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## JOINT FOREST SECTOR QUESTIONNAIRE

### DEFINITIONS

#### 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* spp., *Tectona* spp., etc. These are generally referred to as broadleaves or hardwoods.

**NC.T**

##### ***Tropical***

Tropical timber is defined in the International Tropical Timber Agreement (2006) as follows: "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." For the purposes of this questionnaire tropical timber only includes non-coniferous products. Furthermore tropical sawnwood, veneer sheets and plywood shall also include products produced in non-tropical countries from imported tropical roundwood. Please indicate if statistics provided under "tropical" in this questionnaire may include species or products beyond the scope of this definition.

##### ***Year***

Data are requested for the calendar year (January-December) indicated.

#### 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 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 wood chips, particles and residues, sawnwood and wood-based panels and metric tonnes in the case of charcoal, wood pellets and other agglomerates, recovered post-consumer wood, pulp and paper products.

##### ***Imports (Quantity, Value)***

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

##### ***Exports (Quantity, Value)***

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

## **PRIMARY PRODUCTS**

The names of individual forest products and product aggregates are listed below in the order in which they occur in the tables later on<sup>1</sup>. 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.

### **1. *ROUNDWOOD (WOOD IN THE ROUGH)***

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. **It is an aggregate comprising** wood fuel, including wood for charcoal and industrial roundwood (wood in the rough). **It is reported in** cubic metres solid volume underbark (i.e. excluding bark).

#### **1.1 *WOOD FUEL (INCLUDING WOOD FOR CHARCOAL)***

##### **1.1.C *Coniferous***

##### **1.1.NC *Non-Coniferous***

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), round or split, and wood that will be used for the production of charcoal (e.g. in pit kilns and portable ovens), wood pellets and other agglomerates. 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 (m<sup>3</sup>) of roundwood used in production. It also includes wood chips to be used for fuel that are made directly (i.e. in the forest) from roundwood. **It excludes** wood charcoal, pellets and other agglomerates. **It is reported in** cubic metres solid volume underbark (i.e. excluding bark).

#### **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** 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 the trade statistics.

#### **1.2.1 *SAWLOGS AND VENEER LOGS***

##### **1.2.1.C *Coniferous***

##### **1.2.1.NC *Non-Coniferous***

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 solid volume underbark (i.e. excluding bark).

#### **1.2.2 *PULPWOOD, ROUND AND SPLIT (INCLUDING WOOD FOR PARTICLE BOARD, OSB AND FIBREBOARD)***

##### **1.2.2.C *Coniferous***

##### **1.2.2.NC *Non-Coniferous***

Roundwood that will be used for the production of pulp, particle board, oriented strand board (OSB) 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 solid volume underbark (i.e. excluding bark).

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<sup>1</sup> Except for Glulam, CLT and I Beams, that are listed under JQ1 and JQ2. They are classified as secondary wood products but for ease of reporting are included there.

### **1.2.3 OTHER INDUSTRIAL ROUNDWOOD**

#### **1.2.3.C Coniferous**

#### **1.2.3.NC Non-Coniferous**

Industrial roundwood (wood in the rough) other than sawlogs, veneer logs and/or pulpwood. **It includes** roundwood used for poles, piling, posts, fencing, pitprops, shingles and shakes, wood wool, tanning, distillation, shiitake mushroom growing and match blocks, etc. **It is reported in** cubic metres solid volume underbark (i.e. excluding bark).

### **2 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. Charcoal made from shells or nuts is included. **It excludes** bamboo charcoal. **It is reported in** metric tonnes.

### **3 WOOD CHIPS, PARTICLES AND RESIDUES**

**In the production and trade statistics, it represents the sum of** 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.

#### **3.1 WOOD CHIPS AND PARTICLES**

Wood that has been reduced to small pieces and is suitable for pulping, for particle board and/or fibreboard production, for use as a fuel, or for other purposes. **It includes** chips made directly from roundwood in chipping mills. **It excludes** wood chips made as part of a continuous industrial process (e.g. chips produced from roundwood or wood residues in production of pulp, particle board and fibreboard) and 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.

#### **3.2 WOOD RESIDUES (INCLUDING WOOD FOR AGGLOMERATES)**

Other wood processing co-products. **It includes** wood waste and scrap not useable as timber such as sawmill rejects, slabs, edgings and trimmings, veneer log cores, veneer rejects, sawdust, residues from carpentry and joinery production, and wood residues that will be used for production of pellets, other agglomerated products or used for energy. **It excludes** wood chips, made either directly in the forest from roundwood or made in the wood processing industry (i.e. already counted as pulpwood or wood chips and particles), and agglomerated products such as logs, briquettes, pellets or similar forms as well as post-consumer wood. **It is reported in** cubic metres solid volume excluding bark.

##### **3.2.1 SAWDUST**

Sawdust not agglomerated in logs, briquettes, pellets or similar forms. **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). **It is reported in** metric tonnes.

### **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** wood pellets and other agglomerates. **It is reported in** metric tonnes.

#### **5.1 WOOD PELLETS**

Agglomerates produced either directly by compression or by the addition of a binder in a proportion not exceeding 3% by weight. Such pellets are cylindrical, with a diameter not exceeding 25 mm and a length not exceeding 100 mm. They are assumed to have 8% moisture content. **It is reported in** metric tonnes.

#### **5.2 OTHER AGGLOMERATES**

Agglomerates other than wood pellets, for example briquettes or logs. **It is reported in** metric tonnes.

## 6 SAWNWOOD (INCLUDING SLEEPERS)

### 6.C Coniferous

### 6.NC Non-Coniferous

#### 6.NC.T of which tropical

Wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that exceeds 6 mm in thickness. **It includes** sleepers, planks, beams, joists, boards, rafters, scantlings, laths, boxboards and "lumber", etc., in the following forms: unplaned, planed, end-jointed (for example finger-jointed), etc. **It excludes** wooden flooring, mouldings (sawnwood continuously shaped along any of its edges or faces, like tongued, grooved, rebated, V-jointed, beaded, moulded, rounded or the like) and sawnwood produced by resawing previously sawn pieces. **It is reported in** cubic metres solid volume.

## 7 VENEER SHEETS

### 7.C Coniferous

### 7.NC Non-Coniferous

#### 7.NC.T of which tropical

Thin sheets of wood of uniform thickness, not exceeding 6 mm, rotary cut (i.e. peeled), sliced or sawn. **It includes** wood used for the manufacture of laminated construction material, furniture, veneer containers, etc. **Production statistics should exclude** veneer sheets used for plywood production within the same country. **It is reported in** cubic metres solid volume.

## 8 WOOD-BASED PANELS

**In the production and trade statistics, it represents the sum of** plywood, particle board, OSB and fibreboard. **It is reported in** cubic metres solid volume.

### 8.1 PLYWOOD

#### 8.1.C Coniferous

#### 8.1.NC Non-Coniferous

##### 8.1.NC.T of which tropical

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 that 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); *laminboard* and *battenboard* (with a thick core and composed of laths or battens of wood glued together and surfaced with outer plies); *laminated veneer lumber* (LVL) 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, bamboo plywood and cellular board. **It is reported in** cubic metres solid volume. Non-coniferous (tropical) plywood is defined as having at least one face sheet of non-coniferous (tropical) wood. If substantial quantities of mixed (coniferous/non-coniferous) plywood are included in reported statistics, an explanatory note should be provided.

#### 8.1.1 Laminated Veneer Lumber (LVL)

##### 8.1.1.C Coniferous

##### 8.1.1.NC Non-Coniferous

###### 8.1.1.NC.T of which tropical

An engineered lumber composite used to build structures and has a high strength to weight ratio. It is composed of layers of wood veneer, the grain of the outer veneers and most or all other veneers running parallel to the longitudinal axis (e.g. successive veneers). Logs are peeled into thin veneers and glued together under heat and pressure. Veneers used in the production of LVL are often scarf jointed, butted or lapped to provide continuous strength characteristics. **It is reported in** cubic metres solid volume.

### 8.2 PARTICLE BOARD, ORIENTED STRAND BOARD (OSB) AND SIMILAR BOARD

A panel manufactured from small pieces of wood or other ligno-cellulosic 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. Particle board is also called *chipboard*. **It includes** oriented strand board (OSB), medium density particle board (MDP), waferboard and flaxboard. **It excludes** wood wool and other particle boards bonded together with inorganic binders. **It is reported in** cubic metres solid volume.

### 8.2.1 **ORIENTED STRAND BOARD (OSB)**

A structural board in which layers of narrow wafers are layered alternately at right angles in order to give the board greater elastomechanical properties. The wafers, which resemble small pieces of veneer, are coated with e.g. waterproof phenolic resin glue, interleaved together in mats and then bonded together under heat and pressure. The resulting product is a solid, uniform building panel having high strength and water resistance. It includes *Fine OSB* (board with OSB core and outer layers of particle board). **It excludes** waferboard. **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** hardboard, medium/high density fibreboard (MDF/HDF) and other fibreboard. **It is reported in** cubic metres solid volume.

#### 8.3.1 **HARDBOARD**

Wet-process fibreboard of a density exceeding 0.8 g/cm<sup>3</sup>. **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.

#### 8.3.2 **MEDIUM/HIGH DENSITY FIBREBOARD (MDF/HDF)**

Dry-process fibreboard. When density exceeds 0.8 g/cm<sup>3</sup>, it may also be referred to as “high-density fibreboard” (HDF). **It is reported in** cubic metres solid volume.

#### 8.3.3 **OTHER FIBREBOARD**

Fibreboard of a density not exceeding 0.8 g/cm<sup>3</sup>. This includes mediumboard and softboard (also known as insulating board, which can be produced in a wet or a dry process). **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** mechanical 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. **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 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).

#### 9.2.1 **SULPHATE PULP**

##### 9.2.1.1 **of which BLEACHED**

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 tonnes air-dry weight (i.e. with 10% moisture content). Data for bleached, including semi-bleached pulp are requested separately.

#### 9.2.2 **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 tonnes air-dry weight (i.e. with 10% moisture content).

### 9.3 **DISSOLVING GRADES**

Chemical pulp (sulphate, soda or sulphite) made from wood of special quality, with a very high alpha-cellulose content (usually 90% and over). **It includes** high-purity cellulose. This type of pulp is always bleached and is readily adaptable for uses other than papermaking. 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 tonnes air-dry weight (i.e. with 10% moisture content).

## 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** 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).

### 10.1 **PULP FROM FIBRES OTHER THAN WOOD**

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

### 10.2 **RECOVERED FIBRE PULP**

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

## 11 **RECOVERED PAPER**

Waste and scraps of paper or paperboard that have been collected for re-use or trade. **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 tonnes.

## 12 **PAPER AND PAPERBOARD**

The paper and paperboard category is an aggregate category. **In the production and trade statistics, it represents the sum of** graphic papers; sanitary and household papers; packaging materials and other paper and paperboard. **It excludes** manufactured paper products such as boxes, cartons, books and magazines, etc. **It is reported in** metric tonnes.

### 12.1 **GRAPHIC PAPERS**

The graphic papers category is an aggregate category. **In the production and trade statistics, it represents the sum of** newsprint; uncoated mechanical; uncoated woodfree and coated papers. Products in this category are generally manufactured in strips or rolls of a width exceeding 15 cm or in rectangular sheets with one side exceeding 28 cm and the other exceeding 15 cm in the unfolded state. **It excludes** manufactured paper products such as books and magazines, etc. **It is reported in** metric tonnes.

#### 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 28 cm or in rectangular sheets with one side exceeding 28 cm and the other exceeding 15 cm in the unfolded state. Weights usually range from 40 to 52 g/m<sup>2</sup> but can be as high as 65 g/m<sup>2</sup>. 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.

#### 12.1.2 **UNCOATED MECHANICAL**

Paper suitable for printing or other graphic purposes where less than 90% of the fibre furnish consists of chemical pulp fibres. This grade is also known as groundwood or wood-containing paper and magazine paper, such as heavily filled supercalendered paper for consumer magazines printed by the rotogravure and offset methods. **It excludes** wallpaper base. **It is reported in** metric tonnes.

#### 12.1.3 **UNCOATED WOODFREE**

Paper suitable for printing or other graphic purposes, where at least 90% of the fibre furnish consists of chemical pulp fibres. Uncoated woodfree paper can be made from a variety of furnishes, with variable levels of mineral filler and a range of finishing processes such as sizing, calendering, machine glazing and watermarking. This grade includes most office papers, such as business forms, copier, computer, stationery and book papers. Pigmented and size press "coated" papers (coating less than 5 g per side) are covered by this heading. **It excludes** wallpaper base. **It is reported in** metric tonnes.

#### 12.1.4 **COATED PAPERS**

All paper suitable for printing or other graphic purposes and coated on one or both sides with carbon or minerals such as china clay (kaolin), calcium carbonate, etc. Coating may be by a variety of methods, both on-machine and off-machine, and may be supplemented by supercalendering. **It includes** raw carbon and self-copy paper in rolls or sheets. **It excludes** other copying and transfer papers. **It is reported in** metric tonnes.

#### 12.2 **HOUSEHOLD AND SANITARY PAPERS**

This covers the stock of a wide range of tissue and other hygienic papers for use in households or commercial and industrial premises. 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. Examples are toilet paper and facial tissues, kitchen towels, hand towels and industrial wipes. Some tissue is also used in the manufacture of baby napkins, sanitary towels, etc.

The parent reel stock is made from virgin pulp or recovered fibre or mixtures of these. **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<sup>2</sup> but less than 225 g/m<sup>2</sup>; felt paper and paperboard; tracing papers; not further processed uncoated paper weighing 225 g/m<sup>2</sup> or more. **It is reported in** metric tonnes.

##### 12.3.1 **CASE MATERIALS**

Papers and boards mainly used in the manufacture of corrugated board. They are made from any combination of virgin and recovered fibres and can be bleached, unbleached or mottled. **It includes** kraftliner, testliner, semi-chemical fluting, and waste-based fluting (*Wellenstoff*). **It is reported in** metric tonnes.

##### 12.3.2 **CARTONBOARD**

Sometimes referred to as folding boxboard, it may be single- or multi-ply, coated or uncoated. It is made from virgin and/or recovered fibres, and has good folding properties, stiffness and scoring ability. It is mainly used in cartons for consumer products such as frozen food and for liquid containers. **It includes** paper and paperboard covered or coated with plastics (excluding adhesives) and coated multi-ply. **It is reported in** metric tonnes.

##### 12.3.3 **WRAPPING PAPERS**

Wrapping papers (up to 150 g/m<sup>2</sup>) whose main use is wrapping or packaging made from any combination of virgin or recovered fibres, bleached or unbleached. They may be subject to various finishing and/or marking processes. **It includes** sack kraft, other wrapping kraits, sulphite and greaseproof papers as well as coated paper and paperboard not uniformly bleached throughout the mass, except multi-ply. **It excludes:** tracing papers. **It is reported in** metric tonnes.

##### 12.3.4 **OTHER PAPERS MAINLY FOR PACKAGING**

This category embraces all papers and boards mainly for packaging purposes other than those listed above. Most are produced from recovered fibres, e.g. greyboards, and go for conversion, which in some cases may be for end-uses other than packaging. **It is reported in** metric tonnes.

#### 12.4 **OTHER PAPER AND PAPERBOARD N.E.S. (NOT ELSEWHERE SPECIFIED)**

Other papers and boards for industrial and special purposes. **It includes** cigarette papers and stock of filter papers, as well as gypsum liners and special papers for insulating, roofing, and other specific applications or treatments; wallpaper base; unbleached kraft paper and paperboard that are not sack kraft paper or Kraftliner and weighing more than 150 g/m<sup>2</sup> but less than 225 g/m<sup>2</sup>; felt paper and paperboard; tracing papers; not further processed uncoated paper weighing 225 g/m<sup>2</sup> or more; and raw copying and transfer papers, in rolls or sheets except carbon or self-copy paper. **It excludes** all composite, not coated, paper and paperboard of flat layers stuck together; coated paper and paperboard not uniformly bleached throughout the mass; and paper and paperboard covered or coated with plastics (excluding adhesives). **It is reported in** metric tonnes.

## **SECONDARY PROCESSED WOOD AND PAPER PRODUCTS**

### **13 SECONDARY WOOD PRODUCTS**

#### **13.1 FURTHER PROCESSED SAWNWOOD**

##### **13.1.C Coniferous**

##### **13.1.NC Non-Coniferous**

##### **13.1.NC.T of which tropical**

Wood sawn or chipped lengthwise (including strips and friezes for parquet flooring, not assembled) **and** continuously shaped (tongued, grooved, rebated, V-jointed, beaded, moulded, rounded or the like) along any of its edges or faces, whether or not planed, sanded or end-jointed (for example finger-jointed). **It excludes** bamboo-based products and sawn or chipped wood with further treatment of edges and/or faces other than planing, or sanding.

#### **13.2 WOODEN WRAPPING AND PACKAGING MATERIAL**

Packing cases, boxes, crates, drums and similar packings, of wood; cable-drums of wood; pallets, box pallets and other load boards, of wood; pallet collars of wood. Casks, barrels, vats, tubs and other coopers' products and parts thereof, of wood, including staves.

#### **13.3 WOOD PRODUCTS FOR DOMESTIC/DECORATIVE USE**

Wooden frames for paintings, photographs, mirrors or similar objects; tableware and kitchenware of wood; and wood marquetry and inlaid wood, cases for jewellery or cutlery, statuettes and other ornaments of wood; hat racks. **It excludes** bamboo-based products.

#### **13.4 BUILDER'S JOINERY AND CARPENTRY OF WOOD**

Windows, doors and coverings thereof as well as cellular wood panels (also called *cellular board* which is plywood with a core of cellular construction), assembled parquet panels, shingles and shakes. **It excludes** bamboo-based products. In February 2023 this definition was updated to exclude Glulam, Cross-Laminated Timber and I-Beams which are now distinct items in the JFSQ (15.1, 15.2 and 16). This change was made to reflect the update of HS2022.

#### **13.5 WOODEN FURNITURE**

Seats with wooden frames, such as wooden camping and garden seats etc. and parts thereof **except** seats convertible into beds, swivel seats, medical seats.

Wooden furniture other than seats as of a kind used in offices, in the kitchen, bedrooms and elsewhere, as well as parts of all these.

#### **13.6 PREFABRICATED BUILDINGS OF WOOD**

Prefabricated buildings with wooden structure, exterior walls, floor and other characteristic constructive elements consisting essentially of wood.

#### **13.7 OTHER MANUFACTURED WOOD PRODUCTS**

Tools, tool handles, broom or brush bodies and handles, boot or shoe lasts or trees; clothes hangers, coffins and other articles of wood. It also includes hoopwood, split poles, piles, pickets, wood wool, wood flour and densified wood. **It excludes** bamboo-based products.

### **14 SECONDARY PAPER PRODUCTS**

**It includes** all articles of paper ready for use. **It excludes** paper in rolls and sheets cut in the formats specified in JQ2.

#### **14.1 COMPOSITE PAPER AND PAPERBOARD**

Composite paper and paperboard (made by sticking flat layers of paper or paperboard together with an adhesive), not surface-coated or impregnated, whether or not internally reinforced, in rolls or sheets

#### **14.2 SPECIAL COATED PAPER AND PULP PRODUCTS**

Paper, paperboard, cellulose wadding and webs of cellulose fibres, coated, impregnated, covered, surface-coloured, surface-decorated or printed, in rolls or sheets. **It includes** tarred, bituminised or asphalted paper and paperboard. **It excludes** composite paper and paperboard (made by sticking flat layers of paper or paperboard together with an adhesive), not surface-coated or impregnated.

#### **14.3 HOUSEHOLD AND SANITARY PAPER, READY FOR USE**

Products ready for use: toilet paper and similar paper, cellulose wadding or webs of cellulose fibres, of a kind used for household or sanitary purposes, in rolls of a width not exceeding 36 cm, or cut to size or shape. **It includes**



handkerchiefs, cleansing tissues, towels, tablecloths, serviettes, bed sheets and similar household, sanitary or hospital articles, articles of apparel and clothing accessories, of paper pulp, paper, cellulose wadding or webs of cellulose fibres. **It excludes** the parent reel stock used to produce these products as well as napkins for babies and tampons.

**14.4      *PACKAGING CARTONS, BOXES ETC.***

Cartons, boxes, cases, bags and other packing containers, of paper, paperboard, cellulose wadding or webs of cellulose fibres; box files, letter trays, and similar articles, of paper or paperboard of a kind used in offices, shops or the like.

**14.5      *OTHER ARTICLES OF PAPER AND PAPERBOARD, READY FOR USE***

Products ready for use: e.g. wallpaper and similar wall coverings; window transparencies of paper; floor coverings on a base of paper or of paperboard, whether or not cut to size; all office material like for correspondence, document storage as well as albums, labels of all kinds, bobbins, spools, cops and similar supports of paper pulp, paper or paperboard (whether or not perforated or hardened); all other paper, paperboard, cellulose wadding and webs of cellulose fibres, cut to size or shape; other articles of paper pulp, paper, paperboard, cellulose wadding or webs of cellulose fibres. **It includes** self-copy and carbon paper.

**14.5.1    *PRINTING AND WRITING PAPER, READY FOR USE***

For example: strips or rolls for office machines, continuous forms.

**14.5.2    *ARTICLES, MOULDED OR PRESSED FROM PULP***

For example: packagings for eggs.

**14.5.3    *FILTER PAPER AND PAPERBOARD, READY FOR USE***

**15        *GLULAM AND CROSS-LAMINATED TIMBER (CLT or X-Lam)***

**15.1      *GLULAM***

A massive structural member constructed of multiple layers of timber that are glued together with the grain of each layer oriented parallel to those of the successive layers. **It is reported in** cubic metres solid volume.

**15.2      *CROSS-LAMINATED TIMBER (CLT or X-Lam)***

Cross-laminated timber (CLT, also referred to as X-lam or cross-ply timber) is a large structural building panel constructed of at least three layers of wood laminated together. Each layer is constructed of multiple solid timber boards (wood sawn or chipped lengthwise, sliced, or peeled, with a thickness exceeding 6mm) that have been placed side by side, whether or not glued together. The wood grain of each layer is typically oriented at a right angle to the grain of adjacent layers. CLT is distinct from plywood as it is constructed from multiple pieces of solid sawn timber oriented in layers rather than sheets of veneer (which have a thickness not exceeding 6 mm). The alternating grain construction provides greater structural rigidity in both lengthwise and crosswise directions and provides structural support in load-bearing applications. **It is reported in** cubic metres solid volume.

**16        *I BEAMS (I-JOISTS)***

I-Beams (also called I-joists) are "I" shaped engineered wood structural members and are comprised of top and bottom flanges (horizontal members), united with webs (vertical members). The flange material is typically laminated veneer lumber (LVL) or solid sawn timber, and the web is made with plywood or oriented strand board (OSB). **It is reported in** metric tonnes.

## STANDARD CONVERSION FACTORS

### A. Imperial – Metric Conversions

Imperial Unit	Metric Equivalent
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

### B. Forest Products Measures

JQ Code	Product and Unit	Cubic Metres	Cubic Feet	1000 Board Feet	Standard (Petrograd)
1	ROUNDWOOD (WOOD IN THE ROUGH)				
	1 hoppus cubic foot	0.03605	1.273		
	1 ton of 5 hoppus cubic feet	1.8027	63.66		
	1 cunit	2.83	100		
	1 cord <sup>1</sup>	3.625	128		
	1 stere <sup>1</sup>	1	35.315		
	1 fathom <sup>1</sup>	6.1164	216		
6	SAWNWOOD (INCLUDING SLEEPERS)				
	1 standard (Petrograd)	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
8	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	

<sup>1</sup> Stacked volume

### C. Approximate Roundwood Factors

JQ Code	Product and Unit	Cubic Metres	Cubic Feet
		Solid volume without bark	
1.2.1	SAWLOGS AND VENEER LOGS		
	1 000 board/super feet		160
1.2.2	PULPWOOD, ROUND AND SPLIT		
	1 stere	0.72	25.4
	1 cord	2.55	90
1.1	WOOD FUEL (INCLUDING WOOD FOR CHARCOAL)		
	1 stere	0.65	23
	1 cord	2.12	74.9
	1 000 stacked cubic feet	18.41	650

### D. Approximate Weight and Volume Factors<sup>2</sup>

JQ Code	Product	Kilogrammes / Cubic metre			Cubic metres / Metric tonne		
		G	C	NC	G	C	NC
1.1	WOOD FUEL (INCLUDING WOOD FOR CHARCOAL)	725	625	750	1.38	1.60	1.33
2	WOOD CHARCOAL	167					
1.2.1	SAWLOGS AND VENEER LOGS						
1.2 NC.T	Tropical			730			1.37
1.2.1.C & .NC	Other		700	800		1.43	1.25
1.2.2	PULPWOOD, ROUND AND SPLIT	675	650	750	1.48	1.54	1.33
1.2.3	OTHER INDUSTRIAL ROUNDWOOD	750	700	800	1.33	1.43	1.25
6	SAWNWOOD (INCLUDING SLEEPERS)		550	700		1.82	1.43
7	VENEER SHEETS	750			1.33		
8.1	PLYWOOD	650			1.54		
8.2	PARTICLE BOARD, ORIENTED STRANDBOARD (OSB) AND SIMILAR BOARD	650			1.54		
8.3.1	HARDBOARD	950			1.053		
8.3.2	MEDIUM/HIGH DENSITY FIBREBOARD (MDF/HDF)				1.34		
8.3.3	OTHER FIBREBOARD	420			2.38		

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

The factors in tables C and D will vary between and within countries. Please use national factors where possible and indicate these in your response.

<sup>2</sup> It is preferable to use national/sub-regional/regional conversion factors when they are available:  
<https://www.fao.org/documents/card/en/c/ca7952en>.