Documenting the undocumented

ITTO tracks timber trade and production discrepancies and is embarking on a new global study of them

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ONE of the prime reasons for ITTO's establishment in the early 1980s was a desire to bring more transparency to the trade in tropical timber products. This was reiterated in the renegotiated International Tropical Timber Agreement of 1994 and strengthened to include a requirement for ITTO to monitor and report on 'undocumented trade' in tropical timber.

This paper briefly describes how the ITTO Secretariat has analysed the statistics provided to it by members and other sources over the past decade to attempt to monitor and report on undocumented trade in forest products. Since undocumented trade is often linked to undocumented production, techniques used to identify possible instances of the latter are also described. Finally, recent developments showing a new willingness by ITTO members to discuss (and, in some cases, attempt to deal with) these issues internationally are summarised.

Comparing data between trade partners

The main tool used by ITTO for detecting potentially undocumented trade has been the comparison of trade flow volumes as reported by trading partners. However, analyses of all timber products using customs statistics contained in the UN Comtrade database (eg Durst et al. 1986; Kishor et al. 1995) have shown that problems in statistical reporting together with legitimate reasons for discrepancies between trading partner reports may reduce the utility of such analyses for identifying potentially illegal trade flows.

ITTO members also have many problems reporting reliable statistics (see, for example, ITTO 2001). Various 'legitimate' reasons for discrepancies, such as carelessness or the inadequate training of reporting officials or correspondents, inconsistency in the use of weight/area conversion factors and/or product definitions, different scaling or measurement systems, non-corresponding reporting or shipping periods, and so on, have been found to exist in ITTO member countries. Nonetheless, ITTO has found that trade flow statistics, when analysed over a period of several years and trading partners, can be useful indicators of illegal or otherwise undocumented trade. Specifically, when discrepancies are consistent in direction across a range of trading partners and/or across a range of years for one or more trading partners, this can provide a strong indication of the need for further investigation.

Table 1 shows the result of such an analysis for a selected group of major exporters and importers of various tropical timber products. Industrial roundwood (logs) is the most straightforward product to analyse, since the product definition is least subject to confusion. Sawnwood, plywood and other further processed wood products are more difficult to analyse due to the more heterogeneous nature of the products and the confusion this can generate (for example, some countries mistakenly combine trade in mouldings and other further processed sawnwood with rough sawnwood figures).

Cameroon and Gabon

In the case of Cameroon, industrial roundwood trade figures for 1998 and earlier show some major discrepancies with trading partner reports, with most of the import reports exceeding Cameroon's export reports (Japan was the only major importer of Cameroon's logs in 1998 that reported receiving significantly fewer logs than Cameroon reported sending there). These discrepancies dropped significantly in 1999 when Cameroon implemented log export restrictions to promote domestic processing. The log export restrictions and associated domestic processing requirements were implemented more widely in 2000, with total exports dropping to 635 000 m^3 from 1 million m^3 in 1999 and 1.6 million m^3 in 1998. Despite the reduction in log exports in 2000, large discrepancies with France and especially China were observed.

Interestingly, the rise in Cameroon's exports of sawnwood (from 353 000 m^3 in 1998 to 1 million m^3 in 2000) was not associated with a surge in discrepancies between reported sawnwood trade flows except for France, where 2000 imports were one-fifth of Cameroon's reported exports of 481 000 m^3. While lower export reports can be an indication of illegal or undocumented trade, export reports far in excess of import reports are more difficult to interpret. One possibility is that timber is being re-exported by the importing country and the timber intended for re-export is mistakenly not recorded as imported. Another is that export reports are being inflated to take advantage of export subsidies.

Gabon's log export figures are more closely aligned to those of major importers with the exception of China, where export figures were significantly lower than reported imports in 1998 and 2000. Industrial roundwood is the only significant timber product exported by Gabon.

Indonesia

In Indonesia, the problems of illegal logging and illegal trade in forest products have been widely noted and commented on (see, for example, the article p 10). Table 1 shows the extent of the problems for trade in logs and sawnwood, as well as the relatively better situation for plywood trade, which has traditionally been more tightly regulated in Indonesia. Log export volumes reported by Indonesia were a remarkable 103 times lower than China's reported imports in 2000 from that country, with similar discrepancies observed in Malaysia's reported imports. Table 1 shows that Indonesia's log export figures have consistently understated trading partner import figures since it began exporting significant quantities of logs again in 1999 and that the problem has worsened over the past two years. Partly in response to what it has called rampant illegal log trade, Indonesia has pushed strongly for international assistance through ITTO and re-implemented its log export ban in late 2001.

Spot the differences

Table 1: Major exporter (ER) and importer (IR) trade reports ('000 m^3) and difference (%), 1998–2000

Export country/ Product	Import country	1998			1999			2000		
		ER	*IR*	*% Diff.*	*ER*	*IR*	*% Diff.*	*ER*	*IR*	*% Diff.*
Cameroon/ Industrial roundwood	Italy	214	261	22	188	182	-3	0	0	–
	Japan	205	33	-84	21	22	5	0	9	–
	China	192	240	25	171	216	26	0	220	–
	France	179	246	37	152	154	1	117	60	-49
	Spain	112	183	63	86	109	27	33	67	103
Gabon/ Industrial roundwood	China	479	609	27	924	895	-3	932	1176	26
	France	436	453	4	521	442	-15	349	484	39
	Portugal	114	103	-10	99	119	20	1	0	-100
	Italy	83	74	-11	63	69	10	0	0	–
	Spain	39	40	3	22	25	14	11	23	109
Indonesia/ Industrial roundwood	China	28	35	25	88	382	334	6	618	10200
	Philippines	16	13	-19	0	0	–	0	42	–
	Japan	12	30	150	15	56	273	0	46	–
	Thailand	2	2	0	0	6	–	0	56	–
	Malaysia	0	0	–	8	578	7125	0	623	–
Indonesia/ Sawnwood	Japan	148	336	127	109	261	139	35	271	674
	Taiwan POC	87	31	-64	81	79	-2	6	6	0
	China	52	317	510	77	580	653	20	931	4555
	Korea	42	98	133	49	100	104	0	0	–
	Malaysia	4	335	8275	7	289	4029	7	450	6329
Indonesia/ Plywood	Japan	1886	2341	24	2729	2748	1	2374	2752	16
	China	873	1000	15	452	558	23	439	595	36
	USA	797	961	21	993	819	-18	527	661	25
	Taiwan POC	345	324	-6	260	36	-86	345	345	0
	Belgium	304	250	-18	256	150	-41	198	228	15
Malaysia/ Industrial roundwood	Japan	2225	2224	0	2284	2236	-2	2177	2162	-1
	China	1131	1083	-4	1671	1856	11	1394	1749	25
	Taiwan POC	970	900	-7	919	793	-14	901	840	-7
	Korea	235	227	-3	394	350	-11	300	320	7
	Thailand	96	137	43	98	136	39	101	149	48
Malaysia/ Sawnwood	Thailand	360	687	91	490	870	78	334	638	91
	Taiwan POC	277	292	5	212	317	50	223	260	17
	Netherlands	268	204	-24	271	186	-31	277	208	-25
	China	265	399	51	140	552	294	116	495	327
	Japan	237	339	43	260	316	22	207	338	63
Myanmar/ Industrial roundwood	Thailand	99	78	-21	132	124	-6	89	152	71
	China	40	186	365	24	335	1296	20	558	2690
	Japan	2	2	0	2	3	50	1	2	100
	Malaysia	0	0	–	12	18	50	7	12	71
	Hong Kong	0	0	–	0	0	–	22	0	-100

Source: ITTO (2000–2002)

Malaysia

Malaysia's forest statistical system is widely recognised to be excellent and the figures in Table 1 largely bear out this perception. The regular correspondence between its figures for log exports and Japan's figures for log imports from Malaysia has been remarkable (Japan was Malaysia's largest log customer until 2001 when China took over). However, the gap between Malaysia's reported log exports and China's reported log imports widened in 1999–2000 and should be assessed. Note that India is reported as a major log export destination by Malaysia, but since no data have ever been provided to ITTO by India and since no supplementary sources are available, it is not included in Table 1. Malaysia's sawnwood export figures do

Misdirected?

Table 2: Direction of trade of secondary processed wood products for main partners, 1998 *(US$'000)*

Exporter / Importer	*Malaysia*	*Indonesia*	*Thailand*	*Brazil*	*ITTO Producers*
European Union	216 888	836 702	147 858	252 918	1 642 383
	194 812	*198 000*	*120 780*	*232 690*	*841 483*
ITTO consumers	932 988	1 707 349	735 754	379 953	4 390 247
	893 581	*661 890*	*658 890*	*352 950*	*3 022 567*

Source: ITTO (2001)

not match importer reports so closely, with significant and consistent discrepancies for Thailand, China and Japan. Part of this could be due to different definitions of sawnwood, although queries to Japan and Thailand indicate that further processed sawnwood is not included in their import figures. Malaysia's plywood export figures correspond quite closely with importer reports and are not included in Table 1.

Myanmar

The final example in Table 1 is Myanmar, primarily a log exporter. India, Myanmar's main reported log customer (accounting for over two-thirds of 2000 exports of almost 1 million m^3) is not included in Table 1 for the reason given above. However, Myanmar's log exports to its two other major trading partners (Thailand and China) have consistently been reported as lower than import reports from these countries. This may be partly due to unregulated trade in the border regions between these countries, which the government of Myanmar is trying to bring under control.

Pricing irregularities

ITTO's analysis of trade flows is based on volume figures, since value figures by trading partners are not regularly reported. Exchange-rate fluctuations and different reporting standards (exporters usually report the cost of the product delivered to the export port—FOB—while importers' figures usually include insurance and freight costs—CIF) further complicate value comparisons. Nonetheless, the aggregate value figures that are reported to ITTO can highlight problems when there are few major trading partners. The biweekly *Tropical timber market information service* reports published by ITTO can also provide insights into practices like transfer pricing (see p 18), especially when both export and import prices are quoted for the same product. This has been associated in one or two instances with currency devaluations in exporting countries, with export prices continuing to be reported at the pre-devaluation local currency level and importers paying the same foreign currency price, which after the devaluation is worth more of the export currency.

Further processed products

As noted already and as can be seen from the limited data in Table 1, trade flow discrepancies are generally less severe in processed products than in roundwood. This has also been found to hold in ITTO's analysis of secondary processed (or value-added) wood products (SPWP) like furniture, joinery and so on. *Table 2* shows data for trade in such products between major ITTO tropical exporters and major groupings of importers (ITTO 'consumers' are the non-tropical, mostly developed members of the Organization). Statistics on SPWP are only available in value terms and are obtained from the Comtrade database of customs statistics submitted to the United Nations by most countries' customs authorities, so they are subject to the above caveats. Nonetheless, Table 2 shows that the problems identified for Indonesian logs and sawnwood also hold for SPWP, with, for example, a greater than fourfold discrepancy with EU import figures and a nearly threefold discrepancy with ITTO consumers' import figures. While exchange-rate fluctuations and shipping/insurance charges can largely explain the discrepancies for the other tropical SPWP exporters, it appears that undocumented and possibly illegal trade in SPWP has also been a problem in Indonesia.

CITES

ITTO collaborates with CITES to assist in monitoring the trade of timber species listed in the appendices of that treaty. To date this has involved monitoring mahogany (*Swietenia macrophylla*) trade by member countries. Ramin (*Gonystylus* spp), which has been proposed for inclusion in Appendix III of CITES, may prove even more difficult to monitor than mahogany (see article p 15) as this species (unlike mahogany) is not currently identified explicitly in many countries' customs classification systems. ITTO requests all countries to provide data on trade of tropical timber species, with responses to date from tropical (ITTO producer) countries much better than those from consumer countries. The effectiveness of CITES to monitor trade in endangered timber species is directly linked to the ability of countries to report accurate species-level trade data.

Undocumented production

Timber production figures are traditionally less reliable than trade figures. Although their effectiveness varies, almost all countries have a customs department to collect trade statistics. Many countries, however, have no regular industrial survey procedure to establish accurate production figures for forest products and therefore must rely on estimates. ITTO has used indirect procedures to identify problems in production statistics that may indicate undocumented or illegal production, but the imprecision of much of the data often makes conclusions difficult.

ITTO compares industrial roundwood availability (production plus imports minus exports) with production of final products in roundwood equivalent (RWE) volume to determine a log balance for each country. Calculating RWE volume involves multiplying each processed product by a factor representing the volume of roundwood required for each unit volume of final product. Since processing efficiencies vary widely between countries, and since most countries don't provide RWE conversion factors, the use of standard factors (eg 1.82 for non-coniferous sawnwood, 1.9 for veneer, 2.3 for plywood) can lead to large apparent log imbalances for more or less efficient processors. The analysis presented here therefore only highlights for further investigation very large imbalances that are not easily explained by differences in processing efficiency.

Table 3 shows some examples of the kinds of imbalances identified for selected countries where the imbalances in 2000 were significant in absolute magnitude or in relation to roundwood availability. Log deficits indicate that there was insufficient log availability to produce the quantity of final products reported. In the case of Cameroon, Panama and Peru, either production figures (mostly sawnwood in all three cases) are too high or the extra logs required came from undocumented sources. All of the other countries in Table 3 had significant log surpluses in 2000. Since none of these countries has a significant timber industry beyond log and sawnwood production, it is unclear where the excess industrial roundwood is being utilised. Undocumented sawnwood or other processing mills may be using some of this material, while some may leave the country as undocumented/illegal exports.

It should be noted that statistical anomalies similar to those identified in producer countries also arise in importing countries. For example, several tropical timber-importing countries regularly report exports of tropical products in excess of their imports. This can be due to stock accumulation and depletion cycles, but when the quantities involved are substantial and the problem appears regularly, there is cause for concern; it could indicate, for example, that tropical timber is being smuggled into the country for processing and export. Questions should also be asked when the production of tropical sawnwood, plywood and other products regularly exceeds the availability of imported tropical logs.

Recent developments

The results of all the analyses presented here as well as others are communicated by the ITTO Secretariat to members and comments/corrections are sought prior to the approval of ITTO's annual statistical review. Important problems are also highlighted during presentation of the completed review at the sessions of the International Tropical Timber Council. In the past this process has rarely led to substantial revision of statistics or bilateral discussions to resolve discrepancies, but this may be changing. Indonesia is now implementing an ITTO-funded project to combat illegal logging/trade and is implementing with other partners various initiatives with related objectives. At the most recent Council session in November 2001, Indonesia informed ITTO members of its recently imposed log export ban and requested assistance from importing countries to immediately report any illegally incoming Indonesian logs to its Ministry of Forestry. This established an important precedent in ITTO, being the first time that importers were asked by an exporting country to, in effect, police the sources of their raw materials. While the main responsibility of ensuring sustainable supplies continues to lie with exporters, importers will have to play a much larger role in this regard if illegal trade in timber products is to be curbed.

Council decision

Another important development at ITTO's last Council session was the adoption of a decision by all members calling for studies promoting forest law enforcement to be undertaken on request from individual countries, more project work on curbing illegal logging and trade in timber (with an implicit commitment for additional financing for such projects), and a global study on these problems in collaboration with other organisations. These and other activities called for in the decision have the potential to greatly expand ITTO's work on forest law enforcement in cooperation with member countries. The full text of Decision 6 (XXXI) can be found at www.itto.or.jp

Given the nature of the problems addressed in this article, one of the potentially most promising aspects of this groundbreaking Council decision is the provision for voluntary case-studies to examine the reasons for the types of statistical discrepancies identified here. The terms of reference for these case-studies, in which a number of ITTO members have already expressed interest to participate, were published in *TFU* 11/4 (p 18). Such studies will serve two objectives: shedding light on undocumented trade, and improving statistical reporting on timber in both ITTO producer and consumer countries. It will be a major achievement for the Organization if these objectives are achieved in even a handful of member countries. ITTO will continue to work in these important areas together with its member countries and its partners in the international community in an attempt to achieve its goal of a sustainable global trade in tropical timber.

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Round about

Table 3: Log deficits/surpluses ('000 m^3) for selected countries, 2000

Country	Log availability	Roundwood equivalent of products	Log deficit/surplus
Cameroon	1259	2314	-1055
Central African Republic	450	180	270
Congo, Republic of	483	191	292
Gabon	1131	572	559
Myanmar	2647	686	1961
Liberia	297	20	277
Panama	59	96	-37
Peru	927	1177	-250
Suriname	134	74	60

Source: ITTO (2002)