Peru Updates Illegal Logging and Roundwood Trade Index

New estimates produced using direct, replicable methods based on the difference between timber supply and demand flows

Background

Peru has great potential for sustainable forestry, which could contribute significantly to its development and to the well-being of its people. For this reason, the Peruvian government has been working to issue policies and regulations and coordinate actions to reduce illegal logging and trade in timber. Until very recently, however, the only available studies estimated illegal logging and trade indirectly, leading to speculation and uncertainty for forest sector stakeholders.

Consequently, over 2018 and 2019, the Office of the President of the Council of Ministers (PCM), through the Secretariat for Decentralization and with support from USAID/USFS FOREST and FAO-EU FLEGT, assembled a working group which then took the necessary steps so that data could be obtained and analyzed to identify timber supply and demand flows in the domestic market, as an input for calculating the index and percentage of illegal logging and trade in timber.

The results of this endeavor are described in the report *Index and Percentage: An Accessible Method for Measuring Illegal Logging and Trade in Timber*, which is part of a broader study, *Estimating and Improving Timber Legality in Peru*. These estimates were calculated using direct, replicable methods based on the difference between timber supply and demand flows.

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1 International cooperation program of USAID Peru and the U.S. Forest Service.
2 Program of the Food and Agriculture Organization of the United Nations whose goal is to reduce illegal logging.
The overall index of illegal logging and trade (ILi) came to 1.59, meaning that for every cubic meter (m³) of legal timber moved from the forest to the primary processing industry there was 0.59 m³ of illegal timber. The overall percentage of illegality (IL%) came to 37%. This percentage is the first to be estimated using direct methods and will constitute the baseline for future studies.

For forest concessions and native and rural community permits, the report shows an index (ILi) of 1.41 and a percentage (IL%) of 29%. Both are lower than the overall index (1.59) and percentage (37%) of illegality, however, so there is a good opportunity to work with forest concession and community permit holders to devise actions and programs to reduce illegal logging.

For the other types of forestry licenses (private property permits, local forests, and plantations) and the “not determined” or “other” categories, the index (ILi) goes up to 3.14 and the percentage (IL%) to 68%. This significant jump is explained by the fact that local forests and private property permits account for 60% of the 363,404 m³ of unauthorized logging identified by OSINFOR.

It must be noted that demand was estimated based on self-reporting—which requires trust, accuracy, and honesty on the part of respondents—and not on each primary processing company’s control documents.

### Key Data

**Illegal logging and trade in timber (ILi and IL%) by forest resource access mechanism in Peru - 2017**

<table>
<thead>
<tr>
<th>Forest Resource Access Mechanism (Forestry License Type)</th>
<th>Total Demand (DT) from Primary Forest Industry (m³r)</th>
<th>Effective Supply (Se) Minus UL* (m³r)</th>
<th>Index (ILi): DT/Se</th>
<th>Percentage (IL%): (DT-Se)/DT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest concessions (timber + non-timber)</td>
<td>974,652</td>
<td>702,296</td>
<td>1.39</td>
<td>28%</td>
</tr>
<tr>
<td>Native and rural community permits</td>
<td>694,504</td>
<td>483,262</td>
<td>1.44</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1,669,156</strong></td>
<td><strong>1,185,558</strong></td>
<td><strong>1.41</strong></td>
<td><strong>29%</strong></td>
</tr>
<tr>
<td>Private property permits</td>
<td>139,847</td>
<td>104,894</td>
<td>1.33</td>
<td>25%</td>
</tr>
<tr>
<td>Local forests, plantations, not determined or other**</td>
<td>296,876</td>
<td>34,288</td>
<td>8.66</td>
<td>88%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>436,724</strong></td>
<td><strong>139,182</strong></td>
<td><strong>3.14</strong></td>
<td><strong>68%</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,105,879</strong></td>
<td><strong>1,324,739</strong></td>
<td><strong>1.59</strong></td>
<td><strong>37%</strong></td>
</tr>
</tbody>
</table>

* Unauthorized logging (UL): 2% in forestry concessions, 31% in native community permits, 7% in rural communities, 20% in private property permits, and 40% in local forests.
** The volumes for the different forestry licenses may have been misreported or recorded incorrectly or in other categories such as “not determined.”

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The push for these new estimates is a signal to local as well as international stakeholders of the commitment among forest sector authorities and agencies to promoting legality in the production and trade of timber.
Where did the information for calculating these indicators come from?

Index and Percentage | An Accessible Method for Measuring Illegal Logging and Trade in Timber offers a detailed description of the strategies followed to determine the components of the illegal logging and roundwood trade index and their implications. Some key aspects are cited below.

For timber supply, USAID Pro-Bosques (2019) commissioned a study to gather primary information to determine the volume of timber supplied in the Peruvian Amazon in 2017 (1,688,143 m$^3$ of roundwood minus unauthorized logging). The study included nine regions (Loreto, Ucayali, Madre de Dios, Amazonas, San Martin, Huánuco, Pasco, Junín, and Cusco), which together accounted for more than 98% of regional (departmental) roundwood production in 2015 (FAO & ITP/CITEmadera, 2018). This effort involved characterizing and quantifying the potential and effective timber supply in the Peruvian Amazon, based on information provided by the regional forest and wildlife authorities or the National Forest and Wildlife Service (SERFOR) for 2017, as 2018 supply data were not yet available at the time of the study.

Data on approved and logged volume ($S_a$) obtained from local forest information systems as well as GTFs and extraction reports were analyzed for the following forest access mechanisms: (i) timber forest concessions, (ii) native community permits, (iii) local forests, (iv) private property permits, and (v) forest plantations (less than 1% of total supply in 2017). To determine timber demand ($D_t$) in each link in the value chain in Peru for 2018, the USAID/U.S. Forest Service FOREST program commissioned two studies: one to design a survey (since the industry operations logbook had not yet been implemented) and administer it to a statistically determined sample, and another involving a statistical consultant, to ensure the rigor of design of the estimates of supply (2017) and demand (2,105,879 m$^3$ roundwood equivalent, adjusted to 2017) so that timber flows in the forest value chain could be compared. The timber demand study looked at 12 regions, with three coastal regions added because of their importance in terms of commerce and population (Lima, Loreto, Ucayali, Madre de Dios, San Martin, Amazonas, Arequipa, Cusco, Huánuco, Pasco, Junín, and La Libertad). A total of 226 surveys were administered, based on a statistical model, to both micro and small enterprises (MSEs) and medium-sized and large enterprises (MLEs).

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3 Junín and Pasco are grouped together as “Selva Central” in the USAID Pro-Bosques timber supply study (2019).

4 The scope of the timber demand study included 12 regions, adding three coastal regions owing to their importance to the timber sector: Lima, La Libertad, and Arequipa. Together, they accounted for 93% of sales and 81% of Peru’s population in 2015 (FAO & ITP/CITEmadera, 2018).
The study’s value in terms of producing these estimates is worth a closer look. A global report published by the World Resources Institute (WRI) suggests that nearly 2 million hectares of forest cover were lost in Latin America in 2018. The report, based on Global Forest Watch data, also shows four South American countries ranking among the top 10 countries most affected by forest loss: Brazil, Bolivia, Colombia, and Peru (WRI, 2019).

The first thing to note is that the fact that these new estimates are so important in and of themselves—since Peru is the only one of the four countries to have a direct estimate—is good news. The other countries have indirect estimates, two from about a decade ago, and one (for the Brazilian Amazon) from the end of the last century.

Second, the index is around 20% when calculated using the timber supply volume as reflected in GTFs or extraction reports (without subtracting unauthorized logging)—a scenario that suggests that Peru’s enforcement and regulatory efforts are paying off. While it is true that there is not a high degree of comparability with the other countries in the region—since they used indirect estimation methods—the estimated percentage of illegal logging and illegal trade in timber shows that the overall situation is still manageable, and that there is a good opportunity to bring these percentages down, as compared to other regions of the Amazon.

When the volume of OSINFOR-reported unauthorized logging is not subtracted, the percentage of illegal logging is 20%, as opposed to 37%. This highlights the importance of having a forest oversight agency in Peru: the work of OSINFOR is evidence of Peru’s robust controls and transparency. To clarify, most countries’ forest legality verification systems do not track unauthorized logging, meaning that actual illegal logging may be more extensive than the above figures indicate.

No less important is the fact that Index and Percentage : An Accessible Method for Measuring Illegal Logging and Trade in Timber is helping to debunk the myth that Peru’s illegal logging and timber trade is among the worst in the world. In the study by Kleinschmit et al. (2016) for the International Union of Forest Research Organizations (IUFRO), the estimated percentage of illegal logging in Peru was listed as 80% based on a World Bank study (2006) and 90% according to the study by Seneca Creek Associates and Wood Resources International (2004). Both estimates were based on indirect methods. Parting with these myths will make it possible to pursue more realistic actions and programs for the forest sector.
Courses of action

The policies needed to reduce illegal logging and trade in timber are complex, insofar as they will rest on both forest sector and cross-sector actions. The findings of this study could be used in various ways, e.g., as an input to strengthen existing management tools and to inform the process of updating the strategy and developing an action plan to counter illegal logging in specific areas. For example, efforts could be targeted to the types of forestry licenses where the index and percentage of illegal logging are higher than average, as is the case with native community permits and local forests.

Highlighted below are four of the report’s recommendations for the forest sector, which, if followed, would gradually improve the estimation of Peru’s illegal logging and trade indicators, while at the same time tackling some of the root causes of illegal activity, potentially resulting in a reduction in the percentages of locally sold illegal timber.

First, to be able to determine the actual volume of timber being legally extracted from the forest through the different access mechanisms, it would be advisable and ideal to have 100% supervision of all forestry licenses under which harvesting has occurred, which would significantly reduce the amount of illegal timber. In 2017, OSINFOR supervision visits covered 21% of the total number of contracts under which timber was logged. If 100% coverage is not possible, given the high cost of field supervision, site visits should follow a sampling design such as the one utilized in Index and Percentage: An Accessible Method for Measuring Illegal Logging and Trade in Timber, as this would allow inferences as to the status of all timber harvested under each license type to be made in order to then estimate the average amount of illegal (laundered) timber leaving natural forests and ending up in the marketplace.

Second, efforts need to be made to enhance the reliability and validity of data through better collection and storage of information (GTs, extraction reports, operations logbooks) on the part of the regional authorities in Loreto, Ucayali, and Madre de Dios. Moreover, greater sector transparency around both supply and demand flows would facilitate application of a direct method such as the one proposed, signaling to stakeholders the importance of combating illegal logging and illegal timber trading. Having an operations logbook is vital; in fact, if a country requires reporting (disclosure) from industrial producers, it could potentially do without sampling or statistical designs to determine demand.

A third recommendation is to explore developing a methodology for the informal sector and conducting a study to estimate totally clandestine timber flows. There is an important difference between the terms ‘legalized’ or ‘laundered’ timber and ‘clandestine’ timber. Laundered timber is ‘legalized’ with some sort of forged document at some point in the value chain. Clandestine or informal timber flows, in contrast, can reach any point in the chain—or even the final consumer—without any supporting documentation or records (FAO & ITP/CITE, 2018).

Lastly, it is imperative that the authorities continue to fine-tune definitions relating to illegal logging and trade in timber, such as legal versus illegal timber, primary versus secondary processing facilities, types of forest products, etc. This will not only improve accuracy when applying the direct methodology used in this study, but will also facilitate regulatory measures and field supervision.

Index and Percentage: An Accessible Method for Measuring Illegal Logging and Trade in Timber contains additional recommendations in other areas, which will need to be discussed in depth by forest sector stakeholders, especially those interested in making the sector more competitive and creating wealth within the framework of the law. This will be increasingly important if Peru is to overcome the socioeconomic impacts of the COVID-19 pandemic it has had to deal with in 2020.

For now, the estimated percentage presented in the report should be judged appropriately against the backdrop of the measures and policies pursued by Peru as it joins a number of tropical countries concerned with fostering greater legality in the production and trade of timber, so as to make national and local markets more transparent for participating actors, as well as to boost exports of the sector’s products.
FAO & ITP/CITEmadera (2018). La industria de la madera en el Perú. Identificación de las barreras y oportunidades para el comercio interno de productos responsables de madera, provenientes de fuentes sostenibles y legales, en las MIPYMES de Perú. Lima: FAO.

IDEAM (2009). Caracterización y dimensionamiento del sub-registro forestal en Colombia. Diseño y puesta en marcha del instrumento de captura de datos (subRegistro) e información generada por actividades informales en los procesos de extracción, transformación y comercio de productos forestales. Bogota: IDEAM.


