

Sustainable Timber Trade: are Discrepancies in Trade Data Reliable Indicators of Illegal Activities?

Castaño, Jairo

Senior Statistician, FAO Regional Office for Asia and the Pacific

39 Phra Athit Road

Bangkok 10200, Thailand

Jairo.castano@fao.org

Abstract

Timber trade statistics published by international organizations such as ITTO and FAO often reveal discrepancies between what is reported as exported by a supplying country as compared with what is reported as imported by the receiving country. The discrepancies appear particularly large in the case of tropical wood products. Factors that might explain discrepancies in trade data can be categorized into “primary normal factors” (e.g. FOB vs. CIF prices), “secondary normal factors” (e.g. differences in product classifications) and “abnormal factors” (e.g. illegal activities). A study undertaken in 2004 involving 10 case studies examined the extent to which discrepancies might be considered abnormal.

1. Introduction

There is an increasing demand for timber from sustainably managed forests in the international market place. Despite continued efforts, illegal timber trade is still common both in temperate and tropical regions. The underlying causes (e.g. economic, social, cultural and political) of illegal timber trade are complex, particularly in developing countries. The impact of illegal trade on markets is of concern to both timber producing and consuming countries.

Discrepancies in trade data is considered by many as an indicator of illegal activities. Factors that might explain discrepancies in trade data (Eastin and Perez-García, 2002) can be categorized into: “primary normal factors,” such as import versus export product valuations, time lags, and exchange rate fluctuations; “secondary normal factors” such as differences in product classifications, measurement conventions, reporting practices and other unintentional or systemic practices; and “abnormal factors” related to purposeful behaviour to disguise the volume, type or source of products being traded. The latter category involves types of potentially illegal or illicit practices that might contribute to trade data discrepancies. A study conducted by the International Tropical Timber Organization (ITTO) examined the extent to which discrepancies fell outside the range of what might be considered statistically “normal” variation.

Discrepancies in trade statistics were examined for selected products and partner countries of interest. The study involved ten countries, namely Bolivia, Brazil, China, Indonesia, Japan, Malaysia, Papua New Guinea, Republic of the Congo, UK and USA.

These countries accounted for almost half of the world's tropical timber trade at the time of the study. This paper summarizes the study's main findings.

2. Major Factors Contributing to Trade Data Discrepancies

2.1 Discrepancies from Compilation of Trade Statistics

The process of collecting and compiling international timber trade statistics can result in errors and data discrepancies. Despite a concerted and highly skilful effort, errors and discrepancies can result from incomplete or inconsistent submissions by individual countries to international organizations such as ITTO or FAO or by manipulating various alternative data sources. These organizations obtain production, consumption and trade statistics on tropical wood products through the Joint Forest Sector Questionnaire (JQ).

However, the reliability and consistency of the JQ-supplied data varies by country and from year-to-year. The lack of consistent preparation and filling of the JQ was cited as contributing to data discrepancies. In completing the JQ, some countries define tropical sawnwood and plywood using a relatively detailed list of 6-, 8- and 10-digit HTS codes (Harmonized Tariff Classification System) that excludes all coniferous and temperate hardwood species. Other countries work at just the 6-digit level. Moreover, the reliability of official statistics published by individual countries varies. For instance, the Malaysian timber export statistics are based on volume documented in timber export licenses, not all of which are exercised.

Other aspects of the global data compilation process potentially cause errors or leads to discrepancies. For some countries, ITTO relies on the UN COMTRADE database or Global Trade Information Service (GTIS) to derive tropical wood trade flows based on country of origin or more detailed HTS codes. The utilization of these various sources of data potentially results in discrepancies due to differing categories for tropical timber, varying weight estimates and conversions between weight and volume, and inconsistent blend of sources.

3.2 Discrepancies from Inadequate Collection Systems

Data collection, compilation and reporting systems of Customs agencies vary in sophistication. In some of the countries, systems are highly automated and integrated. In the USA, for example, virtually all transactions are recorded and tracked electronically with a system that networks all facets of the import/export process. In contrast, mechanisms to ensure the validity of trade data collection, recording and reporting in many developing countries covered by the reports (e.g. PNG, the Congo and Indonesia) suggest that they are much less sophisticated. While all countries require import and export documents to be filled (by paper or electronically), the types of information collected are not necessarily the same (or even similar) across all of the countries. Thus, the lack of sophistication and consistency of the raw data collection systems themselves produce trade discrepancies.

3.3 Discrepancies from Classification Practices

Misclassification was rated highest in importance as a contributing factor to data discrepancies. Classification practices differ widely and in many cases do not adequately distinguish tropical from temperate sources. For example, until 2003 Chinese imports of tropical roundwood as reported to the ITTO apparently also included logs from temperate countries. China has since begun sorting trade data to the 8 digit level. Malaysian roundwood statistics apparently also include some portions of 4401 (chips) and 4409 (mouldings) while those for sawnwood include 4406 (railway sleepers). At a minimum, inconsistencies in classification practices could account for as much as 3–5% of discrepancies according to the Chinese case study.

In the Brazilian case study, the classification of tropical plywood was deemed as particularly problematic. Data for plywood laminated with a combination of tropical wood and conifer (or temperate species) is likely often classified in different HTS codes when recorded officially.

3.4 Discrepancies from Measures and Conversions

Among the most frequently cited and significant factors for data discrepancies are the use of differing product measures and varying conversion factors. Conversions of product weights (kg) to volumes (usually m^3 , but sometimes m^2 for plywood or veneer), or vice versa, are a major contributor to trade data discrepancies. Using different conversion factors could explain as much as 8–14% of trade data differences according to the Indonesian case study. Conversions from weight to cubic volume range from $650 \text{ kg}/m^3$ to $750 \text{ kg}/m^3$. In veneer trade, units and conversions for reported volume are perhaps the most variable, with little consistency in practices among countries or agencies.

Differences in log scaling practices were also cited as a significant cause of data differences. Indonesia uses an average diameter and shortest length methodology to determine volume. Malaysia employs two standards: one for Sabah and one for Sarawak. Similarly, most roundwood data is collected “underbark,” but at least one reporter noted that roundwood measures were “overbark.” While differences in log scaling are not considered a major factor in trade data discrepancies in most of the countries covered, it is cited in a few. The Japanese case study suggests that scaling differences could account for as much as 10% of trade discrepancies with that country’s trading partners.

3.5 Discrepancies from Trans-shipments and Triangular Trade

Incomplete or fraudulent documentation of trans-shipments contributes to data discrepancies. Some of the problem is related to poor administration and monitoring of export/import documentation and processing. Other problems are the result of purposeful and fraudulent deceit to move illegal product, disguise origin or avoid levies. Products might be moved through another country with falsified

documentation to take advantage of transport discounts or shipment routes; to legalize their production and transport if restricted in the country of origin; or to avoid paying royalties or export taxes.

In Asia, triangular trade mostly occurs through Taiwan PoC, Hong Kong SAR and Singapore. Most Chinese imports of tropical forest products from Indonesia, Malaysia and Thailand are trans-shipped through Hong Kong SAR. Thus, data discrepancies arise from incorrect specification of origin or destination of shipment. Products are often further processed or re-traded in Hong Kong SAR, confusing the original source of origin. According to the Malaysian case study, trade data discrepancies between Malaysia and China are significantly reduced when trade through Hong Kong SAR is considered. In the Netherlands, European trade through Dutch ports was cited in the UK case as problematic from a statistics standpoint due to the procedures used in the Netherlands.

In the case of the Congo, significant anomalies were mentioned in Cameroon customs receipts as compared with Congo export declarations for industrial roundwood. Some of the difference is allegedly the transfer of “connivances” to Congolese officials. On the other hand, data discrepancies in Bolivian/US sawntimber trade was believed to be the result of trans-shipments (legal, but poorly tracked) through Chile.

3.6 Discrepancies from Illegal Activity

Intentional misclassification of product or species, smuggling or other illegal behaviour was cited in many of the case studies as a potential contributor to trade data discrepancies. Misclassification or under-reporting to either disguise trade of illegal products or avoid paying duties is a common practice according to several of the country case studies.

By definition, smuggling activities are difficult to monitor or measure, made more so by the remote nature of some border crossings (in Indonesia and China for example). According to the Indonesian case study, smuggling is the most significant factor in explaining discrepancies involving Indonesian trade data. There is a clear incentive in Indonesia and some other countries to under-report or misclassify products in order to circumvent export duties. In some cases, veneer may be listed as plywood to avoid a 15% export duty on veneer while kiln-dried lumber may be mixed with green lumber for the same reason.

4. Main Findings

- According to the case studies, trade data discrepancies are in many cases very large and significant. However, data discrepancies occur not just in tropical wood trade, but also in discrete categories of conifer, pallet and secondary processed wood products.

- According to the consultants involved in the 10 case studies, the most common factors that result in trade data discrepancies would appear to be: misclassification, shipments of mixed product types or species, data entry errors and inconsistent units of measure and conversions (Figure I). Trade of illegal roundwood or avoidance of taxes was also cited as somewhat important or very important factor.

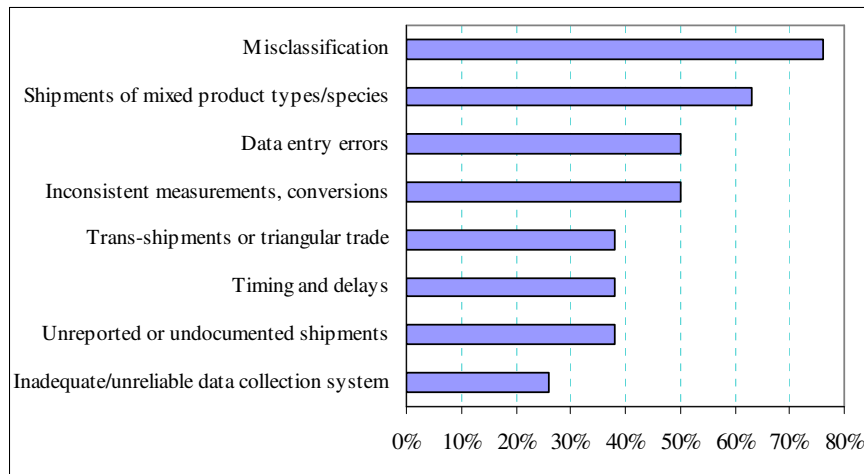


Figure I. Main contributors to trade discrepancies

- Although smuggling, intentional misclassification of product and species, and other illegal behaviour were cited in many of the case studies, trade data discrepancies by themselves would not appear to be a reliable indicator that illegal trade or trade in illegal timber products is occurring. Too many other factors contribute to the differences in reported exports and imports. A World Bank study (Vincent, 2004) also found that trade data discrepancies are not reliable indicators of illegal activity. Trade discrepancies occur even in trade flows known to be legitimate and legal.
- Between 5% and 10% of differences in value between exports and imports should be explainable because of the convention of using FOB value for exports (excludes shipping, insurance and handling) and CIF value for imports (includes all charges to the point of destination, including transport and insurance), but discrepancies are usually much higher. The case studies did not find exchange rate fluctuation to be a significant factor since most international transactions are denominated (or reported) in US dollars.
- Data collection, compilation and reporting systems of Customs agencies vary in sophistication. In some cases, data discrepancies are a product of simple data entry errors, in turn a consequence of the sheer volume of transactions, inadequate training and/or carelessness. In some of the trade flows analyzed, discrepancies could be explained by a simple misplacement of decimal places.

- Customs and port officials are not well-trained in identifying species or types of specific products. The lack of familiarity with timber species could make it easier for illegally traded CITES-listed species to pass through export/import inspections.
- Figure II shows the initiatives that the consultants involved in the preparation of the 10 case studies ranked as being of high or highest priority to address data discrepancies. Encouraging countries to make product measurements for trade reporting more uniform and improving cooperation between countries in customs law enforcement topped the list of recommended actions. These were followed by encouraging countries to harmonize export declaration and import entry forms; providing technical assistance to countries to improve data collection systems; and reviewing HTS codes with the goal of harmonizing to the 8 or 10 digit level.

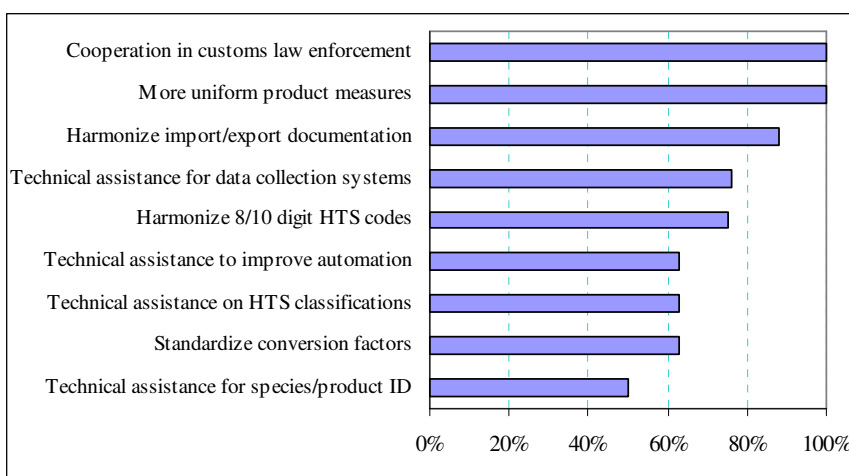


Figure II. Possible initiatives to address trade data discrepancies

5. Recommendations

Based on the 10 case studies and their findings, the study proposed the following main recommendations:

To ITTO and other relevant international organizations:

- (1) Provide guidance on unifying tropical timber product classifications, standard units of measure, log scaling techniques, and conversions for trade data reporting purposes.
- (2) Consider working with the World Customs Organization (WCO) and FAO to provide training/technical assistance to countries in the identification and recording of tropical species and in the areas of customs collection and enforcement procedures.
- (3) In conjunction with other international organizations, establish an international expert group to assess the need for changes to HTS codes relating to timber products with the goal of making less confusing the separation of tropical

wood products from temperate and conifer products.

To Countries:

- (1) Where data collection and compilation systems are antiquated or inefficient, increase funding and oversight, provide more training and automated systems.
- (2) Sponsor reconciliation studies with partner countries where wood products trade data show high discrepancies and/or sponsor internal audits of customs procedures and data collecting and reporting.
- (3) Consider alternatives to export levies and/or improving enforcement to reduce incentives for misclassifying traded products.

References

- Castaño, Jairo. "Forest Law Enforcement (FLE): ITTO Perspective". Presentation at the South-Pacific Regional Workshop on FLE, Port Moresby, PNG, 10-11 October 2006.
- Eastin, Ivan and Perez-Garcia, John. "Discrepancies in Forest Products Trade Statistics." CINTRAFOR. 11 September 2002.
- ITTO, 2004. "Report on the Case Studies on Assessing Export and Import Data on Tropical Timber and Tropical Timber Products". Document ITTC(XXXVII)/8 Rev.1. 2004.
- Vincent, Jeffrey R. "Detecting Illegal Trade Practices by Analyzing Discrepancies in Forest Products Trade Statistics: An Application to Europe, with a Focus on Romania." World Bank Policy Research Paper 3261. April 2004.