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Illegal Logging and Related Timber Trade – Dimensions, Drivers, Impacts and Responses

A Global Scientific Rapid Response Assessment Report

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Appendix 2: List of Authors and Reviewers

Acronyms

AFLEG Africa Forest Law Enforcement and Governance

APP Areas of Permanent Protection (Brazil)

BRIICS Brazil, Russia, India, Indonesia, China and South Africa

BRIK Badan Revitalisasi Industri Kayu (Indonesian Institute for the Revitalization of the Timber Industry)

CAF Chinese Academy of Forestry
CAR Central African Republic

CBD United Nations Convention on Biological Diversity

CIF Cost, Insurance and Freight

CIFOR Center for International Forestry Research

CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora

CoC Chain of Custody

CPF Collaborative Partnership on Forests

CSO Civil Society Organization

CTLVS China Timber Legality Verification Scheme
DFID Department for International Development

DOF Document of Forest Origin (Brazil)
DRC Democratic Republic of the Congo

EGAIS Uniform State Automated Information System (Russian Federation)

EIA Environmental Investigation Agency

ETPIK Ekspor Terdaftar Produk Industri Kehutanan (Indonesia)

EU European Union

EU-FLEGT European Union Forest Law Enforcement, Governance and Trade

FLEG European Union Timber Regulation
FLEG Forest Law Enforcement and Governance
FLEGT Forest Law Enforcement. Governance and Trade

FM Forest Management
FMP Forest Management Plan
FMU Forest Management Units

FOB Free on Board

FPIC Free Prior and Informed Consent
FSC Forest Stewardship Council
GFEP Global Forest Expert Panels
GPS Global Positioning System

HTI Industrial forest concessions (Indonesia)

IAASTD International Assessment of Agricultural Knowledge, Science and Technology for Development

IASS Institute for Advanced Sustainability Studies
IBAMA Environmental Inspection Agency (Brazil)

ICCWC International Consortium on Combating Wildlife Crime

IEO International Energy Outlook

IFAD International Fund for Agricultural Development
ILPA Illegal Logging Prohibition Act (Australia)

IM-FLEGT Independent Monitoring of Forest Law Enforcement and Governance Trade

INCRA Institute for Colonisation and Agrarian Reform (Brazil)

IPK Timber utilization permit (Indonesia)
 ITTO International Tropical Timber Organization
 IUCN International Union for Conservation of Nature
 KPK Anti-Corruption Commission (Indonesia)
 LEAF Law Enforcement Assistance for Forests

LTPA Legal Timber Protection Act
LTV Legal Timber Verification

MINFOF Ministère des Forêts et de la Faune (Cameroon)

MONUSCO United Nations Organization Stabilization Mission in the DRC

MoUMemorandum of UnderstandingNGONon-Governmental OrganizationNIRSNear-Infrared SpectroscopyNTFPNon-Timber Forest Product

NWO Dutch Organisation of Scientific Research

ODI Overseas Development Institute

PEFC Programme for the Endorsement of Forest Certification

PFD Permanent Forest Domain
PNG Papua New Guinea

PTPA United States-Peru Trade Promotion Agreement

RAFT Responsible Asia Forestry and Trade

REDD Reducing Emissions from Deforestation and Forest Degradation RIFPI Research Institute of Forestry Policy and Information (China)

RL Legal Reserves (Brazil)
RWE Roundwood Equivalent

SABLSpecial Agricultural Business LeaseSDGSustainable Development GoalSEFAPara's state Finance Agency (Brazil)

SEMAS Para's Environmental and Sustainability Secretariat (Brazil)

SEMMAMunicipal Environment Secretariat (Brazil)SFAState Forestry Administration (China)SFMSustainable Forest ManagementSMESmall- and Medium-Scale EnterpriseSNPSingle Nucleotide Polymorphism

SNUC National Conservation Area System (Brazil)

SVLK Sistem Verifikasi Legalitas Kayu (Indonesian Timber Legality Verification System)

TLAS Timber Legality Assurance System

TTP Timber Transport Permit

TREE Timber Regulation Enforcement Exchange

UN United Nations

UNCED United Nations Conference on the Environment and Development

UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

UNGA UN General Assembly

UNODC United Nations Office on Drugs and Crime

UNTOC United Nations Convention against Transnational Organized Crime

US United States

VPA Voluntary Partnership Agreement
 WCO World Customs Organization
 WTO World Trade Organization
 WWF World Wide Fund for Nature

Chapter 2

Defining Illegal Forest Activities and Illegal Logging

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2.1 Introduction

A dictionary definition of the term illegal tells us that it means something "not allowed by the law". 1 According to the same dictionary, a law is "the system of rules of a particular country, group or area of activity". To further clarify the meaning of illegal, it is also useful to consider its synonyms, which include "criminal", "illegitimate" and "irregular".2 The term "criminal act" is often used interchangeably with the term "illegal act". However, the former has a more markedly negative connotation, as it refers to an act that is sanctioned under criminal law. Furthermore, a crime may be carried out by someone whose activities are normally legal, such as a logging company, or by a criminal organization whose main goal is to carry out criminal acts, as discussed in Chapter 5. The term "irregular", on the other hand, refers to "a behaviour or action not according to usual rules or what is expected". It may refer, for instance, to an action that deviates from a certain procedure specified in a voluntary code of conduct that does not have the status of law. Though not a synonym, the term "informal" has also become quite prominent in recent discussions about illegality in the forest sector. It deserves some qualification to avoid conflation with the term "illegal" and it will be considered in the following section.

This general discussion about the meaning of illegality highlights that to clarify the concept of illegality in the forest sector we need to consider several questions:

- Which are the activities whose illegality has been considered in the context of forest management?
- How has the illegality of those activities been defined in the laws of specific countries?
- How can the equity of legal frameworks regulating forest activities in timber producing countries be ensured?

These questions will be addressed in turn in the following three sections.

2.2 Definitions of Illegal Forest Activities and Illegal Logging from the Literature

There are many activities that affect forests and that may be considered to be illegal. This section discusses definitions of illegal forest activities and illegal logging. It then notes, very briefly, key trends in those activities to highlight the illegal activities that could be having significant impacts on forests and people.

The Forest Law Enforcement and Governance (FLEG) East Asia Ministerial Conference, held in Bali on 11-13 September 2001, was one of the cornerstone international events of what the Ministerial Declaration, issued at the

Selected indicative actions agreed at the East Asia FLEGT Ministerial Conference*

Box **2.1**

National Level Actions

- High level expression of political will
- Legislative / judicial, including stronger penalties, integration of customary law into formal law
- Decentralization, including clarifying rules, responsibility and authority between different levels of government, private sector, civil society, and rationalization of conflicting formal and customary norms and laws
- Institution and capacity building, including support for education, technology transfers, and strengthening of forestry and other institutions
- Concession policy, including allocation and management processes
- Conservation and protected areas, including environmental education and involvement of local authorities in programmes to benefit local communities
- Public awareness, transparency and participation, including increased public awareness of forest crimes, and provision of alternative livelihood opportunities for communities
- Bilateral actions, involving transboundary cooperation for protected areas and voluntary agreements for combating trade in timber and illegal forest products

Regional and Inter-regional Actions

- Information/expertise sharing, including timber tracking mechanisms and chain of custody audits
- Trade/customs, including protocols for sharing export/import data, and prior notification between importing and exporting countries
- Bilateral actions, including voluntary bilateral agreements to cooperate on issues of combatting illegal logging and trade, and use of certification schemes that are accessible and cost-effective for smaller forest enterprises
- Research, including systematic comparative analysis of patterns of regulatory systems and extrasectoral links, and survey patterns in forest crime and related corruption
- *The indicative actions amount to three pages of dot points, and cannot be fully listed due to space constraints. However, all the top tier indicative action points are reported. Only some of the second tier indicative action points are included.

conference, called "the fight against forest crime" (see Chapter 7 for a more detailed discussion of the development of illegal forest activities as a global policy issue).

dictionary.cambridge.org/dictionary/english/illegal

www.thesaurus.com/browse/illegal?s=t

Although the Ministerial Declaration did not define the concept of forest crime, it did provide a sense of its complexity. First, the text of the declaration states that forest ecosystems were threatened "by negative effects on the rule of law by violations of forest law and forest crime, in particular illegal logging and associated illegal trade": this clearly defines illegal logging and related trade as subsets of violations of forest law. Second, the comprehensive list of indicative actions that should be implemented to improve forest law enforcement and governance includes not just measures related to illegal logging and trade, but also measures to deal with trade in illegal forest products in general, customary norms and laws, and addressing communities' livelihoods (Box 2.1). This broad perspective on forest law enforcement and governance is significant for the scope of this chapter and the following ones. In fact, the research that followed the FLEG East Asia Ministerial Declaration provided more detailed characterizations of illegal forest activities, including illegal logging and trade while reflecting the broad scope and complexity of the problem as set out in the Ministerial Declaration.

Illegal forest activities were defined by Tacconi et al. (2003:3) to include "all illegal acts that relate to forest ecosystems, forest-related industries, and timber and nontimber forest products. They range from acts related to the establishment of rights to the land to corrupt activities to acquire forest concessions, and activities at all stages of forest management and the forest goods production chain, from the planning stages, to harvesting and transport of raw material and finished products, to financial management." A broadly encompassing definition of "illegal logging" is used in a recent assessment carried out by Chatham House that defines it "as all illegal practices related to the harvesting, processing and trading of timber" (Hoare, 2015: 2). The report stresses that the definition also includes illegal clearance of forests for other land uses (a practice known as "illegal forest conversion"). The practice can involve converting forest land without the necessary permit or operating under a licence that has been obtained illegally, including through corrupt processes. Such conversion may involve illegalities in other sectors – for example, the breach of requirements enshrined in agricultural or mining legislation. The harvesting of timber from illegally-established plantations is also included in this definition of illegal logging (Hoare, 2015: 2). However, the term logging commonly implies "the activity of cutting down trees in order to use their timber".3 From a research perspective, which requires clear definition of the terms used, it might appear appropriate to use the concept of illegal logging in the literal sense, that is, all illegal practices related to the harvesting of timber. This definition excludes however, activities such as processing of illegal timber (or illegally processing timber if the processing operation does not have the appropriate licenses to operate), trading of illegal timber, illegal expropriation of customary forest lands, illegal

conversion of forest land, and the other categories presented in Table 2.1.

As noted in the introduction, so-called informal logging has been considered in the context of illegal forest activities. It is generally recognised that the nature of small-scale, sometimes informal, logging is very different from large-scale logging (Wit et al., 2010; Cerutti et al., 2014; Putzel et al., 2015) (see Box 2.2 for an example of this type of logging activity). Small-scale producers are also referred to as artisanal producers. They harvest significantly smaller volumes of timber compared to logging companies, the large scale operators. The International Conference of Labour Statisticians (Hussmanns, 2003) provides definitions of informal sector and informal employment that are useful to shed light on the difference between "illegal" and "informal". Informal sector refers to "unincorporated enterprises that may also be unregistered and/or small" (Hussmanns, 2003). Therefore, small-scale, often informal, activities are not automatically illegal given that: i) small-scale logging may be regulated; ii) operating informally could involve working in an unregulated area. However, there has been a tendency to include such small-scale informal activities in the published rates of illegal logging of many countries (e.g. Hoare, 2015 for recent estimates). Obviously, it is also true that in some cases, informal producers may be carrying out illegal activities banned by the law (e.g. logging in protected areas) or simply without complying with the law because they find it difficult (Hoare, 2015) (e.g. logging in allowed areas but without complying with over-complicated regulations). We will return to the treatment of small-scale logging in Sections 3 and 4.

Small-scale informal timber extraction in Ecuador (Mejía and Pacheco, 2014)

Box **2.2**

Informal logging operations provide a lot of flexibility to smallholders in terms of volumes being extracted. These volumes range between one and three cubic metres per operation, with an extraction rate between two to seven times per year, which makes a maximum of 21 cubic metres per year. Smallholders tend to sell planks produced with chainsaws using timber which originated from informal small-scale operations mobilized through an extensive network of small depots and sawmills established within the communities or in the outskirts of the main cities. The timber is transported by small-scale intermediaries and sold to depots, sawmills or carpentries who transform the pieces into intermediate products for construction or final products, such as furniture and fruit boxes. The processed timber is subsequently transported with a purchase receipt to other depots, sawmills or stores where it is sold to end- consumers.

A detailed classification of illegal forest activities based on the definitions discussed above is presented in Table 2.1 (see Box 2.3 for some examples of illegal activities). Tacconi et al (2003) - from whom the table is drawn and modified as noted later – highlighted the types of laws infringed by those activities. Violations of public trust and public, communal or private ownership rights may involve acts against constitutional, civil, criminal or administrative law. Violations of forest management regulations and other contractual agreements in either public or private forestlands are acts against forest legislation; this is the category that includes most of the acts that may be most appropriately referred to as illegal logging. Violations of transport and trade regulations include acts that violate forest legislation, but they may be related to legally or illegally harvested forest products. This category is referred to as illegal timber trade. Timber processing activities may be regulated by industry and trade-related legislation, as well as forestry legislation. In this category, a violation directly linked to illegal logging is the use of illegally harvested logs. Violation of financial, accounting and tax regulations may involve acts related to legally or illegally harvested and/or traded timber. This category is referred to as illegal financial activities.

The many different illegal activities may be linked to each other in different ways (Tacconi et al., 2003). Two of the most significant links identified are as follows. First, violations of public trust and ownership rights may result in the establishment of forest operations that appear to be legal. Timber extracted by those operations may seem legal to unaware traders and consumers, unless schemes aimed at certifying legality also assess that due process is followed in the allocation of land to forest activities and in the allocation of forest concessions. Second, all violations can occur as the result of corrupt activities. Corruption can affect the allocation of forest land, monitoring of forest operations and law enforcement (e.g. Tacconi et al., 2009). Therefore, it could be a significant factor contributing to illegal forest activities.

Table 2.1. has been modified from the original presented by Tacconi et al. (2003) in order to highlight the actors that may be potentially involved in carrying out illegal activities. It should be stressed that the attribution of certain illegal activities is based on the general nature of the activities that those actors carry out, and therefore can only be indicative.

A detailed analysis of the extent of specific illegal forest activities will be presented in the following chapters. However, it is useful here to briefly summarise recently reported trends in illegal activities in order to exemplify the relevance of the classification of the illegal activities presented above. In recent years, there appears to have been a decline in the illegal allocation and management of large-scale forest concessions for selective logging (which are common in many tropical timber-producing countries) and that unlicensed large-scale logging by logging companies is now less prevalent in many countries, particularly in Brazil and Indonesia (Hoare, 2015). Conversely, there seems to have been an increase in illegal timber production from forest conversion and from

informal small-scale logging (Hoare, 2015). Several issues are worth noting in relation to these trends and their relationship to the definitions discussed earlier:

- Quantitative assessments of the extent of illegality in the forestry sector have focused to a significant extent on the volumes of illegal timber produced and traded, as will also become apparent from the data presented in the following chapter. There is therefore a lack of data on the extent of the many other illegal forest activities that have been summarized in Table 2.1. This gap will need to be addressed in order to fully understand the phenomenon of illegal forest activities, as well as illegal logging and related timber trade given that many of the illegal activities are thought to be connected.
- Illegal production of timber from forest conversion is without doubt a significant problem, however illegal forest conversion without timber production should be better documented and considered by policy initiatives aimed at reducing illegality in the sector as it can be expected to have significant negative environmental impacts.
- Small-scale informal logging should not be equated with illegal small-scale logging (see Section 2.3.2). Whilst the apparent increase in the production of illegal timber by informal small-scale producer has been reported above, more scrutiny will need to be applied to studies that address that topic for two reasons. The first is that whether those informal activities are actually illegal will need to be ascertained. The second reason is that whether the legislation regulating small-scale logging is appropriate and equitable needs to be ascertained, as in several countries there appears to be some bias against small-scale producers, as discussed in Section 2.3.2.

Let us now turn to discussing if and how the legality/illegality of forest activities is dealt with in the regulatory frameworks of key countries.

2.3 Definitions of Illegality According to the Law of Key Countries

2.3.1 Illegal Forest Activities in the Laws of Timber Importing Countries

United States of America, European Union and Australia

With the aim to close off key markets to illegal timber, the US, the EU and Australia adopted laws prohibiting illegally-harvested timber products from entering their markets. In 2007, the US adopted the Legal Timber Protection Act (LTPA) to amend the Lacey Act Amendments of 1981. In 2010 the European Union (EU) adopted the EU Timber Regulation (EUTR) – which covers a wide range of timber products, including plywood, veneer, particle board and furniture – and in 2012 Australia passed the Illegal Logging Prohibition Act (ILPA). In order to ensure

Illegal forest activities and actors			Table 2. I
Typology of Illogal Activities	Actors mos	it a specific	
Typology of Illegal Activities	Public officials	Formal companies	Small-scale loggers
Violations of public trust			
Forestlands allocated unlawfully to other uses	V		
Issuing and implementing regulations conflicting with other/higher regulations to legalize illegal timber products and activities	~		
Issuing logging concessions, permits and authorizations in exchange for bribes and other private economic and political benefits	~	~	~
Using bribes, threats and violence to avoid prosecution/penalties or to obtain complacency		~	
Using funds from illegal forest activities for political purposes	✓		
Violations of public, communal or private ownership rights			
Illegal expropriation of indigenous, community or private land and/or forests	<i>V</i>	V	
Illegal occupation of public forestlands, including slash and burn agriculture	•	V	V
Illegal harvest on public lands (outside concession areas)		V	V
Illegal harvest on indigenous lands		V	~
Violations of forest management regulations and other contractual agreements in either public or private forestlands			
Logging without authorizations and/or required plans		~	~
Logging in excess of permitted cut		~	
Logging unauthorized volumes, sizes, species (including protected ones)		~	~
Logging in prohibited areas such as steep slopes, riverbanks and water catchments		~	~
Girdling or ring-barking to kill trees so that they can be legally logged		~	
Logging in protected areas		~	~
Arson to force conversion to other land use		~	~
Violations of transport and trade regulations			
Transporting logs without authorization		V	V
Smuggling timber		V	V
Exporting and importing tree species banned under international law, such as CITES		~	
Exporting and importing timber in contravention of national bans		V	
Violations of timber processing regulations			
Operating without a processing licence		V	V
Expanding capacity without authorization		V	
Using illegally-obtained wood in industrial processing		V	
Operating in violation of environmental, social and labour laws		V	V
Violations of financial, accounting and tax regulations			
Untrue declarations of volumes, species, values		V	
Declaring inflated prices for goods and services purchased from related companies, including transfer pricing		~	
Evasion and avoidance of taxes		V	~
Money-laundering through forest activities, or from illegal forest activities		V	

Box **2.3**

Examples of illegal forest activities

Illegal financial activities in the Peruvian Amazon (based on Mejía and Pacheco, 2014)

In Pucallpa, Peru, there is a cluster of companies that are run with Chinese investments under an informal value transfer system. This system avoids transferring funds from China to Peru; other enterprises, such as restaurants and markets, provide local cash in exchange for direct payments in China. This procedure avoids national taxation and provides some rapid cash to purchase timber. Chinese buyers in Pucallpa use street moneychangers to make payments to timber sellers, since most of the time they deal in small quantities and bills are settled at the end of the week. Priority is given to hardwood species used for decking (*Dipteryx micrantha*) on which these buyers practically exert a market monopoly.

Illegal logging associated with forest concessions in Cameroon (based on Cerutti et al., 2016)

In Cameroon, forests on national lands are included into the Permanent Forest Domain (PFD) in the form of protected areas and Forest Management Units (FMUs). The PFD covers about 16.3 million hectares, of which about 46 percent is covered by 114 FMUs which have been attributed over the period 1996-2013. The prevalent type of illegal logging in the 1990s – when much of the designated PFDs were still "free" and no management plans were approved and implemented – was harvesting outside boundaries. As more FMUs were granted to companies, it became gradually more and more difficult to harvest trees outside the FMUs' established boundaries, and thus the prevalent types of illegalities shifted within the borders of the FMUs and outside the PFD. Illegal logging inside the FMUs' boundaries consisted initially of over-harvesting, i.e. harvesting species in higher volumes or numbers than those legally authorised. But these and more companies adopted and implemented (albeit partially) forest management plans. The latter type, i.e. illegalities outside the PFD, consisted largely in harvesting timber through special logging authorisations (e.g. timber recovery permits) that were not meant for such purpose

Criminal network for illegal logging and trade in Brazil (based on Greenpeace, 2015)

In August 2015, Brazil's Federal Police and Federal Prosecutor started an investigation against a large illegal logging and trade network. Fraudulent timber credits and transport documents gave a legal appearance to illegally-logged timber. A large timber (exporter) company in Santarem (Pará) that also owned several sawmills coordinated the illegal timber scheme. It was found to have used fraudulent documents for trading illegal timber. Corrupt officials were found at the Federal level (Environmental Inspection Agency IBAMA, Institute for Colonisation and Agrarian Reform INCRA), at the state level (Pará's state Finance Agency SEFA and Pará's Environmental and Sustainability Secretariat SEMAS), and at the municipal level (Municipal Environment Secretariat SEMMA). Among those arrested were a high-ranked super intendant of INCRA, a politician, and a municipal secretary for the environment.

compliance, economic operators are required to exercise due care (LTPA) or due diligence (EUTR, ILPA). Although all three laws prohibit the import of illegally-harvested wood products, each has a distinct definition (Leipold et al., 2016).

The LTPA makes it unlawful in the US to import, export, transport, sell, receive, acquire or purchase in interstate or foreign commerce plants or their parts taken in violation of the laws of a US State or Tribal Law, or any foreign law, or to make or submit any false record, account, label or false identification (Legal Timber Protection Act of 2008). The EUTR prohibits "[t]he placing on the market of illegally harvested timber or timber products derived from such timber" (EUTR, 2010, Article 4). The ILPA "prohibits the importation of illegally logged timber and the processing of illegally logged raw logs" (ILPA, 2012, Article 6).

Considering the above-three laws in relation to the categorization of illegal forest activities and illegal logging presented in the previous section, the ILPA defines illegality solely in relation to the act of "logging" or "harvesting". The LTPA's provisions, in contrast, may include violations of trade or transport law. In a similar fashion, the EUTR includes all rights related to harvesting, tenure rights affected by harvesting as well as trade and customs laws to the extent that these concern the forest sector. The EU further promotes broader definitions of illegal timber through its Voluntary Partnerships Agreements (see Section 2.3.2). Hence, the LTPA and the EUTR recognize the complexity of the phenomenon by acknowledging that different illegal activities may be linked to each other and that a large number of wood-based products is processed from illegally-harvested timber and then traded globally. The ILPA, in contrast, applies a narrower focus on "harvesting" and on raw logs.

The major aim of all three laws is to prohibit international trade in illegal timber products that had been traded until then without impediments by customs authorities (Humphreys, 2006; Leipold et al., 2016). For the first time, the laws used a mandatory approach to regulate illegal logging, thus they have been portrayed as a shift from voluntary to mandatory measures on a global scale (Leipold et al., 2016). This shift has been viewed by some authors as necessary and beneficial for global forest stewardship (Bartley, 2014; Cashore and Stone, 2012; Overdevest and Zeitlin, 2014). However, concerns have been raised about the potential negative effects on small-scale producers (McDermott et al., 2015) and that the focus on "legality" promotes a much narrower perspective on global forest management and, thus, draws attention away from the more comprehensive concept of sustainability (Bartley, 2014; Leipold et al., 2016). Considering the latter point is beyond the scope of this chapter, but we do return to the issue of legal frameworks concerning small-scale producers in Section 2.3.2.

China

Since the introduction of a domestic logging ban in 1998, China has become the world's largest importer of tropical timber (see Chapter 3). It is also a key processing country: for example, it is the leading manufacturer of furniture worldwide with 40 percent of the global market share (Richer, 2016) and much is exported to the US and Europe. Therefore, how China defines legality and/or illegality of timber products matters for the debate on illegal logging and trade worldwide.

Unlike the other countries mentioned above, China does not have dedicated legislation aimed at curbing illegal timber imports. However, the Regulation on the Implementation of the Forestry Law of the P.R.C. (2000) refers to legality in two articles:

- Timber-sourcing companies and individuals are not allowed to source timber without harvesting permits (in the case of timber produced in China) or other evidence of legal origin (Article 34).
- To obtain timber transportation permit, one needs to provide the following documents: 1) timber harvesting permit or other evidence of legal origin... (Article 36).

A problem related to the implementation of this regulation is that it does not define what constitutes "other evidence of legal origin".

Apart from the Forestry Law, timber importers and exporters need to comply with several other laws and regulations that apply generally to operating a business – such as business law, tax law, customs law – as well as those more specific to an importing and/or exporting business – such as obtaining the appropriate import and export licences and permits, including those relevant to plant material, such as phytosanitary and fumigation certificates (requirements that also apply in the countries considered in the previous section).

Despite the lack of specific legislation on illegal timber trade, partly in response to the increasing pressure from international NGOs (e.g. EIA, 2012; Global Witness, 2014), the Chinese government and industry stakeholders have launched several voluntary certification and membership initiatives: Legal Timber Verification (LTV) certification⁴, the China Responsible Forest Product Trade and Investment Alliance⁵ and the China Timber Legality Verification Scheme (CTLVS)⁶. These initiatives emphasise the importance of supply chain traceability and due diligence. In addition, the State Forestry Administration has published voluntary guidelines emphasising legal timber production, trade and investment for Chinese timber companies (Li et al., 2015). It is worth noting that these are voluntary initiatives and do not carry the same weight as laws and regulations.

After considering the definitions of illegality in timber importing countries, the next section addresses those of producing countries, including countries that have signed Voluntary Partnership Agreements (VPAs) with the European Union, and Brazil, the country with the largest forest area and illegal forest clearing estimated at between 68



Stock of logs and sawnwood at Canton harbour (China Photo © Fotolia: valleemarie

and 90 per cent of total forest clearing between 2000 and 2012 (Lawson, 2014). Another significant country from the perspective of forest area and illegality, Indonesia, is addressed in the section on VPAs.

2.3.2 Definitions of Legality of Timber in the Laws of Timber Producing Countries

Countries that have signed VPAs

The EU's Forest Law, Governance and Trade (FLEGT) Action Plan established in 2003 aims to reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally-produced timber (FLEGT Briefing Note 2). The Action Plan identifies seven broad measures, one of which is to promote legal timber trade through the negotiation of VPAs between the EU and timber exporting countries outside the EU (VPA partner countries). The VPA seeks to ensure that timber and timber products imported into the EU from a partner country comply with the laws of that country (FLEGT Briefing Note 6). Each VPA includes a definition of timber legality, which represents a core element of the timber legality assurance system that has to be negotiated and agreed between the two sides before the signing of the VPA. Timber and timber products must comply with this definition in order to receive FLEGT licences. VPAs define legality according to existing national laws and regulations. As part of the VPA negotiation process, multi-stakeholder discussions on the legality definition have identified gaps or inconsistencies in existing laws as well as legal and/or policy

⁴ Led by the China National Forest Products Industry Association. For more information: http://forest-trends.org/documents/files/doc_4296.pdf

⁵ Led by the Research Institute of Forestry Policy and Information (RIFPI) of the Chinese Academy of Forestry (CAF) with support from the State Forestry Administration. For more information: www.greentimes.com/green/news/lscy/cjxw/content/2016-04/28/content_333270.htm (Chinese)

Led by the Research Institute of Forestry Policy and Information (RIFPI) of the Chinese Academy of Forestry (CAF) with support from the State Forestry Administration. For more information: www.illegal-logging.info/sites/files/chlogging/Day%201_Session%201_Chen%20Shaozhi.pdf

reforms to address these gaps. Timber-related laws in producing countries are not always consistent and sometimes establish conflicting responsibilities between government agencies. Moreover, some laws may favour some actors while marginalizing others in society.

A partner country has the right to decide which laws are applicable for defining legal timber, but the EU suggests that the definition of legality should include the laws that address economic, social and environmental objectives (FLEGT Briefing Note 2), such as:

- Complying with harvesting rights within legally-established areas;
- Complying with relevant environment, labour and community welfare requirements;
- Complying with requirements on tax, import and export duties, royalties and fees related to harvesting and trade;
- Respecting local tenure rights;
- Complying with trade and export procedure requirements.

VPA partner countries present information on legality in different ways according to their needs, circumstances and existing systems. As a result, an annex on the legality definition may include several legality matrices that apply different standards to different sources of timber, such as community forests, plantations or logging concessions. For example:

- Indonesia has several legality matrices for different kinds of rights holdings;
- Cameroon has several legality matrices for different types of forests and selling rights;
- Ghana has a single legality matrix that applies all along the supply chain for timber and to timber products from all types of forest.

As of July 2016, six countries had signed a VPA with the EU (Box 2.4) and another nine countries were involved in negotiations.⁷ The countries that have signed VPAs are timber producing countries, but there are countries (like Vietnam and Thailand) negotiating VPAs that are importing timber for processing. The timber legality definitions in the countries that have already signed a VPA broadly follow the EU's indication of the elements to be included into the definition itself.

The scope of the timber legality definition in these countries is different from that in timber producing countries. The legality definition being developed in Vietnam is divided into two sections: one for organizations (operators registered as business, including private, state-owned and cooperatives) and one for households (local households, individuals and communities) which helps in clarifying the different legal requirements for harvesting, processing and trade that apply to these types of operators. As Vietnam imports timber from more than 90 different sources (To et al., 2016), controlling the legality of those imports may be a significant challenge. Therefore, one of the seven

principles used to define legal timber in Vietnam is directly related to imported timber.

Brazil

The management of Brazil's forests is based on a broad set of laws, norms and regulations that establish the conditions under which logging and other forest-related activities can occur. While Brazil has a relatively stringent and prescriptive forestry legislation, it does not have a specific and straightforward definition of illegal forest activities or illegal logging. To determine whether timber or deforestation is illegal, federal, state and municipal legislation need to be considered, because those are the three levels of government involved in forest management (Toni, 2011). As an important producer, processor and consumer of timber products, Brazil's efforts to slow down deforestation in the Amazon during the last decade have been internationally acknowledged. Yet illegal forest activities are a serious and persisting issue.

There are several relevant laws. The Forest Code (introduced in 1934, with the most recent amendment taking place in 2012) establishes the minimum parameters for conservation of forests within private landholdings, including Areas of Permanent Protection and Legal Reserves. The Environmental Crimes Law (1998) sets criminal and administrative sanctions for behaviour and activities that harm the environment, including crimes against the flora, such as the destruction or damage of Areas of Permanent Protection and Legal Reserves. The legal framework is also composed of the National Conservation Area System (2000), which establishes protected areas with specific restrictions and conditions on land use, and the Public Forest Management Law (2006), which regulates the exploitation of public forests. Applicable regulations also relate to timber tracking and control systems at the national and state levels, requiring timber transportation to be accompanied by documents of origin and corresponding cargo invoices. Therefore, illegal forest activities take place in Brazil when there is violation of laws on forest use and conservation, and breaches of requirements related to the production, processing, transportation and commercialization of timber.

According to Brazilian legislation, logging must be carried out in accordance with a government-approved forest management plan, or through an authorization by the environmental authority to eliminate native vegetation or to convert the forest to other land uses, while observing the limits and conditions established by law. Logging is thus illegal when it occurs without the proper approval, or when it is not in accordance with the obtained permit. Conversely, timber is legal when it complies with all regulations, whether originating from forest management or deforestation, as long as it has been authorized by environmental agencies. Timber is illegal when sourced from public areas or protected areas. Brazil's domestic law enforcement efforts have sought to curb illegal deforestation and

⁷ The nine countries are Cote d'Ivoire, Democratic Republic of the Congo, Gabon, Guyana, Honduras, Laos, Malaysia, Thailand and Vietnam. For detailed information see www.euflegt.efi.int/vpa-countries

Definitions of legality in Voluntary Partnership Agreements

Box **2.4**

Cameroon

VPA signed on 6 October 2010, entry into force on 1 December 2016

Legality of timber is defined as "based on compliance with national laws and regulations and duly ratified international legal instruments, [...] in order to guarantee the viability of forest management by the producing and/or exporting enterprises, its suppliers and subcontractors in the name of the owners of the forest (the State, the local government district, a private owner or a community" (EU – Cameroon VPA, 2011). Eight legality matrices have been developed to define legal timber from different supply sources and from processing units: forest management units, state logging in communal forest, salvage licence, harvested timber removal licence, cut timber sale, state logging in community forests, special permit and timber processing units. In addition to these legality matrices, four other matrices are foreseen to be created in future for the following supply sources: private forests, lumber permits, personal timber licences, and non-state logging in communal and community forests.

Central African Republic

VPA signed on 28 November 2011, entry into force 1 July 2012

The timber legality definition comprises indicators that are grouped into ten main themes: i) the company is legally established, ii) the company has legal access rights to forest resources in its area of operation, iii) compliance with environmental legislation, iv) the rights of workers, local and indigenous communities, v) legislation on forest logging, vi) processing of forest products, vii) general and forest taxation, viii) the transport and traceability of timber forest products is in accordance with the regulations, ix) compliance with contractual obligations and x) relationship with sub-contractors in activities rather than timber production. The legality definition also spells out different legal requirements for different logging concessions such as those on State natural forests, plantations, on areas with 10 ha or less, and on community forests with no more than 5,000 ha.

Ghana

VPA signed on 4 September 2009, entry into force on I December 2009

Ghana's definition of legal timber involves "a subset of laws contained within the legal framework for timber harvesting, processing and export" (EU – Ghana VPA). Ghana's legality standards set out seven principles: i) source of timber – timber originated from prescribed sources and concerned individual, group and owners have given their written consent to the land being subjected to the grant of timber rights; ii) timber rights allocation, iii) timber harvesting operation, (iv) transportation, (v) processing, (vi) trade, and (vii) fiscal obligations. Under each principle, there are criteria and verifiers that allow the identification of legal timber.

Indonesia

VPA signed on 30 September 2013, entry into force 1 May 2014

Timber is deemed legal "when its origin and production process as well as subsequent processing, transport and trade activities are verified as meeting all applicable Indonesian laws and regulations." (EU – Indonesia VPA). There are five legality standards which inform the constitution of legally-produced timber:i) for concessions within production forest zones on state-owned lands; ii) for community plantation forests and community forests within production zones on state-owned lands; iii) for privately-owned forests; iv) for timber utilisation rights within non-forest zones on state-owned lands, and v) for primary and downstream forest-based industries. Each standard includes a series of principles, criteria, indicators and verifiers. FLEGT licensing started in 15 November 2016.

The Republic of Congo

VPA signed 17 May 2010, entry into force 1 March 2013

Under the VPA, legally-produced timber is defined as "Any timber from acquisition, production and marketing processes that meets all of the statutory and regulatory provisions in force in Congo applicable to forest management and logging." There are two matrices for assessing the legality of timber, one for natural forests and the other for forest plantations. Besides the logging, processing and trade of timber, the legality matrices also consider the following elements in the legality definition: condition stipulated for the existence of a forest company, compliance with tax rules and environmental protection and conservation, worker conditions, local participation and tenure rights, compliance with timber transportation regulations.

Liberia

VPA signed 11 July 2011, entry into force 1 December 2013

The VPA covers all timber exported or used domestically. The legality definition covers five main areas: i) harvesting rights: granting of legal rights to harvest timber within legally-gazetted areas, ii) forest operations: compliance with legal requirements regarding forest management, including requirements on labour and environment obligations, iii) fees and taxes: compliance with requirements on taxes and fees related to timber harvesting and harvesting rights, iv) other users: respect for other parties' legal tenure or rights of use of land and resources that may be affected by timber harvesting rights, where such rights exist, and v) trade and customs: compliance with requirements for trade and customs procedures. The definition also identifies timber sources and the legal requirements for those sources. The sources are: domestically grown timber (excluding Private Use Permit), rubberwood and other timber harvested under agricultural concessions, abandoned timber, confiscated timber and imported timber. However, currently the VPA includes specific requirements only for timber harvested under Forest Management Contract (50,000 – 220,000 ha) and Timber Sales Contracts (max 5,000 ha), and the other sources would require amendments of the VPA legality definition, as the regulations were not yet written when the VPA was signed.

Small-scale production of timber in selected countries and its significance						
	Cameroon	Gabon	Democratic Republic of the Congo (DRC)	Indonesia	Ecuador	
Annual domestic consumption from informal chainsaw milling (sawnwood, 000 m³)	662	50	1,024	1,408	60–76	
Annual formal production* (sawnwood, 000 m³)	360	150	36	1,199	170	
Estimated informal jobs (,000)	45	1	25	1,500	3.6	
Contribution to the economy (million Euro)	32	1.6	34	63	9	
Profit per m³ harvested (Euro/m³ RWE)	5	6	4–24	85	7–183	

^{*} Almost all formal sawnwood production is exported, apart from the case of Indonesia.

RWE = round wood equivalent

Source: Cerutti et al., 2014

improve legal forest management, however the myriad of strict regulations and complex bureaucracy have also made legality difficult to achieve for many small-scale producers (McDermott et al., 2015).

Regulatory treatment of small-scale logging

The volumes of timber harvested by small-scale, often individual and informal chainsaw millers and their financial contribution to the sector (both in rural and urban areas) have been growing over the past two decades and are now-adays substantial (Wit et al., 2010; Cerutti et al., 2014). The small-scale logging sector supports the livelihoods of hundreds of thousands of local forest users including farmers, indigenous communities, chainsaw millers, traders and service providers such as transporters.

The sector is characterized by the activities of smallholders, chainsaw millers and traders, who rarely own a legal harvesting permit and extract and process small quantities of timber with chain or mobile saws. The resulting low-quality timber is traded in domestic markets or across the borders of neighbouring countries, with little formal taxation. However, as the product moves along the production chain, varying and generally large percentages of the total costs incurred by informal operators are paid in bribes to representatives of ministries, local police, the military and customs officials (Cerutti et al., 2013). Often, national forest policies have banned or suspended the only legal titles available to small-scale loggers (Table 2.3). This approach pushes small-scale producers into the informal sector and often makes their production outright illegal. This brief discussion about the treatment of small-scale producers highlights the need to consider the legitimacy and the equity of the law.

2.4 Legislation and Equity

As with any law, the implementation of measures to address illegal forest activities, and illegal logging more

specifically, may lead to inequitable outcomes. These potential inequitable effects were raised a decade ago when specific policies to address illegal forest activities were starting to take shape in some of the timber producing and importing countries (Colchester et al., 2006). In this respect, it is important that the design and implementation of legislation concerning illegal forest activities takes heed of existing practices that have been devised to avoid inequitable outcomes.

Practices like social and environmental safeguards (Savaresi, 2016) benefit-sharing arrangements (Morgera, 2014) and environmental and social impact assessments (Craik, in press) are designed to address concerns over the equitable implementation of natural resource laws and policies. The significance of this guidance and best practices for the purposes of illegal logging is twofold. On the one hand, legislation and regulations concerning illegal forest activities should be elaborated with meaningful participation of forest stakeholders, including indigenous and local communities. On the other hand, the implementation of these measures needs to take into account the rights of forest stakeholders, including those provided for under customary laws and human rights. When violations are alleged, individuals and/or groups affected ought to be given access to adequate grievance mechanisms (Savaresi, 2012).

These matters are all explicitly mentioned in intergovernmentally-agreed international guidance concerning the protection of biodiversity. Parties to the Convention on Biological Diversity (CBD) have over the years adopted guidelines specifically aimed at balancing conservation needs with indigenous peoples and local communities' rights and interests. In 2000, CBD Parties adopted the Akwé: Kon "Voluntary guidelines for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities" (CBD, 2004).

Table Status of permits for small-scale logging in key Central and West African 2.3 countries **Available permits Current situation** Country Suspended 1999-2006; volumes not adjusted; prohibitively Timber exploitation permit Cameroon expensive Gabon Discretionary permit Suspended Suspended in parts of the country; no permits issued in Congo Special permit other parts DRC Artisanal exploitation permit Suspended in parts of the country; incomplete regulation Central African Republic Artisanal exploitation permit Lack of implementing regulation Ghana Chainsaw milling Suspended since 1998 Liberia Chainsaw milling "Considered illegal" / Suspended

Source: Cerutti et al., 2014

The guidelines assert that activities in sacred sites and on lands traditionally occupied or used by indigenous and local communities should ensure that tangible benefits accrue to such communities, such as payment for environmental services, job creation within safe and hazard-free working environments, viable revenue from the levying of appropriate fees, access to markets and diversification of income-generating (economic) opportunities for small and medium-sized businesses. Equally, the 2011 Tkarihwaié:ri "Code of ethical conduct to ensure respect for the cultural and intellectual heritage of indigenous and local communities" (CBD, 2011) specifies that indigenous and local communities should receive fair and equitable benefits from activities related to biodiversity likely to impact on their sacred sites and lands they traditionally occupy or use.

The acknowledgement of the importance of customary laws and practices also features prominently in CBD guidance. The Akwé: Kon Guidelines assert that any development proposals should be assessed for possible impacts on the customary laws of an affected community. They furthermore recommend that if a development requires the introduction of an outside work-force, or requires changes in local customary systems (e.g. regarding land tenure, distribution of resources and benefits) it may be necessary to codify certain parts of customary law, clarify matters of jurisdiction and negotiate ways to minimize breaches of local laws. Similarly, the Tkarihwaié:ri Code asserts that activities occurring on lands traditionally occupied or used by indigenous and local communities should not interfere with access to traditional resources except with the approval of the community concerned. Instead, these activities should respect customary rules governing access to resources whenever this is required by the community concerned.

These elements feature also in safeguards adopted under the climate regime concerning the reduction of emissions from deforestation and forest degradation in developing countries (REDD+). REDD+ safeguards adopted

by the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) require that REDD+ activities promote and support transparent and effective national forest governance, public participation and respect the knowledge and rights of indigenous peoples and local communities; and, more generally, that they enhance other social benefits (UNFCCC, 2010).

Equally, the 2015 Voluntary Guidelines for the Sustainable Management of Natural Tropical Forests from the International Tropical Timber Organization (ITTO Voluntary Guidelines) emphasise, amongst others, the need to: empower communities to collaborate in sustainable forest management; create effective formal systems for ensuring the security of forest tenure; ensure that traditional use rights are clear and respected; address the local livelihood needs of people, including indigenous peoples and local communities; consult with local communities on the management of natural forests; and monitor the distribution of the costs and benefits of forest management among stakeholders (ITTO, 2015).

While UNFCCC safeguards, and ITTO and CBD guidelines do not impose obligations upon States, their guidance is meant to assist Parties in the implementation and interpretation of their obligations under the respective treaties. This guidance resounds with state obligations under human rights law. A host of human rights are closely connected with forest uses, including the right to life, the right to food, the right to property, the right to culture, indigenous peoples' right to self-determination, as well as procedural rights revolving around access to information, participation and justice. The protection of these rights in relation to forest uses has emerged across jurisdictions as particularly sensitive. Even in jurisdictions where human rights are formally acknowledged as a result of domestic or international law, their protection has to be balanced with that of other rights and societal priorities. With specific reference to natural resources, human rights law typically requires the establishment of procedures enabling



On the way from Kisangani to Masako village. Democratic Republic of the Congo. Photo © Ollivier Girard for CIFOR

those affected by new laws, regulations or developments to be informed and heard during their elaboration, and to have access to adequate remedies to address grievances concerning their implementation (Savaresi, 2012; 2013 and 2016). These principles are enshrined in the notion of Free Prior Informed Consent (FPIC), which has been increasingly recognised in the case law and practice of human rights bodies, as well as in human rights documents, such as the UN Declaration on the Rights of Indigenous Peoples. The role of FPIC has been increasingly recognized also in the context of international environmental agreements, including under the CBD (CBD, Article 8j) as well as in REDD+ guidance adopted by the UN-REDD Programme (UN-REDD, 2013). The ITTO Voluntary Guidelines recognize that indigenous peoples and local communities' right to FPIC "offers a means for achieving greater equity and a natural pathway to a co-management approach involving local communities in large development projects" (ITTO, 2015).

2.5 Conclusions

This chapter has discussed definitions of illegal activities that affect forest ecosystems and warns against conflating the concepts of illegal forest activities, illegal logging and informal logging. Drawing on the literature, a categorization of illegal forest activities has also been provided (Table 2.1) which includes an indication of the potential types of actors associated with them.

There has been a reported increase in illegal timber production from forest conversion and from informal small-scale logging (Hoare, 2015). The statistics that are being reported (see also Chapter 3) raise the following points:

 quantitative assessments of the extent of illegality in the forestry sector have mainly focused on the volumes of illegal timber. Consideration should be given to the

- collection of data on other illegal forest activities presented in this chapter in order to fully understand the phenomenon, given that many illegal activities may be connected:
- the definition of informal logging highlights the fact that it should not be equated with illegal logging. The apparent increase in the production of illegal timber by informal small-scale producers needs to be further analysed to ascertain whether those informal activities are also illegal.

In relation to definitions of illegality of forestry activities in the laws of specific countries, the legal frameworks of the US and the EU embrace the complexity of illegality in the forest sector which has also been highlighted in the literature. This appears to be less so in the case of the framework adopted by Australia. The legislation adopted by timber-importing countries defines illegal timber as timber harvested in contravention of producing countries' laws. Several timber producing countries have defined illegal timber – in their VPAs with the European Union – as that which contravenes a range of laws and regulations, including those on forest management, tax laws, trade regulations and land tenure rights. These experiences demonstrate that it is possible to enshrine the complexity of the concept of illegal forest activities in legislation. Other timber producing countries that aim at addressing illegal forest activities should consider adopting those broad definitions of illegality.

Whilst illegal forest activities by definition involve activities that are against the law, the equity of those laws also needs to be considered.

Informal, small scale logging has been made illegal in several countries which could be a factor contributing to the apparent increase in small scale illegal logging. It is also likely to have a direct negative effect on people's livelihoods.

■ The illegalization of small scale operators should therefore be taken into account in researching local and global trends in illegal forestry activities and in the design and implementations of policies aimed at reducing illegal forest activities.

Like other measures aimed at the conservation of natural resources, measures aimed to address illegal forest activities should take particular heed of existing guidance devised to avoid and minimize the negative impacts on the livelihoods of vulnerable indigenous and other rural communities.

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