karst limestone in Rottock Bay Consolidated concession. Infrared enhanced Landsat 7 image recorded 14/11/2015. The Landsat 7 instrument developed a fault in 2003 causing the black stripes that can be seen in the image. Logging roads can be seen in pink/white. Canopy gaps and cleared areas caused by active harvesting (tree-felling and skid tracks) appear in pink surrounding the logging roads. Karst limestone has a stippled appearance and fills most of the right-hand side of the image; the boundary is shown in black. Logging roads and active treefelling can be seen covering most of the karst limestone.

APPENDIX 1

SUMMARY OF LEGAL NON-COMPLIANCE OBSERVED IN SELECTED TRPS AND FMAS

We assessed four Timber Rights Purchases and four Forest Management Agreements, which together were responsible for 32% of PNG's log exports in 2017, for past and present compliance with the 1991 Forestry Act using satellite image analysis. ⁸⁹ See Methodology for details. By our analysis, all of these operations were found to have broken the law on multiple occasions. The timber they produce should be considered illegal. See Appendix 5 for the companies' responses.

Exporter (or parent company*,	Concession	Breaches of the PNG Logging Code of Practice/PMC manual occurring after 1998 (breaches in 2013 and later in brackets)												
if applicable)		Roads per 10km² > 40 m wide		Logging/road building in buffer zones		Logging/road building in prohibited areas					35 year cutting cycle**			
		Number	Compliance with Forestry Act	Instances in buffer zones	Compliance with Forestry Act	Instances in swamps	Instances in mangroves	Instances in areas of high relief (average slope > 250)	Area (km²) in Karst limestone	Compliance with Forestry Act	Instances of repeat har vesting within 35 years	Area (km²) of repeat har vesting within 35 years	Annual logged area > 1/35th concession (FMA only)	Compliance with Forestry Act
Wawoi Guavi Timber Co. Ltd (Rimbunan Hijau*)	Wawoi Guavi (TRP)	1.5 (0.05)	Fail	141 (65)	Fail	6 (6)	NA	0	NA	Fail	*	*	NA	*
Niugini International Corporation Ltd (Rimbunan Hijau*)	Turama (TRP)	3.1 (1.4)	Fail	117 (111)	Fail	1 (1)	NA	0	0	Fail	*	*	NA	*
Vanimo Jaya Ltd	Makapa (TRP)	1.1 (0.9)	Fail	51 (9)	Fail	0	NA	NA	NA	Pass	*	*	NA	*
Sentawan (PNG) Ltd (Vanimo Jaya*)	Danfu (TRP)	0.8 (0.1)	Fail	26 (26)	Fail	NA	NA	32 (27)	NA	Fail	*	*	NA	*
Amanab Forest Products Ltd (WTK Realty Ltd*)	Amanab 1-4 (FMA)	3.4 (2.4)	Fail	84 (73)	Fail	0	NA	0	0	Pass	0	0	Yes	Fail
Amanab 56 Timber Investments Ltd	Amanab 5&6 (FMA)	1.6 (1.1)	Fail	58 (43)	Fail	0	NA	0	NA	Pass	0	0	No	Pass
Cakara Alam (PNG) Ltd	Rottock Bay Consolidated (FMA)	1.3 (1.3)	Fail	9 (0)	Fail	0	0	2 (0)	144 (127)	Fail	0	0	Yes	Fail
Madang Timbers Ltd	Middle Ramu Block 1 (FMA)	0.5 (0.3)	Fail	30 (27)	Fail	0	NA	0	NA	Pass	0	0	Yes	Fail

^{**} In an email to Global Witness, the PNG Forest Authority stated that all TRPs are required to adhere to the requirements of the Forestry Act, Forestry Regulation, the PNG Logging Code of Practice, and the PMC Manual, but that it does not apply a 35-year cutting cycle to TRPs.

APPENDIX 2

SAMPLE OF SATELLITE IMAGES SHOWING LEGAL NON-COMPLIANCE

Satellite images of examples of forest operations in breach of the Forest Law and related regulations and binding guides.



Logging in stream buffer zone, Rottock Bay Consolidated FMA. LAT -5.78488, LON 149.15873; Satellite image date: 2017-11-08. ©DigitalGlobe 2018



Logging in swamp area, Wawoi Guavi TRP. LAT -7.71338, LON 143.17241; Satellite image date: 2016-03-03. ©DigitalGlobe 2018



Road width exceeding 40m, Wawoi Guavi TRP. LAT: -7.13747, LON: 142.83675; Satellite image date: 2017-03-09. ©DigitalGlobe 2018



Road width exceeding 40m, Wawoi Guavi TRP. LAT: -7.20317, LON: 142.84034; Satellite image date: 2017-03-09. ©DigitalGlobe 2018



Karst logging, Rottock Bay Consolidated FMA. LAT -05.8589, LON 149.26406; Satellite image date: 2017-11-08. ©DigitalGlobe 2018



Logging roads and logged areas in FCA 15-10. LAT -4.70355, LON 151.82505; Satellite image date 2018-04-17. ©DigitalGlobe 2018



Logging in swamp area, Wawoi Guavi TRP. LAT -7.73478 LON 143.17769; Satellite image date: 2016-03-03. ©DigitalGlobe 2018

APPENDIX 3

PNGFA LETTER OF APPROVAL OF TRP EXTENSION

Global Witness obtained copies of letters from the Papua New Guinea National Forest Board to Vanimo Jaya Ltd. extending Timber Rights Purchases that according to the PNG Forest Authority's draft National Forest Plan of 2013 had expired years earlier. There is no provision in the Forestry Act for such extensions. One letter is reproduced here.



SCHEDULE 1 Forestry INDEPENDENT STATE OF PAPUA NEW GUINEA FORESTRY ACT 1991 FORM 231 BOARD NOTICE TO VARY TERMS OR CONDITIONS OF REGISTRATION, PERMIT, LICENCE, TIMBER RIGHTS PURCHASE AGREEMENT, AUTHORITY OR AGREEMENT To: VANIMO JAYA LIMITED TAKE NOTICE that the Board, pursuant to Section 137(1B) and 137(3) of the Forestry Act, 1991 has determined that certain terms and/or conditions of your. registration as a forest product operator granted under the Forest Industries Council Act Chapter 215) (repealed) as described hereunder, or permit granted under the Forestry Act (Chapter 216) (repealed) as described hereunder; or issues granted under the Forestry Act (Chapter 216) (repealed) as described hereunder; or timber rights purchase agreement granted under the Forestry Act (Chapter 216)(repealed) as described hereunder; or other authority granted under the Forestry Act (Chapter 216) (repealed) as described hereunder, or represent entered into under the Forestry (Private Dealings Act (Chapter 217) (repealed), as described See a variance with the previsions of the Forestry, 1991 Act to an extent which makes it unacceptable is/are as set out in the attachment hereto: (attach details of unacceptable terms and conditions) The Board now requires the following variation in the terms or conditions of the document described hereunder so as to ensure compliance with the Forestry Act, 1991 (specify variations required in the attachment) Full Description of document: (specify) Loi TRP Project Location- Open Bay District, ENBP Project Number- TP 15-53 Timber Permit Expiry Date: 14 December 2019 TRP Expiry Date: 14 December 2019 Total Area 22,000 Ha 4945, 000/M3 Current AAC 320,406m3/annum Permit Holder ; Vanimo Jaya Limited In order to achieve the intention of the Act that the document referred to above that has been saved by Section 137 is able to be adapted to conform to the provisions of the Act the Board hereby grants in respect of the said document a grace period of 3 years during which the provisions of this Act shall not apply and the provisions of the repealed Act under which the said document was "granted/entered into shall apply. The above small apply with effect from 14 December 2016 unless the Board receives notification from you that such variation is unacceptable in which case the said document shall cease to have effect from the date specified hereto. Dated this 14th the day of December 2016 For the Board

APPENDIX 4

LETTER TO PNGFA ANNOUNCING PAYMENT FOR TRP EXTENSION AS REQUESTED

Global Witness obtained copies of letters from Vanimo Jaya Ltd. to the Papua New Guinea National Forest Board describing their payment of a PGK 250,000 (~USD 75,000) fee to the PNG Forest Authority for the extension or 're-activation' of each of two Timber Rights Purchases that according to the PNG Forest Authority's draft National Forest Plan of 2013 had expired years earlier. There is no provision in the Forestry Act for such extensions or fees. One letter is reproduced here.



APPENDIX 5

COMPANY RESPONSES

We contacted the companies named or implicated in this report for their comments. Most did not reply.

Rimbunan Hijau (RH) wrote:

"Rimbunan Hijau forestry companies abide by all relevant laws and regulations. The company has been active in Papua New Guinea for over 20 years and have made substantial long-term investments in some of the most remote and underserviced parts of the country. As such, the company recognizes the importance of forest management and resource sustainability, and takes environmental obligations seriously. We have investigated the allegations included in your letter. They demonstrate ignorance of Papua New Guinea's forestry rules, and attribution of precision in satellite monitoring that is not achievable. [...] Remote sensing does not allow widths of roads and buffer zones to be identified with any degree of certainty. Remote Sensing cannot also [sic] allow boundaries of swamp forests to be identified or dissected as per the logging code. Roads in Rimbunan Hijau forestry areas are designed and routed with the full participation of landowners and PNGFA officials. Buffer zones around creeks, rivers and wet ground are categorized as "noncommercial" and not entered. It is simply not possible to review these areas by remote sensing with any degree of accuracy, so they are monitored on the ground, approved by the National Forest Service (NFS), and monitored on site by NFS officers. Landowners [sic] consent is also obtained in writing prior to any entry and extraction.

Rimbunan Hijau always welcomes engagement from interested parties. However, in this case, all allegations raised by Global Witness are again without foundation."

When we provided additional details regarding the satellite imagery analysis, RH denied that Landsat imagery could be used to analyze land use. They wrote:

"Refer to JICA's project report Forests and Land Use In Papua New Guinea, which clearly states that Landsat images do not produce reliable assessments of land use (page 7). Therefore, we reiterate our statement that Global Witness has ascribed accuracy to its methodology that is simply not realistic or achievable."

Cakara Alam wrote:

"We categorically deny any operational mal-practice or breach of Forestry Act and do not accept your allegations being your report is inconclusive and no credible facts to support your accusations. [...] Our logging operations are strictly guided and constantly monitored by field forest officers on the basis of PNG Logging Code of Practice. All forest activities have prior compliance with the Forest Regulations with approved forest Working Plans [...] JICA [Japan International Cooperation Agency] has established a very comprehensive monitoring mechanism with National Forest Services (NFA) using satellite image to monitor all PNG logging operations performance in the country. By far our concession area was made as recipient of the pilot projects by joint study of NFS & JICA and no illegally activities were reported so far or any of the violations of Forestry Act against our company." [sic throughout]

The company argued that we had not produced evidence of their violations of the Forestry Act to support our allegations, writing "You failed to get your facts right and to present your reference data evidence (satellite image map) to support the accuracy in relations to particular area locations being referred as violations within the Rottock Bay FMA. [...] The validity of your interpretation of the satellite image is questionable, where you make judgment base on unverified satellite images [...] Satellite imagery finding is inconclusive without reinforcing the facts with physical ground verifications. There was no substantive proof of your findings that indicates in satellite images that would lead to pin-point particular area of anomalies in our Rottock Bay FMA project." They claimed that the PNG Forest Authority had approved the area within the concession they logged, writing "Size of operations areas and designated operable area are contained under our Annual Logging Plan which undergo thorough evaluation and assessment before approval is given by Forestry Authority for logging operations to commence its activities. Therefore the company have not gone beyond what has been granted by PNGFA and only operates on approved forest working plans."

When we sent Cakara Alam examples of imagery analysis that showed excessive road width construction, buffer zone encroachments, logging on karst limestone and logging in high relief areas within the Rottock Bay FMA, and asked them for a copy of their approved forest working plan indicating the area they are allowed to log, they did not respond.

A law firm writing on behalf of KK Connections "and its related companies" stated that the Makolkol and Dengnenge FCAs (15-09 and 15-10) were obtained after landowner approval was obtained, public hearings conducted by government authorities, and applications made to the Provincial Forest Management Committee and to the PNG Forest Board. It said that "The current Managing Director of PNG Forest Authority has given evidence testifying that there is no fraud or illegality on the grant of the FCA [15-09]."

The law firm did not respond to our request to identify which 'related companies' it represents. It also did not address our allegations that substantial selective logging is occurring in 15-10.

Several companies currently or previously operating in **Timber Authorities** responded to us. None of these companies addressed our allegations regarding the quantities of timber they had exported and the lack of oversight of their operations. One stated that all loggingrelated activities undertaken by their company group in Papua New Guinea were fully authorized by the Papua New Guinea Forest Authority, while several others simply sent us copies of their Timber Authority documentation. Others denied that they held Timber Authorities at all.



The Rimbunan Hijau-owned Stanley Hotel, Port Moresby. ©Global Witness 2018



Traditional buildings in West Sepik Province, Korup village. ©Global Witness 2016

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