Illegal Logging and Related Trade
The Response in Ghana

A Chatham House Assessment
Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Background</td>
<td>4</td>
</tr>
<tr>
<td>Media Attention</td>
<td>6</td>
</tr>
<tr>
<td>Government Response</td>
<td>8</td>
</tr>
<tr>
<td>Progress by the Private Sector</td>
<td>17</td>
</tr>
<tr>
<td>Estimated Levels of Illegal Logging and Associated Trade</td>
<td>21</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>25</td>
</tr>
<tr>
<td>Annex 1: Policy Assessment Scores for 2008 and 2013</td>
<td>26</td>
</tr>
<tr>
<td>Annex 2: Methodology</td>
<td>28</td>
</tr>
<tr>
<td>Glossary</td>
<td>31</td>
</tr>
<tr>
<td>About the Author</td>
<td>32</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>33</td>
</tr>
</tbody>
</table>
Summary

The Ghanaian government has taken a number of important steps to reduce illegal logging and related trade, most notably with the signing of the Ghana–EU voluntary partnership agreement in 2009. This agreement has prompted improved multi-stakeholder dialogue within the sector as well as a process of legal reform. Considerable effort has also been put into the development of a timber legality assurance system, which has been successfully piloted. However, a number of enforcement and administrative challenges remain, particularly in relation to tenure and land and resource rights, as well as broader governance challenges including corruption.

Awareness of the issue of illegal logging has improved among the private sector, and the area of natural forest that is verified as legally compliant has increased considerably in recent years. However illegal practices remain widespread in the country. Illegal chainsaw milling is prevalent, predominantly supplying the domestic market. Illegality is also an issue in supply chains for export, albeit at a lower level. Trade data discrepancies indicate that illegal trade is a problem, in particular for tropical logs, and there is a lack of clarity over the legality of many logging permits.

A key challenge for the country is its declining resource base. The forest sector has shrunk considerably over the last 15 years as a result of this, and the situation looks set to worsen. Wood-balance estimates indicate that timber consumption considerably exceeds sustainable harvesting levels.

In order to make further progress in tackling illegal logging, the process of legal reform and efforts to improve enforcement need to continue. Priorities include: a review of fiscal policies for the sector; improvements to land administration; completion of the conversion process of logging rights; and implementation of the legality assurance system across the country. Efforts must also continue to address the challenge of illegal chainsaw milling, which will require a range of approaches from legal reform to developing alternative livelihood strategies.
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 products\(^1\) 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 the level of 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 2010\(^3\)) and another six in 2013–14 (published in 2014\(^4\)). In addition, Chatham House undertook a reassessment of the original 12 countries in 2013–14.

This assessment presents the latest findings for Ghana, which are compared with the situation as reported in 2010. The analysis, undertaken in August 2014, is based on data collected during 2013. Trade statistics and media data were compiled up to the end of 2013 (and 2012 for the international media data), 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).

Background

Forests cover nearly 5 million hectares of Ghana, approximately one-fifth of its total land area. Some 2.6 million ha is classified as forest reserve, which comprises both forests dedicated to timber production and those for conservation, while around 500,000 ha of unreserved forests (‘off-reserve’) and 2 million ha of cropland are also used as a source of timber. According to data from the Resource Management Support Centre (RMSC) of Ghana’s Forestry Commission, off-reserve forests and crop lands accounted for just over one-third of official timber harvests in 2012. There are also about 240,000 ha of timber plantations, and this area is set to expand: the government has identified up to 1 million ha of land as having potential for establishing commercial timber plantations.

The forestry sector in Ghana makes an important contribution to the country’s economy, although this is declining. In 2002 the forestry sector accounted for more than 8 per cent of GDP, compared with 2 per cent in 2012. The drop in contribution to GDP is due in part to the expansion of the petroleum sector, but also reflects a contraction of forestry industries. In the first half of the 2000s, two-thirds of timber companies went out of business, largely owing to the exhaustion of high- and medium-value timber resources. Since 2008 the downturn in the global economy has been another factor with a negative impact on the country’s forest sector, resulting in a decline in the volume of exports. In particular, exports to Europe have decreased, although increases in exports to other countries, in both Africa and Asia, have partly compensated for that decrease. Key exports include sawnwood, plywood and veneers.

The domestic market for wood-based products is growing: in 2012 it was estimated that domestic consumption totalled 1.8 million m³ (roundwood equivalent [RWE]), compared with export volumes of 0.8 million m³. Ninety per cent of demand from the domestic market is met by chainsaw–milled timber (see section on wood-balance analysis). Chainsaw milling makes an important contribution to rural livelihoods: it has been estimated that it provides direct employment to nearly 100,000 people and supports the livelihoods of about 700,000 people. However, it is illegal – chainsaw milling for commercial purposes was banned in 1998. This is the dominant issue relating to legal and sustainable forestry in Ghana.

The 2010 Chatham House assessment highlighted the scale of illegal logging in the country: wood-balance analysis and the expert perceptions survey suggested that as much as two-thirds of timber production was illegal. It was estimated that large-scale producers accounted for one-quarter of illegal production and chainsaw milling for the remainder.

5 Food and Agriculture Organization (FAO) (2010), Global Forest Resources Assessment 2010.
9 Based on data from Ghana’s Timber Industry Development Division (TIDD) and Resource Management Support Centre (RMSC); Marfo, E. (2010), Chainsaw Milling in Ghana: Context, Drivers and Impacts. Wageningen: Tropenbos International.
10 Marfo (2010).
11 See the Timber Resources Management Regulations 1998 (LI 1649).
Despite the shrinkage of the formal forestry sector, forests continue to play an important socio-economic role. The vast majority of rural households depend on fuel wood and charcoal to meet their energy needs, and forests are also an important source of non-timber forest products.\(^{12}\) Deforestation is a major concern, however: during the period 1990–2010 the average annual deforestation rate was 2 per cent.\(^{13}\) The main pressures on forests are agricultural expansion, logging (including illegal logging), urban expansion, as infrastructure development and mining.\(^{14}\)

In recent years a number of steps have been taken to improve the sustainable management of Ghana’s forest resources and reduce illegal logging. Perhaps most significant was the signing of the Voluntary Partnership Agreement (VPA) with the EU in 2009. The following year Chatham House reported that the VPA had resulted in several policy improvements but that both law enforcement and information management were very weak. Since then progress has been made on the implementation of the VPA, as a result of which a number of legal and regulatory reforms have been introduced. There has also been progress by the private sector, as indicated by the increased uptake of certification. These developments are discussed in detail below and current levels of illegality are assessed.


\(^{13}\) FAO (2010).

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. International media coverage was assessed through the online media database Factiva, searching for English-language articles that referred to illegal logging in Ghana. Domestic coverage was reviewed through a search of 12 newspapers, using the Ghana News Agency, a state-owned corporation that serves as a central body for news collection.15

The number of articles in the international media that referred to illegal logging in Ghana grew markedly over the period 2001–07 (see Figure 1). Since then it has remained relatively high (ranging from 38 to 70 articles a year) and peaked in 2010. This is likely to be attributable to the process of negotiating the country’s VPA: formal negotiations began in 2007, it was agreed in 2008 and signed at the end of 2009.

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

![Graph showing international media coverage of illegal logging in Ghana, 2001–12](image)

Source: Factiva (data for 2001–09 are taken from the 2010 Chatham House assessment).

Coverage of illegal logging in the domestic media has been relatively limited – between five and 22 articles a year during the years 2007–12; moreover, the number declined over this period (see Figure 2). The topics covered most frequently included the government’s response to illegal logging and enforcement actions against illegal activities in the forestry sector; this may be in part a reflection of the Ghana News Agency’s role in reporting. The dominant subject of domestic media reports on illegal logging is chainsaw harvesting and milling (almost a quarter of all articles), reflecting the importance of this issue in Ghana.

---

15 The 12 newspapers were selected because they have the largest national circulation – the same criterion that was used in the 2010 assessment. They are the: Daily Graphic, Daily Guide, Ghanaian Times, Chronicle, Crusading Guide, Dispatch, Ghanaian Observer, Mirror, Weekly Spectator, Searchlight, Insight and The Public Agenda.
Figure 2: Domestic media coverage of illegal logging in Ghana, 2007–12*

*Figures are for the year from 1 October to 30 September; data for 2007–08 are 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 Brazilian 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 2013:16 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)*

<table>
<thead>
<tr>
<th></th>
<th>High-level policy</th>
<th>Legislative framework</th>
<th>Checks and balances</th>
<th>International trade cooperation</th>
<th>Regulating demand for timber</th>
<th>Tenure and use rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber-tracking systems</td>
<td>Transparency</td>
<td>Allocation and management of rights to harvest</td>
<td>Law enforcement</td>
<td>Information management</td>
<td>Financial management</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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

Some improvement in high-level policy is evident since the 2010 assessment. While there has been no comprehensive review of the issue of illegal logging in Ghana, a number of studies have been carried out since the 1990s. More recent studies include those undertaken within the framework of the
EU-funded project ‘Developing Alternatives for Illegal Chainsaw Milling through Multi-Stakeholder Dialogue’, which is being implemented by Tropenbos International in cooperation with the Ghana Forestry Commission and the Forest Research Institute of Ghana. Those studies have fed into the development of the revised Forest and Wildlife Policy of 2012. One of the stated objectives of this policy is ‘promoting and developing mechanisms for transparent governance, equity sharing and peoples [sic] participation in forest and wildlife resource management’, which is to include a ‘strategic direction for eliminating illegal logging and chainsaw operations’.

Ghana does not have a national action plan on illegal logging as such. Its Forestry Development Master Plan for the period 1996–2020 acknowledges the problem of illegal logging but does not specify how to address it. However, the plan does aim to achieve sustainable forest management, entailing the establishment of effective forest oversight, and by implication, enforcement of the law. For its part, the VPA provides a framework for tackling illegal logging, which in effect negates the need for a ‘national action plan’ (see section on international trade cooperation). In addition, a strategy to address the domestic timber market has been developed through the multi-stakeholder dialogue mentioned above.

There has also been some improvement in the coordination of action on illegal logging across government departments and sectors, although this is evident mainly at the regional level. A national-level committee was set up in 2009 within the Ministry of Land and Natural Resources to deal with land and illegal resource use (including illegal logging); it comprises representatives of the Ministry of Defence, the National Security Council, the Lands Commission and the Minerals Commission, but it has not been active. Coordination at the regional level takes place through the regional coordinating councils (RCCs), which are comprised of regional officials from various agencies. The RCCs have been in existence since 1992 but in recent years have become more involved in efforts to tackle illegal logging.

Multi-stakeholder consultation processes are well established in Ghana – as was shown in the 2010 assessment – although civil society has expressed some concern that the process of VPA implementation has been less inclusive than that of negotiating the agreement. The Multi-stakeholder Dialogue Platform, established by the Forestry Commission and Tropenbos International, includes chainsaw millers and domestic timber traders. Within the framework of the VPA, a Joint Monitoring and Review Mechanism (JMRM) and Multi-Stakeholder Implementation Committee (M-SIC) have been established. The role of the JMRM is to facilitate the review and monitoring of the VPA, including its implementation. Co-chaired by Ghana and the EU, it meets at least once a year to discuss progress; the meetings are attended by representatives from the government of Ghana, with participation of the Ghana Forestry Commission, the EU, the Ghanaian private sector and civil society, and the EU Forest Law Enforcement, Governance and Trade (FLEGT) Facility.

The M-SIC was set up in 2010, replacing the VPA Steering Committee that oversaw the multi-stakeholder consultations during the negotiation of the agreement. It is tasked with ensuring multi-stakeholder dialogue during the implementation of the VPA and includes representatives from across the government as well as two representatives each from industry and civil society. Meanwhile, forest forums organized by Forest Watch Ghana, a coalition of NGOs, allow communities to have an input

---

18 Ministry of Land and Natural Resources (2012), 'Ghana Forest and Wildlife Policy'.
in the VPA process; they began at the time of the VPA negotiations and since then have become more established and cover larger parts of the country.20

Illegal logging has been identified as a significant driver of deforestation and forest degradation in Ghana. The need to address unregulated chainsaw milling, in particular, is highlighted in Ghana’s Readiness Preparation Proposal (R-PP), which was drawn up for the Forest Carbon Partnership Facility.21 Under the framework of this proposal, a programme has been developed to reduce emissions in the country’s high-forest zone, which will seek to address illegal logging through policy reform, improved land-use planning and community-based monitoring.22 In addition, the country’s Forest Investment Plan (FIP) has been developed to support the strategies identified in the R-PP.23 Both the R-PP and FIP recognize the need to engage with the VPA process; however, coordination between the VPA and REDD+24 processes has been limited to date.

Legislative framework

The 2010 Chatham House assessment found that Ghana’s forestry legislation was well established but disjointed and sometimes conflicting. This current assessment has found that the situation remains largely unchanged.25 The Timber Resources (Legality Licensing) Regulations, passed in 2012,26 relate to the establishment of the country’s legality licensing scheme; these stipulate the legal mandate for the Timber Validation Committee (see section on tenure and use rights) and outline general provisions on the issuance of FLEGT licences. A compendium of the laws relating to forestry has been compiled; and a review process is now under way to identify any inconsistencies and gaps in the legal framework. Other legal reform processes are on-going; their focus is tree tenure, benefit-sharing arrangements and chainsaw milling. As regards the latter, Tropenbos International has been piloting a scheme for artisanal sawmilling as a legal ‘alternative’ to chainsaw milling; under that scheme, small-scale producers gain access to legal timber resources through partnerships with large-scale concessionaires.27

In addition, a procurement policy has been drafted that requires government and public bodies to purchase legally sourced timber and timber products. It is due to be submitted to the Cabinet for approval.

Checks and balances

In the 2010 assessment, Ghana performed relatively well in terms of the mechanisms in place to ensure accountability of the government and prevent corruption among officials. The current assessment found there have been a number of improvements in this area.

The Parliamentary Select Committee on Lands and Forestry continues to play an important role in overseeing the forest service, including reviewing its budget. In particular, there has been

---

21 A readiness preparation grant of $3.4 million was approved under this programme in 2011 (see http://forestcarbonpartnership.org/ghana).
23 The FIP was endorsed in 2012; it requested a total of $50 million in funding and received initial approval of $1 million in preparation grants (see https://www.climateinvestmentfunds.org/cifnet/country-program-info/ghanas-fip-programming).
24 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.
26 See Regulation No. 1.1.2184.
improvement in the implementation of internal audits. The Forestry Commission is subject to the Financial Administration Act, which includes requirements to prepare audited accounts; in 2013 it was commended by the Parliamentary Public Accounts Committee for its financial management. The commission has administrative systems in place to investigate and sanction corruption. In addition the Economic and Organized Crime Office (EOCO), established in 2010 as a specialized government agency, has the mandate to detect, investigate and prosecute ‘serious economic and organized crimes’. The Forestry Commission has undertaken investigations of its officials and, where necessary, applied administrative sanctions, but no cases have been referred to the police for criminal prosecution, which is expected for any serious breaches.

Ghana's VPA does not provide for a formally recognized role of ‘independent monitoring’ by civil society. However, NGOs did not argue for such a role during the negotiations because of concerns that it could reduce their independence. Forest Watch Ghana aims to perform this function in an unofficial capacity. Civil society does play a ‘formal’ role in overseeing VPA implementation: it has representatives on the JMRM and M-SIC (see section on high-level policy) as well as on the Timber Validation Committee (see section on timber-tracking systems).

It is part of customs procedures to examine export permits, and FLEGT licences will be similarly checked when they are in place. However, there is currently no legal mandate for customs to check that timber consignments meet the export requirements stipulated in the VPA legality definition.

International trade cooperation

The most significant development in terms of international trade cooperation has been Ghana’s signing of the VPA with the EU on 20 November 2009. Implementation of the agreement has contributed towards significant progress within the country, including the development of a domestic timber market strategy and the broader forest and wildlife policy reform (see section on high-level policy). However, the establishment of a system for assuring the legality of timber has been slow. A tracking system has been piloted and the introduction of the licensing of timber is currently scheduled for the end of 2014 (see section on timber-tracking systems).

There is no alert system in place for sending and receiving enforcement alerts about illegal shipments in transit to destination countries. Dealing with transit timber is a problematic issue that continues to be discussed within the framework of the VPA – not least, the question of how such timber can be distinguished from that of Ghanaian origin if it is exempt from the requirement for a FLEGT licence.

Regulating demand for timber

A permitting system for sawmills has been in existence for many years but has not been regularly enforced. In 2003 the Forestry Commission introduced pre-qualification procedures for competitive bidding that included existing milling capacity. The policy applied to primary and secondary but not tertiary processing capacity; however, it has not been implemented in recent years as sawmills have been closing rather than opening.

---

29 Independent auditing of the Legality Assurance System (LAS) is called ‘independent monitoring’ in Ghana’s VPA (see section on timber-tracking systems).
30 The text of the agreement is available online at http://www.fcghana.org/vpa/.
32 See Regulation 11 (d) of L.I. 1721.
Tenure and use rights

Overall, government policy to protect tenure and land-use rights since the 2010 assessment has regressed, in large part owing to the decentralization of the land administration system – a process that is still under way.

The Lands Commission keeps records on land use, rights and tenure, which are incorporated into publicly accessible maps; but there are many instances of false and inaccurate records. Weaknesses in land administration led to the Land Administration Project (LAP),33 which aims to establish a more efficient and decentralized land administration system. LAP Phase 1, piloted between 2003 and 2011 in three districts, met with mixed success. While a review found that the opening of regional offices had facilitated the registration of land deeds, little progress had been made in efforts to harmonize customary and statutory law.34 LAP Phase 2 will run from 2013 to 2017 in six districts. Its aims include continuing the process of policy reform, piloting title registration, supporting the demarcation of customary land rights; improving mapping systems and strengthening the capacity of the Customary Land Secretariats.

Another priority area identified in the R-PP and the FIP is legal reform related to tree tenure, and work is under way to identify reform options.

Timber-tracking systems

Since 2010 there has been some progress towards developing timber-tracking systems, although that progress has been slow. The Legality Assurance System (LAS), for which the VPA provides, was first piloted in 2012, but severe problems were encountered owing to contractual issues with the service provider. The subsequent piloting in 2013, with a new service provider, was successful and preparations for a national rollout are now under way. The LAS entails a wood-tracking system and legality verification protocols, the latter laid out in a series of manuals. Applications for FLEGT licences are to be made to the Timber Industry Development Division (TIDD) of the Forestry Commission, which will check the information uploaded into the wood-tracking system by the Timber Validation Department (TVD) to ensure that products are compliant with the legality definition. The role of the TVD will be monitored by the Timber Validation Committee (TVC), which will also be responsible for dealing with any complaints or resolving any disputes related to the issuing of licences.35

In addition, there is to be independent auditing of the entire system (which is called ‘independent monitoring’ in the VPA). The tasks of the independent monitor, as stipulated in the VPA, include assessing the implementation and effectiveness of the LAS; conducting field investigations into the work of the regulatory agencies, including cross-checks with information held by the EU competent authorities; assessing the adequacy of data management systems; and evaluating the effectiveness of licence verification procedures at the point of entry to the EU.36

Transparency

In the 2010 assessment, Ghana scored relatively well across most transparency indicators. One aspect that was lacking was that of a public document describing the roles and responsibilities of

---

33 See http://www.ghanalap.gov.gh/
35 The mandate of the TVC is stipulated in the Regulation L.I.2184 of 2012.
36 The role of the independent monitor is described in Annex VI of the VPA.
all agencies involved in regulating forest utilization and trade. The Forestry Commission’s Service Charter, which outlines the roles and responsibilities of the commission, was revised in 2008 and now been made publicly available.37

Ghana’s legislation requires that the rules on resource allocation are publicly available, the dates of auctions to allocation concessions are made public and the results of these are reported to the parliament.38 Those requirements are generally followed, but not universally. Environmental impact assessments are required39 and widely implemented, but there is no provision for third-party scrutiny, which raises concerns about their rigour.

The availability of information on timber rights has improved recently: since 2013 the Forestry Commission has been publishing details of all valid timber rights on its website, which, however, needs to be updated more regularly.40 Information that had previously been published by the commission was found to be unclear, the result in part of an ongoing dispute between the government and industry over the process of converting logging titles to timber utilization contracts (TUCs – see also section on financial management).41 There is no legal requirement to publish summary data on harvesting volumes, processing or international trade; but the Forestry Commission publishes an annual report, which is available on request, and TIDD produces monthly reports on exports of wood-based products.42

As regards transparency of enforcement activities, there is also no legal requirement for this. Data are published but are not very detailed. Regular reporting of infringements and the sanctions imposed – including the size of fines and their rate of collection – would be useful, both for the monitoring of such actions and as a deterrent to illegal practice.

Allocation and management of rights to harvest

As the 2010 assessment showed, well-designed procedures for the allocation and management of rights to harvest are in place, although implementation needs to be improved. Competitive award processes and pre-qualification processes are laid out in the legislation.43 There are also procedures in place to obtain the consent of landowners.44 These are implemented at the district level, which makes them accessible to landowners.

There has been some improvement in the protection of forest-based livelihoods as part of the VPA process. New protocols for social responsibility agreements, required between logging companies and local communities, have been developed and piloted. However, they are yet to be implemented across the country.

38 Regulations L.I. 1721 (2003), Sections 10–14.
39 See the Environmental Protection Agency Act and its accompanying regulations (L.I. 1652).
40 See http://www.fcghana.org/news.php?news=57 (in August 2014 the latest data were for May 2013).
%28Timber%20Industry%20Development%20Division%29&id=16.
44 Regulation LI. 1639 of 1998.
Law enforcement

The current assessment paints a mixed picture regarding law enforcement. On the one hand, there are weaknesses in both the design and implementation of relevant policies and legislation. For example, financial penalties are not proportionate – and hence dissuasive – because they do not track inflation or timber prices; and a lack of training and insufficient awareness of forestry issues continues to be an issue at law enforcement institutions, from judicial bodies to customs. On the other hand, the Forestry Commission has been working with the Attorney-General’s Department to train public prosecutors in a bid to improve law enforcement and the prosecution of offences in the forestry and wildlife sectors. In May 2013 it was reported that 50 Forestry Commission staff had been trained as prosecutors,45 while a rapid response team set up within the commission in 2012 to improve enforcement is to be expanded.

Moreover, there has been some improvement in coordination between enforcement agencies. The Cabinet now coordinates and oversees the involvement of the security agencies (the military and police) in combating illegal logging. For its part, the Ministry of Local Government and Rural Development interfaces between Cabinet and the RCCs over the deployment of field personnel for enforcement activities.

Significant progress has also been made in the use of information-gathering tools for enforcement, including the use of log-tracking and material-flow analyses. The RMSC of the Forestry Commission undertakes forest inventories, while TIDD provides field monitoring on mill input-output data as well as monthly and annual reports on exports, including volumes and species.

Forestry Commission data on enforcement activities are shown in Table 2. Both the number of cases and the size of the seizures vary considerably over the period 2008–12. The largest number of cases was reported in 2011; this coincides with the stepping up of enforcement efforts by the Forestry Commission.

<table>
<thead>
<tr>
<th>Table 2: Illegal logging cases and timber seizures reported by the Forestry Commission, 2008–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
</tr>
<tr>
<td>Number of ‘illegal logging’ cases</td>
</tr>
<tr>
<td>Plantation timber seizures (no. of trees)</td>
</tr>
<tr>
<td>Natural forest timber seizures (no. of trees)</td>
</tr>
</tbody>
</table>

Source: Forestry Commission annual reports for 2010 and 2011.

Information management

Since 2009 there has been significant improvement in the use of information management systems by the relevant government agencies to access data related to forest enforcement and management. In 2010 the Forestry Commission was still using a manual paper-based system for inventory data and maps. The digitization of inventory data is now under way and expected to be completed in 2016.

45 JMRM (2013).
Financial management

Since 2010 there has been some improvement in policies related to financial management. District forestry offices use software, called the ‘SUN System’, to harvest data, generate invoices and provide information on the status of payments by property holders – according to the Forestry Commission, revenue collection by the district forest authorities is 95 per cent. TIDD also uses the system to reconcile invoices against export permit records.

Data published by the RMSC show that collected stumpage fees exceed the amounts invoiced, particularly in 2011 and 2012 (see Table 3). According to the Forestry Commission, this is due to a lag in the receipt of payments by companies, which the commission has made increasing efforts to collect – including through the imposition of penalties for non-payment. However, according to recent analysis by Forest Watch Ghana, stumps fees were too low over the period 2003–12, resulting in a loss to the state of an estimated $16 million. This was because the Forestry Commission had not undertaken a quarterly review of the fees, as required by law. That omission was recently addressed, and stumpage fees were significantly increased with effect from 1 March 2014.

Table 3: Stumpage fees invoiced and collected

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stumpage fees collected</td>
<td>6,764</td>
<td>5,120</td>
<td>5,766</td>
<td>8,600</td>
<td>8,000</td>
</tr>
<tr>
<td>Stumpage fees invoiced</td>
<td>6,096</td>
<td>4,476</td>
<td>5,178</td>
<td>4,623</td>
<td>5,680</td>
</tr>
</tbody>
</table>

Sources: RMSC, Corporate Planning Division of the Forestry Commission.

Other sources of forest revenue include the timber rights fees (TRFs), which are charged to companies that hold TUCs. The rate of payment of such fees is low owing to disagreement between the companies and the government over the amounts due. Some companies have argued that TRFs are payable only under competitive bidding, the concessions of these companies having been awarded before this system was introduced (in 2003). Discussions are still under way to resolve the dispute, but there has been little progress to date.

Expert perceptions survey

The current assessment included an expert perceptions survey in which representatives from the government, the private sector, civil society, academia and the donor community were asked to evaluate the government’s response to illegal logging – specifically, the effectiveness of that response, how the response had changed over the previous year and factors impeding an effective response by the government. The number of respondents to the survey was relatively low – 31 compared with 33 in 2010. The findings discussed below should be viewed with this in mind.

Perceptions of the overall effectiveness of the government’s response to illegal logging have broadly improved; three-quarters of respondents in 2013 considered its response ‘average’ or better, compared

---

47 Schedule 3 of Regulation, LI 1649.
48 In 2010 the respondents comprised 12 government officials, 13 from the private sector and eight from NGOs or ‘other’; in 2013 they comprised 10 government officials, 11 from the private sector and 10 NGOs or ‘other’. 
with just over half of respondents in 2010. In both surveys, government respondents were the most positive, while NGO and other respondents took a less positive view.

Asked to assess the government’s response over the previous year, most respondents (18) considered that there had been some improvement; 12 said there had been no change; and just one suggested it had worsened. This was a slightly better result than in 2010, when the 20 respondents (out of 34) thought there had been no change; however, this change largely reflects the more positive evaluation of government respondents.

Respondents were also asked about the influence of a number of factors that could impede an effective response by the government: poor legislation, limited enforcement capacity and effectiveness, inadequate data, high levels of corruption and a lack of political will. The scoring patterns in 2010 and 2013 were similar: limited enforcement capacity, corruption and a lack of political will were identified as the most important factors. In additional comments, a number of respondents in 2013 underscored that, despite the existence of good forest-sector policies and regulations, a lack of political will and corruption were limiting progress.
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, based on the expert perceptions survey, an assessment of private-sector certification schemes and trade data analysis.

Expert perceptions survey

Overall private-sector response

Respondents were asked to assess the extent to which various types of company have made progress on tackling illegal logging. Most respondents felt that larger timber companies and those manufacturers supplying sensitive markets\(^49\) had made some progress but that smaller-scale concessionaires and manufacturers supplying non-sensitive markets had not. The respondents also indicated some improvement in industry awareness of illegal logging: only one respondent considered that industry was unaware of the problem in 2013, compared with seven in 2010.

Customer demand and industry association action

The survey also included a number of questions addressed specifically to industry associations. Responses were received from four associations, representing both producers and processors.

One of these four associations has no code of conduct on illegal logging, although it does provide information to its members on legality requirements and developments related to the implementation of the VPA. The other three have such codes, all of which are based on the Forestry Commission's forest-management regulations and procedures; however, only one includes sanctions for non-compliance by its members (endorsement by the association is a prerequisite for the annual renewal of a licence to operate).

All four associations provide members with information and training; however, it was noted that limited financial capacity for such services was a problem. Three of them reported a significant increase in demand for regulatory guidance and training over the previous year, largely in response to the VPA.

Legality demands and sensitivity of timber prices

The survey respondents were asked to assess the likely importance of regulation and other market drivers for the competitiveness of Ghana's timber industry vis-à-vis its global competitors over the next five years. Producers considered manufacturing costs to be by far the most important factor, as was the case in 2010; manufacturers and exporters viewed those costs as being of similar importance to most

\(^{49}\) In this assessment ‘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.
other factors – namely, the level of taxes and subsidies, overall economic demand and requirements for certified or legally verified timber.

The survey respondents were also asked to assess whether timber prices had risen or fallen in response to measures targeting illegal logging. Just five of the 33 respondents considered that timber prices had increased owing to enforcement of measures to tackle illegal logging, compared with 20 (out of 35 respondents) in 2010.

**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**

The total area of Ghana's natural forest that is verified legal has increased markedly in recent years. While no forest had been verified legal in 2006, some 450,000 ha were certified under the Forest Stewardship Council’s (FSC) Controlled Wood (CW) standard in 2012 (see Figure 3). But no forest had received certification for legal and sustainable production in Ghana by the end of 2012 (the end of the period covered by this assessment).

![Figure 3: Total forest area under voluntary verification or certification schemes](source)

**Expert perceptions survey**

The survey included a number of questions relating to certification and legality verification that were put to the private sector only. Of the 11 private-sector respondents, five were producers or concessionaires and six manufacturers or exporters.
such respondents considered requirements for legal and certified timber to be of moderate or high importance. Four out of the six respondents who were manufacturers or exporters reported an increase over the preceding year in purchases of timber with either legal verification or certification.

**Sensitive market share**

To evaluate the response of the private sector to illegal logging and growing demands for legal timber in many of the major consumer countries, shifts in trade between sensitive and non-sensitive markets were assessed. Trade data and private-sector responses to the expert perceptions survey were used for this analysis.

**Trade data**

Analysis of trade data indicates that both the amount and the proportion (in RWE) of wood-based products being exported to sensitive markets declined significantly between 2000 and 2009 (see Figure 4). The proportion fell from just over three-quarters of exports to about one-fifth; subsequently, it has stabilized at around one-quarter. In the case of the EU, which accounts for the majority of Ghana's exports to sensitive markets, over the same period, 2000–09, the proportion of total exports fell from 60 to 18 per cent, and has since stayed at about this level.

Much of the decline over this period was due to the increase in the export of plywood to non-sensitive markets: in 2000 nearly 90 per cent of plywood exports went to such markets, but by 2013 that figure had plummeted to 3 per cent, with most exports going to other African countries. The export of sawnwood and veneer products to sensitive markets declined too – from about 75 per cent in 2000 to 40 per cent in 2009, remaining at about the same level since then. The two main export destinations for those products are India (predominantly sawnwood from teak plantations) and China (mainly sawnwood and logs). Meanwhile exports to other African countries are growing.

The change in the relative importance of sensitive markets is largely a reflection of Ghana's forest industry responding to new market opportunities. For example, the growth in demand in many African countries has considerably increased the relative importance of these markets for Ghana: they accounted for less than 10 per cent of the total volume of exports from Ghana in 2000 but for just over 30 per cent in 2013, while the value of those exports increased from $9 million to $36 million. Since 2009 China has become an increasingly important export destination for Ghana, reflecting the growth of the Chinese timber market. China accounted for just 1 per cent of Ghana's official exports (by volume) in 2009 but for 20 per cent in 2013.

---

51 The Ghanaian government estimated that this figure was even higher – 40 per cent, of which almost half was to other member countries of the Economic Community of West African States. See TIDD (2013), 'Report on export of wood products' at http://www.fcghana.org/assets/file/Publications/Industry_Trade/Export_Reports/year%202013/Jan_2013.pdf.
Figure 4: Total RWE volume of timber-sector product exports to sensitive and non-sensitive markets from Ghana, 2000–13

Source: Based on official national trade statistics for Ghana (The Forestry Commission of Ghana) and for partner countries of the corresponding imports; with analysis by Chatham House.

Expert perceptions survey

Responses to the expert perceptions survey reflect the trends observed in the analysis of trade data: three-quarters of respondents believed there had been a shift in exports towards non-sensitive markets. Most considered that the main driver was growing demand in new markets rather than measures addressing illegal logging.
Estimated Levels of Illegal Logging and Associated Trade

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

**Expert perceptions survey**

Respondents to the survey were asked to estimate the level of illegal logging as a percentage of overall log production. The average estimate was 49 per cent, compared with 59 per cent in 2010; and the degree of consensus between respondents from the government, the private sector and NGOs was quite high (see Figure 5). While these figures suggest there has been some improvement in recent years, they indicate that illegal logging remains a significant problem.

![Figure 5: Estimated extent of illegal logging problem as a percentage of overall log production based on expert perceptions survey, 2010 and 2013*](image)

*The black bars indicate the variance in scores.

The survey also asked which factors were driving any reduction in illegal logging. The exhaustion of timber resources was considered the most important factor by nearly half of all the respondents. Other factors ranked as ‘important’ by respondents were: the negotiation and implementation of the VPA; the provision of information by NGOs; and demand from the private sector (that is, demand for legally verified products). Economic developments and general improvements in governance were considered less important.
Respondents were asked about changes in various aspects of illegal logging over the past year. They considered the most significant progress to have been made in reducing illegality among concessionaires, logging by non-authorized companies and illegal exports; some progress was reported in tackling illegal processing and corruption among forestry officials. Those improvements could reflect the impact of the EU Timber Regulation (EUTR) as well as the implementation of the VPA, which a number of respondents viewed as a driver of change. Illegal small-scale logging was seen as having worsened, however, despite the considerable efforts to deal with illegal chainsaw milling.

Of the 31 respondents, 15 perceived no change in the level of corruption among forestry officials, although 11 reported a slight improvement: of this latter group only one person came from an NGO. Similarly, 16 respondents perceived no change in corruption among the policy and judiciary, with mixed responses from the remainder as to whether there had been an improvement or worsening of the situation. Most of those who considered that this had worsened were from the private sector.

**Wood-balance analysis**

Ghana’s forest sector has shrunk significantly over the last 15 years, largely owing to timber scarcity. The country’s formal timber-processing capacity was approximately 2 million m$^3$ in 2009, compared with 5 million m$^3$ in 1999. Reflecting this trend, estimated timber consumption (for lumber, plywood and veneer products) by the formal sector dropped below recorded harvests in 2011, having exceeded this in the previous six years (see Figure 6).

**Figure 6: Timber consumption by the formal sector vs legal harvest levels**

![Timber consumption vs legal harvest](image)

**Source:** Based on RMSC Timber Information Forms, TIDD export data and discussions and Birikorang et al. (2001).

In recent years, the off-reserve forest is increasingly being used for formal production by small-scale producers and processors — for both domestic and export markets. Analysis of official data indicates that the share of the legal harvest from off-reserves increased from 31 per cent in 2008 to 35 per cent in 2012, while production grew from 280,000 m$^3$ to 300,000 m$^3$ over the same period.

---

52 Personal communication with TIDD.
54 However, the share remains far below the level of the 1990s, when 70–80 per cent of timber came from off-reserve areas. Owing to the exhaustion of timber resources due to over-harvesting, it had dropped to 30 per cent by 2005. See Tropenbos International (2009), ‘Strengthening off-reserve timber resource management in Ghana’, at http://www.tropenbos.org/publications/strengthening-off-reserve-timber-management-in-ghana.
The majority of production by small-scale producers supplies the domestic market; in 2012 that market was estimated to be more than double the size of the export market in terms of volume – at 1.8 million m$^3$ (RWE). Small-scale producers account for an estimated 97 per cent of supplies to the domestic market – 90 per cent from informal chainsaw mills, 7 per cent from formal small-scale mills and the remaining 3 per cent from formal large-scale mills.

The official annual allowable cut (AAC), established in 2004, is 2 million m$^3$ (500,000 m$^3$ from forest reserves and 1.5 million m$^3$ from off-reserve forests). Taking both the formal and the informal sectors into account, harvest levels considerably exceed this – harvest levels were estimated at 2.7 million m$^3$ in 2008 and 2.5 million m$^3$ in 2012 (see Figure 7). These are conservative estimates, with one study suggesting that harvest levels could be as high as 6 million m$^3$. This has serious implications for the country’s timber resources. Furthermore, the current AAC of 2 million m$^3$ far exceeds the level that is considered to be sustainable: in 2009 that level was estimated at 1.1 million m$^3$. Timber scarcity has been affecting large-scale producers for a number of years and is reported to be increasingly affecting chain sawyers too, particularly those supplying traditional species. The problem looks set to worsen.

**Figure 7: Estimated harvest levels vs annual allowable cut, 2008–12**

![Graph showing estimated harvest levels vs annual allowable cut, 2008–12](image)

Source: Analysis by Gene Birikorang drawing on data from TIDD, RMSC and Marfo (2010).

The recent approach of the government to formalize artisanal production is to allow producers to have access to legal sources of timber by establishing partnerships with large-scale concessionaires; this is feasible because the formal sector is harvesting far below the legal harvest level. However, on the assumption that an AAC of 1.1 million m$^3$ is what is sustainable, such an approach will mean the continued depletion of Ghana’s forests. If the legal forest sector is to be placed on a sustainable footing in the not too distant future, harvesting levels will need to be drastically reduced – and, at the same time, tree planting significantly increased.

---

55 TIDD and RMSC. See also Marfo (2010).
56 TIDD and RMSC; Mayers, J. et al. (2008), ‘Assessment of Potential Impacts in Ghana of a Voluntary Partnership Agreement with the EC on Forest Governance’, paper published by the International Institute for Environment and Development (IIED); and Birikorang et al. (2001).
Trade data discrepancies

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

Since 2010 significant discrepancies have arisen in data on the supply of logs to China. Little of the volume being imported is reported as exports by Ghana (the export of logs from natural forest is prohibited). It is thought that a significant proportion of those exports is rosewood, either sourced in Ghana itself or from other countries.

There are also significant discrepancies in the data on trade with India, which have been observed over the last decade: India consistently reports more imports than Ghana reports exports. These primarily relate to logs from plantations (mainly teakwood), whose export Ghana does not prohibit. These discrepancies may be attributable in part to tax evasion and in part to inconsistencies in the classification of logs by Ghana and India.

Overview of estimates of illegal logging

While the expert perceptions survey suggests there may have been some reduction in illegal activities in Ghana's forest sector, serious problems remain. In particular, there has been limited progress towards combating illegal chainsaw milling. Formal production by small-scale producers in the off-reserve forest has increased, but given the scale of illegal artisanal production, the pace of change is too slow. Artisanal producers predominantly supply the domestic market; just 7 per cent of the timber for that market is estimated to come from legal small-scale sawmills, and 90 per cent from illegal chainsaw millers.

Illegal activities are an issue in supply chains for export, too, although the level of illegality is lower. Discrepancies in trade data indicate illegal trade, particularly in the case of rosewood, for which there has been a surge in demand in recent years owing to the booming market for this timber species in China. Moreover, the demand for rosewood has been linked to the rapid increase in the issuance of salvage permits since 2011; the legality of many of those permits has been questioned by civil society. Furthermore, because of the fewer controls over such logging rights, the widespread allocation of such permits threatens to undermine efforts to manage Ghana's forest resources on a sustainable basis.

Another issue that raises question marks about the legality of some of Ghana's exports is the lack of clarity regarding the legal status of many logging permits (see section on financial management). The process of converting all existing logging rights to TUCs began in 2003 but has since stalled. This situation needs to be resolved since once FLEGT licensing is in place (which is anticipated for 2015) permits that have not been converted will be considered illegal, as they are not recognized within the legality definition of the VPA.

---

Conclusions and Recommendations

Ghana has made significant efforts in recent years to tackle illegal logging. The policy assessment demonstrates that progress has been made in the majority of the policy areas examined; and the hope is that such progress will continue as Ghana implements its VPA with the EU. The establishment of a nationwide legality assurance system will be another step forward, and one that should give further impetus to efforts to tackle illegal activities in the forest sector.

However, there remain many challenges. Enforcement of legislation remains poor in certain areas, including the allocation of harvesting rights, while the process of converting logging rights remains incomplete. Administration of the land is another problematic area, the situation having worsened in recent years. Broader governance challenges, notably corruption, also remain a problem, cutting across all sectors and aspects of government.

The process of legal reform is positive, not least since it has been implemented in an open and consultative manner; and the momentum needs to be maintained. Key areas for reform are the legal framework for artisanal producers and the domestic market as well as tenure and use rights. The latter is fundamental to ensuring the equitable and sustainable management of the country's forests, which are poised to come under increased pressure as demand for both resources and land grows. Furthermore, a review of forest fiscal policies is required to ensure that the sector is placed on a sustainable economic footing and that there is sufficient revenue for the effective oversight and management of the country's forests.

Considerable effort has been made to tackle the issue of illegal chainsaw milling, and this should remain a priority. At the same time, given the continued over-harvesting of the country's forest resources, the question of how to establish a sustainable as well as legal forest sector demands serious consideration. Efforts to increase tree plantations and diversify livelihoods need to be intensified, but most importantly, harvesting levels will have to be reduced.
Annex 1: Policy Assessment Scores for 2008 and 2013*

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

<table>
<thead>
<tr>
<th></th>
<th>Existence (0–2)</th>
<th>Design (0–5)</th>
<th>Implementation (0–5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public document describing roles, responsibility and controls of relevant agencies</strong></td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Resource allocation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rules for resource allocation processes</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Dates for resource allocation processes made publicly available</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Results of resource allocation processes made publicly available</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Summary data on harvest, processing and international trade published</td>
<td>0</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Resource use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of concessions, ownership and contracts made publicly available</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Concession licences, inventories and harvest plans made publicly available</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Environmental and social impact assessments made publicly available</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Enforcement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data on forest crimes published</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Data on disposal of confiscated wood made publicly available</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
</tr>
</tbody>
</table>

## Allocation and management of rights to harvest

<table>
<thead>
<tr>
<th></th>
<th>Existence (0–2)</th>
<th>Design (0–5)</th>
<th>Implementation (0–5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-qualification process to exclude inappropriate bidders</strong></td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Competitive allocation process</strong></td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>FPIC or stakeholder consultations for affected local communities</strong></td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Measures to protect and develop forest-based livelihoods</strong></td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

## Law enforcement

<table>
<thead>
<tr>
<th></th>
<th>Existence (0–2)</th>
<th>Design (0–5)</th>
<th>Implementation (0–5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proportionate and dissuasive penalties</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Coordination systems in place for relevant agencies</strong></td>
<td>0</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Forestry/law enforcement officials sufficiently resourced</strong></td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Training of</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judges and prosecutors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customs officials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Information-gathering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote-sensing systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field-based investigatory tools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material flow analyses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log-tracking and checkpoint systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Information management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up-to-date, accurate information management system</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Financial management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System for monitoring revenue discrepancies</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Forest administration audit</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

* 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.60

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’ markets);61 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’.


61 In this assessment, ‘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 (m³/m³):** sawnwood: 1.8; veneer and mouldings: 1.9; plywood: 2.3.
- **By weight (m³/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

AAC  Annual allowable cut
EOCO  Economic and Organized Crime Office
EUTR  EU Timber Regulation
FAO  Food and Agriculture Organization
FIP  Forest Investment Program
FLEGT  EU Forest Law Enforcement, Governance and Trade
FSC  Forest Stewardship Council
FSC CW  Forest Stewardship Council’s Controlled Wood standard
IIEED  International Institute for Environment and Development
JMRM  Joint Monitoring and Review Mechanism
LAP  Land Administration Project
LAS  Legality assurance system
M-SIC  Multi-Stakeholder Implementation Committee
RCCs  Regional coordinating councils
RMSC  Resource Management Support Centre
R-PP  Readiness Preparation Proposal
RWE  Roundwood equivalent
TIDD  Timber Industry Development Division
TRFs  Timber rights fees
TVC  Timber Validation Committee
TVD  Timber Validation Department
UNFF 10  10th session of the United Nations Forum on Forests
VPA  Voluntary Partnership Agreement
About the Author

Alison Hoare is a Senior Research Fellow at Chatham House, with expertise in forest governance, natural resource use and community forestry. She leads Chatham House's programme of work on illegal logging and forest governance and is also engaged in research on environmental crime and climate change. She has previously worked with a range of environmental and forestry organizations, undertaking research, policy analyses and project management.
Acknowledgments

This report was written by Alison Hoare (Chatham House) and compiled by Ian Denty (Efeca).

Chatham House would like to thank Gene Birikorang (Hamilton Resources & Consulting plc), who undertook research in Ghana; and James Hewitt (independent consultant), who analysed trade data, including measuring trade data discrepancies and sensitive market share.

Chatham House would also like to thank Alhassan Attah (FLEGT Facilitator, Guyana) and Samuel Nketiah (Tropenbos International) 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.

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