

Research Paper

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Energy, Environment and Resources | October 2014

Illegal Logging and Related Trade The Response in Indonesia

A Chatham House Assessment

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Summary

The Indonesian government has taken a number of important steps to tackle illegal logging and the associated trade, most notably with the ratification of the Indonesia–EU FLEGT voluntary partnership agreement in 2014. The process of negotiating this agreement has contributed to the introduction of a national timber legality verification system (SVLK), clarification of the relevant legal framework and significantly improved engagement with stakeholders in the forest sector. There have also been important developments in recognizing indigenous peoples' tenure rights to forest land and resources.

However, implementation and enforcement challenges remain. In particular, progress is hampered by a poorly functioning decentralized governance system, persistent corruption and insufficient transparency of information.

The private sector has responded positively, with growing awareness of the issue of illegal logging. While uptake of voluntary legality verification has recently declined, with the need for this now circumvented by the introduction of the SVLK, the area of forest certified as being managed sustainably increased in 2012.

An analysis of data on timber production and consumption suggests that illegal logging has decreased since 2000, and the findings of the expert perceptions survey tend to confirm this for the period 2010 to 2013. In part, these findings reflect a shift towards plantations and away from natural forest harvesting. However, legal ambiguity over the permitting process for forest conversion may mean that levels of illegality are higher than these data suggest.

Building on the government's response to illegal logging will require effective implementation of the SVLK including addressing identified shortcomings. Improved land-use planning to support effective control and monitoring of forest conversion is also needed. Increased resources and training for enforcement officials are required, while efforts to tackle corruption in the sector should be stepped up. The government should clarify the rights of indigenous peoples through concrete actions such as developing clear processes for mapping and registering their land claims.

Introduction

Illegal logging is a global problem that is both a result of and a contributing factor to poor forest governance. It undermines efforts to manage forests sustainably and equitably, resulting in deforestation, social conflict and the loss of government revenues. This is not just an issue for forest-rich countries; countries that import and consume wood-based products¹ from countries with high levels of illegal logging contribute to the problem if they import products without ensuring that they are legally sourced.

Chatham House has been engaged in research since 2006 to assess illegality in the forest sector and the response by governments and the private sector to the problem. The aim of its work has been to monitor levels of illegal logging and the related trade and so enable an assessment of the effectiveness of efforts to tackle the problem in producer, consumer and processing countries.²

A methodology has been developed for this assessment based on a number of indicators. For producer countries, those indicators are derived from an examination of the national policy and legal framework and its implementation; analysis of enforcement and forest revenue data; a survey of experts; reviews of international and domestic media coverage; wood-balance analyses (to estimate illegal harvest volumes); analysis of discrepancies between trade data for exporting and for importing countries; and analysis of data on voluntary verification and certification by timber companies. By drawing on a variety of data sources, this approach provides the most rigorous means of assessing illicit practices. Further details of the methodology can be found in Annex 2 of this assessment.

Twelve countries were assessed in 2008–09 (the findings published in 2010³) and another six in 2013–14 (published in 2014⁴). In addition, Chatham House undertook a reassessment of the original 12 countries in 2013–14.

This assessment presents the latest findings for Indonesia, which are compared with the situation as reported in 2010. The analysis, undertaken in July 2014, is based on data collected during 2013. Trade statistics and media data were compiled up to the end of 2013 and 2012, respectively, and the policy assessment was made on the basis of the situation as of December 2013, but some more recent developments have been noted as well.

¹ The following terminology has been used in this report: wood-based products – encompasses all timber-sector and paper-sector products; timber-sector products – includes logs, sawnwood, plywood, veneer, mouldings, joinery and furniture; paper-sector products – includes wood chips, pulp and paper.

² There is considerable overlap between these three categories; all the countries studied are engaged in production, processing and consumption to varying degrees. The indicators for consumer and processing countries are very similar, however, while those for producer countries are quite different, including a range of indicators relating to domestic illegal logging.

³ Lawson, S. and MacFaul, L. (2010), *Illegal Logging and Related Trade: Indicators of the Global Response*. London: Chatham House. The countries assessed were: Brazil, Cameroon, Ghana, Indonesia and Malaysia (producers); China and Vietnam (processing countries); and France, Japan, the Netherlands, the UK and the US (consumers).

⁴ Lawson, S. (2014a), *Illegal Logging in Papua New Guinea*; Lawson, S. (2014b), *Illegal Logging in the Republic of Congo*; Lawson, S. (2014c), *Illegal Logging in the Democratic Republic of Congo*; and Lawson, S. (2014d), *Illegal Wood Import and Re-export: The Scale of the Problem and the Response in Thailand, South Korea and India*. London: Chatham House.

Background

Indonesia is one of the world's leading producers of wood-based products, and the forest sector is an important part of its economy. More than 3.5 million people were estimated to be directly employed in the sector in 2010.⁵ This is likely to be a conservative figure because of the lack of data on the large number of small businesses: Indonesia is estimated to have tens of thousands of small-scale sawmills and furniture production units and hundreds of thousands of small-scale wood and handicraft enterprises.⁶

The country exports a wide variety of wood-based products, the most important of which are plywood, pulp and paper in terms of volume and also furniture exports in terms of value.⁷ China, Japan, the EU and the US are the main destinations for timber-sector exports, and China, Japan and South Korea for the paper sector. Pulp and paper exports have increased significantly over the last decade, reflecting a shift away from the logging of natural forests towards plantations for pulp. From 2000 to 2011, the area of natural forest concessions declined from 39 to 23 million hectares, while timber plantations more than doubled, from 4.5 to 10 million ha.⁸ This development is part of the government's strategy to address the overcapacity of the domestic timber-processing industry while attempting to revive the forest sector as a whole.⁹ Although the value of exports has increased since 2010, having picked up after the global financial crisis, the relative importance of the forest sector has continued to decline since the turn of the century: Ministry of Forestry statistics show that the sector's contribution to GDP decreased from 1.2 per cent of GDP in 2000 to 0.7 per cent in 2011.¹⁰

There is a large domestic market for timber, although there is little information available as to its precise scale. One study estimated that the domestic market accounted for 41 per cent of production in 2000 (by roundwood equivalent (RWE) volume), and 32 per cent in 2001.¹¹

The main sources of Indonesia's greenhouse gas emissions are forestry and land-use change – in fact, the country ranks first globally in terms of net emissions from this sector.¹² Deforestation and forest degradation are continuing at an alarming rate, after having decreased significantly around the start of the new millennium. FAO reported that the annual average net deforestation rate was 0.3 per cent during the period 2000–05 but increased to 0.7 per cent between 2006 and 2010.¹³ Analysis of satellite data confirmed that trend: forest loss more than doubled during the period 2000–12 – from less than 1 million ha/year in 2000–01 to more than 2 million ha/year in 2011–12.¹⁴ The increase in deforestation has been particularly rapid in some parts of the country, including

⁵ ITS Global (2011), *The Economic Contribution of Indonesia's Forest-Based Industries*, at http://www.itsglobal.net/sites/default/files/itsglobal/ITS_Indoforest_Economic_Report.pdf.

⁶ Statistics Indonesia (2013), *Profil Industri Mikro dan Kecil*; and Purnomo, H. et al. (2011), 'Scenario-based Actions to Upgrade Small-scale Furniture Producers and Their Impacts on Women in Central Java, Indonesia', *International Forestry Review*, 13(2), 152–62.

⁷ Exports in 2013 were, by volume/import value: plywood – 6.7 million m³/\$2.2 billion; pulp – 16.7 billion m³/\$1.8 billion; paper – 14.9 million m³/\$3.8 billion; furniture – 1.2 million m³/\$1.2 billion. These four products accounted for 88 per cent of exports by volume, and 87 per cent by value. UN Comtrade data.

⁸ Ministry of Forestry (2012), *Forestry Statistics of Indonesia 2011* (Tables IV.1.1 and IV.2.1).

⁹ Obidzinski, K. and Chaudhury, M. (2009), 'Transition to Timber Plantation-based Forestry in Indonesia: Towards a Feasible New Policy', *International Forestry Review*, 11(1), 79–87.

¹⁰ Ministry of Forestry (2012).

¹¹ Tacconi, L. et al. (2004), *Learning Lessons to Promote Forest Certification and Control Illegal Logging in Indonesia*. Bogor: CIFOR.

¹² FAOSTAT (2014), 'Top 10 emitters (CO2 equivalent)', chart available at http://faostat3.fao.org/faostat-gateway/go/to/browse/G2/*E.

¹³ FAO (2010), *Global Forest Resources Assessment*, at <http://www.fao.org/forestry/fra/fra2010/en/>.

¹⁴ Hansen, M. C. et al. (2013), 'High-resolution Global Maps of 21st-century Forest Cover Change', *Science* 342.6160, 850–53.

the provinces of Central Kalimantan, West Kalimantan and Riau.¹⁵ One of the main drivers for that increase has been the expansion of oil palm plantations: the total area of oil palm estates has risen from about 2.5 million ha in 2000 to more than 8 million ha in 2013, and on average that area grew annually by 630,000 ha during the period 2011–13.¹⁶ Infrastructure and mining are also significant drivers; for example, the number of mining concessions increased from 650 in 1999 to more than 8,000 in 2010.¹⁷ The impact of these factors is likely to increase if the government's 'Master Plan for the Acceleration and Expansion of Indonesia's Economic Development' is widely implemented. This lays out a programme for expansion of the country's infrastructure, mining industry and timber and oil palm plantations, covering the period 2011–25. Concerns have been raised as to the potential impact of the plan on the country's forests,¹⁸ and it remains unclear how this is to be reconciled with its low-carbon agenda.

The government has adopted a low-carbon agenda in which the forest sector is identified as a key part of the 'green economy': in 2009 it made a commitment to reduce its greenhouse gas emissions by 26 per cent by 2020 – or by 41 per cent if international support were provided.¹⁹ That goal is to be achieved in part through the implementation of Indonesia's REDD+²⁰ strategy, which includes a number of policy priorities such as enhanced forest monitoring and law enforcement.²¹ Under that strategy, a two-year moratorium on the allocation of concessions for oil palm plantations in primary forests and peat land was introduced in 2011 and subsequently extended until 2015.²²

Illegal logging – which includes illegal forest conversion – is another major cause of deforestation in the country. Recent analysis for Forest Trends suggests that at least 75 per cent of forest conversion between 2000 and 2012 was illegal, this being primarily for oil palm and timber plantations.²³

The 2010 Chatham House assessment concluded that, at that time, the situation regarding illegal logging was improving – although it should be highlighted that the possible scale of illegal forest conversion was not fully recognized then. Wood-balance analysis suggested that illegal logging had declined significantly since 2000, although it was still estimated to account for 40 per cent of all production.²⁴ Several government policies aimed at reducing levels of illegal timber production were being developed but enforcement of existing measures remained weak. Private-sector initiatives targeted at encouraging legal and sustainable production were similarly limited in reach.

Since then, there have been a number of significant developments related to forests in Indonesia. Most notably, the country has developed and begun implementing its timber legality verification system (SVLK), and in 2014 the Forest Law Enforcement Governance and Trade (FLEGT) voluntary

¹⁵ Indrarto, G. B. et al. (2012), 'The Context of REDD+ in Indonesia: Drivers, Agents and Institutions', Working Paper 92 Bogor, Indonesia: CIFOR; Greenpeace (2013a), *Certifying Destruction: Why Consumer Companies Need to Go Beyond the RSPO to Stop Forest Destruction*. Amsterdam: Greenpeace.

¹⁶ USDA (2013), 'Indonesia: Oil Palm Expansion Unaffected by Forest Moratorium', Commodity Intelligence Report, at <http://www.pecad.fas.usda.gov/highlights/2013/06/indonesia/>; Indrarto et al. (2012).

¹⁷ Indrarto et al. (2012), p. 31.

¹⁸ 'Empty promises: All that remains of Indonesia's climate plans', 1 October 2013, at <http://www.redd-monitor.org/2013/10/01/empty-promises-all-that-remains-of-indonesias-climate-plans/>.

¹⁹ The governments of Norway and Indonesia established a climate change partnership in 2010, in which the Norwegian government committed \$US 1 billion towards helping Indonesia reduce its emissions from deforestation and forest degradation. The letter of intent is available at http://www.regjeringen.no/upload/SMK/Vedlegg/2010/Indonesia_avtale.pdf.

²⁰ Reducing Emissions from Deforestation and Degradation, the 'plus' referring to the role of conservation, sustainable management of forests and enhancement of forest carbon stocks, in developing countries.

²¹ Indonesian REDD+ Task Force (2012), 'REDD+ National Strategy' – see <http://www.unorcid.org/index.php/document-library/redd-in-indonesia>.

²² 'Making the right choice on Indonesia's forest moratorium', *Jakarta Post*, 2 June 2013, at <http://www.thejakartapost.com/news/2013/06/02/making-right-choice-indonesia-s-forest-moratorium.html>.

²³ Lawson, S. (2014e), *Consumer Goods and Deforestation. An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations*. Forest Trends, September 2014.

²⁴ Lawson and MacFaul (2010).

partnership agreement (VPA) between Indonesia and the EU was ratified.²⁵ This agreement commits both parties to trade only in verified legal wood-based products. Another major step was the recognition of the rights of the indigenous peoples of Indonesia: in 2013 the Indonesian Constitutional Court ruled that the state had misappropriated the customary lands of indigenous peoples by classifying them as ‘state forest’. The Corruption Eradication Commission (KPK), established in 2002, has likewise been playing an increasingly important role in tackling corruption in the sector, not only by investigating and prosecuting cases but also by implementing preventive measures.

While these are positive developments, illegal practices persist in the forest sector and significant governance problems remain. In addition, the scale of illegal forest conversion, driven by poor governance in other sectors, is emerging. These issues are discussed in detail below, as are the ongoing efforts to address them.

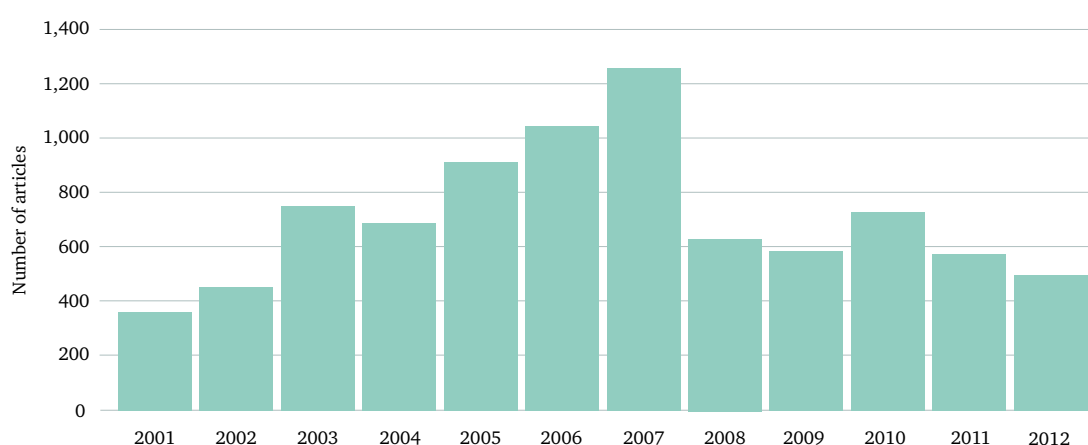
²⁵ The text of the agreement is available online at <http://www.euflegt.efi.int/indonesia>.

Media Attention

Media coverage provides an insight into levels of public awareness of illegal logging and related trade. While such awareness may not always lead to action, it is important for bringing about change and is therefore useful to monitor. An assessment of the media can also give an indication of the approaches being taken within a country to address the issue. As part of the research undertaken for this report, both domestic and international media sources were reviewed for the period 2009–12. Domestic media coverage was assessed using three online sources by searching for ‘illegal logging’ or related terms (in Bahasa Indonesia).²⁶ International media coverage was assessed, through the online media database Factiva, by searching for English-language articles that referred to ‘illegal logging’ in Indonesia.

International media attention increased from 2001 onwards and peaked in 2007, when Indonesia entered into VPA negotiations with the EU; thereafter it dropped markedly (see Figure 1). In 2010, however, there was an increase in the number of articles over the previous year, this coinciding with the launch of the SVLK. Despite a number of high-profile NGO investigations into illegality in Indonesia’s forest sector during the period 2010–12, particularly in relation to the country’s oil palm plantations,²⁷ global media coverage has remained low compared with the level in the first half of the 2000s. This trend correlates with the decline in perceived levels of illegal logging and associated trade recorded in the expert perceptions survey (see section below on levels of illegal logging and associated trade). However, it may also indicate that most reporting on these issues related primarily to oil palm and forest conversion, in which case it would not have been picked up in a media search on ‘illegal logging’.

Figure 1: International media coverage of illegal logging in Indonesia, 2001–12



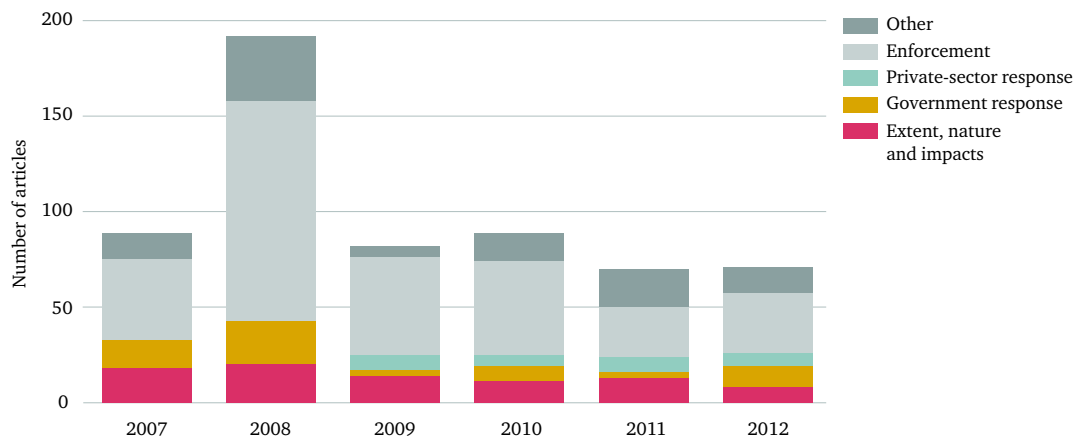
Source: Factiva. Data for 2001–09 are taken from the 2010 assessment.

²⁶ Domestic media sources were the websites of *Detik* and *Tempo*, and the website of the print newspaper *Kompas*. The 2010 assessment reviewed only *Tempo* and *Kompas* (for the years 2007–08).

²⁷ See, for example, EIA and Telapak (2012), *Testing the Law: Carbon, Crime and Impunity in Indonesia’s Plantation Sector*; Rainforest Action Network (2012), *Truth and Consequences: Oil Palm Plantations Push Unique Orang-utan Population to Brink of Extinction*; Nellemenn, C. and INTERPOL Environmental Crime Programme (2012), *Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the World’s Tropical Forests*; and Human Rights Watch (2013), *The Dark Side of Green Growth: Human Rights Impacts of Weak Governance in Indonesia’s Forestry Sector*. Washington DC: Human Rights Watch.

A similar decline in coverage is evident in Indonesia's national media, following a peak in 2008 (see Figure 2). Enforcement has consistently received the most attention, including coverage of the SVLK. This reflects the government's continued focus on enforcement, and more recently the considerable efforts put into implementation of the SVLK.

Figure 2: National media coverage of illegal logging, 2007–12*



*Figures are for the year from 1 October to 30 September; data for 2007 and 2008 are taken from the 2010 assessment.

Government Response

A coherent and transparent policy framework that is effectively and consistently enforced is a prerequisite for tackling illegal logging and the trade in illegal timber. This section assesses the design and effectiveness of the Indonesian government's policies and regulations. The data are derived from an assessment of the policy framework that is based on a standard set of questions and scoring for the existence of policies, their design and the level of implementation. In addition, data on enforcement and revenue collection were compiled and a perceptions survey conducted among experts to gauge their views on the government's response.

Policy assessment

Table 1 summarizes the results of the assessments of the situation at the end of 2008 and at the end of 2013:²⁸ the score given in each policy area is a percentage of the maximum score. These results are discussed in more detail in the following sub-sections, while the detailed policy scores on which this table is based are included in Annex 1.

Table 1: Summary policy scores for 2008 and 2013 (as % of maximum score)*

	High-level policy	Legislative framework	Checks and balances	International trade cooperation	Regulating demand for timber	Tenure and use rights
2008						
2013						
	Timber-tracking systems	Transparency	Allocation and management of rights to harvest	Law enforcement	Information management	Financial management
2008						
2013						

* To establish the percentage figures, existence, design and implementation have been weighted equally, as has each sub-question under each major heading. Those policy areas for which only a few questions were formulated (institutional and operational factors; international engagement) are more likely to show change than are the other areas. Shading has been allocated according to the total score under each major heading as a percentage of the possible maximum – scores below 25% are red, those between 25% and 50% orange, those between 51% and 75% yellow and those above 75% green.

High-level policy

The Indonesian government has not undertaken a comprehensive review of the extent, causes and impacts of illegal logging. However, it has paid considerable attention to the issue. This is evident

²⁸ The policy scores included in the 2010 report were based on an assessment of the situation at the end of 2008; and those for the current assessment on the situation at the end of 2013.

from the fact that a VPA between Indonesia and the EU has been concluded and ratified in 2014. This is the first such agreement in Asia, and marks an important step in the country's efforts to tackle illegal logging.

The process of negotiating the VPA has served to improve coordination between the relevant government departments. Such coordination should further improve, with the Memorandum of Understanding for a 'Joint Action Plan on the Acceleration of Indonesian Forest Conservation' signed by 16 government agencies in March 2013 and coordinated by the KPK. This aims to facilitate the mapping and allocating of state forest, focusing on three areas: the harmonization of legislation and policies, the alignment of technical procedures and the implementation of conflict-resolution best practice.²⁹ Another result of the VPA has been a significant improvement in stakeholder consultation with the establishment of an extensive and inclusive multi-stakeholder negotiation process. This enabled broad consensus to be reached on drawing up a legality definition for forest production and processing and the development of the SVLK (for more details, see sub-section below on timber-tracking systems). Consultation processes remain in place for the implementation of the VPA.

Tackling illegal logging has been identified as a key part of the country's strategy to reduce its emissions from the forest sector,³⁰ although there have been only a few joint initiatives and work programmes between these two policy areas. It had been hoped that the moratorium on new licences for oil palm concessions in areas of primary forests and peatland, introduced in May 2011, would help to reduce the rate of forest conversion. While this policy is a positive step, the limited scope of the moratorium means that its impact has been minimal.³¹ Although the climate change agenda should result in better coordination between the various sectors that have an impact on forests, to date achieving such an outcome has proved challenging. In September 2013 the REDD+ Agency was established to coordinate the implementation of REDD+ efforts, but the effectiveness of that agency has not yet been tested, and NGOs have expressed concern about whether it will be able to fulfil its mandate.³²

The head of this agency has identified a legal review of oil palm permits as being one of the 'most urgent items' on its agenda.³³ This process has started, with the President's Delivery Unit for Development Monitoring and Oversight (UKP4), investigating permits in the provinces of Riau, Jambi and Central Kalimantan. If robustly implemented, this will make an important contribution to improving governance in the sector. It could also provide a means to help the government achieve its target to reduce emissions from the forest sector – if concessions where land had not yet been converted were cancelled, or if reforestation or land swaps were imposed on companies found to be operating illegally.

Overall, Indonesia's high-level policy on the forest sector has improved since 2010: coordination is now better and efforts have been made to promote participatory, multi-stakeholder decision-making. However, there is room for further progress, and more attention will need to be paid to improving governance in other land-use sectors if illegal forest conversion is to be tackled.

²⁹ 'Memorandum of Understanding: Joint Action Plan on the Acceleration of Indonesian Forest Conservation', 11 March 2013, at <http://kpk.go.id/id/berita/berita-kpk-kegiatan/1254-kpk-dan-12-kementerian-lembaga-tindak-lanjuti-kesepakatan-percepatan-penguatan-kawasan-hutan>.

³⁰ See, for example, 'Indonesia's Readiness Preparation Plan, 2009', prepared for the Forest Carbon Partnership Facility, at <http://forestcarbonpartnership.org/indonesia>.

³¹ CIFOR (2011), 'Indonesia's Forest Moratorium: A Stepping Stone to Better Forest Governance?', Working Paper 76; and World Resources Institute (2014), 'Indonesia's Forest Moratorium: Impacts and Next Steps', Working Paper.

³² See, for example, 'Indonesia's REDD+ Agency "will not be able to take any actions" says Ministry of Forestry Secretary General', <http://www.redd-monitor.org/2013/09/11/indonesias-redd-agency-will-not-be-able-to-take-any-actions-says-ministry-of-forestry-secretary-general/>.

³³ 'More than haze to contend with when the earth burns', *Jakarta Globe*, 13 April 2014, at <http://www.thejakartaglobe.com/business/haze-contend-earth-burns/>.

Legislative framework

The 2010 study found Indonesia's forestry legislation to be incoherent and ambiguous.³⁴ Greater clarity of the law has been achieved since then, partly through the development of the SVLK and subsequently through the VPA negotiations, which have built on that process and led to a series of reviews of the legal framework.

However, the problem of overlapping laws and contradictory regulations persisted in 2013, particularly the discrepancies in the interpretation and implementation of laws between the national and local levels, which result from the devolution of forestry decision-making powers to local governments in 1998.³⁵ This will take time to overcome given the scale of the problem, including the complexity and the politicized nature of the decentralization process, and raises concerns about the effective implementation of Indonesia's timber legality verification system, and, more broadly, effective land-use planning and management. Another cause for concern is the lack of coherence between legislation on forestry and that on other sectors, including agriculture and mining – an issue that has been a focus of attention from NGOs in recent years in relation to the expansion of oil palm.³⁶ This has implications for the country's efforts to reduce greenhouse gas emissions from the forest sector, which, as noted above, is a key element of both its REDD+ strategy and its objective to establish a low-carbon economy.

One requirement of the VPA is that timber imports have documentation providing assurance of their legality; the necessary legislation has been drafted by the Ministry of Trade and the requirement for timber importers to provide proof of legality could come into force in early 2015.³⁷

Checks and balances

In the 2010 study, Indonesia scored relatively well among producer countries in terms of the checks and balances in place to ensure accountability within government and to prevent corruption by officials. While a number of good policies are in place, the level of implementation – and thus the effectiveness of those policies as a deterrent to corrupt practices – remains low. The penalties applied for those found guilty of corruption are not sufficiently dissuasive, while provisions allowing the public to mount a legal challenge against the government are limited.

Nevertheless, the KPK, the government body charged with handling corruption cases, has had a positive impact. It has brought a number of successful prosecutions in the forestry sector and received the Ramon Magsaysay Award in 2013 in recognition of its campaign against corruption in Indonesia.³⁸ However, progress remains slow, not least because of the high levels of corruption: a public-sector integrity survey conducted by the KPK in 2012 found that the Ministry of Forestry was the only central agency with an integrity value of less than six (the minimum standard set by the commission was six).³⁹ There have been attempts within the government to lessen the powers of the KPK; for this reason, continued political support will be essential if the KPK is to make further progress in fighting corruption.

³⁴ Lawson and MacFaul (2010).

³⁵ Government Regulation No. 62/1998 on Delegation of Authority of Parts of Government Affairs in Forestry Sector to Regions.

³⁶ Greenpeace (2013b), *A Dirty Business: How a Leading RSPO Oil Palm Producer is Clearing Peatland Tiger Habitat Covered by Indonesia's Moratorium on Deforestation*. Amsterdam: Greenpeace; and EIA and Telapak (2012).

³⁷ 'Legal certification for imported timber to be applied soon', *Jakarta Post*, 30 August 2014, at <http://www.thejakartapost.com/news/2014/08/30/legal-certification-imported-timber-be-applied-soon.html>.

³⁸ See 'KPK- Corruption Eradication Commission' at <http://www.rmaf.org.ph/newrmaf/main/awardees/awardee/profile/348>.

³⁹ KPK (2012), 'Public Sector Integrity Survey Results for 2012', at <http://www.kpk.go.id/id/berita/siaran-pers/744-hasil-survei-integritas-sektor-publik-tahun-2012>.

The ability of the public to make a legal challenge has been demonstrated by the decision of the Constitutional Court in 2013 to uphold the claim that the state had misappropriated the customary lands of indigenous peoples in classifying them as state forest (see sub-section on tenure, use and rights).⁴⁰

The framework for independent monitoring has improved markedly since 2010: most notably, the VPA has given civil society a formal role in monitoring implementation of the SVLK. However, an NGO coalition that has taken on this role, the Independent Forestry Monitoring Network (JPIK),⁴¹ has reportedly encountered problems in accessing information, raising concerns as to how effectively JPIK and other monitors will be able to fulfil their mandate.⁴² This issue has been recognized in the action plan agreed by Indonesia and the EU for developing the SVLK, but it remains to be seen whether it will be adequately addressed (see sub-section on timber-tracking systems for further details).

International trade cooperation

With regard to international trade cooperation, the key development in recent years has been Indonesia's signing of a VPA with the EU in 2013, following six years of negotiations, and the ratification of the agreement in 2014. The government is working with the EU on a joint assessment of the SVLK to ensure the system complies with requirements under the VPA; once this has been achieved, Indonesia will be able to export 'FLEGT-licensed' timber to EU countries.⁴³ At the same time, Indonesia has been putting considerable effort into promoting the SVLK system – and thus its exports of wood-based products – in its most important markets, including China, South Korea and Australia.

There is no formal system in place for the exchange of information between Indonesia and other countries on enforcement actions and intelligence. The possibility of allowing EU competent authorities for the EU Timber Regulation (EUTR) to access the Indonesian government's database for FLEGT licences is currently being explored (see sub-section on timber-tracking systems below).

Regulating demand for timber

One driver of illegal logging may be the insufficient legal supply of timber to meet demand from a country's processing industry. Governments can address this problem by restricting the issuance or renewal of licences to mills that cannot demonstrate that they have a sufficient supply of timber from legal sources.

Indonesia has such a provision, with mill owners required to obtain licences to operate from the Ministry of Forestry. The 2010 study found that the implementation of that provision was weak. Since then, it has improved; and given that SVLK certification is now mandatory for all companies, the adherence to, and enforcement of, this requirement is likely to strengthen.

⁴⁰ See 'Strategic steps for forest management and mechanisms for determining customary forests after the issuance of the constitutional court ruling number 35/PUU-X/2012 on 16 May 2013' at http://www.unorcid.org/upload/doc_lib/20130902171456_H.E.%20Mr.%20Zulkifli%20Hasan%20Constitutional%20Court%20Verdict%2029.08.13_EN.pdf.

⁴¹ See Independent Forestry Monitoring Network (JPIK) at <http://jpik.or.id/>.

⁴² JPIK (2014), 'Access to data and information is the key to the successful [sic] of timber trade agreement between Indonesia – European Union', press release, at http://fwi.or.id/wp-content/uploads/2014/01/JPIK-Final-Press-Release-30-September-2013_English-Version.pdf; and Human Rights Watch (2013).

⁴³ FLEGT-licensed timber is that which has been verified as legal under the legality verification system established under a VPA.

Tenure and use rights

During the period 2010–13, progress in government policy towards protecting tenure and land-use rights was slow. While the clear demarcation of land-use rights both on maps and on the ground is necessary for obtaining a permit from the Ministry of Forestry, the requirement is poorly monitored and rarely adhered to. Those maps that do exist are inaccurate and not publicly available. There are inconsistencies between the maps produced by the various government departments as well as between those produced by central and district governments. As a result, concessions overlap and ‘forestland’ is converted to agriculture and other land uses.⁴⁴ For example, according to the Ministry of Forestry 1.4 million ha in Seruyan district in Central Kalimantan (85 per cent of the district’s total land area) are designated as forestland, whereas according to the provincial spatial plan that figure is 1.1 million ha. Of the 66,000 ha that have been granted for oil palm concessions in forestlands, a sizable portion lies in such grey areas.⁴⁵

In 2012 the government launched the ‘one map initiative’, which aims to integrate all land-use information into one map.⁴⁶ If the initiative is effectively and equitably implemented – meaning that the land rights of local peoples are incorporated – this will make an important contribution towards facilitating more effective land-use planning.

At the same time, there has been some improvement since 2010 in the recognition of customary rights. In 2013 a coalition of NGOs brought a legal case against the government, claiming that the state had misappropriated the customary lands of indigenous peoples by classifying them as ‘state forest’. The Constitutional Court ruled in favour of the NGOs, concluding that the Forestry Law was in violation of the Constitution.⁴⁷ Although this was a landmark ruling, coverage in the domestic media has highlighted some of the obstacles to restoring customary rights to indigenous peoples; key among them is that many customary forests fall within existing concessions and very few have yet been given official recognition.⁴⁸ Indonesian NGOs have been campaigning for such recognition, and efforts have been stepped up to map customary areas in order to provide a basis for future registration processes, most notably through the ‘one map initiative’. The government has also stated that it will develop a ‘Recognition and Verification of Rights’ scheme to resolve cases of conflicting land claims.⁴⁹

Timber-tracking systems

Considerable progress has been made in recent years with timber-tracking mechanisms and technology in Indonesia. The online tracking system SIPUHH, introduced in 2009,⁵⁰ records data on revenue payments as well as chain of custody (CoC). Moreover, a number of documents are required for the transport of timber, including certificates of legal origin and transport permits, and tamper-resistant technology is increasingly being used to issue these documents. These are commendable steps, but the majority of companies are still not registered on the SIPUHH system.

⁴⁴ Presidential Working Unit for Supervision and Management of Development (UKP4) (2012), ‘One Map Indonesia’, at <http://www.satgasreddplus.org/download/120905%20ONEMAP%20Midway%20Workshop%202012.pdf>.

⁴⁵ AidEnvironment (2014), ‘Study on Illegal Logging in Seruyan District, Central Kalimantan’, unpublished research commissioned by Chatham House and Forest Trends.

⁴⁶ UKP4 (2012).

⁴⁷ Setra, M. S. (2013), ‘Indigenous Peoples in Indonesia: The Struggle for “Legal” Recognition’, presentation available on the World Resources Institute website at www.rightsandresources.org/documents/files/doc_6343.pdf.

⁴⁸ ‘Recognition of indigenous peoples stuck in red tape’, *Jakarta Post*, 24 June 2013, at <http://www.thejakartapost.com/news/2013/06/24/recognition-indigenous-peoples-stuck-red-tape.html>.

⁴⁹ ‘Indonesia to verify ownership of 66M ha of disputed forest land’, *Mongabay*, 4 September 2014, at <http://news.mongabay.com/2014/0904-lbell-forest-ownership-verification.html>.

⁵⁰ The full name is the Information System for Forest Products Administration. See Ministry of Forestry Regulation No. P.8/Menhut-II/2009.

At the same time, the SVLK is being rolled out. Under this system, operators are assessed against the legality definition and the rigour of their supply-chain controls (the system developed through a multi-stakeholder process and included as a component of the VPA). A website – the Information System for Legal Wood (SILK) – provides information about the system and official data on the licences issued.⁵¹ The database within this system is linked with the Ministry of Trade and Customs databases through the Indonesia National Single Window System, which will facilitate the verification of data.⁵²

On 1 January 2013 SVLK compliance became mandatory for all companies producing plywood, sawnwood, woodchips, veneer and laminated veneer lumber products; and if a company intends to export any of those products, it must apply for a so-called V-legal licence, which provides proof of compliance with the SVLK.⁵³ According to the SILK website, as of May 2014 more than 110,000 V-legal documents had been issued for exports valued at more than \$8 million. On 1 January 2015 SVLK coverage is to be extended to those companies producing furniture, woodworking products and pulp and paper – having been postponed by one year owing to the slow rate at which small and medium-sized enterprises were being certified.⁵⁴ In January 2014 it was reported that just 637 out of an estimated 3,500 SMEs had obtained SVLK certification.⁵⁵

Although the system is still being developed, concerns have been raised about the effectiveness of the SVLK in tackling illegal logging and its impact on some stakeholders. For example, the criteria for assessing legality do not include detailed provisions to assess whether permits for forest management or conversion have been legally allocated. Consequently, companies may be certified as legal even if they have not consulted local communities or provided them with adequate compensation for any loss of access to forests, as required by law, or if they have obtained permits through corrupt practices.⁵⁶ The process of allocating permits for oil palm concessions is of particular concern. Conversion for oil palm is now a significant source of timber, and there is growing evidence of widespread irregularities.⁵⁷ For example, research carried out in Seruyan District found that out of the 35 oil palm companies assessed, 24 had permits with at least one inconsistency,⁵⁸ while the Minister of Forestry recently acknowledged that half of all oil palm plantations in Riau province do not have permits for forest conversion.⁵⁹

There are also concerns about the impact of the SVLK licensing requirements on SMEs because the additional costs these entail represent a particular burden for small businesses, despite the fact that the government has been providing additional support to the sector.⁶⁰ Moreover, the

⁵¹ See <http://silk.dephut.go.id/>.

⁵² This system is an electronic portal that allows the single submission of data by importers and exporters to facilitate customs clearance – see <http://www.insw.go.id/>.

⁵³ These licences will be 'replaced' by FLEGT licences once the VPA has been ratified by both parties and the SVLK approved as fully operational by the Joint Implementation Committee of the VPA.

⁵⁴ Multi-stakeholder Forestry Programme (2013), 'SVLK: The Indonesian Credible Timber Assurance System: Towards the VPA Implementation', <http://www.illegal-logging.info/content/svlk-indonesian-credible-timber-assurance-system-towards-vpa-implementation>.

⁵⁵ Govt delays SVLK requirement for SMEs', *Jakarta Post*, 2 January 2014, at <http://www.thejakartapost.com/news/2014/01/02/govt-delays-svlk-requirement-smes.html>.

⁵⁶ Human Rights Watch (2013); Hewitt, D. (2013a), *Identifying Illegality in Timber from Forest Conversion: A Review of Legality Definitions*, at http://forest-trends.org/publication_details.php?publicationID=4150; Anti Forest-Mafia Coalition (2014), 'SVLK Flawed: An Independent Evaluation of Indonesia's Timber Legality Certification System', at <http://capacity4dev.ec.europa.eu/public-flegt/document/svlk-flawed-independent-evaluation-indonesias-timber-legality-certification-system>.

⁵⁷ Greenpeace (2013b).

⁵⁸ AidEnvironment (2014).

⁵⁹ 'Riau's two million hectares of oil palm plantation illegal: Minister', 6 August 2014, at <http://www.antaranews.com/en/news/95203/riau-two-million-hectares-of-oil-palm-plantation-illegal-minister>.

⁶⁰ Center for International Forestry Research (2013), 'Small businesses band together to meet high cost of Indonesia's timber certification scheme', at <http://blog.cifor.org/13763/small-businesses-band-together-to-meet-high-cost-of-indonesias-timber-certification-scheme#.UuePL7SnzIU>; Multi-stakeholder Forestry Programme (2013), 'MFP II-Kehati Preparing SVLK for Private Forests and Small Industries', at <http://kehati.or.id/mfp2/news/mfp-ii-kehati-preparing-svlk-for-private-forests-and-small-industries/>.

ability of civil society to fulfil its mandate to monitor the system has been brought into question because of the difficulties encountered in obtaining information (see sub-section on checks and balances).

All these issues have been officially recognized and measures are now in place to try to address them. An independent evaluation of the SVLK was completed in 2013 and at the same time the government implemented a consultation process on the system. Agreement was reached on an action plan that sets out the improvements needed for the SVLK to be fully operational and to enable FLEGT licences to be issued.⁶¹ This resulted in amendments being made to the system to provide for easier procedures for household industries and timber producers on privately owned land.⁶² Some changes were also made to the requirements for permits: an environmental impact assessment must now have been undertaken for conversion licences, while permits on state land must be checked to ensure they match the government's spatial plans and for any overlap with other valid permits. The SVLK is to be evaluated again in September 2014 to determine whether it is sufficiently robust to enable FLEGT licences to be issued.

Transparency

The 2010 study gave Indonesia a low score for provisions on the public disclosure of information related to resource use and allocation and law enforcement. The situation has improved somewhat in recent years. Most notably, the Transparency of Public Information Law came into force in 2010 and shortly thereafter the Ministry of Forestry issued a regulation on the public disclosure of information.⁶³ The VPA builds on that legislation: an annex outlines which forestry-related information is to be made publicly available and the mechanisms by which that information can be accessed.

While access to information has improved – for example, the results of public auctions are published on the Ministry of Forestry's website, and annual forest production data are made available in its annual reports – many gaps remain. Information such as dates for future auctions to allocate concessions is not released as standard practice. Furthermore, requests for information, provided for under the Public Information Law, are often denied or receive no response.⁶⁴

Allocation and management of rights to harvest

Resource allocation procedures have remained largely unchanged since the 2010 assessment. Of particular concern is that requirements to consult with affected communities are frequently not met. Furthermore, companies are required to implement community development programmes to support forest-based livelihood opportunities among local communities; however, this has only been done by a small minority of large companies, while such programmes are non-existent among smaller companies. The lack of implementation of these requirements has resulted in social conflict in many parts of the country.⁶⁵

⁶¹ Indonesian-EU Action Plan on Advancement of VPA Implementation, at http://silk.dephut.go.id/app/Upload/action_plan_result.pdf.

⁶² These revisions are set out in two regulations, P.43/Menhut-II/2014 and P.5/VI-BPPHH/2014, issued in June and July 2014 respectively.

⁶³ Ministry of Forestry Regulation No. P.7/Menhut-II/2011.

⁶⁴ Human Rights Watch (2013).

⁶⁵ Ibid.

Law enforcement

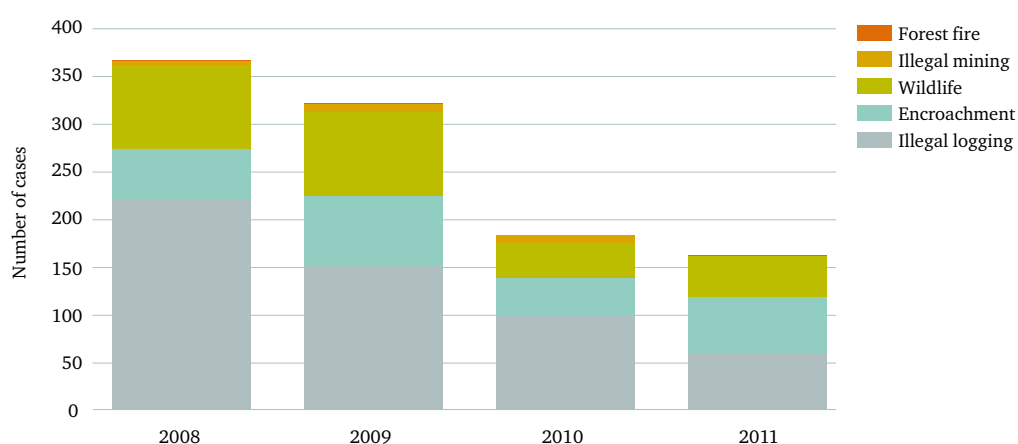
Law enforcement has improved in recent years, with better coordination between the relevant agencies. However, those efforts are undermined by low levels of training and resources for enforcement staff. Consequently, capacity remains limited, and there is insufficient use of remote sensing systems or material flow analyses as a means to identify potential illegal activity. In addition, penalties are generally still too low to serve as a deterrent to illegality.

Some progress has been made in enforcement efforts against corruption and financial crime linked to the forest sector. The Financial Transaction Reports and Analysis Centre (PPTAK) has played an important role in this, giving high priority to the investigation of financial crime in the sector. The KPK has also been crucial in spearheading action, and it has successfully prosecuted a considerable number of high-profile cases. Continued political support for these agencies is essential to ensure that they are sufficiently resourced and that their powers and independence are not reduced, particularly in the case of the KPK (see also the sub-section on checks and balances).

Ministry of Forestry data show that the number of forest-crime cases reported in Indonesia has been falling since 2008 (see Figure 3): the total number in 2011 was less than half that in 2008 (162 compared with 366). Above all, that decline reflects a fall in the number of cases of illegal logging – 59 in 2011 compared with 220 in 2008 – although cases of wildlife poaching have declined too (43 compared with 88).

Such a significant drop in the total number of reported forest crimes would seem to suggest that illegality in the sector has declined. However, because of the limited enforcement capacity in Indonesia and the persistent problem of corruption in the sector, caution should be exercised in drawing such a conclusion. Indeed, some reports have suggested that illegal practices have not declined; rather, they have become more sophisticated and thus harder to detect.⁶⁶

Figure 3: Reported forest crime in Indonesia, 2008–11



Source: Ministry of Forestry (2012), Forestry Statistics of Indonesia, 2011.

⁶⁶ Nellemenn and INTERPOL (2012), *Green Carbon, Black Trade*.

Information management

In 2010 the Indonesian government established an information management system through which government agencies can access data on forest enforcement and management. Data on remote sensing, forest harvests and the allocation of permits are made available to the public in the Ministry of Forestry's annual statistics reports, although they are for the previous year only.

Financial management

While Indonesia's financial management performance improved somewhat between 2010 and 2013, it remains poor. The government lost an estimated \$2 billion in forest revenues in 2011 alone from uncollected fees and underestimates of royalties.⁶⁷ To put that figure into perspective, the Indonesian forest sector contributed approximately \$4.5 billion to GDP in the same year.⁶⁸

The SIPUHH system provides for the collection and reporting of revenue payments but is not yet being implemented by all companies. Furthermore, while audits of the forest administration are undertaken, the results are not publicly available; this means that the potential for independent stakeholders to hold the government to account is limited.

Revenue capture

The Ministry of Forestry publishes data on royalties and fees that are due and those that are paid in its annual statistics reports. The amount of revenue reported as collected is lower than the revenue due in some years and higher in others. This may be due partly to delays from one year to the next in paying fees. But it may also result from the lack of, or inaccurate, exchange of data between local and central governments and the fact that not all companies are currently publishing their revenue payment data on SIPUHH. A more robust system is needed to help improve the collection of revenues.

Table 2: Collection rate of revenues from logging royalties and reforestation fees

	2008		2009		2010		2011	
Tax	Logging royalties	Reforestation fees	Logging royalties	Reforestation fees	Logging royalties	Reforestation fees	Logging royalties	Reforestation fees
Estimated due (million USD)*	159	135	45	110	119	174	145	136
Amount collected (million USD)	66	175	72	155	85	183	92	194
Discrepancy (million USD)	-94	40	26	45	-35	10	-52	58

*\$1 = Rp 9,400 at 2011 exchange rate.

Source: Ministry of Forestry (2012), Forestry Statistics of Indonesia, 2011. Analysis provided by TRAFFIC.

⁶⁷ Human Rights Watch (2013).

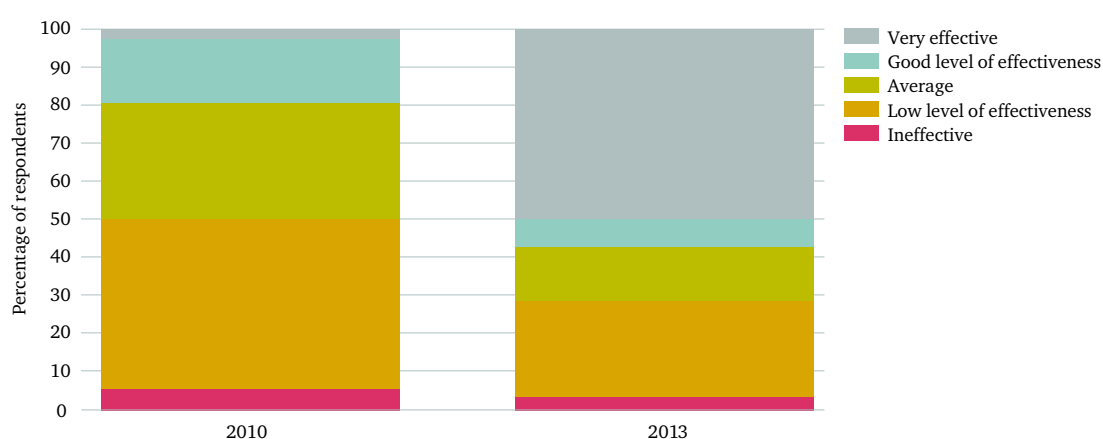
⁶⁸ Ministry of Forestry (2012).

Expert perceptions survey

The assessment of the Indonesian government's response to illegal logging included an expert perceptions survey in which representatives of the government, the private sector, civil society, academia and the donor community were asked to evaluate the government's performance in tackling illegal logging. Among the factors taken into consideration were the effectiveness of the government's response, how this had changed over the previous year and the obstacles to this response.

The number of responses to the survey was relatively low – 28 in 2013 and 36 in 2010.⁶⁹ This should be kept in mind when considering the findings below.

Figure 4: Expert perceptions of the overall effectiveness of the government's response to illegal logging, 2010 and 2013



As Figure 4 shows, perceptions of the overall effectiveness of the government's response have improved since the 2010 assessment. While in both years there was a broad divergence in response across the sample group, 14 respondents (out of 28) in 2013 reported that government measures were very effective, compared with just one respondent (out of 36) in 2010. When asked to assess the government's response to illegal logging over the previous year, most respondents in both surveys thought that there had been an improvement – 14 respondents in 2013 and 21 in 2010.

Experts were asked to assess the relative importance of various impediments to an effective government response: ineffective enforcement and insufficient capacity; poor data; a weak legal framework; and corruption as well as lack of transparency and political will. Responses were similar in the 2010 and 2013 assessments; however, several factors were identified as being more important in 2013 than had been the case in 2010 – namely, the effectiveness of enforcement measures, the capacity of enforcement officials to carry out their duties and the persistence of corruption and limited transparency. Those findings reflect the results of the policy assessment and highlight the need to prioritize further improvements in those areas.

⁶⁹ The respondents can be broken down by category as follows: 2013: private sector – 13; government – five; NGOs – three; academia – one; auditors – four; and industry associations – two; 2010: private sector – 13; government – three; NGOs – 11; academia – six; and development agencies – three.

Progress by the Private Sector

In addition to examining government measures to tackle the problem of illegal logging, the current assessment evaluates the degree and effectiveness of the response by the private sector. That evaluation is based on the 2013 expert perceptions survey (discussed above), which included the private sector, and an assessment of private-sector voluntary certification schemes (so not including the government's SVLK licensing system); and on trade data analysis.

Expert perceptions survey

Overall private-sector response

Respondents to the perceptions survey were asked to assess the degree to which various types of company had improved their response to illegal logging over the previous year. The majority of respondents considered that large-scale concessionaires and manufacturers or exporters supplying sensitive markets had improved over the previous year; and while the overall response was somewhat less positive about smaller concessionaires and suppliers to non-sensitive markets (most reported no change), none of the respondents reported a worsening of the situation.

Customer demand and industry association action

The survey asked industry associations to comment on any change in the level of customer demand for legality assurance and on any measures taken by their members to provide such assurance. Of the two associations that responded, one reported no change, while the other noted a significant increase in demand for legal products.

Neither association had established a code of conduct for its members, and only one was offering guidance or training to its members on complying with legality standards. A response from just two associations is clearly not representative. However, their limited action does suggest that there may be potential for associations to play a greater role in facilitating members' compliance with the SVLK.

Legality demands and other drivers

Private-sector respondents (13 in all) were asked to assess the importance of various drivers in determining the competitiveness of Indonesia's timber industry in the global market over the next five years. The drivers listed were: demand for certified timber; demand for legality verification; the levels of tariffs, subsidies and taxes; the cost of manufacturing; consumer preferences for timber; and overall levels of economic demand. Demand for verified legal timber and demand for certified sustainable timber were considered to be the most important factors. This is unsurprising, given the rollout of mandatory SVLK certification as well as the introduction of legislation prohibiting illegal timber imports in the US, EU and (at the end of 2014) Australia.

Impact on timber prices

All the respondents were asked to assess the extent to which they considered timber prices to have risen or fallen in response to measures aimed at tackling illegal logging – and thus to changes in the volume of illegal timber available on the domestic market. In 2013, 13 of the 28 respondents thought that prices were not influenced by illegal logging, the remainder being split as to whether prices had dropped or stayed the same. No one thought that prices had increased.

Levels of forest certification and legality verification

Private-sector uptake of voluntary legality verification and sustainability certification standards is a useful indicator of attitudes towards illegal logging and the sustainable management of forests. This assessment examined data on the levels of certification and verification in the industry and the expert perceptions survey included a number of related questions for private-sector respondents.

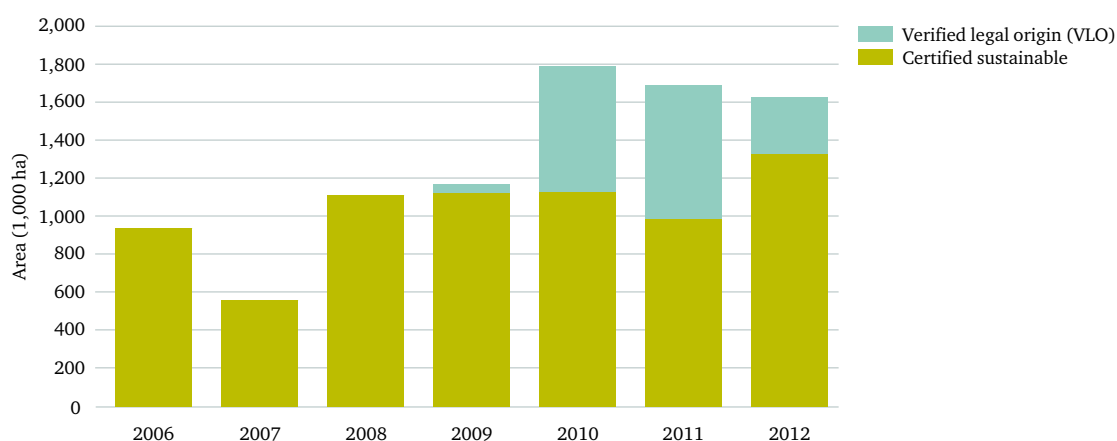
Certification data

Despite steady growth in the proportion of active forest concessions in Indonesia that are verified legal or certified sustainable, that share remains very low compared with other major timber-producing countries. At the end of 2012, only 6.5 per cent of total production forest in the country was verified or certified, up from just over 3 per cent in 2006.

Until 2009 the only schemes in operation in Indonesia were the Forest Stewardship Council (FSC) and Indonesia's national Lembaga Ecolabel Indonesia (LEI). Since then, both Rainforest Alliance (RA) and the Société Générale de Surveillance (SGS) have issued a number of verifications of legal origin for both natural production forests and plantation forests (though plantation forests are excluded from the totals in Figure 5 below).

The decrease in the total area of forest with voluntary legality verification in 2012 (see Figure 5) compared with the previous year is not surprising given the introduction of mandatory SVLK certification in 2013. There has been no obvious impact on the uptake of voluntary sustainability certification as yet – the total area of forest certified sustainable increased in 2012.

Figure 5: Total natural forest area under voluntary verification or certification schemes, 2006–12



Sources: FSC FM, LEI, SGS VLO and RA VLO.

There is also a sustainability standard under the SVLK, and this will become mandatory for concession-holders on state land (once their first legality certificate has expired). Whether this serves to deter or encourage uptake of voluntary certification schemes will depend in part on the extent to which these standards gain international recognition as a mark of sustainability, or whether the voluntary schemes are able to coordinate with and build on these.

There has been a range of initiatives aimed at encouraging companies to aim for sustainability certification. The Timber Trade Action Plan (TTAP), which operated until 2011, promoted the production of, and trade in, legal and sustainable timber.⁷⁰ TTAP was a multi-step process to assist companies in their preparation for legality verification and CoC certification. The scheme resulted in 26 action plans being implemented by company participants, and over half a million hectares of forest being legally verified.⁷¹

Other initiatives with similar goals include Responsible Asia Forestry and Trade (RAFT)⁷² and the Borneo Initiative.⁷³ The latter has reportedly helped seven forest concessions in Indonesia to achieve FSC certification since 2010 through the provision of financial support to the companies concerned. Recently, it revised its approach so that dual SVLK and FSC certification can be awarded in order to minimize the additional burden of FSC certification.

Robust implementation of the SVLK will significantly improve standards in the private sector in terms of legal compliance. It also provides an opportunity for the widespread adoption of sustainable management practices. The voluntary certification systems should ensure that they build on this system, both through aligning their own procedures and standards where possible and by sharing experiences and lessons.

Expert perceptions survey on levels of certification and legality verification

All respondents surveyed in 2013 saw an improvement in the awareness and uptake of voluntary certification and verification schemes among Indonesian companies, particularly large-scale ones. They felt that the introduction of mandatory SVLK certification had enhanced understanding within the private sector of the importance of legality verification.

Sensitive-market share

In order to gauge the response of the private sector to illegal logging and the growing demand for legal timber in many major consumer countries, shifts in trade between sensitive and non-sensitive markets⁷⁴ were assessed. Both trade data and responses from the private sector to the perceptions survey were analysed. The quantitative data are based on estimates of RWE volume.

⁷⁰ TTAP was funded by the European Commission and the timber trade federations of the UK (UKTTF), the Netherlands (VVNH), Belgium (FBCIB) and France (LCB) and implemented by The Forest Trust (TFT).

⁷¹ Personal communication with TFT.

⁷² See <http://www.responsibleasia.org/>.

⁷³ Further details are available at <http://www.theborneoinitiative.org/>.

⁷⁴ Sensitive markets are considered in this context to be the EU, the US, Australia, Canada, New Zealand, Norway and Switzerland. Non-sensitive markets are considered to be all other markets.

Trade data

Trade data indicate that the proportion of exports of both paper and timber-sector products to sensitive markets has been falling. Figure 6 shows that while the share of timber-sector products exported to sensitive markets gradually increased between 2000 and 2007 – from 24 per cent to 32 per cent of the total – the volume of overall exports declined steeply and so the volume of exports to sensitive markets decreased too, albeit only slightly. Thereafter, while the decline in exports levelled off, both the proportion and volume of exports of timber-sector products to sensitive markets declined, to 22 per cent in 2013. This was due primarily to increased exports of plywood (which accounts for the majority of exports of timber-sector products) to China as well as to Japan and the Middle East.

As regards the paper sector, the proportion of such exports to sensitive markets declined from 18 per cent in 2000 to just 7 per cent in 2013. Most of those exports were of paper. The volume of paper-sector exports to sensitive markets increased up to 2007, but since then it has fallen.

A likely reason for the decline in the relative importance of sensitive markets is the economic downturn since 2007, which has been more marked in Europe and the US than in many emerging and developing countries. Imports of wood-based products from all sources into Europe and the US dropped significantly during the period 2007–09 and have since shown only a gradual increase. By contrast, imports of wood-based products into China decreased slightly in 2008 but have otherwise grown; and since 2010 that growth has been rapid.

Figure 6: Timber- and paper-sector exports from Indonesia to sensitive and non-sensitive markets, 2000–13



Sources: Based on official national trade statistics for Indonesia (Badan Pusat Statistik) and for partner countries of the corresponding imports, and UN Comtrade; with analysis by Chatham House.

Expert perceptions on sensitive market share

In the expert perceptions survey, respondents were asked whether they thought there had been any shift in trade away from more sensitive markets. The results of the 2013 survey were markedly different from those of the 2010 one: 19 of the 28 respondents reported a shift towards more sensitive markets, compared with just 9 out of 29 respondents three years earlier. This contradicts the findings based on the trade data. This could simply be a reflection of the small survey size, as well as sample bias, with those who responded perhaps being more focused on ‘sensitive markets’. It could also be due to the high level of awareness of the SVLK, leading respondents to assume that many companies are targeting sensitive markets.

Estimated Levels of Illegal Logging and Associated Trade

To measure the extent of illegal logging and the trade in illegal wood-based products, a number of methods were used. These included a wood-balance analysis and an assessment of discrepancies between exports from Indonesia reported by that country, and imports of Indonesian products reported by destination countries. The expert perceptions survey also included several questions about the nature and extent of the problem.

Expert perceptions on levels of illegal logging

Respondents were asked to assess the relative importance of illegal logging as a driver of deforestation compared with that of legal logging and conversion for agriculture.⁷⁵ Experts surveyed in 2013 perceived the legal clearance of forests for agriculture and illegal logging as equally important drivers of forest degradation and loss, and legal logging as less important – a similar result to that in 2010. The significance of various types of prohibited activity – illegal clearing for mining, timber plantations or agriculture, or illegal logging by local communities – as a cause of deforestation and negative social impacts was also analysed. In both surveys, compared with other prohibited activities, illegal logging and illegal clearance for timber plantations were considered major factors, and illegal clearance for mining and agriculture of slightly less importance. Small-scale illegal logging by forest-dependent communities was thought to make a minimal contribution to forest loss and degradation.

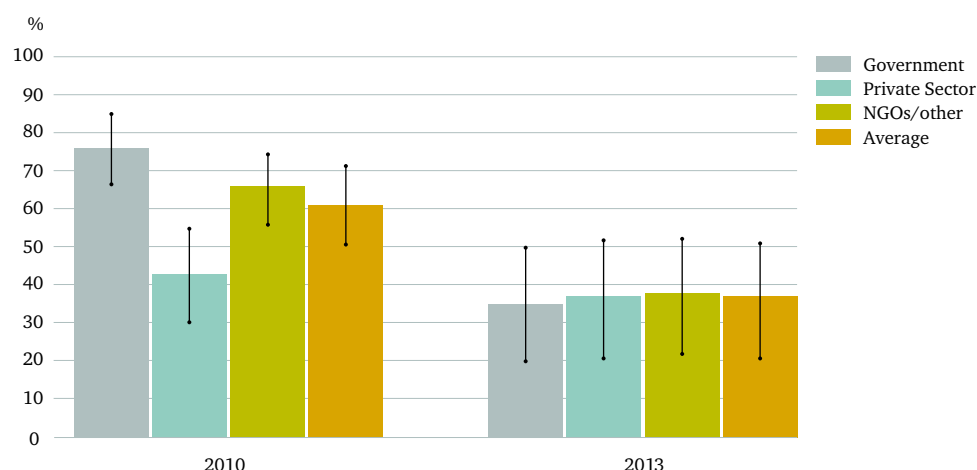
As regards the socioeconomic impact on local communities, with the exception of small-scale illegal logging, all four types of activity were considered to have a major impact in both survey periods. Compared with 2010, illegal mining and plantations were perceived in 2013 to be slightly more important factors, and illegal logging less so. This slight change perhaps reflects the expansion of both mining and plantations (see the background section), which has led to a growing number of conflicts with local communities and other land users.⁷⁶

The average estimate of the extent of illegal logging was lower in 2013 than in 2010 – just under 40 per cent and about 60 per cent of the total harvest, respectively (see Figure 7). Moreover, there was closer agreement among the types of respondents in the 2013 survey than three years earlier, with much higher estimates from the government and lower estimates from the private sector in the latter survey. It should be noted that the extent to which respondents were aware of illegal forest clearance, and so were considering it as an aspect of illegal logging when responding to these questions, is unclear, as no guidance was given in the survey on this matter.

⁷⁵ It should be noted that forest conversion for agriculture and logging are often closely interrelated, with revenues from logging sometimes being used to fund plantation establishment, for example.

⁷⁶ Human Rights Watch (2013).

Figure 7: Estimated extent of illegal logging problem as a percentage of overall log production based on expert perceptions survey, 2010 and 2013*



* The black bars indicate the variance in scores.

The survey included a question on overall progress in tackling illegal logging over the past year and during the previous five years. The majority of respondents in 2013 thought that there had been a slight improvement or no change during either of those periods. Respondents were also asked to assess to what extent there had been improvements in tackling various types of illegal practice over the past year: illegal logging by concessionaires, unauthorized companies and artisanal producers; illegal processing; illegal exporting; and corruption among forestry officials as well as among the police and judiciary. Most respondents considered that there had been improvements in all of those areas, except corruption; limited progress in this area was also reported in the 2010 survey. One difference between the two surveys was that in 2010 respondents considered that there had been little change in the volume of illegal exports/smuggled goods or in the level of illegal sawmill operations, whereas in 2013 both areas were considered to have improved.

Wood-balance analysis

One means of assessing the extent of illegal logging is wood-balance analysis. Various methods are used for such analysis. The simplest method entails comparing the legal supply of timber (officially permitted logging and imports) with consumption (domestic consumption and exports). If consumption exceeds supply, this can indicate the existence and extent of unreported sources that are potentially illegal (although it should be stressed that such analysis does not capture illegalities in officially sanctioned production). However, there are many provisos to this assertion; not least the lack of reliable official statistics, which is reported to be an issue in Indonesia,⁷⁷ may distort the analysis. For example, government annual reports on mill output do not include small processors (with a capacity of less than 6,000 m³/year). Furthermore, data on large mills are not robust: pulp production reported by the Ministry of Forestry for the period 1994–2010 was just over half that reported by the Indonesian Pulp and Paper Association.⁷⁸

⁷⁷ Verchot, L.V. et al. (2010), *Reducing Forestry Emissions in Indonesia*. Bogor: CIFOR.

⁷⁸ Blundell, A. (2014), 'Indonesia's Legal Timber Supply Gap and Implications for Capacity Expansion: A Review of *The Road Map for the Revitalization of the Forest Industry*, Phase 1', published by Forest Trends.

Analysis undertaken for the 2010 assessment found that according to official data 40 per cent of timber consumption was from unreported sources and thus potentially illegal. Though high, that figure is below previous estimates: a comparison of government data on the supply and consumption of roundwood in 2000 and 2001 concluded that 64 per cent and 83 per cent of production, respectively, was likely to have been illegal.⁷⁹

More recently, Human Rights Watch analysed industry and government data on the supply and consumption of timber for Indonesia's processing industry.⁸⁰ It found that the discrepancy between official supply and consumption declined significantly from 2006 to 2008 but thereafter steadily increased. On the assumption that excess demand for timber was met by illegal supplies, it was calculated that lost royalties and fees to the government would have been the equivalent of \$740 million in 2013. A study by Forest Trends concluded that the discrepancy between official supply and consumption declined until 2010 but increased in the following three years; and, according to the same study, official consumption exceeded production by 35 per cent in 2013.⁸¹

Analysis of FAO statistics for Indonesia undertaken for this assessment yielded similar results.⁸² The supply of industrial roundwood (volumes harvested plus imports and minus exports⁸³) was compared with the estimated input required for the production of primary-processed products.⁸⁴ The required input exceeded official supply every year during the period 2003–12 – and by nearly a quarter in 2012.

What is apparent from the above is that there are significant mismatches in official data on production and consumption. Given the extent of such mismatches, illegality is likely to be a factor – as was assumed by the Ministry of Forestry when it conducted a similar analysis in 2007.⁸⁵ The studies cited have also highlighted the lack of reliable data on the forest sector – for example, estimates of production from plantations are considered to be surprisingly high.⁸⁶ Without good information, the ability of the government to make effective decisions about forest management will be severely hindered.

Trade data discrepancies

Trade data discrepancies can be indicative of illegality. However, caution is needed in drawing such conclusions as those discrepancies may also result from poor-quality data or unintended differences in classification. But if the discrepancies are significant or persistent and if there is other evidence available, it is possible to draw such conclusions with a certain degree of confidence.

The export of logs from Indonesia was banned in 2001 (although the government is currently considering lifting that ban). As noted in the 2010 report, trade data discrepancies indicated that after 2001 logs were smuggled via Malaysia to China until a major enforcement effort was made by the Indonesian authorities in 2005 under the Sustainable Forest Operation. Since then a number of countries – China, Malaysia, Singapore, and, more recently India – have continued to report small

⁷⁹ Tacconi et al. (2004).

⁸⁰ Human Rights Watch (2013).

⁸¹ Blundell (2014).

⁸² ForesStat, FAO.

⁸³ Smaller-diameter 'other industrial roundwood' (which includes poles, pilings and fence posts) was excluded from this total, on the assumption that it was not used in the manufacture of the products included in this analysis.

⁸⁴ Four products were chosen for the purpose of the analysis: sawnwood (lumber); panels (fibreboard, particleboard, plywood and oriented-strand board [OSB]); veneer; and paper and paperboard (cardboard). To convert to RWEs, the following factors were used: sawnwood: 1.89; panels: 1.64; veneer: 1.89; and paper and paperboard: 3.6.

⁸⁵ Manurung, T. et al. (2007), *A Road Map for the Revitalization of Indonesia's Forest Industry*. Jakarta: Indonesian Ministry of Forestry.

⁸⁶ Blundell (2014).

volumes of logs as coming from Indonesia, which has itself not reported any such exports. While the discrepancies are much smaller than was the case during the period 2001–05, they are still significant: in 2013 the total reported import value of the logs was \$8 million.

As regards sawnwood, since 2000 the export volumes reported by Indonesia have been consistently lower than the total import volumes reported by destination countries (in particular, China, Japan, Malaysia and South Korea). The export of rough sawnwood was banned by the Indonesian authorities in 2004; following the enforcement of that ban, discrepancies declined significantly in the following years. However, that trend was reversed in the case of China, which reported much higher volumes of imports during the period 2010–13 than Indonesia reported as exports. There are also significant discrepancies with China's trade data for plywood and mouldings: in the case of these two products, the volumes of imports reported by China are much lower than the volumes of exports reported by Indonesia.

With regard to paper, there are discrepancies between exports reported by Indonesia and imports reported by a number of countries. China reports significantly lower volumes of imports than the volumes of exports reported by Indonesia, as do Australia and, to a lesser extent, the EU. In the case of Singapore, a large increase in paper imports was recorded during the period 2011–13, while export volumes reported by Indonesia barely changed. There are also significant discrepancies in the case of Taiwan. That country has persistently reported much higher volumes of imports of both mouldings and wood chips than Indonesia has reported as exports, while the reverse is true for plywood.

The degree to which these discrepancies reflect illegalities is difficult to determine. However, differences in the reported value of some of the above-named commodities (e.g., in the case of Taiwan) suggest that fraud may be a factor. While discrepancies in data have declined markedly for most products since the early 2000s, it is clear that problems remain, and the government is potentially losing significant amounts of revenue through illegal or misdeclared exports.

With the implementation of the SVLK, the reliability of Indonesian official data on exports should improve considerably. Since January 2013 most exports have required a V-legal licence; and this requirement is to be extended to more products in 2015. The information gathered in this process is recorded electronically and linked to the customs database (see sub-section on timber-tracking systems).

Overview of estimates of illegal logging

While these various sources of data all indicate that there have been improvements in tackling illegal logging in Indonesia, they also show that illegal practices remain widespread. Wood-balance analyses suggest that as much as a third of harvested timber may be unauthorized, while discrepancies in trade data indicate that fraud and smuggling are taking place in some supply chains.

There has been a big shift in Indonesia's forest sector over the last decade: the country has moved away from natural forests to plantations for the production of both timber (primarily for pulp and paper) and oil palm. As a result, a large proportion of timber is from forest conversion and increasingly from plantations. The statistics are poor, and so it is difficult to estimate accurately the proportion of timber from different concession types. However, the available data indicate the importance of both the plantation sector and forest conversion. Thus the government reported in 2011 that 42 per cent of timber production was from plantations, 11 per cent from natural forest concessions, 1 per cent

from conversion and 46 per cent from ‘other’⁸⁷ – the last-named category is assumed to include timber coming from conversion, which has not been included in the official estimate of 1 per cent.⁸⁸

Given the widely reported irregularities in permitting processes,⁸⁹ questions arise not only about the legality of the conversion timber but also about that of the subsequent plantation timber.⁹⁰ This is an issue that needs to be urgently addressed by the Indonesian government, and options to establish formal processes to ‘forgive’ past illegalities should be explored. This would require a review of all existing permits, and subsequently, clarification of options to address these. For example, these could include payment of fines or the confiscation of land, the imposition of reforestation requirements or land-swaps. Above all, the permitting process needs to be brought under stricter control and effective monitoring implemented. In addition, given the high proportion of timber that is estimated to be coming from forest conversion, robust standards for the legality of timber from these sources are essential to ensure that the SVLK system is credible.⁹¹

⁸⁷ Ministry of Forestry (2012).

⁸⁸ Blundell (2014).

⁸⁹ Lawson (2014e); Greenpeace (2013b); EIA and Telapak (2012); and Human Rights Watch (2013).

⁹⁰ Hewitt, D. (2013b), *Potential Legality Issues from Forest Conversion Timber*, published by Forest Trends; and Wakker, E. (2014), *Indonesia: Illegalities in Forest Clearance for Large-Scale Commercial Plantations*, published by Forest Trends.

⁹¹ Hewitt (2013b).

Conclusions and Recommendations

This assessment of the extent of illegal logging and the effectiveness of the government and private-sector response suggests that some progress has been made in Indonesia towards tackling this issue. In the last three years, a number of important steps have been taken including: the signing of the Indonesia–EU VPA; the introduction of national-level mandatory requirements for legality verification; and broader engagement with stakeholders in the sector, which has led, most notably, to civil society having a much greater voice. There have also been important developments in the recognition of indigenous peoples’ rights, as well as in transparency legislation. However, the enforcement of laws and the implementation of policies remain weak, hampered by persistent corruption and a poorly functioning decentralized system. This is threatening to undermine the progress that has been made.

While there is some evidence to suggest that illegal logging has declined, recent research on forest conversion raises doubts about whether this is the case. The results of the expert perceptions survey suggest that there have been improvements in the levels of illegal logging – the average estimate in 2010 was just over 60 per cent, compared with just under 40 per cent in 2013. Wood-balance analysis suggests, too, that there has been a decline in illegal logging since the start of the century. However, there is a high level of illegality or, at best, legal ambiguity in the permitting process for forest conversion. Since most wood-based products now come from conversion and plantations, the level of illegality may have increased overall. This will certainly be the case if past illegalities in the establishment of plantations are not ‘forgiven’. The question of when this should take place – i.e., at what stage timber harvested from a plantation that was established illegally should be considered legal – is a challenging one that needs to be discussed, including consideration of formal procedures by which this could take place.

Regardless of the actual level of illegality in the forest sector, the government’s policy to expand plantations at a rapid pace has created new opportunities for illegality as well as new types of illegal practice. This threatens to undermine the progress that has been made in improving management of the country’s natural forests.

Based on the findings of this assessment, the following recommendations are made.

First, to ensure that the SVLK is robust and credible, the government will need to ensure that the concerns raised about the system are adequately addressed – namely, that it is able to ensure the legal allocation of permits, including for forest conversion. In addition, continued efforts are required to mitigate any negative impacts on small producers.

Second, to ensure the control of forest conversion, more effective land-use planning and strict enforcement of the permitting system is necessary. This will require better coordination between sectors and greater transparency of land allocation and permitting decisions.

Third, to improve enforcement efforts, more investment in the training of enforcement agents is required so that they are able to perform their roles effectively. This, in turn, will facilitate the investigation of more complex types of illegality, such as those related to corruption and financial crime. Efforts to tackle corruption should be stepped up, for which continued political support for the KPK will be required.

In addition, to enable civil society to monitor forest activities effectively, transparency of information needs to become a reality, with enforcement of the country's Freedom of Information Act. Progress towards achieving that goal requires close monitoring; in particular by the Joint Implementation Committee of the VPA to ensure that the relevant terms of the agreement are met. Further improvements in statistical information on the sector are also required to facilitate more accurate analysis and better sector monitoring and planning. A better understanding of the domestic market for timber is also needed.

Finally, further progress is needed to clarify the rights of indigenous peoples, through the mapping and registering of land claims. The mapping process should form the basis of future efforts to reconcile the country's somewhat chaotic system of land classification and mapping, which is not only undermining effective planning and management of the country's forests but also perpetuating unjust decision-making and causing social conflict. Furthermore, enforcement of the requirements for consultation with affected local communities needs to improve significantly.

Annex 1: Policy Assessment Scores for 2008 and 2013*

		Existence (0–2)		Design (0–5)		Implementation (0–5)	
		2008	2013	2008	2013	2008	2013
High-level policy							
Official review of illegal logging		0	0	n/a	n/a	n/a	n/a
National action plan		2	2	3	3	3	3
Coordination between government departments		2	2	3	3	2	3
Multi-stakeholder consultations		1	2	2	3	2	4
Legislative framework							
Coherent and unambiguous forestry legislation				2	3		
Forestry legislation consistent with other laws affecting forests				1	2		
Enactment of additional legislation to prevent sale and import of illegal wood-based products		n/a	1	n/a	3	n/a	n/a
Checks and balances							
Right of public to make legal challenge		2	2			2	3
Penalties for official corruption		2	2	4	4	2	2
Limits to discretionary powers		1	1			3	3
Committee with oversight of forest agencies		2	2	4	4	3	3
Internal forestry agency audits whose results are made public		2	2	3	3	2	3
Independent forest-monitoring system		0	2	n/a	4	n/a	3
Customs mandated to check legality of exports		2	2			3	4
International trade cooperation							
Formalized trade or customs arrangements		1	2	n/a	4	n/a	3
Formalized system for sending and receiving enforcement alerts		0	1	n/a	n/a	n/a	n/a
Regulating demand for timber							
Sawmill permitting system that requires evidence of legal supply		2	2	4	4	1	3
Tenure and use rights							
Property, use rights and tenure arrangements designated on publicly available maps		2	2	1	1	1	2
Formalized mechanisms for resolving property rights issues		2	2	2	3	2	3
Formalized mechanisms for accommodating customary rights in law		2	2	2	3	2	2
Timber-tracking systems							
System to verify the origin of timber		2	2	2	4	2	3
System design	Independent monitoring procedures	0	2	n/a	4	n/a	3
	Reconciliation systems	0	0	n/a	n/a	n/a	n/a
	Tamper-resistant documentation procedures	1	2	2	4	1	3
	Computerized systems	2	2	1	4	0	3

		Existence (0–2)		Design (0–5)		Implementation (0–5)	
		2008	2013	2008	2013	2008	2013
Transparency							
Public document describing roles, responsibility and controls of relevant agencies		1	2	2	3	1	3
Resource allocation	Rules for resource allocation processes	1	2			1	3
	Dates for resource allocation processes made publicly available	0	0	n/a	n/a	n/a	n/a
	Results of resource allocation processes made publicly available	0	2	1	4	1	3
	Summary data on harvest, processing and international trade published	0	2	1	4	3	3
Resource use	Location of concessions, ownership and contracts made publicly available	0	2	1	4	1	2
	Concession licences, inventories and harvest plans made publicly available	0	2	n/a	4	1	2
	Environmental and social impact assessments made publicly available	2	2	5	5	3	3
Enforcement	Data on forest crimes published	0	2	0	3	2	2
	Data on disposal of confiscated wood made publicly available	0	2	1	3	1	3
Allocation and management of rights to harvest							
Pre-qualification process to exclude inappropriate bidders		0	2	n/a	2	n/a	2
Competitive allocation process		2	2	2	2	2	2
FPIC or stakeholder consultations for affected local communities		2	2	1	3	1	1
Measures to protect and develop forest-based livelihoods		2	2	2	3	2	2
Law enforcement							
Proportionate and dissuasive penalties				4	4	2	3
Coordination systems in place for relevant agencies		1	2	1	3	n/a	3
Forestry/law enforcement officials sufficiently resourced				2	2	1	1
Training of	Judges and prosecutors					2	2
	Customs officials					2	2
Information-gathering	Remote-sensing systems					0	1
	Field-based investigatory tools					3	3
	Material flow analyses					0	0
Log-tracking and checkpoint systems						2	4
Information management							
Up-to-date, accurate information management system		0	1	n/a	3	n/a	3
Financial management							
System for monitoring revenue discrepancies		0	2	n/a	3	n/a	2
Forest administration audit		2	2	2	3	2	3

* The policy scores included in the 2010 report were based on an assessment of the situation at the end of 2008; and those for the current assessment on the situation at the end of 2013. A grey cell indicates that the answer to the question posed was not scored; an asterisk indicates that the question was not asked in 2010. Policies were assessed according to the following factors: existence (scoring between 0 and 2, whereby 1 indicates partial coverage or a policy under development); design (scoring between 1 and 5, whereby 5 indicates very well designed); and implementation (scoring between 1 and 5, whereby 5 indicates consistent and comprehensive implementation).

Annex 2: Methodology

The methodology employed to undertake the assessments of the 13 countries included in the 2014 Indicators of Illegal Logging and Associated Trade study is based on that developed by Chatham House for its 2010 assessment. Below is a brief overview of the data collection and analysis process. Further explanation of how the indicators were developed can be found in earlier reports.⁹²

The countries included in the study were selected on the basis of the significance of their role in the production and consumption of illegal wood-based products. Four years after the first assessment, the 12 original focus countries combined continue to account for the majority of exports and imports of such products. Lao PDR is included in the 2014 assessment owing to its increasing importance in the global trade in wood-based products.

Indicators of progress

Chatham House has developed a set of standardized indicators to allow a comparative evaluation to be undertaken. The indicators cover four areas:

- a) Media attention;
- b) Government response (assessment of the policy framework, expert perceptions survey and analysis of enforcement and revenue data);
- c) Progress by the private sector (assessment of levels of certification and legality verification, expert perceptions survey and analysis of trade data to assess shifts in trade with ‘sensitive’ and ‘non-sensitive’ markets⁹³); and
- d) Levels of illegal production and trade (expert perceptions survey, wood-balance analysis and analysis of trade data to assess discrepancies).

An outline of how these data were collected is provided below.

Media attention

The level of attention afforded to illegal logging and related trade in the domestic and international media was assessed using both quantitative and qualitative methods. The volume of articles in the international media was measured through a search of online media archives (Factiva, Newsbank and LexisNexis) using the term ‘illegal logging’ and the country name. A similar approach was adopted with domestic media: the search term ‘illegal logging’ was used in English and/or the local language. Online archives were used where possible, and physical archives where no such digital records were available. Country partners were asked to identify those newspapers, journals and media outlets that can be considered ‘major circulation’.

⁹² Lawson, S. (2007), *Illegal Logging and Related Trade*; and Lawson, S. and MacFaul, L. (2010), *Illegal Logging and Related Trade. Indicators of the Global Response*. London: Chatham House.

⁹³ For this study, ‘sensitive’ markets are considered to be the EU, Norway, Switzerland, the US, Australia, Canada and New Zealand. Non-sensitive markets are considered to be all other markets.

The articles were then categorized according to their main focus: enforcement, private-sector response, government response, impacts or ‘other’. The search period for domestic media coverage was the year from October to September, while that for international media was the calendar year.

Policy assessment

For each of the countries included in the assessment, an in-country partner was selected by Chatham House to assess the national policy and legal framework for tackling the issue of illegal logging and related trade.

For producer countries, the questions were grouped into 12 broad categories: high-level policy, legislative framework; checks and balances, international trade cooperation, policies to regulate demand for timber, tenure and use rights, timber-tracking systems, transparency, allocation and management of rights to harvest, law enforcement, information and financial management. In addition, data on enforcement and revenue collection were collected and incorporated into the policy assessment.

In-country partners were provided with an advisory framework on scoring as well as the scores from the 2010 assessment in order to maintain at least a degree of consistency across countries and between the two assessments. The scores were then reviewed by Chatham House researchers and peer reviewers and amended where necessary.

Expert perceptions survey

A survey of national experts asked respondents to estimate levels of illegal logging and associated trade and to evaluate the response by government and the private sector to the issue. The main part of the survey, which comprised 16 questions, was sent to all respondent groups – government officials, timber-industry representatives, NGOs and other experts. An addendum to the survey was sent to private-sector respondents, while a separate short survey was sent to industry associations.

Weighted-average perception scores have been calculated to account for slight variations in sample size among respondent groups and between the two survey periods. First, averages were calculated for each respondent group (government, private sector and NGO/other) and then the average of the three averages was calculated.

Third-party certification

Data were gathered on the total area of production forest in the producer countries that has been either verified legal or certified sustainable (plantation forests were excluded). All major independent certification schemes were included. Data were based on those provided by each of the schemes as well as on research undertaken by Chatham House staff. Various reports, including those by NGOs and trade associations, were consulted in order to calculate the total area of *active* production forest under certification at the end of each calendar year up to 31 December 2012; no areas certified after this date are included in the current assessment.

Analysis of trade data

Trade data were compiled and used to analyse shifts in trade between ‘sensitive’ and ‘non-sensitive’ markets and discrepancies in data on reported imports and exports between a producer country

and its export markets. Data were compiled from official national trade statistics and from the UN Comtrade database and converted to RWE volume. The following conversion factors were used:

- By volume (m^3/m^3): sawnwood: 1.8; veneer and mouldings: 1.9; plywood: 2.3.
- By weight (m^3/t): particleboard: 2.0; fibre board: 2.5; picture frames and wooden furniture: 2.8; joinery, ornaments and 'not elsewhere specified': 3.5; chips and residues: 1.6; paper: 3.5; and pulp: 4.5.

Wood-balance analysis

Where robust national data could be obtained, wood-balance analyses were undertaken. These compared the legal supply of timber (from official records of harvest and imports) with consumption (based on domestic consumption and exports). The gap between supply and consumption can indicate the existence and extent of unreported and hence potentially illegal logging.

There are a number of limitations to such analyses. Most important, they cannot account for smuggling or illegalities related to legally sanctioned harvesting (e.g., the failure to pay taxes). Furthermore, statistics – particularly on domestic consumption – are unreliable or absent in many countries. For this reason, the methodology used varied from country to country, depending on the data available, while in many cases no such analysis could be undertaken owing to the lack of relevant data.

Glossary

CoC	Chain of custody
EUTR	European Union Timber Regulation
FAO	Food and Agriculture Organization
FLEGT	Forest Law Enforcement, Governance and Trade
FPIC	Free, prior and informed consent
FSC	Forest Stewardship Council
JPIK	Independent Forestry Monitoring Network
KPK	Corruption Eradication Committee
LEI	Lembaga Ecolabel Indonesia
NGO	Non-governmental organization
RAFT	Responsible Asia Forestry and Trade
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RWE	Roundwood equivalent
SGS	Société Générale de Surveillance
SILK	Information System for Legal Wood
SVLK	Timber legality verification system
TTAP	Timber Trade Action Plan
VPA	Voluntary Partnership Agreement

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Acknowledgments

This report was written by Alison Hoare and Laura Wellesley of Chatham House. Research assistance was provided by Adelaide Glover.

Chatham House would like to thank TRAFFIC, which undertook research in Indonesia; James Hewitt (consultant), who analysed trade data, including measuring trade data discrepancies and ‘sensitive market’ share; and Ed Pepke (Dovetail Partners, Inc.), who undertook wood-balance analysis.

Chatham House would also like to thank Art Blundell (Natural Capital Advisors, LLC), Chen Hin Keong (TRAFFIC) and Alexander Hinrichs (EFI EU FLEGT Facility) for reviewing a draft of this report.

The research for and writing of this study was undertaken with funding gratefully received from the UK Department for International Development (DFID). Additional support has been provided by TRAFFIC as part of the RAFT programme, with funding from the Australian government.

The conclusions and recommendations contained in this report represent the views of the authors, not those of the consultants, reviewers or funders.

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