

Notes
**33rd Meeting of Intersecretariat Working Group
on Forest Sector Statistics**

Palais des Nations, Geneva, 15th – 16th January 2020

Mr Gianluca Sambucini, acting Chief of ECE/FAO Forestry and Timber section opened the meeting.

1) Adoption of agenda

Participants: Jean-Christophe Claudon (ITTO), Rajmund Laczko (Eurostat), Alex McCusker (ECE, chair), and Arvydas Lebedys (FAO, reporter).

2) Review of the Joint Forest Sector Questionnaire activities and process in 2019

a) Number and quality of replies

ECE: had 42 replies (28 came from Eurostat) which is about average for the last 10 years. Direct responses totalled 14 (of 21 countries that ECE send questionnaires to). JQ1 – 41 (minus 4 over 2017), JQ2- 39 (no change), JQ3 – 38 (no change), ECE/EU 26 (minus 6). Percentage of data points filled in for JQ1 was 64% (68% in 2017), JQ2 - 94% (same), JQ3 - 97% (94%), ECE/EU - 96% (85%). This is mixed, with improved trade and generally weaker production data. In theory, production should have improved with fewer replies so this indicates continuing problems with getting data. COMTRADE was used to supplement wholly or partially for trade statistics for 7 countries.

EUROSTAT: 28 countries responded, same as in previous year (all time high). Quality varies, but overall OK.

FAO: there was the lowest response rate since 2009; however, this is comparable to JQ2017 results if Australia, China and New Zealand are added (JQ responsibility for these countries passed to ITTO last year). In total, directly received 14 JQ responses (of 98 countries). Quality remains unchanged.

ITTO: received 19 questionnaires out of 41. Slowest answer rate experienced over several years with difficulties to collect questionnaires over the three producing regions. Several changes of contact points are a possible reason for such a slowing down.

b) Successes/problems

ECE: Ukraine and Belarus continue to provide (mostly) good data. Problems with processing updated data (received after September) as 18 countries remain to be entered. ECE is not publishing data for the Russian Federation. There are some issues with maintaining MS Access database.

EUROSTAT: 28 reporting countries for the second consecutive year; problems: new IT environment (database, validation, etc.).

FAO: questionnaires after a pause were received from Brunei Darussalam, Cabo Verde, Jamaica, Lesotho, Nicaragua, Sri Lanka, Zambia, Zimbabwe, UAE, and Yemen. Information

obtained during the national workshop in Viet Nam helped to revise series for some key products back to 2000. Through ITTO updated removals data series for several French overseas territories. Problem: no reply from Morocco, El Salvador, Chile.

ITTO: Mozambique provided the questionnaire.

c) Results of implementation of the JQ2017 questionnaire structure in each organization's database

ECE incorporated changes into the database. Old data was kept to the extent possible. New item "Wood-based panels without veneer sheets" created. Combined unbleached and bleached sulphate pulp for past years, created "x" labels for previous items. Kept veneer sheets unchanged aside from renumbering. Mechanical and semi-chemical pulp was combined, new aggregate for earlier data back to 1964 (old disaggregate kept until 2016). C/NC woodfuel series in trade started from 2017, will be used to calculate total woodfuel trade. New series for post-consumer recovered wood.

ITTO did not change veneer sheet items.

Eurostat's database is fully aligned with the current JQ2017 structure (previous data on mechanical and semi-chemical pulp etc. removed, but no change for veneer sheets series).

FAO:

Created and disseminated in FAOSTAT (from 2017 onwards):

- woodfuel trade, new series C/NC
- post-consumer recovered wood (new series)
- Mechanical/semi-chemical pulp and sulphite pulp (new series, but kept ex-disaggregates to 2016)

No changes for the following items:

- Bleached and unbleached sulphate pulp
- sawnwood/sleepers (only a note in the yearbook that from 2017 sawnwood includes sleepers)
- veneer sheets production old items repeated and disseminated
- new production item for All veneer sheets created from 2017, but not disseminated yet (left for future to decide what to do)

d) Data dissemination

ECE: published Forest Products Annual Market Review including e-publication, entire data set.

FAO:

- [Yearbook](#) in August (first change in format since 1998, wood agglomerates and paper grades added)
- [2018 Global Forest Products Facts & Figures](#) accompanied by [press release](#) (restarted after one year break) and 4 tweets in December
- FAOSTAT preliminary 2018 data in August, and final data in December

ITTO:

- [Biennial Review and Assessment of the World Timber Situation 2017-2018](#) in July
- updated the [online database](#) (21 products including 4 aggregates), for all countries/world in September.

Eurostat: database moved internally, final data release is planned for January

e) Data validation – general problems identified:

- Problems with negative consumption are getting smaller.
- No information on export/import unit prices for recovered post-consumer wood.
- Wood balance: new information obtained in the workshop was used by FAO to revise Viet Nam series for roundwood, chips, sawnwood and panels back to 1998.

f) Data exchanges among partner organizations

Eurostat to ECE: worked well. ECE validated and sent comments/requests on data issues directly to countries with CC to Eurostat. Country replies were not always copied to Eurostat.

ECE / ITTO and FAO/ITTO: worked well.

ECE to FAO: preliminary data with corrections arrived on time. Final dataset arrived on time but did not include several countries' new data received in October. FAO sent preliminary data corrections to ECE and new series review, ECE still to process these. **FAO still to send their changes to ECE data as soon as possible.**

g) Ancillary statistical activities by individual organizations

Eurostat: published annual data on economic and environmental accounts. Forest products data were included in several publications.

ITTO:

- produced a study on the Japanese wood market and consumption in 2019 and was published in the *Biennial Review and Assessment of the World Timber Situation 2017-2018*.
- supported the development of the STIX trade data portal: <https://www.stix.eco/shiny/app/stix/>
- considering future studies on Viet Nam furniture or India consumption and production of wood products.

ECE:

- Produced Timber Forecast tables (2019-20) and Market Statement for the Committee meeting. Had good (31) number of replies.
- Produced price statistics, which continue to be the most downloaded part of ECE forestry website.
- Finishing a new round for 2017 Joint Wood Energy Enquiry.
- Published data on engineered wood products.
- Published a study on Central Asia and Caucasus forest sector.
- Completed forest ownership study.
- Completed Forest Product Conversion factors study (in print); FAO will publish. It should be periodically reviewed in future.

FAO:

- [Pulp and paper capacities](#) survey (integrated with recovered paper survey from 2019), 39 countries responded (highest number 10 years).
- Classification and definitions of forest products (will be completed in 2020 and include correspondence tables to HS2022).
- [Viet Nam national workshop](#) with ITTO in April.

h) Pending issues from previous meetings

From prior meetings

- *ECE will continue to work on improving the definition of chips and particles.*
Not done
- *Eurostat will decide whether to keep the extra sheet on green chips, Glulam and CLT.*
Decided to keep for the time being (until next JFSQ revision in 2023).

From 2019 meeting

- Eurostat will ask countries in future if summer data should be considered final.
Done
- ITTO will send an official letter signed by its Executive Director to the member countries, which have not submitted the questionnaire for the last 2 years or more.
Planned for 2020.
- ITTO will also work this year on a procedure to work on monthly data in order to forecast the volumes/values of the current year. **Not done.**
- ECE still debating what to do with the structure [for integrating JQ2017 into database]. **Done.**
- [Canada chip production] Should be revised backward or fixed from 1998 onwards and wood residues production from 1993 onwards. **Postponed to 2020.**
- ECE to send this [revised Danish data] to Eurostat. IWG partners are encouraged to indicate on their websites a contact for users to raise data issues. **Done.**
- ECE will be trying to fix this [IRW data 1964-1989] and will share the correction file with FAO. **In progress.**
- ECE will increase feedback communication with FAO, Eurostat and ITTO on discrepancies that it finds. **Done, will continue in future.**
- FAO will provide to ECE the last changes discrepancies of January data release by Feb 2019. **Not done, postponed to Jan 2020.**
- Eurostat: during summer 2019, it will download the entire FAOSTAT data in order to check it with the Eurostat data and will communicate the discrepancies found with FAO data. **Postponed to 2020.**
- ITTO to request Eurostat to move ITTO sheets next to the other questionnaire sheets (not after supplementary sheets added by Eurostat). **Done.**
- ECE to raise issue [veneer sheets production data to include veneer for plywood] at TOS. **Done, decided to keep for the time being.**
- IWG partners agreed to investigate how to clarify laminated flooring in HS 4411. FAO will go through all national extended HS codes and prepare information for the next IWG. ECE will ask European laminated flooring association. **Not done.**
- ECE to raise with countries the distinction of MDF and hardboard because data is getting misclassified. **[Done at ToS meeting].** FAO to make a small analysis by comparing trade statistics with EPF hardboard capacity data. **Will be done for ToS meeting (March 2020).**
- Share the list of flags. **Done, see Annex 4.**

3) The JFSQ cycle in 2020

a) 2019 JFSQ revision/improvements

i) Possible addition of a “quality” sheet (metadata explanations) [Eurostat]

The IWG supported the idea of the quality sheet. It should be clear that this is not to be requested every year. Some of the questions seem too specific (PRODCOM, CPA), not focused enough on JFSQ. **FAO will share their** data quality sheet (introduced in JQ2017). Partners can add their own specific sheets to the JFSQ.

ii) **Agreed changes in JQ and definitions (see Annex 2 and 3)**

JFSQ2019:

- In JQ Annex 4 sheet, **FAO to remove decimals** for 6.NC, 1.1.C/NC in HS2017.
- In JQ Annex 2 sheet, add a note: “* - Please assign the trade data for HS code 4411.14 to product 8.3.2 (MDF/HDF) and 8.3.3 (other fibreboard) if it is possible to do this in national statistics. If not, please assign all the trade data to item 8.3.2 as in most cases MDF/HDF will represent the large majority of trade.”

Definitions:

- Correct “*Swietonia spp*” to “*Swietenia spp*”
- Removals definition expanded to show at what point should be counted.
- Post-consumer wood to exclude unused wood.
- Wood pulp to clearly exclude recovered pulp
- FAO to confirm newsprint size in definitions (align with HS2017). Updated after the meeting.
- Added fluff pulp to chemical pulp and deleted the last sentence.
- Discussed interlinkages between wood pulp and recovered fibre pulp, they should remain separate categories. Recovered fibre pulp production should be about 80% of recovered paper consumption (ECE to check USA, Germany). To discuss at **ToS meeting in March**.
- Replaced “JQ1/JQ2” with “production” and “trade”
- “Add the sum” to chemical pulp and packaging materials.

b) Deadlines and data exchanges

- **Eurostat will send** revision data in Sep/Oct to ECE.
- **FAO and ITTO will agree on CSV** file format for upload to FAO’s system.
- **ITTO to send tropical** products to ECE.
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Agency	Eurostat	UNECE	ITTO	FAO
Send out JFSQ to countries	April 6	April 6	June 15	May 15
Deadline for countries responses	May 15/Oct 9	May 15	September 28	August 31
Internal deadline (last day for new data additions)	Oct 23	June 19	n.a.	Final Nov 10
Basic validation	Oct 30	June 26	<ul style="list-style-type: none"> • Mar 2020 • Nov 1st for JQ 2019 	Nov 18
Analytical validation (last day for changing data)	Nov 27	July 10	<ul style="list-style-type: none"> • Mar 2020 	July 15/Nov 25
Dispatch to ECE	JQ as received		May 15 (tropical products, ECE to use and report back to ITTO)	

Dispatch to FAO (for checking and final)		July 13 and Jul 24/Oct 24 and Nov 10	<ul style="list-style-type: none"> • JQs as received • CSV 15 June / 1 Nov 	
Dispatch to ITTO	JQ originals for ITTO countries as received, eliminating any confidential elements	JQs originals as received. July and Nov 14 (forecast). Advise them when final data in December are available (third week)		as received (JQs)
Database upload	December	July/December	July	July 31/Nov 30

4) HS2022 and HS2027

a) Update on the current HS2022 status

All IWG-initiated new codes were approved:

<http://www.wcoomd.org/en/media/newsroom/2020/january/the-new-2022-edition-of-the-harmonized-system-has-been-accepted.aspx>

FAO will share with partners a table with the latest status once HS2022 correlation tables are published on WCO's website.

b) HS2027 – proposals and timing

Initial thoughts for proposals:

- Split sleepers (4406), hoopwood (4404) and treated wood (4403.12) into tropical and non-tropical non-coniferous
- 4403.11 split into pine/etc
- 4403.12 split into oak/beach/eucalyptus, etc.
- 4406.11/91 split into pine/etc
- 4406.12/92 split into oak/beach/eucalyptus, etc.
- Edible insects (FAO to work on it)
- Chips (Latvia's proposal in ToS 26/3/2019):
 - Tropical, eucalyptus wood chips under 4401.22? (**ITTO to confirm the need**)
 - Pulp chips (size 13-45 mm, bark <1%, ash <0.5%, fresh)
 - Industrial chips (size 10-55 mm, bark <3%, ash <0.5%, sawdust allowed)
 - Energy chips (size 8-80 mm, bark <10%, ash <0.5%, moisture 40-50%)
 - **Eurostat to check if this** could be added to CN2021
- Separate laminated flooring from 44.11 (US has codes already)
- Rosewood (*Dalbergia* and other spp) 4403, 4407, to talk to ATIBT and FAO-FLEGT
- Separate shavings from 4401.49 (code exists in US, CA)
- **ITTO to check** possible tropical species codes under 4403.4x, 4407.2x, 4409.22
- To check the latest CN
- 44.16 barrels of oak

Timing: HS 2022 proposal was submitted in Apr 2017 and provisionally approved by WCO HS Committee in Sep 2018. Following the same timeline, the **proposal for HS2027 should reach WCO in spring 2022**. This and next year should be used for preparing background information. **IWG 2022 should approve** the draft submission for wood products.

5) Extracting trade data from COMTRADE – how is it done

ITTO procedures are presented in Annex 5.

ECE queries the COMTRADE database one country at a time for the last two years. This is then aggregated and each JQ item is checked by hand to look for missing data. If all m3 data are missing, the weight data are automatically used. Where only part of m3 data are missing, estimates are made for those HS codes. Where weight data are missing unit value figures are used. Generally estimates are made comparing to the same flow in another year or a similar HS code.

These data are then transferred and subject to normal data verification (unit value, apparent consumption, etc) and identified as official data from COMTRADE.

FAO has been using forestry trade flow processing procedures developed in 1996 (see Annex 6). Currently trade flow methodology is being revised. **FAO will present the results of this work** in next IWG.

Eurostat extracts COMEXT value data and converts to quantities using unit values from JFSQ

6) Input on other global classifications

FAO contributed to the revision of the Classification of Individual Consumption According to Purpose (COICOP) 2018, officially endorsed in March 2018. FAO's proposal to add two new codes under 04.5.4 Solid fuels was accepted (04.5.4.2 *Wood including pellets and briquettes* and 04.5.4.3 *Charcoal*).

FAO provided comments to UNon issues with the use of ISIC Revision 4 classification and possible improvements.

7) Other Business

a) Organizational and staff changes

Eurostat and **ITTO**: no changes.

ECE: Paola Deda is now director; she was replaced by Gianluca Sambucini as acting Chief of Forestry and Timber Section.

In **FAO**, three new staff in Forest Products and Statistics Team:

- Mr Sven Walter, Team Leader (Jun-2019)
- Ms Lyndall Bull, Forestry Officer (Aug-2019)
- Ms Marcella Canero, Statistical Assistant (Jan-2020).

b) National correspondents

USA, Sweden and Finland correspondents have changed. **FAO will send JQ** to Brazil this year. See country responsibility list in the Annex 1. New national contacts in FAO's countries (see page 1, countries that provided JQ after a break).

c) Place and date of 34th IWG meeting

Next meeting is planned for Rome in January 2021.

8) Meetings of Interest to IWG

Eurostat: Forestry Working Group in 2021.

FAO-ITTO:

- Regional workshop for Central/West Africa in October 2020 (TBC).
- ACSFI in Rome, 31 March 2020 (now postponed to June).
- COFO in Rome in June 2020.

ITTO: Council Session in Japan 9-14 November 2020.

ECE:

- 26 March 2020 – ECE/FAO Team of Specialists on Forest Products Statistics, Geneva. (<http://www.unece.org/index.php?id=53083>). Now postponed to 17 June 2020.
- 27-29 March – 42nd Session of the Joint ECE/FAO Working Party on Forest Statistics, Economics and Management, Geneva. (<http://www.unece.org/index.php?id=51934>). Now postponed to 18-19 June 2020.
- Possible JFSQ correspondents meeting for spring 2020 (TBC).
- COFFI meeting in November in Geneva.

ANNEX 1: JSFQ distribution in 2020

AFRICA (54):

FAO (41): Algeria, Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Chad, Comoros, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gambia, Guinea, Guinea-Bissau, Kenya, Lesotho, Libya, Malawi, Mauritania, Mauritius, Morocco, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, United Republic of Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.

ITTO (13): Benin, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Liberia, Madagascar, Mali, Mozambique, Togo.

ASIA (47):

ECE (10): Armenia, Azerbaijan, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan, Uzbekistan.

Eurostat (1): Cyprus.

FAO(25): Afghanistan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Democratic People's Republic of Korea, Iran (Islamic Rep.), Iraq, Jordan, Kuwait, Lao PDR, Lebanon, Maldives, Mongolia, Nepal, Oman, Pakistan, Qatar, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Timor-Leste, United Arab Emirates, Yemen.

ITTO (11): Cambodia, China, India, Indonesia, Japan, Malaysia, Myanmar, Philippines, Republic of Korea, Thailand, Viet Nam.

EUROPE (40):

ECE (9): Albania, Belarus, Bosnia and Herzegovina, Montenegro, North Macedonia, Republic of Moldova, Russian Federation, Serbia, Ukraine.

Eurostat (31): Austria, Belgium, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

NORTHERN AMERICA (2)

ECE (2): Canada, United States of America.

LATIN AMERICA & CARIBBEAN (33)

FAO (21): Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational state of), Brazil, Chile, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Haiti, Jamaica, Nicaragua, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and Grenadines, Uruguay.

ITTO (12): Colombia, Costa Rica, Ecuador, Guatemala, Guyana, Honduras, Mexico, Panama, Peru, Suriname, Trinidad and Tobago, Venezuela (Bolivarian Republic of).

OCEANIA (16)

FAO (12): Cook Islands, Kiribati, Marshall Islands, Micronesia (Federal States of), Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.

ITTO (4): Australia, Fiji, New Zealand, Papua New Guinea.

Total (192): ECE - 21, Eurostat - 32, FAO - 99, ITTO - 40

ANNEX 2: JSFQ changes in 2020

In sheet *Annex2* | *JQ2-Corres.*

8.3	FIBREBOARD	44.11	44.11	634.5
8.3.1	HARDBOARD	4411.92	4411.92	ex634.54 ex634.55
8.3.2	MEDIUM/HIGH DENSITY FIBREBOARD (MDF/HDF)	4411.12/13 ex4411.14*	4411.12/13 ex4411.14*	ex634.54 ex634.55
8.3.3	OTHER FIBREBOARD	ex4411.14 4411.93/94	ex4411.14 4411.93/94	ex634.54 ex634.55

Notes:

The term "ex" means that there is not a complete correlation between the two codes and that only a part of the HS2012/HS2017 or SITC Rev.4 code is applicable. For instance "ex4401.40" under product 3.2 means that only a part of HS2017 code 4401.40 refers to wood residues coming from wood processing (the other part coded under 4401.40 is recovered post-consumer wood).

In SITC Rev.4, if only 4 digits are shown, then all sub-headings at lower degrees of aggregation are included (for example, 634.1 includes 634.11 and 634.12).

* - Please assign the trade data for HS code 4411.14 to product 8.3.2 (MDF/HDF) and 8.3.3 (other fibreboard) if it is possible to do this in national statistics. If not, please assign all the trade data to item 8.3.2 as in most cases MDF/HDF will represent the large majority of trade.

In sheet *Annex4* | *JQ2-JQ3-Corres.*

JQ Product code	Nomenclature	HS Code	Remarks on HS codes
6.NC	HS2012	440799	
6.NC	HS2017	4406.12	
6.NC	HS2017	4406.92	
6.NC	HS2017	4407.21	
6.NC	HS2017	4407.22	
6.NC	HS2017	4407.25	
6.NC	HS2017	4407.26	
6.NC	HS2017	4407.27	
6.NC	HS2017	4407.28	
6.NC	HS2017	4407.29	
6.NC	HS2017	4407.91	
6.NC	HS2017	4407.92	
6.NC	HS2017	4407.93	
6.NC	HS2017	4407.94	
6.NC	HS2017	4407.95	
6.NC	HS2017	4407.96	
6.NC	HS2017	4407.97	
6.NC	HS2017	4407.99	

ANNEX 3: JSFQ definitions changes in 2020

In GENERAL TERMS

GENERAL TERMS¶

- **C** → **Coniferous**¶
All woods derived from trees classified botanically as *Gymnospermae*, e.g. *Abies* spp., *Araucaria* spp., *Cedrus* spp., *Chamaecyparis* spp., *Cupressus* spp., *Larix* spp., *Picea* spp., *Pinus* spp., *Thuja* spp., *Tsuga* spp., etc. These are generally referred to as softwoods.¶
- **NC** → **Non-coniferous**¶
All woods derived from trees classified botanically as *Angiospermae*, e.g. *Acer* spp., *Dipterocarpus* spp., *Entandrophragma* spp., *Eucalyptus* spp., *Fagus* spp., *Populus* spp., *Quercus* spp., *Shorea* spp., *Swietenia Swietenia* spp., *Tectona* spp., etc. These are generally referred to as broadleaves or hardwoods.¶

In TRANSACTIONS

TRANSACTIONS¶

Removals¶

The volume of all trees, living or dead, that are felled and removed from the forest, other wooded land or other felling sites. **It includes** unsold roundwood stored at the forest roadside. **It includes** natural losses that are recovered (i.e. harvested), removals during the year of wood felled during an earlier period, removals of non-stem wood such as stumps and branches (where these are harvested) and removal of trees killed or damaged by natural causes (i.e. natural losses), e.g. fire, windblown, insects and diseases. Please note that this includes removals from all sources within the country including public, private, and informal sources. **It excludes** bark and other non-woody biomass and any wood that is not removed, e.g. stumps, branches and tree tops (where these are not harvested) and felling residues (harvesting waste). **It is reported in** cubic metres solid volume underbark (i.e. excluding bark). Where it is measured overbark (i.e. including bark), the volume has to be adjusted downwards to convert to an underbark estimate.¶

Production¶

The solid volume or weight of all production of the products specified below. Please note that this includes production from all sources within the country including public, private, and informal sources. **It includes** the production of pulp that may immediately be consumed in the production of paper and paperboard **and as well as** wood chips, particles and residues that are used immediately for energy. **It is reported in** cubic metres of solid volume in the case of roundwood, sawnwood and wood-based panels and metric tonnes in the case of charcoal, pulp and paper products.¶

In PRIMARY PRODUCTS

1.2 → INDUSTRIAL ROUNDWOOD¶

1.2.C → Coniferous¶

1.2.NC → Non-Coniferous¶

1.2.NC.T → of which tropical¶

All roundwood except wood fuel. **In the removal statistics, it represents the sum of JQ1, it is an aggregate comprising** sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood. **It is reported in** cubic metres solid volume underbark (i.e. excluding bark). The customs classification systems used by most countries do not allow the division of Industrial Roundwood trade statistics into the different end-use categories that have long been recognized in production statistics (i.e. sawlogs and veneer logs, pulpwood and other industrial roundwood). Thus, these components do not appear in JQ2 the trade statistics.¶

3 → WOOD CHIPS, PARTICLES AND RESIDUES¶

In the production and trade statistics, it represents the sum of JQ1 and JQ2, this product category is an aggregate comprising wood chips, particles and wood residues. It is the volume of roundwood that is left over after the production of forest products in the wood processing industry (i.e. wood processing co-products) and has not been agglomerated. **It includes** chips produced directly from roundwood in chipping mills. **It excludes** wood chips made directly in the forest from roundwood (i.e. already counted as pulpwood or wood fuel). **It is reported in** cubic metres solid volume excluding bark.¶

4	→	RECOVERED-POST-CONSUMER-WOOD Recovered wood such as pallets, private household waste, as well as used wood arising from construction or demolition of buildings or from engineering works, whether contaminated or not. It can be recycled or reused for material or energy purposes. It excludes post-consumer wood that will not be reused (e.g. sent to landfill).
5	→	WOOD-PELLETS-AND-OTHER-AGGLOMERATES Agglomerates produced from co-products (such as cutter shavings, sawdust or chips) of the mechanical wood processing industry, furniture-making industry or other wood transformation activities. In the production and trade statistics, it represents the sum of JQ1 and JQ2, this product category is an aggregate comprising wood pellets and other agglomerates. It is reported in metric tonnes.
8	→	WOOD-BASED-PANELS In the production and trade statistics, it represents the sum of JQ1 and JQ2, this product category is an aggregate comprising plywood, particle board, OSB and fibreboard. It is reported in cubic metres solid volume.
8.3	→	FIBREBOARD A panel manufactured from fibres of wood or other ligno-cellulosic materials with the primary bond deriving from the felting of the fibres and their inherent adhesive properties (although bonding materials and/or additives may be added in the manufacturing process). It includes fibreboard panels that are flat-pressed and moulded fibreboard products. In the production and trade statistics, it represents the sum of JQ1 and JQ2, it is an aggregate comprising hardboard, medium/high density fibreboard (MDF/HDF) and other fibreboard. It is reported in cubic metres solid volume.
9	→	WOOD-PULP Fibrous material prepared from pulpwood, wood chips, particles or residues by mechanical and/or chemical process for further manufacture into paper, paperboard, fibreboard or other cellulose products. In the production and trade statistics, it represents the sum of JQ1 and JQ2, it is an aggregate comprising mechanical wood pulp; and semi-chemical wood pulp; chemical wood pulp; and dissolving wood pulp. It excludes pulp made from recovered paper or from fibre other than wood and recovered paper. It is reported in metric tonnes air-dry weight (i.e. with 10% moisture content).
9.1	→	MECHANICAL-AND-SEMI-CHEMICAL-WOOD-PULP Wood pulp obtained by grinding or milling pulpwood or residues into fibres, or through refining chips or particles, or by subjecting pulpwood, wood chips, particles or residues to a series of mechanical and chemical treatments (none of which alone is sufficient to make the fibres separate readily). It may be bleached or unbleached. Mechanical wood pulp is also called groundwood pulp and refiner pulp. It includes thermo-mechanical pulp, chemi-groundwood pulp, chemi-mechanical wood pulp, etc. (named in the order and importance of the treatment during the manufacturing process). It excludes exploded and defibrillated pulp. It is reported in metric tonnes air-dry weight (i.e. with 10% moisture content).
9.2	→	CHEMICAL-WOOD-PULP Wood pulp obtained by subjecting pulpwood, wood chips, particles or residues to a series of chemical treatments. In the production and trade statistics, it represents the sum of sulphate pulp and sulphite pulp. It includes sulphate (kraft) wood pulp; soda wood pulp and sulphite wood pulp. It may be bleached, semi-bleached or unbleached. It includes fluff pulp. It excludes dissolving grades of wood pulp. It is reported in metric tonnes air-dry weight (i.e. with 10% moisture content). If available, statistics for the following three component pulps are also requested: sulphite pulp; total sulphate pulp; and bleached sulphate pulp.
10	→	OTHER-PULP Pulp manufactured from recovered paper or from fibrous vegetable materials other than wood and used for the manufacture of paper, paperboard and fibreboard. In the production and trade statistics, it represents the sum of JQ1 and JQ2, it is an aggregate comprising pulp from fibres other than wood and recovered fibre pulp. It is reported in metric tonnes air-dry weight (i.e. with 10% moisture content).
12.1.1	→	NEWSPRINT Paper mainly used for printing newspapers. It is made largely from mechanical pulp and/or recovered paper, with or without a small amount of filler. Products in this category are generally manufactured in strips or rolls of a width exceeding 3628 cm or in rectangular sheets with one side exceeding 3628 cm and the other exceeding 15 cm in the unfolded state. Weights usually range from 40 to 52 g/m ² but can be as high as 65 g/m ² . Newsprint is machine-finished or slightly calendered, white or slightly coloured and is used in reels for letterpress, offset or flexo printing. It is reported in metric tonnes.
12.3	→	PACKAGING-MATERIALS Paper or paperboard mainly used for wrapping and packaging purposes. In the production and trade statistics, it represents the sum of case materials, cartonboard, wrapping papers and other papers mainly for packaging. Products in this category are generally manufactured in strips or rolls of a width exceeding 36 cm or in rectangular sheets with one side exceeding 36 cm and the other exceeding 15 cm in the unfolded state. It excludes unbleached kraft paper and paperboard that are not sack kraft paper or Kraftliner and weighing more than 150 g/m ² but less than 225 g/m ² ;

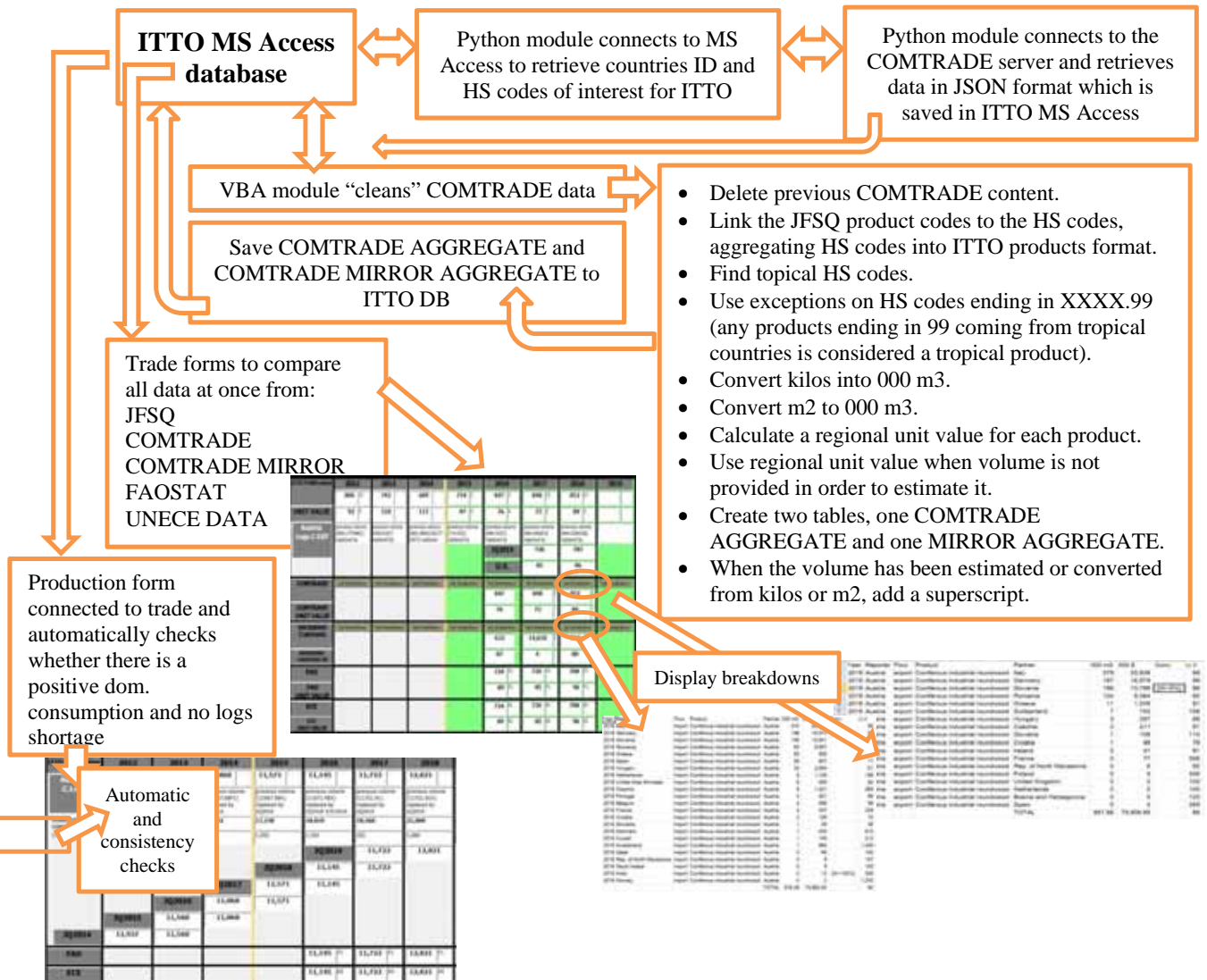
Annex 4: Data flags used by ECE, Eurostat, FAO and ITTO

Flag		Status	Comment
External	Internal		
ECE:			
[blank]	1	Validated	Supplied by official national correspondent and approved by secretariat analyst
[blank]	2	Official	From country, supplied by official national correspondent. Can be modified due to obvious errors (wrong units).
E	3	Estimated-analyst	An educated estimate made by secretariat based upon knowledge and non-official sources.
C	4	Calculated	Exclusively generated by Access program for aggregates (both regional and product) and special calculations (e.g. consumption)
R	5	Repeated	Data copied from earlier year in database with no modification
[blank]	6	Not Publish	Not published in FPS but counted in totals (confidential)
P	7	Provisional	A very rough estimate by secretariat, not published in FPS but counted in totals. Not used since 2004.
E	8	Estimated-technical	An estimate based on technical validation rules to make the data fit. Prior to 3/2001 any kind of estimate, no matter what the source (magazine, technical).
N	9	National estimate	Unofficial data provided by official source.
E	10	Estimated-aggregate	An estimate that is based on official aggregate product data or an aggregate of countries
EUROSTAT:			
b		break in time series	
c		confidential	Used by countries and Eurostat forestry team
d		definition differs, see metadata	
e		estimated	Used by countries
f		forecast	
i		see metadata	
n		not significant/not to be published	Used by forestry team
p		provisional	Used by countries
r		revised	
s		Eurostat estimate	Used by forestry team
u		low reliability	
z		not applicable	
FAO (Forestry):			
[blank]	Q	Official	Official data from JFSQ
[blank]	W	Official	Official data reported in country official publications or web sites (Official) or trade country files, or country data reported by International Organizations (where the source is the country, e.g. Comtrade))
*	X	Unofficial data	Unofficial data including project reports, trade journals, ITTO and UNECE estimates, Comtrade mirror trade data.
F	F	FAO estimate	FAO estimate including repeated, extrapolated/interpolated data and data obtained as a balance (e.g. to avoid negative consumption)
A	[n.a.]	Aggregate	Aggregate, may include official, semi-official, estimated or calculated data
Note: FAO-Forestry flag system will change after the migration to the new Statistical Working System (SWS) in 2020			

Flag		Status	Comment
External	Internal		
<u>ITTO:</u>			
[blank]			Data from the Joint Questionnaire sent by member countries to ITTO every year.
*			Other unofficial data including country statistical reports, trade journals, ITTO project reports, USDA Foreign Agricultural Service reports.
C			COMTRADE database (https://comtrade.un.org/).
CB			COMTRADE MIRROR STATISTICS from COMTRADE database (https://comtrade.un.org/).
E1			UNECE Superscript. Validated (supplied by official national correspondent and approved by secretariat analyst).
E2			UNECE Superscript. Official (from country, supplied by official national correspondent. Can be modified due to obvious errors [wrong units]).
E3			UNECE Superscript. Estimated-analyst (an educated estimate made by secretariat based upon knowledge and nonofficial sources).
E4			UNECE Superscript. Calculated, exclusively generated by Microsoft Access program for aggregates (both regional and product) and special calculations (e.g. consumption).
E5			UNECE Superscript. Repeated.
E6			UNECE Superscript. Not Published but counted in totals.
E7			UNECE Superscript. Provisional (a very rough estimate by secretariat).
E8			UNECE Superscript. Estimated-technical (an estimate based on technical validation rules to make the data fit).
E9			UNECE Superscript. National estimate (unofficial data provided by official source).
F			FAOSTAT superscript. FAO official data.
F1			FAOSTAT superscript. Aggregate, may include official, semi-official or estimated data.
F2			FAOSTAT superscript. FAO estimate.
F3			FAOSTAT superscript. FAO unofficial figure.
F4			FAOSTAT superscript. FAO data repeated from previous year.
G			Global Trade Atlas (https://www.gtis.com/gta/).
I			ITTO estimate.
R			Figure rounded down to zero.
TCF			UNECE Committee on Forests and the Forest Industry (COFFI) Market Forecasts held every year in Geneva.
W			Adjustment from weight (usually metric tons) to volume assuming the following factors (unless different conversion factors are reported): coniferous logs 1.43m ³ /ton; non-coniferous tropical logs 1.37m ³ /ton; non-coniferous non-tropical logs 1.25m ³ /ton; coniferous sawnwood 1.82m ³ /ton; non-coniferous sawnwood 1.43m ³ /ton; veneer 1.33m ³ /ton; plywood 1.54m ³ /ton.
X			Repeated data.

Annex 5: ITTO procedures for conversion of COMTRADE forest products data

These are the steps that the program takes:



Future developments include the development of a more “automatized” checking even though the more automatized the system is, the more human checks will be required as we can’t fully rely on an automatized system.

**Meeting of the Intersecretariat Working Group on Forestry Statistics¹
EUROSTAT, Luxembourg**

(20 September 1996)

FAO PROCEDURES FOR CONVERSION OF COMTRADE FOREST PRODUCTS DATA

by Carlos d'Ricco

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FAO Forestry Policy and Planning Division

BACKGROUND

Among the group of international agencies which participate in the Inter-secretariat Working Group on Forestry Statistics trade information is important. Until recently, each agency collected this information directly, mostly through questionnaires. There is a trend away from this practice (although FAO continues to collect information directly from its developing member countries). In order to ensure continuing availability of reliable trade information, FAO has offered to collect UN Statistical Office (UNSO) data, carry out the appropriate conversion, and make them available to the other agencies. This paper outlines the process followed by FAO in carrying out the COMTRADE data conversion work; the comments of other agencies are invited so that the procedures can continue to improve; information on the trade of its member countries and organizations.

FAO involvement in this work started in early 1995 with a contract awarded to the European Forestry Institute (EFI) to develop a workable computer process for COMTRADE data conversion. EFI's first trials were carried out using data tapes supplied by UNSO in Geneva and by end 1995 FAO took delivery of the EFI provisional system; at that time the results required considerable amount of subsequent manual checking and correction. FAO has since continued to make improvements to the original design and the system referred to in this paper is a result of these efforts. A positive new development is that FAO can access UNSO data directly by computer without need to await tapes.

The results of the COMTRADE analysis are available through the Yearbook of Forest Products and FAOSTAT.

CONVERSION PROCEDURES

As mentioned earlier, FAO now uses direct computer access to UNSO (since early 1996); it is no longer necessary to await tapes. The build-up of COMTRADE data availability in UNSO is shown in Figure 1. Every year, by the end of September data for all of the important trading countries is available. The kind of data provided are simple trade flows reported by countries which permit FAO to see partners figures that otherwise would not be available for study.

Trade data follow two classification systems: SITC and HS; records from both systems are merged so as to include in the FAO process as much data as possible. Once this data is unloaded and transferred into the FAO mainframe computer, a series of procedures are followed for the necessary conversion. The steps followed are as follows:

Step 1:

The first conversion is from SITC of HS *product* codes to FAO coding system; **Table 1** shows the relations between these types of coding. Not all HS codes are taken into consideration (FAO takes most of HS code number 440110 to 481390, being primary products, while higher codes are assumed to be handled by UNIDO, being for secondary products).

Conversion is necessary to allow comparability with FAOSTAT and other FAO data banks with which there must be constant interaction. These related FAO systems have been developed independently over a long period and at the moment it is necessary to stick to them; in the long term FAO may choose to adopt a coding directly matching an international one such as the HS.

Step 2:

The next step is the conversion of UN *country* codes into FAO equivalents. One of the difficulties found here was that UN has a different classification for "undefined countries" (partners not identified): in COMTRADE they are divided by region (there are codes for: Undefined South America, Undefined Caribbean, etc.) while in FAO there is just one "undefined" code; it means that FAO considers the flow figure but cannot say from which world region it comes. Therefore, at the moment, FAO groups every unknown figure under one code but an amendment has been proposed.

Step 3:

Countries with minor or no forestry output are deleted; these are shown in **Table 2**. At this point, every country remaining is designated either as tropical or non tropical, which permits some discrimination when dealing with products like Industrial Roundwood etc. **Table 3** is a list of countries with tropical wood production or exports. A key problem arises in that significant imports of tropical roundwood into temperate zone countries still occur. After conversion, the output of such roundwood is not necessarily declared as tropical, thus the trace is lost. Furthermore, a few countries are partly within and outside the tropics.

Step 4:

The forestry data contained in the COMTRADE data bank (which are variously given in units of weight, volume or surface) are converted to standard units. There are a number of standard conversion factors given in the FAO Yearbook of Forest Products which have for long been treated as globally valid unless specific exception is requested by a reporting country and alternative coefficients are given. **Table 4** shows a brief list of factors used for the different commodities. FAO is aware that changes in processing technology and in quality of raw materials require an early study of conversion rates in representative countries so that it can update its coefficients. Meanwhile FAO

welcomes any relevant information for a more precise estimates.

Step 5:

This step is for cross-checking source and destination data. After all necessary conversions, if an exporter reports a different figure from the importer to a degree that cannot be explained from conversion errors, as a general rule FAO keeps the exporter's declaration where both partners belong to either the developed or developing world. The general principle is that data coming from countries with detailed and accurate statistics prevail over their partner's data. FAO normally assumes, for example, that industrialized country data are the correct ones when they do not match those from a developing country. FAO is, however, aware that certain developing countries such as Malaysia have highly reliable statistics and operates pragmatically.

Step 6:

Step 6 involves generating estimates for missing or inconsistent data. A procedure calculates a world unit price for each product's imports and exports, except for veneer (FAO code 1634) in which the unit price is calculated country by country but just for exporting. In any case an unit price is calculated for every country based on the COMTRADE data; if the result of this calculation is greater than 5 times or smaller than 1/5 of the world unit value it is declared inconsistent and is substituted.

Step 7:

Data merging and quality control occurs at this stage: COMTRADE data are merged with FAOSTAT data and a first print-out is produced (Table 5 is an example for Sawnwood). The figures tabulated are kept or modified according to whether comparison among different sources (questionnaires, country trade yearbooks, official or private publications etc.) reveals consistency or otherwise. Judgement, based on experience, is an important element at this stage.

After adjustment, the result is as shown in Table 6 which is an example of the direction of trade tables published yearly, which are very similar to the tables FAO sends to Geneva for the Timber Bulletin's trade flow data.

ELEMENTS FOR DISCUSSION

FAO believes that the COMTRADE conversion process it now has gives reasonable information with reliable data for key countries. FAO feels confident that it can meet the needs of other ISWG partners. In order to benefit from external views on this process FAO invites comments from the meeting particularly on the following aspects:

- through what preferred dissemination mechanisms partners would like to have access to the COMTRADE information apart from the Yearbook and FAOSTAT;
- suggestions for getting better distinction between tropical & non tropical countries. In particular, how to better trace information on tropical timber production especially for products derived in temperate countries from imported tropical roundwood. FAO would particularly welcome cooperation with ITTO in this area.

- conversion factors in general and especially for products like plywood or veneer; new information is welcome. FAO would like to share ideas particularly with ECE and ITTO on selection of representative countries for study of up-to-date conversion coefficients.
- comments on acceptable margin of divergence from the expected range before data are substituted and how to deal with missing data with calculated figures based on unit prices or average unit values.

Comments are also welcome on the described procedure in general. There are a few elements where FAO's own internal changes will improve matters. The continuing use of FAO codes is a problem area where, with time, some changes can be expected to reduce need for conversion of SITC or HS product codes.

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Figure 1

**Build-up in arrival of trade statistics for 1994 and 1995
SITC and HS**

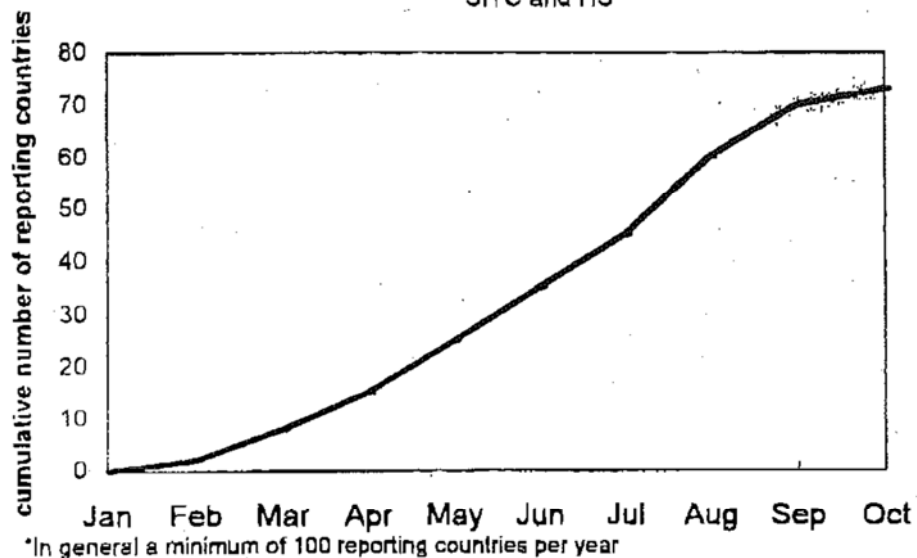


Table 1

SITC AND HARMONISED SYSTEM CODES RELATED TO FAO CODES

SITC Rev 1,2,3	HARMONISED SYSTEM	FAO CODE
<i>ROUNDWOOD</i>		
24110 24501	440110	1629 FUELWOOD
24120 24502	440200	1630 CHARCOAL
24220 24740 24710	440410 440320 440420	1651 IND-RWD-WIR (C)
24230 24720 24750		1867 IND. ROUNDWOOD NC.
	440331<=H S<=440335	1657 IND-RWD-WIR (NC) TROP
	440391<=H S<=440399	1670 IND-RWD-WIR (NC) OTHR
24210 24801		1614 PULPWOOD ROUND & SPLIT
24602 24610	440120<=H S<=440122	1619 CHIPS & PARTS
24603 24620	440130	1620 WOOD RESIDUES
24290 24730 24790		1871 OTHER IND.ROUNDWOOD
	<i>PROCESSED SOLID WOOD PRODUCTS</i>	

Table 1

SITC AND HARMONISED SYSTEM CODES RELATED TO FAO CODES

SITC Rev 1,2,3	HARMONISED SYSTEM	FAO CODE
24330 24310 24850 24840 24810	440721<=H S<=440799 440880 440920	1633 SAWNWOOD NC.
24320 24820	440610 440710 440910	1632 SAWNWOOD C.
63110 63410	440810<=H S<=440890	1634 VENEER
63120 63441 63430 63420 63440	441200<H S<=441299	1640 PLYWOOD
63142 63423 63422 63432	441010 441090	1646 PARTICLE BOARD
	441121 441129 441131 441139	1648 FIBREBOARD MEDIUM DENS.
64160 64161 63451 63452	441111 441119	1649 HARDBOARD
64162 63453 63459	441181 441189	1650 FIBREBOARD NON COMP
	PULP AND PAPER	
25120	470100	1654 MECHANICAL PULP
25190 25191	470500	1655 SEMI-CHEMICAL
25171 25140	470311 470319	1662 UNBLEACHED SULPHATE
25172	470321 470329	1663 BLEACHED SULPHATE
25150		1663 BLEACHED SULPHATE
25150		1668 OTHER FIBRE PULP
25181 25161	470411 470419	1680 UNBLEACHED SULPHITE

Table 1

SITC AND HARMONISED SYSTEM CODES RELATED TO FAO CODES

SITC Rev 1,2,3	HARMONISED SYSTEM	FAO CODE
25182 25162	470421 470429	1661 BLEACHED SULPHITE
25160 25130	470200	1667 DISSOLVING
25150 25182	470600<H S<=470699	1668 OTHER FIBRE PULP
25110	470700<H S<=470799	1669 RECOVERED PAPER
64110	480100	1671 NEWSPRINT
64120 64130	470200<H S<=470299 480830 480890 480900<H S<=480999 481011 481012 481021 481029	1674 PRINTING & WRITING
64130 64130 64190 64140 64180 64170 64150 64160	480300	1675 OTHER PAPER & PBD.
	480400<H S<=480499 480510 480521 480522 480523 480529 480530	1681 WRP.ING & PACK.ING
	480610 480620 480640 480820 480830 481031 481032 481039 481139 481091 481099 481131	
	480540 480550 480791 480799 481200 481390	1683 OTHER NES

Table 2			
COUNTRIES OR TERRITORIES WITH MINOR OR NO FORESTRY OUTPUT (deleted from data set)			
5	Amer Samoa	132	Maldives
6	Andorra	127	Marshall Is
258	Anguilla	145	Micronesia
8	Antigua-Barb	139	Midway Is
22	Aruba	140	Monaco
17	Bermuda	142	Montserrat
24	Br Ind Oc Tr	163	N Mariana Is
239	Br Virgin Is	147	Namibia
34	Canton Is	148	Nauru
36	Cayman Is	152	Neutral Zone
42	Christmas Is	160	Niue
43	Cocos Is	161	Norfolk Is
45	Comoros	180	Palau
47	Cook Islands	172	Pitcairn
164	Ex-Pacific Is	192	San Marino
64	Faeroe Is	196	Seychelles
65	Falkland Is	187	St Helena
154	Fmr Yug Rep Mac	188	St Kitts Nev
71	Fr South Tr	189	St Lucia
76	Gaza Strip	190	St Pier Mq
82	Gibraltar	218	Tokelau
85	Greenland	224	Turks Caicos
86	Grenada	227	Tuvalu
88	Guam	232	US Minor Is.
94	Holy See	240	US Virgin Is
111	Johnston Is	242	Wake Is
83	Kiribati	243	Wallis Fut I
125	Liechtensten	205	Westn Sahara

Table 4

CONVERSION FACTORS

product code and description	general conversion factor	if country =	factor
from cubic meters to kgs			
1614 Pulpwood	1.48		
1619 Chips & particles	1.48		
		Japan	1.938
		USA	1.925
		Australia	2.25
1620 Wood residues	1.48		
1625 Other indust. roundwood	1.33		
1629 Fuelwood	1.38		
1632 Sawnwood c.	1.82		
1633 Sawnwood n.c.	1.43		
1634 Veneer sheets	1.33		
1640 Plywood	1.54		
1646 Particle board	1.54		
1649 Fibreboard compressed	1.053		
		Sweden	1
1650 Insulating board	4		
		Sweden	2.85
1651 Indust. roundwood WIR c.	1.43		
1867 Indust. roundwood WIR n.	1.25		
1871 Other indust. roundwood	1.33		
kgs to cubic meters			
	0.6894		
cubic meters to square meters			
1634 Veneer sheets	4		
		Hong Kong	2.5
		USA	2.4
1640 Plywood	5		
		Japan	7.5
1649 Fibreboard compressed	3.5		
		Turkey	5
1650 Insulating board	10		

EXAMPLE OF COMTRADE DERIVED TABULATION
BY MAJOR EXPORTERS/IMPORTERS
SAWNWOOD C.

1994

Quantity : CUM
Value : 1000 US\$

EXPORTER (reporting) IMPORTER (partner)	QUANT	VALUE	EXPORTER IMPORTER	QUANT	VALUE
* = declared by partner P = calculated through value					
Denmark			Finland		
Belgium-Lux	1785	339	Egypt	404570	60442
Canada	20*	3P	Estonia	2484	373P
Finland	2677	402P	France	691125	143579
France	679	441	Georgia	53	8
Fr. Polynesia	45	7P	Germany	1051833	272910
Germany	78072	27400	Greece	99148	22781
Greece	1	0P	Hong Kong	3428	514P
Hong Kong	4	3	Hungary	2268	514
Hungary	264	84	Iceland	8539	1887
Iceland	1010	493	Iran	839	203
Ireland	1239	186P	Ireland	75037	16843
Israel	111	17P	Israel	189635	35825
Italy	80	58	Italy	243803	58168
Japan	1611	636	Kazakhstan	25	7
Latvia	37	6P	Japan	235270	56488
Lithuania	121*	18P	Jordan	1487	292
Malta	129	50	Korea Rep.	158	63
Mexico	44	7P	Latvia	69	48
Netherlands	3252	1155	Lithuania	86	50
Norway	1283	908	Malta	200	57
Poland	309	97	Morocco	59088	11864
Portugal	51	25	Netherlands	890479	178733
Russian Red.	38	12	New Zealand	20*	10
Saudi Arabia	420*	124	Norway	52836	15317
Singapore	47	27	Czech Rep.	120	35
South Africa	22	4	Poland	213	68
Spain	353	92	Portugal	2876	639
Sweden	2179	881	Russian Fed.	11597	5976
Switzerland	4600	690P	Saudi Arabia	139913	24914
Thailand	173	112	Slovenia	588	122
Oman	45*	7P	Slovakia	22*	4
Turkey	9	1P	Singapore	48	7P
UK	17224	4974	Spain	108264	20986
USA	166	25P	Sweden	63955	13643
Unspecified	511	245	Switzerland	84228	20873
TOTAL	120083	40049	Syria	3134	751
FAO	54000	32699	Turkmenistan	86	14
Finland			Thailand	310	188
Algeria	82992	16634	Tunisia	176433	36053
Australia	35480	5322P	Turkey	491	94
Austria	73903	16814	UK	1372893	315075
Belgium-Lux	166625	33050	Ukraine	62	28
Brazil	47	14	USA	1583	707
Canada	87	28	Uzbekistan	5263	1380
China M	1	0P	Ethiopia	2	0
Cyprus	1738	457	Yemen	389	72
Denmark	714465	153761	Unspecified	1527	388
Belarus	126	83	TOTAL	7059728	1546138
			FAO	7159000	1533060

1994

Quantity : CUM
Value : 1000 US\$

EXPORTER (reporting) IMPORTER (partner)	QUANT	VALUE	EXPORTER IMPORTER	QUANT	VALUE
* = declared by partner P = calculated through value					
Danmark			Finland		
Australia	102*	42	India	484*	82P
Austria	619	105P	Italy	140	24P
Belgium-Lux	32	5P	Japan	34*	6P
Brazil	166	90	Latvia	4621	475
Cameroon	47	13	Lithuania	115	7
Canada	1001	844	Malaysia	103	17P
Belarus	104	11	Netherlands	5	4
Estonia	21165	2627	Norway	33	24
Finland	706846	168047	Portugal	1	OP
France	135	51	Russian Fed.	111905	11427
Germany	31859	6395	Spain	36*	6P
Honduras	58	15	Sweden	215	100
Iceland	46*	39	UK	153	26P
Indonesia	66*	35	USA	37	6P
Ireland	46*	32	TOTAL	154375	15607
Italy	2853	482P	FAO	152000	15289
Latvia	18153	2893	France		
Lithuania	15308	1887	Argentina	46	11
Malta	198	51	Austria	3069	1226
Netherlands	526	156	Belgium-Lux	44144	11974
Norway	49220	12680	Brazil	1383	588
Czech Rep.	1081	152	Bulgaria	35	7
Philippines	23	4P	Cameroon	9493	1460
Poland	169790	21346	Canada	43298	25336
Romania	24*	7	Chile	64	6
Russian Fed.	42391	7154	Denmark	641	504
St. Vincent G	40	4	Belarus	78	20
Slovakia	116	17	Estonia	11360	2080
Singapore	8	1P	Finland	596223	155319
Spain	387	65P	Fr Guyana	18	9
Sweden	1218929	305119	Germany	185105	49900
Switzerland	410	113	Guatemala	75*	11
UK	380	102	Honduras	9	4
Ukraine	75	4	Hungary	35	12
USA	1598	831	Indonesia	6090	1029P
Unspecified	4	3	Italy	43211	7303P
TOTAL	2283806	531224	Côte d'Ivoire	2422	527
FAO	2278000	522921	Latvia	1800	316
Finland			Lithuania	1631	204
Austria	101*	17P	Madagascar	35*	3
Canada	47	30	Malaysia	599	205
Chile	1	OP	Morocco	96	69
China M	4	1	Netherlands	7826	5573
Denmark	95	16P	Norway	28257	7759
Belarus	1	OP	Czech Rep.	1882	359
Estonia	36098	3294	Poland	19163	3425
France	84*	24	Portugal	8552	1816
Germany	62	20	Romania	1178	294

TAB6

Table 6							
Example of Comtrade derived Direction of Trade matrix							
DIRECTIONS OF TRADE							
SITC PRODUCT CODE : 248.2/3							
SAWNWOOD (C)							
QUANTITY 1000 CUM							
	Canada	Sweden	Finland	USA	Austria	Russian F	Poland
USA	42896	4	2		0	41*	0
Japan	6255	182	235	2476	76	383*	0
UK	609	2621	1373	55	21		95
Germany	131	1616	1052	115	627		736
Italy	110	308	244	138	2833	332*	18
Netherlan	39	894	890	36	31	209*	129
Denmark	1	1219	714	3	0	42*	188
France	42	468	691	22	5	188*	29
Egypt	0	431	405	2*	0	562*	
Spain	5	379	106	172	1	82*	1
Australia	260	1	35	172	0*	1*	
Saudi Ara	224	190	140	2	180	1*	
Austria	5	68	74	1		15*	40
Belgium-L	175	121	167	37	4		70
Canada		2	0	803	0		
Norway	0	642	53	3	0	21*	1
Mexico	0	0*		633		0*	
Unspecifie	341	1	2	45	0		10
Hungary	1	9	2	0	39		4
Greece	1	198	99	18	11	49*	0
Switzerlan	4	33	84	1	176	1*	0
Ireland	12	192	75	5	0	31*	0
Israel	25	54	190	30	13		
Morocco	0	106	59	0*	0	20*	
Algeria		123	83	13	90		
Develope	43	18	96	16	333	182	40
Developin	186	180	188	741	227	266	
Total	51365	10060	7060	5539	4671	2388	1361

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TAB6

DIRECTIONS DU COMMERCE						
SCIAGES (C)						
QUANTITE 1000 CUM						
Germany	New Zeal	Chile	Mexico	Portugal	Latvia	Czech Re
###						
1*	169	194*	1046*	0	1	0
41*	277	335*	0	0		
	1	33		435	455	
	0		0	0	93	
485*		1	0*	1	1	151
254*		4*		41	4	49
32*					16	1
185*		0*		13	2	2
12*	1*	59			1	
4*		0*		207	0	4
0*	524	6*	0		0	3
5*		58				
198*		0		0	0	413
		9		9	1	
1*	1	8*	1*			0
0*				0	7	0
0*	2*					
	66	86		0		
					5	
1*						53
107*					0	1
2*	1				76	0
				33	3	
2*		16		63		5
0*						
12	0	0		1	91	26
9	103	247	1	4	1	21
1352	1144	1054	1049	809	757	731

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DIRECCION DEL COMERCIO				
MADERA ASERRADA (C)				
CANTIDAD 1000 CUM				
	Norway	Developed NES	Developing NES	Total
*	1	351	60	44732
	22	743	42	11066
	98	22	462	6280
	288	8	456	5122
*	3	26	278	4929
*	119	7	342	3048
*	57	0	55	2330
*	25	21	127	1820
		36	35	1544
*	2	26	69	1058
*	1	24	1	1029
		13	155	969
*	20	0	99	933
	14	3	295	904
*	1	19	6	843
*		2	18	748
		54	4	693
	1	59	32	643
	1		498	559
*		0	63	495
*	13	1	43	465
*	14	3	14	423
	0	47	24	419
*		43	66	381
		18	6	334
	18	66	414	1356
	3	389	297	2864
	701	1985	3963	95989