

# IMPACTS OF POLICIES TO ELIMINATE ILLEGAL TIMBER TRADE

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## **Impacts of Policies to Eliminate Illegal Timber Trade**

#### **EXECUTIVE SUMARY**

Illegal timber trade stemming from illegal logging has tremendous social, economic and environmental consequences. Illegal logging negates the intent of sustainable forest management, often causing or leading to forest degradation and deforestation—outcomes that can devastate forest dependent communities. Such activity is also linked to habitat destruction and species extinction. In addition, illegal logging results in huge losses in assets on, and revenues from, public lands, as well as losses in taxes and royalties within developing countries. The global trade in illegally harvested timber is highly lucrative and comparable to the production value of illegal drugs. Recognizing the multiple and exorbitant costs of illegal timber trade, governments and trade associations are increasingly implementing policies to ensure the legality of imports and exports.

Establishment of policies aimed at stemming international trade in illegally logged timber started in the United States (Lacey Act Amendment) in 2008, followed soon thereafter by Europe (European Union Timber Regulation), Australia and other countries including China. These policies have had positive impacts, in part by sensitizing players in wood and paper supply chains to the effects of illegal logging and timber trade, and also by bringing the force of law specific to timber trade regulation. But without wider participation of governments in the effort to stem the flow of illegal timber, the actions of the United States, European Union, and others are likely to be ineffective. The reality is that if only legal timber goes to Australia, the European Union and the United States, illegal timber will simply flow to innumerable ports where customs agents are inadequately equipped to stop the illegal trade.

Systems for certification of sustainable timber management have laid the groundwork for verification of proof of legality from forest to consumer. The policies to prevent the trade of illegal timber have not yet increased sufficient consumer confidence to raise the demand for wood, including tropical timber. In fact, attention to illegal logging that policy discussions stimulated has led to several unintended consequences. Substitution of temperate species for tropical species has occurred, and worse from the standpoint of the forest sector, substitution of non-wood products for wood.

#### INTRODUCTION

Illegal logging refers to harvesting, transporting, processing, buying or selling timber and timber products in contradiction with national laws. The laws referred to are not only the laws regulating harvest, but may also cover laws regulating access to resources, land tenure, forest management, environmental protection, labor, community welfare, trade and export procedures and also taxes, duties and fees related to timber harvesting and timber trade. Illegal timber trade is the import and export of either illegally logged timber, or if the timber was legally harvested, then of timber linked to some other violation of law during the sequence of processing and trade until the final consumer.

The costs of illegal logging and trade are impossible to accurately quantify, since there are no statistics. However, there are estimates, which vary widely and are difficult to compare. In 2004, a Seneca Creek Associates and Wood Resources International study estimated that the trade of illegal timber causes losses as high as US\$ 1 billion a year to the US timber trade. In 2006, the World Bank estimated that

illegal logging losses in assets and revenues were over US\$ 10 billion on public lands in developing countries. In addition, governments lost US\$ 5 billion annually in taxes and royalties according to the World Bank. In 2012, the United Nations Environment Programme (UNEP) and the International Criminal Police Organization (Interpol) estimated that annual losses globally from illegal logging are from US\$ 30 to 100 billion, an amount equal to 10 to 30 percent of the total global wood trade. According to UNEP and Interpol, the three major hubs for imports of illegal timber are the US, the EU and China (Figure 1).

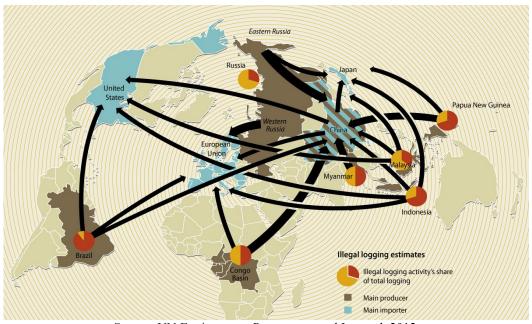


Figure 1: Illegal Trade of Timber and Illegal Logging

Source: UN Environment Programme and Interpol, 2012.

Potentially greater than all of the estimates above are the collective losses to the forest sector due to substitution of non-wood products. Architects, specifiers, builders and consumers appreciate the beauty, function and efficiency of wood products. But, when they confuse deforestation, illegal logging and illegal timber trade with wood products that are produced sustainably and legally, they might choose non-wood options. Numerous studies have demonstrated environmental benefits of using wood rather than alternative materials in building construction.<sup>1</sup>

The world's attention was drawn to the wide-ranging detrimental effects of illegal logging when the G-8 raised the issue in 1998 and launched an Action Programme on Forests. The Programme included recommendations as to steps that countries could take to eliminate illegal logging. In 2005, the G-8 Environment and Development Ministerial Conference prepared a plan of action, subsequently adopted by G-8 leaders, for reducing illegal logging activity and trade of illegally sourced timber.

The first regional Forest Law Enforcement and Governance (FLEG) conference was held in 2001 in Indonesia and resulted in the Bali Declaration, where participating countries committed to strengthening

<sup>&</sup>lt;sup>1</sup> Dovetail reports on the environmental benefits of using wood appear with other Dovetail reports at <a href="http://www.dovetailinc.org/reports">http://www.dovetailinc.org/reports</a>

bilateral, regional and multilateral collaboration. Collaboration is recognized as key to fighting illegality in international trade.

In 2003, the European Union (EU) initiated the Forest Law Enforcement Governance and Trade (FLEGT) Action Plan. The key difference from previous processes is the "T" for trade, which puts teeth into the plan. Without tackling the trade aspect, from which illegal logging gains revenues, other parts of the previous plan were weaker. Elimination of demand for illegal timber in international trade is just one aspect of the FLEGT Action Plan. FLEGT goes far beyond policies of individual countries, as it acknowledges shared responsibility between exporters and importers. The cornerstone of the plan is Voluntary Partnership Agreements (VPAs) with tropical timber producing and exporting countries. The VPAs include bilateral processes to establish legislation and its enforcement. As of early 2015, 15 countries had initiated or were implementing VPAs, with another 11 considering participation in them. VPA countries are to produce FLEGT-licensed timber for export to the EU and other destinations, of which the first shipments are forecast for 2016.

A 2004 UN Economic Commission for Europe meeting found that all countries in its region of Europe, North America and the Commonwealth of Independent States have some degree of illegal logging; however, illegality ranges from negligible to considerable (from less than 1 percent to in excess of 35 percent of legal wood volume harvested). The greatest illegal logging occurs in countries suffering from inadequate laws and enforcement. Illegal logging negates the intent of sustainable forest management, often causing or leading to forest degradation and deforestation.

Illegally harvested logs and wood products too often enter into international trade. The majority of illegal harvests are fuelwood for local use in cooking and heating, often tolerated due to poverty and lack of alternative energy sources. However, the more valuable species and sizes are exported.

Interpol states, "Illegal logging and the international trade in illegally harvested timber is a serious, international organized crime responsible for habitat destruction, species extinction and climate change. National legislation in many countries, and numerous international mechanisms, such as the European Union Action Plan named FLEGT and REDD+, the United Nations Collaborative Programme, are diligently working to ensure forest sustainability and manage carbon emissions. The trade in illegally harvested timber is highly lucrative and comparable to the production value of illegal drugs. Environmental criminals are often also involved in acts of corruption, smuggling and violence, with their activities leading to loss of tax revenue, political upheaval and post-conflict instability. Without strong, coordinated law enforcement, criminals will exploit these invaluable natural resources."

According to Interpol, the consequences of illegal logging on the legal timber trade include an evasion of costs along the supply chain (e.g. taxes, licenses, permits, exploitation of cheap labor, illegal traders' operations, etc.). This results in global price suppression of 7 to 16 percent, meaning that law-abiding timber industry firms are denied US\$ 30 billion annually in lost income (ETTF, 2015). Interpol works together through its 190-country members and with organizations such as UNEP, against illegal timber trade. Interpol handles a wide range of illegal trade concerns, including transportation of waste (e.g., dumping of e-waste)<sup>2</sup>, wildlife trade<sup>3</sup>, ivory sales<sup>4</sup>, pharmaceutical crime<sup>5</sup>, and stolen goods.<sup>6</sup> In recent

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<sup>&</sup>lt;sup>2</sup> http://www.solidwastemag.com/recycling/interpol\_cracks-down-on-illegal-e-waste-trade/1002753151/

<sup>&</sup>lt;sup>3</sup> http://voices.nationalgeographic.com/2012/07/26/4000-people-arrested-during-interpols-operation-cage-that-targeted-the-illegal-trade-in-birds/

<sup>4</sup> http://www.huffingtonpost.com/2012/07/26/interpol-operation-worthy\_n\_1696166.html

years, there has also been growing concern about illegal oil trade<sup>7</sup> and the diamond trade.<sup>8</sup> Efforts to address illegal logging have parallels with many other international trade concerns.

#### POLICIES TO ELIMINATE ILLEGAL TIMBER TRADE

Current policies aimed at eliminating the illegal trade of wood and wood products range from specific timber-related laws to weaker public procurement policies. The US, EU and Australia lead with legislation against illegal wood trade, including penalties. Other countries, such as Japan, have policies to promote the import and purchase of legal wood. Yet another tier of countries, such as China, are enacting timber-linked legislation, for which the severity of penalty for violation is not yet known. While most countries have laws against illegal trade of products in general, most lack the specificity to tackle illegal trade of timber products.

## **US Lacey Act Amendment (LAA)**

In 2008, the US Lacey Act of 1900 was amended to include timber and timber products. It became the premier legislation against illegal logging through banning imports of illegal timber and timber products. The LAA imposes uniform requirements throughout the US wood supply chain (timber importers, traders, processors, middlemen, wholesalers and retailers). The amendment resulted from a broad consensus between the timber industry, environmental organizations and the US government – all parties agreed that the law would benefit the legal timber trade.

The LAA prohibits any person from importing, exporting, selling, receiving, acquiring or purchasing any plant or plant product (e.g. wood or paper product), knowing that it was taken, possessed, transported or sold in violation of existing laws or regulations. The Act extends to operators abroad with the possibility for prosecuting non-US citizens. The LAA also prohibits false labeling of goods.

The LAA suggests that companies which trade, use and/or market timber apply "due care" to ensure compliance. This is different than EU and Australian legislation, where there are specific requirements for a "due diligence" system (explained below). Due care is a concept developed in the US legal system that means the degree of care that a reasonably prudent person would exercise under the circumstances. Therefore, it recognizes varying degrees of knowledge among different operators.

The Act has clear, progressive penalties. The severity of LAA penalties and sanctions vary according to an offender's awareness of the illegality of a given action. The value of the goods also affects the severity of punishment. Sanctions and penalties range from small fines and possible forfeiture of the goods, to a felony level fine of US\$ 500,000 (or twice the maximum gain or loss from the transaction), a possible prison sentence of up to five years, and forfeiture of the goods. The amount of the fine is determined based on the type of operator, with larger corporations facing the highest penalties.<sup>9</sup>

<sup>&</sup>lt;sup>5</sup> http://www.interpol.int/Crime-areas/Pharmaceutical-crime

<sup>&</sup>lt;sup>6</sup> http://www.insightcrime.org/news-briefs/interpol-highlights-potential-profits-of-transnational-cell-phone-trade

http://www.brookings.edu/research/interviews/2014/09/27-isis-oil-funds-terror-alkhatteeb

http://money.howstuffworks.com/african-diamond-trade2.htm

<sup>&</sup>lt;sup>9</sup> For additional discussion of the Lacey Act, see the Dovetail Report, "Understanding the Lacey Act" available at: http://www.dovetailinc.org/report\_pdfs/2013/dovetaillaceyact1113\_0.pdf

## **European Union Timber Regulation (EUTR)**

The EUTR is a regulatory act adopted by the EU in 2010 that prohibits placing illegal timber on the EU market. It entered fully into law in March 2013. The regulation requires "operators" (the companies that first place timber on the EU market, i.e. importers) to exercise due diligence to ensure that the timber is completely legal.

According to the EUTR, the three key elements of a due diligence system are:

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

If the information in the three elements above is not sufficient to assess legality, then operators must request additional information or impose additional measures (e.g. certification of sustainable and legal forest management, third party verification of legality, and/or documentation of the harvest site, licensing, transport, processing, etc.).

Companies may create and maintain their own due diligence systems or outsource to a monitoring organization (MO) that is officially recognized by the European Commission. Trade associations, some of which are also MOs, play an important role for small and medium-sized enterprises. The MOs are either designated as national or EU-wide. As of April 2015, the European Commission had officially recognized nine MOs. The lack of sufficient MOs has hindered advancement of the EUTR.

In contrast to the LAA, which encompasses a wide variety of plant products as mentioned in the previous section, the EUTR covers main timber products, but excludes some others (e.g. recycled products, printed paper and bamboo). Similar to the LAA, the EUTR can be revised, and other products can subsequently be added. As with the LAA, the EUTR applies to both domestically produced and imported timber products; this not only allows it to coincide with World Trade Organization requirements, but also allows it to apply to illegal timber produced within the EU.

Another difference from the LAA is that the EUTR is less broad. The LAA extends to activities outside of the US and beyond the initial importing. But, the EUTR stops with the initial importer - it only prohibits operators from placing illicit timber or timber products on the EU market and it requires those first-time operators to be able to demonstrate the legality of timber. In contrast, the LAA applies throughout the supply and processing chain, and all entities must be able to show at any time that their timber products are legal.

The EUTR obliges EU member states to determine penalties for failing to comply with the regulation. In contrast, the LAA includes a list of penalties and sanctions. The EUTR requires that the penalties be "effective, proportionate and dissuasive." EU trade associations frequently express concern that EU countries will not have equivalent enforcement, thus allowing illegal timber to enter where weaker enforcement exists. Under the EUTR, each of the 28 EU states has nominated one or two "Competent

Authorities." Competent Authorities are responsible for setting penalties and enforcement. They also oversee MOs operating within their country.

#### **Australia Illegal Logging Prohibition Act**

Australia's Illegal Logging Prohibition Act of 2012 promotes the trade of legally logged timber and timber products. According to a 2005 study by JP Management Consulting for the Australian Government, Australia is a significant importer of wood products (AUD\$ 4.4 billion in 2014) of which up to AUD\$ 400 million come from sources with some risk of being illegally logged. As stated on the webpage associated with the Act, Australia needs this legislation "... as a responsible member of the global community. It is in Australia's interests to protect plants and animals and the environment, promote sustainable forest management and reduce the depletion of exhaustible natural resources that are threatened by illegal logging. As a producer of timber products, it is in our interest to promote the trade in legally logged timber. By strengthening our laws, we are making Australia a less attractive destination for cheap illegal timber and timber products that can undercut legitimate Australian businesses. We are also strengthening our reputation in domestic and international markets."

The Act considers "intentionally, knowingly or recklessly" importing or processing illegally logged timber a criminal offense. In order to be in accordance with World Trade Organization rules, like the EUTR, the Australian Act covers timber harvested nationally and internationally. The legislation only places requirements on Australian businesses, and importers are required to practice and prove due diligence. Australian businesses must practice due diligence "to assess and manage the risk that the timber or timber products they are importing for processing has been illegally logged." The Australian Act is designed to complement EUTR and LAA.

#### Other Countries' Similar and Evolving Legislation

Illegal trade is illegal everywhere by definition. But there is always the question of specificity and enforcement of laws, i.e. the degree of enforcement that can be determined by the will to enforce and the related level of corruption, and often the capability of enforcement. Few countries have timber-specific trade laws such as those presented above.

Some governments – national, regional and local – have procurement regulations that pertain specifically to timber; often these specify that timber must be certified as originating from sustainably managed forests. Sometimes they go further, as for example in Japanese legislation, which specifically address illegal timber trade. The Japanese Government introduced a Green Purchasing Law in 2006 to ensure that domestic companies import legal and sustainably produced timber products. Japanese importers voluntarily certify, according to various methods, the legality and sustainability of wood and wood products (Goho-wood, 2015). Due to their voluntary nature, Japanese rules are viewed as weaker than those of the US, EU and Australia.

Despite progress in addressing illegal logging, illegal trade channels continue to operate in some parts of the world. China, for example, commonly imports illegal timber, often softwood from Russia, and too often tropical timber. The necessity to prove legality for export markets in Australia, the EU and the US has raised the consciousness of the Chinese timber trade and the government. Following enactment of the LAA and preceding the EUTR coming into force, trade associations informed their members that

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<sup>10</sup> www.daff.gov.au/forestry/policies/illegal-logging

export customers would demand proof of legality for their due care and due diligence systems. Nevertheless, according to an expert familiar with the situation in China, the impact on business practices due to the LAA and EUTR has been quite limited due to weak and uncoordinated enforcement by the authorities.

China is in the process of developing a legal verification policy. Currently, it is in an experimental stage and not yet implemented. Although some local industry associations have started to introduce their own verification programs, they lack resources, credibility, and transparency needed for wide acceptance by the marketplace, especially in international markets.

#### Comparison of LAA, EUTR and Australia's laws

The EUTR is part of a larger FLEGT Action Plan, which aims to eliminate illegality in the wood trade by attacking supply and demand. On the supply side, the EU has VPAs with tropical timber producing and exporting countries. These agreements are designed to improve legislation and enforcement in the VPA countries. FLEGT-licensed timber will be automatically accepted under the EUTR.

The requirements for timber traders in Australia, EU and the US are similar. The major difference is the process by which traders adhere to the laws. The EU and Australian laws use a prescriptive approach, under which compliance means that the traders and operators must meet the specific requirements of the regulation. By contrast, under the LAA, which is a fact-based law, the individual company alone is responsible for compliance. A table comparing the LAA and the EUTR appears in the annex. The EUTR automatically accepts as legal any timber accompanied by a FLEGT license (expected in 2016) or CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) permit. None of the systems accept certification of sustainable forest management as sufficient proof of legality.

#### WHY CERTIFICATION ALONE IS NOT SUFFICIENT TO ENSURE LEGALITY

In order for any forest to be certified as sustainably managed, one of the first tenets is legality. This includes legality in land ownership, harvesting rights, employment of forest workers, and so on. But the European Commission, which is responsible for running the EU program, including the EUTR, states that certification alone is not enough to prove legality. Why? Because even if all of the above-mentioned conditions were legal, when logs leave the forest, illegality could occur that would not be identified through certification of the forestland or the tracking of such material.

For example, various aspects of transportation from the log landing to the domestic or overseas buyer may be illegal (e.g. unlicensed drivers, unregistered or illegal vehicles or loads exceeding weight limits). Similarly, illegal activity can occur in conjunction with processing logs, resulting lumber or their value-added products (e.g. undocumented workers or illegal working conditions). Defining illegality in this way makes it difficult for any importing company to be certain of legality. How is a company to know, for instance, that the wood they bought was completely legal from stump until they took possession? One solution available to large enterprises is development of a completely integrated production and distribution system, starting at the forest and continuing through sale of products. One international company that tries to do this is IKEA, and although they often do not own the processing subsidiaries, they have extensive controls in place to ensure legality of their suppliers.

Certification systems have modified their standards to better address the needs for proving legality of due diligence systems. Although the US and EU governments do not recognize privately certified timber

as automatically complying with the law, companies can use certification as a mainstay in their due diligence or due care systems.

For example, according to the Programme for the Endorsement of Forest Certification (PEFC), "the 2013 PEFC Chain of Custody certification has been updated to offer an efficient mechanism for companies to demonstrate alignment with EUTR requirements. The PEFC Due Diligence System (DDS), which is integral to PEFC chain-of-custody, mirrors the EUTR requirements. The main difference between the PEFC DDS and the EUTR is that the PEFC DDS goes further than the EUTR:

- the PEFC DDS applies to all products and not to only a selection of product groups that the EUTR covers, and
- the PEFC DDS is compulsory for every stage of the chain, and not only for the first placer on the EU market as required by the EUTR."

It is important to note that the European Commission has never said that certification is not sufficient to prove legality, but simply that certification is not actual proof of legality. In fact, the European Commission clearly recognizes certification as evidenced by its language regarding the EU timber regulation: "In practice, operators may rate credibly certified or legally verified products as negligible risk of being illegal, i.e. suitable for placing on the market with no further risk mitigation measures" (http://ec.europa.eu/environment/eutr2013/faq/index\_en.htm).

There are a number of potential issues that have kept the European Commission from accepting certification as proof of legality – potentially most important is that, different from CITES and FLEGT, certification is a private mechanism. PEFC strongly believes, however, that the European Commission needs to find ways and means to recognize the role of certification, especially since certification goes beyond legality, also promoting sustainable management. As noted by PEFC, the more companies that obtain PEFC chain-of-custody, the more the demand for sustainably sourced material will increase, and the more it will be possible to effectively promote sustainable forest management certification in Asia, Africa and Latin America.

The Forest Stewardship Council (FSC), the other main global certification system, also recognizes the importance of aligning with due diligence systems' needs. According to FSC, "In support of the EUTR (and the US and Australia laws), FSC took measures to accommodate compliance by its certificate holders. It elaborated further its definition of legality, it incorporated trade and customs laws into the chain-of-custody requirements and it ensured that where the FSC definition of 'reclaimed material' is in line with the concept of 'waste' in the EUTR, where due diligence is applied. In a separate decision ('Advice Note') it obliged certificate holders to cooperate in collecting the necessary information about origin, species and legality documents on request of the clients."

#### IMPACT TO DATE ON THE TIMBER TRADE

Policies to eliminate the trade of illegal timber have had direct, intended impacts, as well as unintended consequences. The following impacts are described below:

- Raising awareness of illegal logging and trade
- Establishment of due diligence systems by traders and industry
- Confiscation of illegal timber and penalties for possession
- Substitution of temperate timber for tropical timber and non-wood for wood.

### Awareness of the existence of illegal logging and trade

The political processes cited above, and the major legislation in the US and EU, have raised awareness of the existence of illegal logging and its associated trade. Not only are the forest sector and environmental community aware, but also a much broader audience is now concerned about potential devastation and how forests will be regenerated and subsequently managed.

There is increasing awareness that the best way to foster sustainable forest management is to recognize and capture value from responsible periodic harvests of wood and non-wood products. When forests' greatest value is for their wood and non-wood products, on a sustained yield basis, only then will forests remain forests. Otherwise, if the value of the land that forests occupy is greater for agricultural crops, grazing, mining or urbanization, then land conversion for these purposes can be expected.

One of the most rewarding aspects of the EUTR and the LAA has been the support for these policies by the timber industry. Wood and paper associations and their members have voiced their beliefs that through the elimination of illegality, the legal timber trade will benefit. Some trade associations made members establish due diligence systems as a requirement for membership. Since illegal timber undermines profits of legal timber, it is in the trade's best interest to support legal wood. But beyond that, having confidence in the sustainable and legal source of wood products means potentially higher demand by users and buyers.

#### Due diligence systems

The necessity for US and EU companies to establish or ameliorate their due care or due diligence systems has also increased awareness of the risks of imports from various countries and regions within countries. Importing certified forest products gives better level of risk minimization than non-certified forest products. When sufficient certified products of a desired species are not available, importers need to seek alternative sources of verification of legality from suppliers.

#### Confiscation, court cases

The LAA, like many US laws, got additional clarification from courts' interpretations. The first case to draw widespread attention was against Gibson Guitar Corporation for the import of illegal ebony from Madagascar in 2009. In 2011, Gibson had a second seizure by US Government authorities of ebony and rosewood imported from India. In both cases Gibson claimed that products were improperly classified, and as finished products were legally exported. In August 2012, Gibson settled the case with the US government by paying a US\$ 300,000 fine, a US\$ 50,000 community payment, and forfeiting the seized rosewood and ebony, which was valued at over US\$ 300,000.

While the EUTR is newer than the LAA, it too has seen cases brought against importers that not only have raised consciousness of the law, but also further defined its extent. One of the first cases resulted from NGO whistleblowers (Greenpeace) calling attention to illegal logs shipped from Brazil to the Antwerp, Belgium port. The containers were impounded by the Belgium Competent Authority, Santé Publique, Sécurité de la Chaîne Alimentaire et Environnement (SPF), awaiting proof of legality. The timber was produced and exported by a Brazilian company, Rainbow, which was the focus of an investigation by Greenpeace that showed some of its timber was illegal; this was confirmed by the Brazilian authorities which have fined Rainbow multiple times. The European Timber Trade Federation (ETTF) reported in January 2015 that SPF released the containers following adequate proof of legality; however, the importing companies cancelled further contracts with Rainbow.

In February 2015 the UK National Measurement Office (NMO), which is the UK Competent Authority for the EUTR, investigated Chinese plywood imports. It found that only one of sixteen UK companies fully met their EUTR due diligence obligations. Specifically the companies were informed that they must take further steps in their due diligence systems to minimize the risk of importing illegal material through product and species identification testing. Although these 16 companies were small- to medium-sized enterprises, and accounted for only 10 percent of the UK plywood imports from China, the NMO stated that this sample was an indication that the problem was widespread among UK importers. Some of the plywood had poplar core, which was presumably domestically produced, and is currently a challenge to guarantee legality due to the lack of comprehensive chain-of-custody in China. The NMO Enforcement Project Manager, Mr. Michael Worrell told the *Timber Trade Journal (TTJ)*, "Fundamentally what the report highlights is that a composite product, coming from half way around the world, with a complex chain of custody and containing tropical timber represents a higher level of risk in terms of complying with the legislation and that the material it contains is what the documents say. It may contain one thing one day and something else the next" (TTJ, 2015).

The NMO ordered correction under the threat of sanctions and prosecution. Of added interest was the NMO's intention to work with other EU countries' Competent Authorities on high risk wood products and countries (ETTF, 2015). Of further interest was the response by the UK Timber Trade Federation, which commended the NMO for its investigation, saying that, "the EUTR is a regulation that is being taken seriously by the UK government and that it [the government] wishes to continue playing a leading role in driving illegal timber out of its supply chains." The Federation stated that the challenge is primarily one of procedures and process, and that this development helps address the detail required in due diligence systems. Indeed, a common complaint is that the European Commission did not offer sufficient guidance in the level of detail required in EU due diligence systems.

It is the continued responsibility of the broader forest sector to root out the causes of illegal logging and illegal trade, and to communicate that through responsible management, trade, and purchasing so that consumers can feel positive in selecting wood and also show support for economic development in the forests and forest sector.

#### Substitution: temperate for tropical; non-wood for wood

EU imports of timber, both temperate and tropical, have been declining in large part due to the weak construction-related demands for exterior and interior applications (illustrated in the next section). The EUTR did not cause the decline. However, it did influence the decline in tropical timber imports (Giurca, et. al., 2014). Before the onset of the EUTR, in March 2013, some buyers increased their stocks of tropical timber. After the EUTR took effect, some substitution and trade diversion occurred. Some European importers, in doubt about the legality of timber coming from tropical countries, opted for products coming from countries with (perceived) more reliable documentation, such as temperate hardwood or softwood exporters (within the EU or North America). Hence, some EU businesses chose safe sources, which led away from less-documented tropical and temperate timber (both hardwoods and softwoods). Worse, there was substitution of non-wood based commodities for wood. On the other hand, exporters of tropical timber, uncertain about the costs of complying with legal requirements, have the option of trading with partners with less stringent regulatory frameworks (Giurca et al.2013).

Temperate species are often a viable substitute for tropical timber. New temperate softwood and hardwood products have been marketed as an alternative for traditional tropical hardwoods, performing equally in many applications (e.g. for exterior uses exposed to weather). More recently, temperate hardwoods such as oak have consolidated leading market positions in the European flooring and joinery

sectors while tropical hardwoods have continued to lose market share (ITTO 2011). Research indicates significant positive cross-price elasticity for oak, implying that oak and tropical lumber are indeed substitutes (Giurca et al. 2013). Substitution of preservative-treated timber occurs at an increasing rate for naturally durable tropical timber species. Engineered wood products have also benefited by efficiently and economically providing an alternative to solid timber. When legality of tropical species cannot be assured, manufacturers have substituted other tropical species (TTJ, 2015). From a forest management standpoint, it is advantageous to have markets for diverse species, as it reduces high-grading of the most valuable and marketable species.

Substitution and trade diversion can thus be seen as causing market effects leakage. Leakage occurs when policy actions in one place indirectly create incentives for third parties to increase activities elsewhere and is caused by a shift in market (e.g. legality verification and certification, reducing the share of illegally sourced timber on the market, and thus increasing prices and pressures on temperate forests (Jonsson et al. 2012).

#### EFFECTS ON THE TROPICAL TIMBER TRADE

Worldwide, the trade of timber declined dramatically between 2007 and 2009 due to the global economic and financial crisis that began in 2006, in part due to the sub-prime mortgage crisis and associated construction collapse in the US (Figure 2).

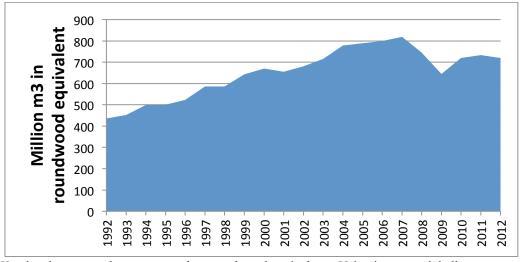


Figure 2: Global Trade of Wood and Paper, 1992-2012

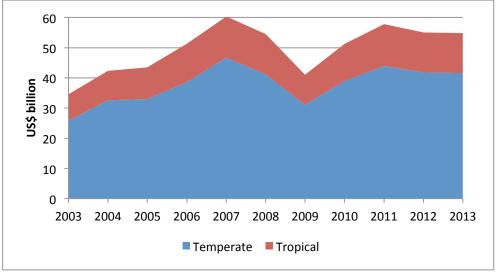
*Notes:* Wood and paper products converted to roundwood equivalents. Using imports: globally exports = imports. *Source:* FAO ForesStat, May 2014.

It was a coincidence that the drop in trade in 2008, following years of growth, occurred when the LAA went into effect. However, from an analysis standpoint, it obscures the direct effects of the LAA.

When considering global trade during the period 2003-2012 of only four primary products, often called the FLEGT primary products (i.e. industrial roundwood, which excludes fuelwood, lumber/sawnwood, plywood and veneer) the share of tropical timber remained relatively stable compared to temperate timber. Tropical timber's market share based on volume was almost consistently 17 percent of global

trade. If based on value, for which tropical timber generally has a higher unit value, the share fell slightly from 34 percent in 2003 to 32 percent in 2013 (Figure 3).

Figure 3: Market Share of Temperate and Tropical Timber in International Trade, 2003-2013



Note: 4 primary products. Source: ITTO, 2015.

In the EU, tropical timber imports accounted for only 3 percent of import volume, and temperate imports accounted for 97 percent in 2012. Tropical timber was twice that ten years earlier, i.e. six percent in 2003. Note that the 97 percent includes trade between EU countries, which constitutes the majority of the EU trade. Again, based on value, the tropical timber share is higher, but it still declined over the past decade, falling from 19 percent in 2003 to 15 percent in 2012. Looking at only the same four FLEGT primary products, EU tropical timber imports have fallen by 66 percent, from a high of nearly 7 million m<sup>3</sup> in 1995 to 2.3 million m<sup>3</sup> in 2012 (Figure 4).

Figure 4: EU Tropical Timber Imports, 1994-2013

Source: ITTO, 2015.

#### CHANGING TRADE PATTERNS

It may be too early to see direct effects of the EUTR on European imports since import data does not yet encompass the past two years. Analysis is complicated by the continued decline in tropical and temperate timber shown above (Figure 4). However, it is possible to use secondary information as evidence of changing trade patterns.

In the months before the onset of the EUTR in March 2013, imports of some tropical and temperate wood products rose. For example plywood imports from Brazil and China rose in early 2013, presumably because importers realized it would be difficult if not impossible to provide proof of legality once the regulation went into effect. Now, two years later, the UK Competent Authority is investigating some Chinese plywood imports (mentioned above).

The timing of the LAA enactment, even after accounting for the potentially confounding factors, corresponded with an upward shift in prices and reduction in available quantities (i.e. quantities for which legality could be proven) according to a recent study by the USDA Forest Service (Prestemon, 2015). Presumably in part because of the reduced availability of wood from unknown sources (i.e. potentially illegal), the study found that the LAA generally resulted in a 25 to 50 percent increase in import prices and a 33 to 75 percent reduction in import quantities, depending on the country and product. The US import of timber from natural forests in Bolivia, Brazil, Peru and Indonesia fell substantially. An unpublished report discussing the Forest Service study stated that its findings could not be interpreted as evidence that the LAA reduced illegal logging, but rather that exporters could have directed their goods to other markets.

An open question is, 'What will happen if countries such as China cannot provide satisfactory evidence of legality for Australian, EU or US importers?' Will importers simply turn to other sources to minimize the risk of illegal, or at least unproven, imports? And will exporting companies in turn, seek less scrupulous markets, especially domestic? In the latter case, such markets may be less lucrative, providing a disincentive to shifting target markets. In any case, what is desired is that exporters will not abandon markets, but instead realize the need to have assurance of legality, and that they in turn will demand proof from their suppliers.

As previously mentioned, only a few policies against illegal timber imports exist, albeit for two of the major timber trading hubs (i.e. the EU and the US). At this time, this leaves the vast majority of countries without laws specifically prohibiting illegal timber trade. Without wider participation of governments in the effort to stem the flow of illegal timber, the actions of the US, EU, and others are likely to be ineffective. The reality is that if only legal timber goes to Australia, the EU and the US, illegal timber will simply flow to innumerable ports where customs agents are inadequately equipped to stop the illegal trade.

#### WHAT IS NEEDED TO FURTHER REDUCE ILLEGAL TRADE

Reducing illegal logging and the illegal trade of wood is not easy, and cannot be done unilaterally. More countries need to establish collaboration and uniform legislation that specifically aims at eliminating the illegal timber trade. The LAA is a unilateral measure, aimed at the demand side (US imports) in comparison to the EUTR that establishes bilateral (or multi-lateral considering the 26 EU states) regulations aimed at both the demand side (EU imports) and supply side (VPA exports). In all of the policies cited above, the goal is to reduce incentives for illegal logging and illegal trade.

Legislation alone is not enough—it must be accompanied by sufficient enforcement throughout the timber supply chain. Customs agents at the exporting and importing ends of the chain need to be sufficiently trained to know different wood products and species. There must also be enough customs agents with sufficient time available to inspect containers of logs, lumber, plywood and a host of other timber products.

More research is needed to quantify the magnitude of the problem relating to lack of statistics on illegal logging/trade, including both benchmarking the current situation and monitoring change. Only with sufficient information can policies be judged to be either efficient or in need of modification. While accurate and detailed statistics on illegal timber trade may never be available, research on various indicators enables estimations and monitoring trends.

Illegal trade affects many diverse products and sectors – including e-waste, wildlife, endangered species, oil, diamonds, and others. Policies and actions taken to address one form of illegal trade can provide valuable lessons to other sectors facing related challenges. Building on the LAA, efforts to combat illegal logging and the illegal trade of wood in US markets were informed by previous efforts related to wildlife trade. Emerging new understandings from innovative policies to address illegal logging can and should be applied to other trade concerns with the shared objective that responsible trade is a necessary common theme throughout supply chains. Needs for widespread legislation, enforcement, research, and monitoring are not limited to the trade in forest products.

#### THE BOTTOM LINE

Government policies, backed by the legal timber trade, are tackling the disastrous effects of illegal logging and the trade of illegal timber products. These effects are far-reaching, from loss of forests and their many attributes to undermining the revenues of governments and profits of forest sector companies. Worse is confusion about illegality in timber, and the potential choice of less environmentally sound, non-wood substitutes. When managed sustainably, forests can produce a renewable supply of wood and non-wood products. Through effective, enforced policies to eradicate illegal logging and illegal trade, confidence can be restored in wood products, while enhancing profitability of the forest sector. An important benefit of both outcomes is that the value of forests, as forests, is enhanced, increasing the likelihood of retention of forested areas even in the face of competitive pressures for conversion to agriculture or other land uses.

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## Annex. Comparison of the EUTR and LAA by Florian, et. al, 2012.

Table 2 - Comparison among the requirements of EU-TR and US Lacey Act.

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	EU Timber Regulation (EU-TR)	U.S. Lacey Act (LA)
Goal	Prohibition to place on the market (i.e. to "supply by any means") illegally harvested timber or products derived from such timber	Prohibition to "to import, export, transport, sell, Preceive, acquire, or purchase" illegally sourced plants.
Illegality definition	Focus on "illegally harvested" timber, i.e. timber harvested in contravention of the applicable legislation in the country of harvest.	Focus on any plant that is taken, possessed, transported, or sold in violation of any law or regulation of any State or in violation of any foreign law or Indian tribal law
Scope In geographical terms:	Timber and timber products being placed for the first time on the EU market independently whether they have been harvested from EU forests or imported from outside EU.	It applies to wood and wood products imported by/exported from the U.S., and to those originating from the U.S. and being domestically traded.
In terms of products:	Timber and timber products as classified in the Combined Nomenclature set out in Annex I to the Regulation. Printed products to be included in the next amendment.	It covers fish, wildlife and plants. Due to 2008 amendments it refers to plants as "any wild member of the plant kingdom, including roots, seeds, parts, and products thereof, and including trees from either natural or planted forest stands".
Effective date(s)	Regulation entered into force on 2nd December 2010 Secondary legislation expected in March-June 2012 Applicable from 03nd March 2013	Approved in 1900, amended on 22 <sup>nd</sup> March 2008. Effective since 2008.
Approach	System based (and prescriptive) approach	Fact-based (and reactive) approach
Point of control and traceability	Legality verification is done just at "first placing" stage. Basic traceability requirements for traders on the EU market.	Verification can be done at any point in the supply chain. Basic traceability is not explicitly required.
Tools	Operators: exercise of DD, including information access, risk assessment, and risk mitigation through use of a system They can be supported by MOs. Traders: identification throughout all the supply chain	Operators: exercise of due care, including a basic declaration. Due care implies lower sanctions in case of infraction.
Actors	EC, Operators, Traders, Monitoring Organisations and Competent Authorities (at Member State level)	Customs and Border Protection, Animal and Plant Health Inspection Service, U.S. Dep. of Agriculture (APHIS), Dep. of the Interior's Fish and Wildlife Service (FWS), Operators
Penalties	To be defined by Member States. They must be effective, proportionate and dissuasive, and may include fines, seizure of the timber or suspension of trading authorisation.	Civil and criminal penalties defined by the LA itself. They might include civil and criminal fines, forfeiture of products and imprisonment, depending on whether people are knowingly engaged in prohibited conduct.
Green lanes	Timber or timber products with valid FLEGT licenses or CITES permits are considered in compliance with the Regulation	
Exemptions	Timber or timber products that have completed their lifecycle and would otherwise be disposed of as waste, as defined in Article 3(1) of Directive 2008/98/EC of the European Parliamen and of the Council of 19 November 2008 on waste	Plants used exclusively as packaging material, unless the packaging material itself is the imported item. Any plant that is to be used only for laboratory or field research; except for protected or endangered species (by international or national laws)

Source: APHIS, 2008; EC, 2010; EIA, 2011; SCHULMEISTER, 2011; TFT, 2011.

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