CONTENTS

INTRODUCTION xix
SYMBOLS USED IN THE TABLES xx
PRODUCT NAMES AND DEFINITIONS xx
NOTES ON THE TABLES xxiv
COMPOSITION OF PRODUCT AGGREGATES xxv
CROSS-REFERENCES TO HS 96 AND SITC REV.3 xxvi
LIST OF COUNTRIES, ZONES AND CONTINENTS xxvii
STANDARD CONVERSION FACTORS xxix
EXCHANGE RATES A-1
FIVE LEADING COUNTRIES IN 2003 ..... A-3

ROUNDWOOD

Roundwood
Production, Consumption 2
Imports: quantity, value 5
Exports: quantity, value 7

Roundwood (C)
Production 9

Roundwood (NC)
Production 11

Wood Fuel, including Wood for Charcoal
Production, Consumption 14
Imports: quantity, value 17
Exports: quantity, value 18

Wood Fuel, including Wood for Charcoal (C)
Production 19

Wood Fuel, including Wood for Charcoal (NC)
Production 20

Industrial Roundwood-Wood in the Rough
Production, Consumption 22
Imports: quantity, value 25
Exports: quantity, value 27

Industrial Roundwood-Wood in the Rough (C)
Production, Consumption 29
Imports: quantity, value 31
Exports: quantity, value 33

Industrial Roundwood-Wood in the Rough (NC)
Production, Consumption 35
Imports: quantity, value 38
Exports: quantity, value 40

Industrial Roundwood-Wood in the Rough (NC) Tropical
Imports: quantity, value 42
Exports: quantity, value 43

Industrial Roundwood-Wood in the Rough (NC) Other
Imports: quantity, value 44
Exports: quantity, value 46

Sawlogs and Veneer Logs
Production 47

Sawlogs and Veneer Logs (C)
Production 49

Sawlogs and Veneer Logs (NC)
Production 51

Pulpwood, Round and Split
Production 53

Pulpwood, Round and Split (C)
Production 54

Pulpwood, Round and Split (NC)
Production 55

Other Industrial Roundwood
Production 56

Other Industrial Roundwood (C)
Production 58

Other Industrial Roundwood (NC)
Production 59

WOOD CHARCOAL, WOOD CHIPS, PARTICLES AND RESIDUES

Wood Charcoal
Production, Consumption 62
Imports: quantity, value 64
Exports: quantity, value 65

Wood Chips and Particles
Imports: quantity, value 66
Exports: quantity, value 67

Wood Residues
Production, Consumption 68
Imports: quantity, value 70
Exports: quantity, value 71

SAWNWOOD

Sawnwood
Production, Consumption 74
Imports: quantity, value 77
Exports: quantity, value 80

Sawnwood (C)
Production, Consumption 82
Imports: quantity, value 85
Exports: quantity, value 87

Sawnwood (NC)
Production, Consumption 89
Imports: quantity, value 92
Exports: quantity, value 94

WOOD-BASED PANELS

Wood-Based Panels
Production, Consumption 98
Imports: quantity, value 101
Exports: quantity, value 104

Veneer Sheets
Production, Consumption 106
Imports: quantity, value 108
Exports: quantity, value 110

Plywood
Production, Consumption 111
Imports: quantity, value 114
Exports: quantity, value 116

Particle Board
Production, Consumption 118
Imports: quantity, value 120
Exports: quantity, value 122

Fibreboard
Production, Consumption 123
Imports: quantity, value 125
Exports: quantity, value 127

Hardboard
Production, Consumption 128
Imports: quantity, value 130
Exports: quantity, value 132

Medium Density Fibreboard (MDF)
Production, Consumption 133
Imports: quantity, value 135
Exports: quantity, value 137

Insulating Board
Production, Consumption 138
Imports: quantity, value 140
Exports: quantity, value 142

PULP AND RECOVERED PAPER

Wood Pulp
- Production, Consumption ... 144
- Imports: quantity, value ... 146
- Exports: quantity, value ... 148

Mechanical Wood Pulp
- Production, Consumption ... 149
- Imports: quantity, value ... 150
- Exports: quantity, value ... 151

Semi-Chemical Wood Pulp
- Production, Consumption ... 152
- Imports: quantity, value ... 153
- Exports: quantity, value ... 154

Chemical Wood Pulp
- Production, Consumption ... 155
- Imports: quantity, value ... 157
- Exports: quantity, value ... 159

Unbleached Sulphite Pulp
- Production, Consumption ... 160
- Imports: quantity, value ... 161
- Exports: quantity, value ... 162

Bleached Sulphite Pulp
- Production, Consumption ... 163
- Imports: quantity, value ... 164
- Exports: quantity, value ... 165

Unbleached Sulphate Pulp
- Production, Consumption ... 166
- Imports: quantity, value ... 167
- Exports: quantity, value ... 168

Bleached Sulphate Pulp
- Production, Consumption ... 169
- Imports: quantity, value ... 171
- Exports: quantity, value ... 173

Dissolving Wood Pulp
- Production, Consumption ... 174
- Imports: quantity, value ... 175
- Exports: quantity, value ... 176

Other Fibre Pulp
- Production, Consumption ... 177
- Imports: quantity, value ... 178
- Exports: quantity, value ... 179

Recovered Paper
- Production, Consumption ... 180
- Imports: quantity, value ... 182
- Exports: quantity, value ... 184

PAPER AND PAPERBOARD

Paper and Paperboard
- Production, Consumption ... 186
- Imports: quantity, value ... 189
- Exports: quantity, value ... 192

Newsprint
- Production, Consumption ... 194
- Imports: quantity, value ... 196
- Exports: quantity, value ... 198

Printing and Writing Paper
- Production, Consumption ... 199
- Imports: quantity, value ... 201
- Exports: quantity, value ... 203

Other Paper and Paperboard
- Production, Consumption ... 204
- Imports: quantity, value ... 206
- Exports: quantity, value ... 208

Household and Sanitary Paper
- Production, Consumption ... 210
- Imports: quantity, value ... 212
- Exports: quantity, value ... 213

Wrapping and Packaging Paper and Paperboard
- Production, Consumption ... 214
- Imports: quantity, value ... 216
- Exports: quantity, value ... 218

Other Paper and Paperboard Not Elsewhere Specified
- Production, Consumption ... 219
- Imports: quantity, value ... 221
- Exports: quantity, value ... 223

FOREST PRODUCTS

- Imports and exports: value ... 226

DIRECTION OF TRADE

Industrial Roundwood-Wood in the Rough (C) ... 230
Industrial Roundwood-Wood in the Rough (NC) Tropical ... 231
Industrial Roundwood-Wood in the Rough (NC) Other ... 232
Wood Chips and Particles ... 233
Sawnwood (C) ... 234
Sawnwood (NC) ... 235
Veneer Sheets ... 236
Plywood ... 237
Particle Board ... 238
Fibreboard ... 239
Wood Pulp ... 240
Newsprint ... 241
Paper and Paperboard other than Newsprint ... 242
Forest Products ... 243

FAO YEARBOOK OF FOREST PRODUCTS

INTRODUCTION

This is the 57th issue of the *FAO Yearbook of Forest Products*. The yearbook contains annual data on the production and trade in forest products for the years 1999-2003 and on direction of trade in 2002 and 2003. The full forest products time series starting in 1961 is available in electronic form on compact disk (FAOSTAT CD) and on the Internet at: http://apps.fao.org/forestry. For information on acquiring any of these information products, contact publications-sales@fao.org or through the Internet at http://apps.fao.org/products.htm

Please note the change in format of the yearbook. In order to increase access to forestry information and best serve its member countries, FAO is expanding the language coverage provided in this yearbook to include Arabic and Chinese. Each year, more sections will be provided in these languages.

The publication of the yearbook is made possible by the cooperation of governments which supply most of the information in the form of replies to questionnaires. This edition benefits from expanded co-operation in gathering forest sector statistics among a number of the international organizations. Beginning in 1999, information for production and trade in 1998 and updates for 1997 were gathered using a joint forest products questionnaire supported by the Forestry Department of FAO, the Economic Commission for Europe (ECE), the Statistical Office of the European Communities (EUROSTAT) and the International Tropical Timber Organization (ITTO). This joint questionnaire is in response to requests from member countries of all four partner organizations to rationalise our approaches to forest sector data collection and dissemination. It is hoped that this will reduce the reporting burden on countries, improve response rates and increase consistency among forestry statistical publications issued by the various agencies.

The yearbook tables are arranged in three parts. The first part contains information about the most important countries in terms of production, consumption and trade of forest products in 2003. The second part contains the main tables reporting the volume of production, consumption and trade, as well as total and unit values of trade, for every country and type of forest product. The third part contains tables showing the bilateral directions of trade for major product categories.

The tables in the second part present data for the 5 years 1999-2003. These tables have been arranged so that, for any forest product, the tables showing data on production, imports and exports of that product follow one another. Because the product subdivisions used in production and trade statistics differ, the series for certain product categories include only production statistics and for certain others only trade statistics. In general, tables for roundwood are followed by those for sawnwood, panel products, pulp and paper, in that order. Within these groupings, tables showing the total for all products within the group come first, followed by tables for each of the individual products.

The direction of trade tables show the 15 largest exporters and 25 largest importers for each of a number of widely traded forest products. This information, reported for the latest two years, is based on an analysis of data provided by countries through the joint questionnaire and from data drawn from the COMTRADE database of the United Nations Statistics Office. As part of FAO's effort to expand its statistical coverage, more comprehensive direction of trade statistics for countries will also shortly be released in electronic form on the FAOSTAT Internet website.

Forest products and forest product aggregates are defined briefly below. In this section, the forest product aggregates and individual forest products are listed in the order in which they occur in the yearbook. These definitions are based on those contained in: *Classification and definitions of forest products*, FAO, Rome, 1982. Some refinement of product definitions and classifications have been made in this issue in order to meet the needs of all partners of the joint forest products questionnaire and to avoid possible double-counting in some forest product categories. A table is included at the end of this section which shows the composition of product aggregates in production, consumption and trade. In the case of exports and imports, a table is provided at the end of this section that associates the forest product name with the relevant numerical codes used in the United Nations *Standard International Trade Classification* (SITC) system and in the Harmonised System (HS) of the World Customs Organization.

The tables are extracted from FAO's FAOSTAT database on forest products. As such, the tables use computer-generated labels for forest product names and to represent geographic entities. A listing of the computer generated labels for names of continents, countries and areas is displayed in a table towards the end of this section.

As in previous issues, this yearbook includes estimates made by FAO and data obtained from sources other than the official replies to questionnaires. The 5-year series incorporates both official revisions and new information from other sources. Thus, the figures published in earlier issues may have been revised during the preparation of these series. In certain cases, the data provided by countries are stated in different units or systems of measurement from those used in the yearbook. For presentation in the yearbook it has been necessary to convert to a standard set of metric units. The coefficients used for conversion to the metric system are shown in a table at the end of this section. It is hoped that countries will re-examine the estimates and provide FAO with more accurate figures when these appear to be wrong.

One of the areas where statistics are not reported very often by countries is wood fuel. So, for many countries, FAO must estimate wood fuel production. Recently, FAO revised the complete series of wood fuel production figures back to 1960, based on a new model of wood fuel consumption in countries that is believed to produce more reliable estimates. In some countries, these new estimates vary greatly from those that were produced before.

A table of exchange rates for the 5 years of the data series is also included in the yearbook. This table shows the exchange rates used to convert local currency units to a common currency (US$) in the trade value tables. Data for production and trade are rounded to the nearest 1 000 units; volume figures (including apparent net consumption per thousand capita) are in metric tons for charcoal, pulp and paper products and cubic meters for all other products. When the name of a country or area is given without a corresponding numerical entry or printed as "0", it means that quantities are less than 500 units. Entries of less than 500 go into the regional total and world total even though they are not shown at the country level.

Where official statistics were not available an indication is given identifying the use of FAO estimates (F) or data from non-official sources (*). The use of (F) and (*) is displayed on the product tables at the individual product level, e.g. plywood, but not at the aggregate level, e.g. wood-based panels.

To improve these series, readers are encouraged to contact FAO if they find data that is inconsistent with recognised or authoritative data sources or if any of the data does not appear to make sense, even if it has come from an official source. FAO wants to report accurate and timely data and seeks the assistance of all countries to improve the compilation and dissemination of high quality statistics on forest product production and international trade. The contact details for FAO staff dealing with each of the sections of the yearbook are given below. Forest Products and Economics Division, FAO Forestry Department, Viale delle Terme di Caracalla, 00100 Rome, Italy. Fax: +39-06-5705.5137 or +39-06-5705.3945; E-mail: for general comments -- CTS.nair@fao.org; production statistics -- mauro.paolozzi@fao.org; trade statistics -- carlos.dricco@fao.org; FAOSTAT access – felice.padovani@fao.org.

SYMBOLS USED IN THE TABLES

CUM	Cubic metre
MT	Metric ton
C	Coniferous
NC	Non-coniferous
F	FAO estimate
*	Unofficial figure
$	United States dollar

PRODUCT NAMES AND DEFINITIONS

General terms and forest product names used in the yearbook are listed below and briefly defined. Where possible the definitions used follow *Classification and definitions of forest products*, FAO, Rome, 1982. Some of these have been refined for use with the joint forest products questionnaire.

General terms

Coniferous
All woods derived from trees classified botanically as Gymnospermae, e.g. fir (*Abies*), Paraná pine (*Araucaria*), deodar (*Cedrus*), ginkgo (*Ginkgo*), larch (*Larix*), spruce (*Picea*), pine, chir, kail (*Pinus*), etc. (These are also generally referred to as softwoods).

Non-coniferous
All woods derived from trees classified botanically as Angiospermae, e.g. maple (*Acer*), alder (*Alnus*), ebony (*Diospyros*), beech (*Fagus*), lignum vitae (*Guaiacum*), poplar (*Populus*), oak (*Quercus*), sal (*Shorea*), teak (*Tectona*), casuarina (*Casuarina*), etc. (These are generally referred to as broadleaves or hardwoods).

Tropical
Tropical timber is defined in the International Tropical Timber Agreement (1994) as follows “Non-coniferous tropical wood for industrial uses, which grows or is produced in the countries situated between the Tropic of Cancer and the Tropic of Capricorn. The term covers logs, sawnwood, veneer sheets and plywood. Plywood which includes in some measure conifers of tropical origin shall also be covered by the definition.” The term is only used here in reference to non-coniferous industrial roundwood.

Other
Countries that are not tropical (as defined above). The term is only used here in reference to non-coniferous industrial roundwood.

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:** 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, windblow, insects and diseases. **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 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. **It includes:** the production of products that may immediately be consumed in the production of another product (e.g. wood pulp, which may immediately be converted into paper as part of a continuous process). **It excludes:** the production of veneer sheets that are used for plywood production within the same country. **It is reported** in cubic metres of solid volume in the case of roundwood, sawnwood and wood based panels and metric tons in the case of charcoal, pulp and paper products.

Imports
Products imported for domestic consumption or processing shipped into a country. **It includes:** imports for re-export in some circumstances. **It excludes:** "In-transit" shipments. **It is reported** in cubic metres of solid volume or metric tons and values normally include cost, insurance and freight (i.e. CIF).

Exports
Products of domestic origin or manufacture shipped out of the country. **It includes:** re-exports in some circumstances. **It excludes:** "In-transit" shipments. **It is reported** in cubic metres of solid volume or metric tons and values are normally recorded as free-on-board (i.e. FOB).

Unit values
Unit values have been obtained by dividing the total value of trade by the total volume of trade. The figures for exports represent average FOB values, while those for imports represent average CIF values.

Consumption
Consumption is Apparent Net Consumption, which equals production plus imports minus exports; it can therefore, only be calculated when data are available for all three elements.

Forest product aggregates and names

The names of individual forest products and product aggregates are listed below in the order in which they occur in the tables later on. Separate definitions are not provided for coniferous (C) and non-coniferous (NC) components where the general definition given above applies. Unless indicated otherwise, each forest product category includes both coniferous and non-coniferous components. A summary, showing how all of the product categories and aggregates are linked together, is given in a table at the end of this section.

ROUNDWOOD

Roundwood
- Roundwood (C)
- Roundwood (NC)

All roundwood felled or otherwise harvested and removed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the period, calendar year or forest year. **It includes:** all wood removed with or without bark, including wood removed in its round form, or split, roughly squared or in other form (e.g. branches, roots, stumps and burls (where these are harvested) and wood that is roughly shaped or pointed. **In the production statistics, it represents the sum of:** wood fuel, including wood for charcoal; sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood. **In the trade statistics, it represents the sum of:** industrial roundwood - wood in the rough; and wood fuel, including wood for charcoal. **It is reported in** cubic metres underbark (i.e. excluding bark). The statistics include recorded volumes, as well as estimated unrecorded volumes as indicated in the notes.

Wood Fuel, including Wood for Charcoal
- Wood Fuel, including Wood for Charcoal (C)
- Wood Fuel, including Wood for Charcoal (NC)

Roundwood that will be used as fuel for purposes such as cooking, heating or power production. **It includes:** wood harvested from main stems, branches and other parts of trees (where these are harvested for fuel) and wood that will be used for charcoal production (e.g. in pit kilns and portable ovens). The volume of roundwood used in charcoal production, is estimated by using a factor of 6.0 to convert from the weight (MT) of charcoal produced to the solid volume (CUM) of roundwood used in production. **It is reported in** cubic metres underbark (i.e. excluding bark).

Industrial Roundwood-Wood in the Rough
Industrial Roundwood-Wood in the Rough (C)
Industrial Roundwood-Wood in the Rough (NC)
Industrial Roundwood-Wood in the Rough (NC) Tropical
Industrial Roundwood-Wood in the Rough (NC) Other
Roundwood that will be used in the production of other goods and services (except as a source of fuel). **It includes:** all roundwood except wood fuel. **In the production statistics, it represents the sum of:** sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood. Trade statistics for this category are only divided into coniferous and non-coniferous (and the latter is further subdivided into tropical and non-tropical). **It is reported in** cubic metres underbark (i.e. excluding bark).

Sawlogs and Veneer Logs
Sawlogs and Veneer Logs (C)
Sawlogs and Veneer Logs (NC)
Roundwood that will be sawn (or chipped) lengthways for the manufacture of sawnwood or railway sleepers (ties) or used for the production of veneer (mainly by peeling or slicing). **It includes:** roundwood (whether or not it is roughly squared) that will be used for these purposes; shingle bolts and stave bolts; match billets and other special types of roundwood (e.g. burls and roots, etc.) used for veneer production. **It is reported in** cubic metres underbark (i.e. excluding bark).

Pulpwood, Round and Split
Pulpwood, Round and Split (C)
Pulpwood, Round and Split (NC)
Roundwood that will be used for the production of pulp, particleboard or fibreboard. **It includes:** roundwood (with or without bark) that will be used for these purposes in its round form or as splitwood or wood chips made directly (i.e. in the forest) from roundwood. **It is reported in** cubic metres underbark (i.e. excluding bark).

Other Industrial Roundwood
Other Industrial Roundwood (C)
Other Industrial Roundwood (NC)
Roundwood that will be used outside the forest processing sector for the production of other goods and services (except as a source of fuel). **It includes:** roundwood that will be used for tanning, distillation, match blocks, gazogenes, poles, piling, posts, fencing and pitprops, etc. **It is reported in** cubic metres underbark (i.e. excluding bark).

WOOD CHARCOAL, WOOD CHIPS, PARTICLES AND RESIDUES

Wood Charcoal
Wood carbonised by partial combustion or the application of heat from external sources. **It includes:** charcoal used as a fuel or for other uses, e.g. as a reduction agent in metallurgy or as an absorption or filtration medium. **It is reported in** metric tons.

Wood Chips and Particles
Wood that has been deliberately reduced to small pieces during the manufacture of other wood products and is suitable for pulping, for particle board and fibreboard production, for use as a fuel, or for other purposes. **It excludes:** wood chips made directly (i.e. in the forest) from roundwood (i.e. already counted as pulpwood, round and split). **It is reported in** cubic metres solid volume excluding bark.

Wood Residues
The volume of roundwood that is left over after the production of forest products in the forest processing industry (i.e. forest processing residues) and that has not been reduced to chips or particles. **It includes:** sawmill rejects, slabs, edgings and trimmings, veneer log cores, veneer rejects, sawdust, residues from carpentry and joinery production, etc. **It excludes:** wood chips made either directly (i.e. in the forest) from roundwood or made from residues (i.e. already counted as pulpwood, round and split or wood chips and particles). **It is reported in** cubic metres solid volume excluding bark.

SAWNWOOD

Sawnwood
Sawnwood (C)
Sawnwood (NC)
Wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that, with a few exceptions, exceeds 5 mm in thickness. **It includes:** planks, beams, joists, boards, rafters, scantlings, laths, boxboards, sleepers and "lumber", etc., in the following forms: unplaned, planed, grooved, tongued, finger-jointed, chamfered, rabbeted, V-jointed, beaded, etc. **It excludes:** wooden flooring. **It is reported in** cubic metres solid volume.

WOOD-BASED PANELS

Wood-Based Panels
The wood-based panels category is an aggregate category. **In the production and trade statistics, it represents the sum of:** veneer sheets, plywood, particle board, and fibreboard. Until 1995, fibreboard was further split into compressed fibreboard and non-compressed fibreboard. Starting from 1995 the compressed fibreboard category has been disaggregated into hardboard and medium density fibreboard (MDF); and non-compressed fibreboard has been re-labelled as insulating board. **It is reported in** cubic metres solid volume.

Veneer Sheets
Thin sheets of wood of uniform thickness, rotary cut (i.e. peeled), sliced or sawn. **It includes:** wood used for the manufacture of plywood, laminated construction material, furniture, veneer containers, etc. **It excludes:** wood used for plywood production within the same country. **It is reported in** cubic metres solid volume.

Plywood
A panel consisting of an assembly of veneer sheets bonded together with the direction of the grain in alternate plies generally at right angles. The veneer sheets are usually placed symmetrically on both sides of a central ply or core which may itself be made from a veneer sheet or another material. **It includes:** ***veneer plywood*** (plywood manufactured by bonding together more than two veneer sheets, where the grain of alternate veneer sheets is crossed, generally at right angles); ***core plywood*** or ***blockboard*** (plywood with a solid core (i.e. the central layer, generally thicker than the other plies) that consists of narrow boards, blocks or strips of wood placed side by side, which may or may not be glued together); ***cellular board*** (plywood with a core of cellular construction); and ***composite plywood*** (plywood with the core or certain layers made of material other than solid wood or veneers). **It excludes:** laminated construction materials (e.g. glulam), where the grain of the veneer sheets generally runs in the same direction. **It is reported in** cubic metres solid volume.

Particle Board
A panel manufactured from small pieces of wood or other lignocellulosic materials (e.g. chips, flakes, splinters, strands, shreds, shives, etc.) bonded together by the use of an organic binder together with one or more of the following agents: heat, pressure, humidity, a catalyst, etc. **It includes:** waferboard; oriented strandboard (OSB) and flaxboard. **It excludes:** wood wool and other particle boards bonded together with inorganic binders. **It is reported in** cubic metres solid volume.

Fibreboard
A panel manufactured from fibres of wood or other lignocellulosic 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:** hardboard; medium density fibreboard (MDF); and insulating board. **It is reported in** cubic metres solid volume.

Hardboard
Fibreboard with a density exceeding 0.80 g/cm^3. Before 1995, this product was a component of the compressed fibreboard product category, so data for this product is not available for 1994 and earlier years. **It excludes:** similar products made from pieces of wood, wood flour or other ligno-cellulosic material where additional binders are required to make the panel; and panels made of gypsum or other mineral material. **It is reported in** cubic metres solid volume.

Medium Density Fibreboard (MDF)
Fibreboard of a density exceeding 0.5 g/cm^3 but not exceeding 0.8 g/cm^3. Before 1995, this product was a component of the compressed fibreboard product category, so data for this product is not available for 1994 and earlier years. **It is reported in** cubic metres solid volume.

Insulating Board
Fibreboard of a density not exceeding 0.5 g/cm^3. Before 1995, this product was referred to as non-compressed fibreboard. **It is reported in** cubic metres solid volume.

PULP AND RECOVERED PAPER

Wood Pulp
Fibrous material prepared from pulpwood, wood chips, particles, residues or recovered paper 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:** mechanical wood pulp; semi-chemical wood pulp; chemical wood pulp; and dissolving wood pulp. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content).

Mechanical Wood Pulp
Wood pulp obtained by grinding or milling pulpwood or residues into fibres, or through refining chips or particles. Also called ground wood pulp and refiner pulp, it may be bleached or unbleached. **It includes:** chemi-mechanical and thermo-mechanical pulp. **It excludes:** exploded and defibrillated pulp. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content).

Semi-Chemical Wood Pulp
Wood pulp obtained 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. **It includes:** semi-chemical wood pulp; chemi-ground wood pulp; and chemi-mechanical wood pulp etc.(named in the order and importance of the treatment during the manufacturing process). **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content).

Chemical Wood Pulp
Wood pulp obtained by subjecting pulpwood, wood chips, particles or residues to a series of chemical treatments. **It includes:** sulphate (kraft) wood pulp; soda wood pulp; and sulphite wood pulp. It may be bleached, semi-bleached or unbleached. **It excludes** dissolving grades of wood pulp. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content). Where detail is available, statistics for the following four component pulps are also given: unbleached sulphite pulp; bleached sulphite pulp; unbleached sulphate pulp; and bleached sulphate pulp.

Unbleached Sulphite Pulp
Bleached Sulphite Pulp
Wood pulp obtained by mechanically reducing pulpwood, wood chips, particles or residues to small pieces that are subsequently cooked in a pressure vessel in the presence of a bisulphite cooking liquor. Bisulphites such as ammonium, calcium, magnesium and sodium are commonly used in this process. **It excludes** dissolving grades of wood pulp. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content) and data for two classes: bleached (including semi-bleached); and unbleached, are reported separately.

Unbleached Sulphate Pulp
Bleached Sulphate Pulp
Wood pulp obtained by mechanically reducing pulpwood, wood chips, particles or residues to small pieces that are subsequently cooked in a pressure vessel in the presence of sodium hydroxide cooking liquor (soda pulp) or a mixture of sodium hydroxide and sodium sulphite cooking liquor (sulphate pulp). **It excludes** dissolving grades of wood pulp. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content) and data for two classes: bleached (including semi-bleached); and unbleached, are reported separately.

Dissolving Wood Pulp
Chemical pulp (sulphate, soda or sulphite) made from wood of special quality, with a very high alpha-cellulose content (usually 90 percent and over). This type of pulp is always bleached and is readily adaptable for uses other than paper-making. It is used principally as a source of cellulose in the manufacture of products such as synthetic fibres, cellulose plastic materials, lacquers and explosives. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content).

Other Fibre Pulp
Pulp manufactured from fibrous vegetable materials other than wood and used for the manufacture of paper, paperboard and fibreboard. **It includes** pulps made from: straw; bamboo; bagasse; esparto; other reeds or grasses; cotton fibres; flax; hemp; rags; and other textile wastes. **It excludes** pulp made from recovered paper. **It is reported in** metric tons air-dry weight (i.e. with a 10% moisture content).

Recovered Paper
Waste and scraps of paper or paperboard that have been collected for re-use as a raw material for the manufacture of paper and paperboard. **It includes:** paper and paperboard that has been used for its original purpose and residues from paper and paperboard production. **It is reported in** metric tons.

PAPER AND PAPERBOARD

Paper and Paperboard

The paper and paperboard category is an aggregate category. **In the production and trade statistics, it represents the sum of:** newsprint; printing and writing paper; and other paper and paperboard. Products in this category are generally manufactured in strips or rolls of a width exceeding 15 cm (36 cm for HS 48.13 and 48.19) or in rectangular sheets with one side exceeding 36 cm and the other exceeding 15 cm in the unfolded state. **It excludes** manufactured paper products such as boxes, cartons, books and magazines, etc. **It is reported in** metric tons.

Newsprint
Uncoated paper, unsized (or only slightly sized), containing at least 60 percent mechanical wood pulp (percentage of fibrous content), usually weighing not less that 40 g/m^2 and generally not more than 60 g/m^2, of the type used mainly for the printing of newspapers. **It is reported in** metric tons.

Paper and Paperboard other than Newsprint
The paper and paperboard category is an aggregate category. **It comprises:** other printing and writing paper; and other paper and paperboard. It only appears in tables showing direction of trade. **It is reported in** metric tons.

Printing and Writing Paper
Paper, except newsprint, suitable for printing and business purposes, writing, sketching, drawing, etc. Made from a variety of pulp blends and with various finishes. **It includes:** papers used for books and magazines; wallpaper base stock; box lining and covering; calculator paper; rotonews; duplicating tablet or block; labels; lithograph paper; banknotes; tabulating card stock; bible or imitation bible paper; stationery; manifold paper; onionskin; typewriter paper; and poster paper, etc. **It is reported in** metric tons.

Other Paper and Paperboard
All other types of paper. **It includes:** construction paper and paperboard; household and sanitary paper; special thin paper; wrapping and packaging paper and paperboard; and other paper and paperboard not elsewhere specified. **It is reported in** metric tons. Where detail is available, statistics for the following three components are also given: household and sanitary paper; wrapping and packaging paper and paperboard; and other paper and paperboard not elsewhere specified.

Household and Sanitary Paper
Absorbent paper (creped or uncreped and sometimes embossed) made from bleached or unbleached chemical wood pulp, sometimes with a mixture of pulp from waste paper and mechanical pulp. **It includes:** towelling; napkins; facial tissue; toilet tissue; wadding; and disposable tissues, etc. **It is reported in** metric tons.

Wrapping and Packaging Paper and Paperboard
Paper or paperboard used for wrapping, packaging and the manufacture of sacks and boxes. **It includes:** vegetable parchment, greaseproof paper and glassine paper *(made from pure chemical wood pulp or from a mixture of chemical wood pulp, cotton fibre pulp, treated (e.g. highly hydrated or hard-beaten) to render the resulting paper resistant to oil, grease and water and used primarily for packaging frozen, moist or greasy materials such as butter, margarine, meat or fish*); linerboard *(paper or paperboard used as facing material on corrugated or solid paper or paperboard boxes and containers)*; fluting medium *(paper or paperboard used as medium when combining paper and paperboard for conversion into a corrugated board)*; sack kraft paper (*strong paper made from sulphate pulp and used in the manufacture of single or multiwall sacks)*; other kraft wrapping paper *(all other wrapping and packaging papers made principally from sulphate pulp)*; folding boxboard *(all types of paperboard used in the manufacture of folding boxes)*; and other wrapping and packaging paper and paperboard. **It is reported in** metric tons.

Other Paper and Paperboard Not Elsewhere Specified
Paper and paper board used for construction, special purposes and other uses not elsewhere specified. **It includes:** kraft papers *used for waxing, asphalting, waterproofing, laminating, impregnating, spinning or twisting, gumming, etc.*; papers manufactured principally from furnishes other than sulphate pulp and not elsewhere specified *(such as rope and jute paper, folder stock, blotting paper, filter paper, photographic sensitising paper, etc.)*; construction paper and paperboard *(papers, paper felts and paperboards used in the construction of buildings and other structures for insulation, vapour seal, roofing and flooring underlay, etc. (these papers are generally made from fully refined material such as wood pulp, waste paper, other vegetable pulp and mineral fibre and their principle characteristics are low thermal conductivity, moisture resistance, fire resistance, permanency and insect and vermin resistance));* special thin paper *(papers made for special purposes, their common characteristics being their relative thinness, these papers may be made from mechanical or chemical wood pulps, bleached or unbleached, but frequently from pulps containing flax, hemp or cotton fibre and the principal characteristics of some of these papers are: uniformity of surface and calliper, freedom from pinholes, strength, close formation, opacity, low permeability, chemical purity, examples of this type of paper includes: carbonising tissue, condenser and capacitor paper, cigarette paper, lens tissue, pattern tissue, and tea-bag paper);* and paperboards not elsewhere specified *(such as shoe board, gasket board, transformer board, press textile board, index pressboard, panel board (car), trunk and suitcase board and matrix board)*. **It excludes:** papers, felts or boards that are impregnated, saturated, laminated or further manufactured in any way and fibreboard or fibre building-board, in the form of insulating board, medium hardboard and hardboard. **It is reported in** metric tons.

NOTES ON THE TABLES

Production and trade

ROUNDWOOD

Industrial Roundwood
Data on industrial roundwood production are not available for a number of countries and have been estimated by converting the volume of products produced in the country to the volume of roundwood required to produce that volume (the roundwood equivalent). Consumption of individual forest products included in total industrial roundwood cannot be calculated due to the different definitions of forest products used in the production and trade statistics. In 1988 a number of countries that were members of the Customs Co-operation Council (now named the World Customs Organization) introduced a revised classification of products in their trade statistics, the Harmonized Commodity Description and Coding System (HS). This has also been adopted by the United Nations in Revision 3 of the Standard international trade classification (SITC Rev. 3). Although for most forest products this is a straightforward transformation from the previous classification, in the case of industrial roundwood the subdivisions between sawlogs and veneer logs, pulpwood and other industrial roundwood are not included. Thus tables for trade in these products are discontinued. The incomplete declaration of roundwood production data explains the presence of negative consumption in some countries (i.e. this is a statistical problem). These inaccuracies are included in the regional and world totals.

Wood Fuel, including Wood for Charcoal, and Charcoal
For many countries, wood fuel and charcoal production is not reported every year. Production of these products is believed to be significant in many of these countries and these statistics are required to calculate total roundwood production. Consequently, FAO estimates wood fuel and charcoal production. These estimates are now based on a statistical model relating wood fuel and charcoal consumption to a number of other variables. These variables include: population; income; the distribution of population between urban and rural locations; forest cover; oil production; temperature; and land area. Full details of the model used to produce these estimates can be found on the Global Forest Products Outlook Study webpages on the FAO website. In some countries, these new estimates vary greatly from those that were produced before. However, the model used to produce these new estimates is believed to produce more reliable estimates than were presented in the past. As in the past, production statistics that are estimated from this model rather than supplied by countries are identified with an 'F' in FAO's statistical database (FAOSTAT).

WOOD-BASED PANELS

Veneer Sheets
For some countries, the reported volume of production of veneer sheets includes veneer sheets produced for plywood manufacture within the same country. FAO has attempted to correct these statistics wherever possible.

Fibreboard
The production volumes of the various types of fibreboard are sometimes not distinguished in country replies to the forest products questionnaire. In these cases only total fibreboard production is reported. However, fibreboard production is separated into its individual components wherever possible.

Direction of trade

Information on the direction of trade is reported for the latest two years. These tables are based on an analysis of information provided by countries on the joint forest products questionnaire and from data drawn from the COMTRADE database of the United Nations Statistics Office. Where volumes have not been reported in standard units, standard conversion factors have been applied. Where reported volumes have been inconsistent with value, volumes have been re-estimated on the basis of average unit values. In the absence of exporting country reports, estimates of their exports have been constructed from importers' reports. In this edition, volumes reported under direction of trade may differ somewhat from data shown in the main yearbook tables due to adjustments made on the basis of both COMTRADE and questionnaire information.

Value units

The unit used in tables on the value of trade is US dollars. In the tables on unit value of trade, it is US dollars per cubic metre or per metric ton, according to the commodity.

Country notes

Certain countries either have not reported statistics to FAO or have reported only partially. In such cases, information has been taken from national yearbooks, from reports or from unofficial publications. Estimates of trade have been based on information provided by reports of trading partners.

The following notes apply to particular countries:

Belgium, Luxembourg
Production and trade are merged under BEL-LUX.

China
Data include those for Taiwan Province of China, Hong Kong Special Administrative Region and Macau Special Administrative Region.

Canada and the United States of America
For Canada and the United States of America, the volume of sawnwood reported in 1 000 board feet is converted to cubic metres using a conversion factor of 2.36 m^3 per 1 000 bd ft. Sawing conventions in these countries generally result in the true volume of production being less than the nominal volume of production. Coniferous sawnwood data have been converted from nominal to actual by multiplying the nominal data with a 0.7203 conversion factor. Such conversions are identified with a '*' in FAO's Statistical database (FAOSTAT). Data for particle board production in the United States of America only includes OSB (oriented strand board) from 1995.

Composition of Product Aggregates

Products	Units	AGGREGATES: Roundwood	Roundwood (C)	Roundwood (NC)	Wood Fuel, Including Wood for Charcoal	Industrial Roundwood-Wood in the Rough	Industrial Roundwood-Wood in the Rough (C)	Industrial Roundwood-Wood in the Rough (NC)	Sawlogs and Veneer Logs	Pulpwood, Round and Split	Other Industrial Roundwood	Sawnwood	Wood-Based Panels	Fibreboard	Wood Pulp	Chemical Wood Pulp	Pulp for Paper	Total Fibre Furnish	Paper and Paperboard	Other Paper and Paperboard	Forest Products Value
		CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	CUM	MT	MT	MT	MT	MT	MT	US$
		P,I,E,C	P	P	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P	P	P	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	P,I,E,C	I,E
Wood Fuel, including Wood for Charcoal (Trade)	CUM	i,e			i,e																i,e
Wood Fuel, including Wood for Charcoal (C)	CUM	p	p		p																
Wood Fuel, including Wood for Charcoal (NC)	CUM	p		p	p																
Sawlogs and Veneer Logs (C)	CUM	p	p			p	p		p												
Sawlogs and Veneer Logs (NC)	CUM	p		p		p		p	p												
Pulpwood, Round and Split (C)	CUM	p	p			p	p			p											
Pulpwood, Round and Split (NC)	CUM	p		p		p		p		p											
Other Industrial Roundwood (C)	CUM	p	p			p	p				p										
Other Industrial Roundwood (NC)	CUM	p		p		p		p			p										
Industrial Roundwood-Wood in the Rough (C)	CUM	i,e				i,e	i,e														i,e
Industrial Roundwood-Wood in the Rough (NC) Tropical	CUM	i,e				i,e		i,e													i,e
Industrial Roundwood-Wood in the Rough (NC) Other	CUM	i,e				i,e		i,e													i,e
Wood Charcoal	MT																				i,e
Wood Chips and Particles	CUM																				i,e
Wood Residues	CUM																				i,e
Sawnwood (C)	CUM											p,i,e,c									i,e
Sawnwood (NC)	CUM											p,i,e,c									i,e
Veneer Sheets	CUM												p,i,e,c								i,e
Plywood	CUM												p,i,e,c								i,e
Particle Board	CUM												p,i,e,c								i,e
Hardboard	CUM												p,i,e,c	p,i,e,c							i,e
Medium Density Fibreboard (MDF)	CUM												p,i,e,c	p,i,e,c							i,e
Insulating Board	CUM												p,i,e,c	p,i,e,c							i,e
Dissolving Wood Pulp	MT														p,i,e,c						i,e
Mechanical Wood Pulp	MT														p,i,e,c		p,i,e,c	p,i,e,c			i,e
Semi-Chemical Wood Pulp	MT														p,i,e,c		p,i,e,c	p,i,e,c			i,e
Unbleached Sulphite Pulp	MT														p,i,e,c	p,i,e,c					i,e
Bleached Sulphite Pulp	MT														p,i,e,c	p,i,e,c					i,e
Unleached Sulphate Pulp	MT														p,i,e,c	p,i,e,c					i,e
Bleached Sulphate Pulp	MT														p,i,e,c	p,i,e,c					i,e
Other Fibre Pulp	MT																p,i,e,c	p,i,e,c			i,e
Recovered Paper	MT																	p,i,e,c			i,e
Newsprint	MT																		p,i,e,c		i,e
Printing and Writing Paper	MT																		p,i,e,c		i,e
Household and Sanitary Paper	MT																		p,i,e,c	p,i,e,c	i,e
Wrapping and Packaging Paper and Paperboard	MT																		p,i,e,c	p,i,e,c	i,e
Other Paper and Paperboard Not Elsewhere Specified	MT																		p,i,e,c	p,i,e,c	i,e

Legend

Aggregates
- **P**=Production
- **I**=Import
- **E**=Export
- **C**=Consumption (**P+I-E**)

Products
- p=production
- i=import
- e=export
- c=consumption (p+i-e)

Notes:

Production (P) for an aggregate equals the sum of production for all of its elements identified with a (p) in the column.
Import (I) for an aggregate equals the sum of import for all of its elements identified with an (i) in the column.
Export (E) for an aggregate equals the sum of export for all of its elements identified with an (e) in the column.
Consumption (C) for an aggregate is calculated only when data for production (P), import (I) and export (E) are available for that aggregate.
Consumption (c) for an element is calculated only when data for production (p), import (i) and export (e) are available for that product.
Total import value (I) and total export value (E) equal the sum of import values (i) and export values (e) respectively identified in the column.

Products and Product Aggregates in International Trade:

Cross-references to Harmonised System (1996) and Standard International Trade Classification (Revision 3)

Product	Classifications HS96	SITC Rev.3
Roundwood	44.01.10 44.03.20/40/90	245.01 247.4 247.5
Wood Fuel, including Wood for Charcoal	44.01.10	245.01
Industrial Roundwood in the Rough	44.03.20/40/90	247.4 247.5
Industrial Roundwood in the Rough (C)	44.03.20	247.4
Industrial Roundwood in the Rough (NC)	44.03.40 44.03.90	247.5
Industrial Roundwood in the Rough (NC) Tropical	44.03.40 ex 44.03.99	247.51 ex 247.52
Wood Charcoal	44.02.00	245.02
Wood Chips and Particles	44.01.20	246.1
Wood Residues	44.01.30	246.2
Sawnwood	44.07	248.2 248.4
Sawnwood (C)	44.07.10	248.2
Sawnwood (NC)	44.07.20 44.07.90 ex 44.07.99	248.4
Wood-Based Panels	44.08 44.10 44.11 44.12	634.1 634.22 634.23 634.3 634.4 634.5
Veneer Sheets	44.08	634.1
Plywood	44.12	634.3 634.4
Particle Board	44.10	634.22 634.23
Fibreboard	44.11	634.5
Hardboard	44.11.10	634.51
Medium Density Fibreboard (MDF)	44.11.20	634.52
Insulating Board	44.11.30 44.11.90	634.53 634.59
Wood Pulp	47.01 47.02 47.03 47.04 47.05	251.2 251.3 251.4 251.5 251.6 251.91
Mechanical Wood Pulp	47.01	251.2
Semi-Chemical Wood Pulp	47.05	251.91
Chemical Wood Pulp	47.03 47.04	251.4 251.5
Unbleached Sulphite Pulp	47.04.10	251.61
Bleached Sulphite Pulp	47.04.20	251.62
Unbleached Sulphate Pulp	47.03.10	251.4
Bleached Sulphate Pulp	47.03.20	251.5
Dissolving Wood Pulp	47.02	251.3
Other Fibre Pulp	47.06	251.92
Recovered Paper	47.07	251.1
Paper and Paperboard	48.01/02/03/04/05/06/07/08/09/10/11/12/13	641.1/2/3/4/5 61/62/64/69/7/91/92/93
Newsprint	48.01	641.1
Printing and Writing Paper	48.02/10/20/30/50/60 48.09.10.20 48.10.11/12/21/29	641.21/22/23/25/26/27/29 ex641.31 641.32/33/34
Other Paper and Paperboard	48.03 48.04.11/19/21/29/31/39/42/49/51/52/59 48.05.10/21/22/ 23/29/30/60/70 48.06.10/20/40 48.07 48.08 48.10.31/32/39/91/99 48.11.31/39 48.02.40 48.04.41 48.05.40/50/80 48.06.30 48.09.90 48.11.40 48.12 48.13 48.11.10/20/90	641.63 ex641.47 641.41/42/46/48 641.51/52/54/57/58 ex641.53 641.61/62/64/69 641.71/72/74/75/76/77 641.91/92 641.24 ex641.31 ex641.47 ex641.53 641.55 641.56/59 641.73/78/79 641.93 642.41
Household and Sanitary Paper	48.03	641.63
Wrapping and Packaging Paper and Paperboard	48.04.11/19/21/29/31/39/42/49/51/52/59 48.05.10/21/22/ 23/29/30/60/70 48.06.10/20/40 48.07 48.08 48.10.31/32/39/91/99 48.11.31/39	ex641.47 641.41/42/46/48 641.51/52/54/57/58 ex641.53 641.61/62/64/69 641.71/72/74/75/76/77 641.91/92
Other Paper and Paperboard Not Elsewhere Specified	48.02.40 48.04.41 48.05.40/50/80 48.06.30 48.09.90 48.11.40 48.12 48.13 48.11.10/20/90	641.24 ex641.31 ex641.47 ex641.53 641.55 641.56/59 641.73/78/79 641.93 642.41

Notes:

The term "ex" means that there is not a complete correlation between the two codes and that only a part of the HS96 or SITC Rev.3 code is applicable.

For instance "ex 44.03.10" under "Industrial roundwood (wood in the rough), coniferous" means that only a part of HS96 code 44.03.10 refers to coniferous industrial roundwood, as that code does not distinguish between coniferous and non-coniferous.

In HS96, 0 in the final (sixth) position means that all sub-headings are included: 44.08.30 includes 44.08.31 and 44.08.39

In SITC Rev.3, if only 4 digits are shown, then all subheadings at lower degrees of aggregation are included: 634.1 includes 634.11 and 634.12

(C) coniferous
(NC) non-coniferous

LIST OF COUNTRIES, ZONES AND CONTINENTS
in the order in which they appear in the tables

Computer-generated label	English
WORLD	**WORLD**
AFRICA	**AFRICA**
Algeria	Algeria
Angola	Angola
Benin	Benin
Botswana	Botswana
Burkina Faso	Burkina Faso
Burundi	Burundi
Cameroon	Cameroon
Cape Verde	Cape Verde
Cent Afr Rep	Central African Republic
Chad	Chad
Comoros	Comoros
Congo, Dem R	Democratic Republic of the Congo
Congo, Rep	Republic of the Congo
Cote Divoire	Côte d'Ivoire
Djibouti	Djibouti
Egypt	Egypt
Eq Guinea	Equatorial Guinea
Eritrea	Eritrea
Ethiopia	Ethiopia
Gabon	Gabon
Gambia	Gambia
Ghana	Ghana
Guinea	Guinea
Guineabissau	Guinea-Bissau
Kenya	Kenya
Lesotho	Lesotho
Liberia	Liberia
Libya	Libyan Arab Jamahiriya
Madagascar	Madagascar
Malawi	Malawi
Mali	Mali
Mauritania	Mauritania
Mauritius	Mauritius
Morocco	Morocco
Mozambique	Mozambique
Namibia	Namibia
Niger	Niger
Nigeria	Nigeria
Réunion	Réunion
Rwanda	Rwanda
St Helena	Saint Helena
Sao Tome Prn	Sao Tome and Principe
Senegal	Senegal
Seychelles	Seychelles
Sierra Leone	Sierra Leone
Somalia	Somalia
South Africa	South Africa
Sudan	Sudan
Swaziland	Swaziland
Tanzania	United Republic of Tanzania
Togo	Togo
Tunisia	Tunisia
Uganda	Uganda
Zambia	Zambia
Zimbabwe	Zimbabwe

Computer-generated label	English
N C AMERICA	**NORTH AND CENTRAL AMERICA**
Anguilla	Anguilla
Antigua Barb	Antigua and Barbuda
Bahamas	Bahamas
Barbados	Barbados
Belize	Belize
Bermuda	Bermuda
Br Virgin Is	British Virgin Islands
Canada	Canada
Cayman Is	Cayman Islands
Costa Rica	Costa Rica
Cuba	Cuba
Dominica	Dominica
Dominican Rp	Dominican Republic
El Salvador	El Salvador
Grenada	Grenada
Guadeloupe	Guadeloupe
Guatemala	Guatemala
Haiti	Haiti
Honduras	Honduras
Jamaica	Jamaica
Martinique	Martinique
Mexico	Mexico
Montserrat	Montserrat
NethAntilles	Netherlands Antilles
Nicaragua	Nicaragua
Panama	Panama
St Kitts Nev	Saint Kitts and Nevis
St Lucia	Saint Lucia
St Pier Mq	Saint Pierre and Miquelon
St Vincent	Saint Vincent and the Grenadines
Trinidad Tob	Trinidad and Tobago
Turks Caicos	Turks and Caicos Islands
USA	United States of America
SOUTH AMERIC	**SOUTH AMERICA**
Argentina	Argentina
Bolivia	Bolivia
Brazil	Brazil
Chile	Chile
Colombia	Colombia
Ecuador	Ecuador
Fr Guiana	French Guiana
Guyana	Guyana
Paraguay	Paraguay
Peru	Peru
Suriname	Suriname
Uruguay	Uruguay
Venezuela	The Bolivarian Republic of Venezuela
ASIA	**ASIA**
Afghanistan	Afghanistan
Armenia	Armenia
Azerbaijan	Azerbaijan
Bahrain	Bahrain
Bangladesh	Bangladesh

Computer-generated label	English
Bhutan	Bhutan
Brunei Darsm	Brunei Darussalam
Cambodia	Cambodia
China	China
Cyprus	Cyprus
Georgia	Georgia
India	India
Indonesia	Indonesia
Iran	Islamic Republic of Iran
Iraq	Iraq
Israel	Israel
Japan	Japan
Jordan	Jordan
Kazakhstan	Kazakhstan
Korea D P Rp	Democratic People's Republic of Korea
Korea Rep	Republic of Korea
Kuwait	Kuwait
Kyrgyzstan	Kyrgyzstan
Laos	Lao People's Democratic Republic
Lebanon	Lebanon
Malaysia	Malaysia
Maldives	Maldives
Mongolia	Mongolia
Myanmar	Myanmar
Nepal	Nepal
Oman	Oman
Pakistan	Pakistan
Philippines	Philippines
Qatar	Qatar
Saudi Arabia	Saudi Arabia
Singapore	Singapore
Sri Lanka	Sri Lanka
Syria	Syrian Arab Republic
Tajikistan	Tajikistan
Thailand	Thailand
Turkey	Turkey
Turkmenistan	Turkmenistan
Untd Arab Em	United Arab Emirates
Uzbekistan	Uzbekistan
Viet Nam	Viet Nam
Yemen	Yemen
EUROPE	**EUROPE**
Albania	Albania
Andorra	Andorra
Austria	Austria
Belarus	Belarus
Belgium	Belgium
Bel-Lux	Belgium and Luxembourg
Bosnia Herzg	Bosnia and Herzegovina
Bulgaria	Bulgaria
Croatia	Croatia
Czech Rep	Czech Republic
Denmark	Denmark
Estonia	Estonia
Faeroe Is	Faeroe Islands
Finland	Finland
France	France
Germany	Germany
Gibraltar	Gibraltar
Greece	Greece
Hungary	Hungary
Iceland	Iceland
Ireland	Ireland
Italy	Italy
Latvia	Latvia
Lithuania	Lithuania
Luxembourg	Luxembourg
Macedonia	The FYR of Macedonia
Malta	Malta
Moldova Rep	Republic of Moldova
Netherlands	Netherlands
Norway	Norway
Poland	Poland
Portugal	Portugal
Romania	Romania
Russian Fed	Russian Federation
Slovakia	Slovakia
Slovenia	Slovenia
Spain	Spain
Sweden	Sweden
Switzerland	Switzerland
UK	United Kingdom
Ukraine	Ukraine
Yugoslavia	The Federal Republic of Yugoslavia
OCEANIA	**OCEANIA**
Amer Samoa	American Samoa
Australia	Australia
Cook Is	Cook Islands
Fiji	The Republic of the Fiji Islands
Fr Polynesia	French Polynesia
Guam	Guam
Kiribati	Kiribati
Nauru	Nauru
Newcaledonia	New Caledonia
New Zealand	New Zealand
Niue	Niue
Palau	Palau
Papua N Guin	Papua New Guinea
Samoa	Samoa
Solomon Is	Solomon Islands
Tonga	Tonga
Tuvalu	Tuvalu
Vanuatu	Vanuatu

STANDARD CONVERSION FACTORS USED IN PREPARING TABLES OF PRODUCTION AND TRADE

Units		Metric Equivalents
1 inch	=	25.4 millimetres
1 square foot	=	0.0929 square metre
1 cubic foot	=	0.02832 cubic metre
1 short ton	=	0.9072 metric ton
1 long ton	=	1.016 metric ton

Forest Products Measures

Product and Unit	Cubic Metres	Cubic Feet	1000 Board Feet	Standard (Petrograd)
ROUNDWOOD				
1 hoppus cubic foot	0.03605	1.273		
1 ton of 5 hoppus cubic feet	1.8027	63.66		
1 cunit[1]	2.83	100		
1 cord [1]	3.625	128		
1 stere [1]	1	35.315		
1 fathom	6.1164	216		
SAWNWOOD				
1 standard (Petrograd)[2]	4.672	165	1.98	1
1 000 board/super feet	2.36	83.33	1	0.505
1 ton of 50 cubic feet	1.416	50	0.6	0.303
WOOD-BASED PANELS				
1 000 square metres (1 millimetre thickness)	1	35.315	0.4238	
1 000 square feet (1/8 inch thickness)	0.295	10.417	0.125	

[1] Stacked volume
[2] See "Notes on the tables"

Approximate Equivalents for Forest Measures

Product and Unit	Cubic Metres	Cubic Feet
	Solid volume without bark	
SAWLOGS AND VENEER LOGS		
1 000 board/super feet	4.53	160
PULPWOOD ROUND AND SPLIT		
1 stere	0.72	25.4
1 cord	2.55	90
WOOD FUEL		
1 stere	0.65	23
1 cord	2.12	74.9
1 000 stacked cubic feet	18.41	650

Weight and Volume

Product	Kg/CUM			CUM/MT		
	G	C	NC	G	C	NC
WOOD FUEL, INCLUDING WOOD FOR CHARCOAL	725	625	750	1.38	1.60	1.33
WOOD CHARCOAL	167					
SAWLOGS AND VENEER LOGS						
Tropical			730			1.37
Other		700	800		1.43	1.25
PULPWOOD, ROUND AND SPLIT	675	650	750	1.48	1.54	1.33
OTHER INDUSTRIAL ROUNDWOOD	750	700	800	1.33	1.43	1.25
SAWNWOOD		550	700		1.82	1.43
VENEER SHEETS	750			1.33		
PLYWOOD	650			1.54		
PARTICLE BOARD	650			1.54		
HARDBOARD	950			1.053		
MEDIUM DENSITY FIBREBOARD (MDF)				2		
INSULATING BOARD	250			4		

Note: G = general; C = coniferous; NC = non-coniferous