



2013 Global Forest Products Facts and Figures

FAO's forest products statistics present figures for the production and trade (quantity and value) of forest products, covering 54 product categories, 21 product groups and 245 countries and territories. At the end of each year, final statistics are released for the previous year. In December, these are uploaded onto the FAOSTAT Forestry database (<http://www.fao.org/forestry/statistics/84922/en/>), then they are published in the Yearbook of Forest Products in the following April (<http://www.fao.org/forestry/statistics/80570/en/>). Statistics from 1961 onwards are available on the FAOSTAT Forestry database and the Yearbook has been published every year since 1947.

Highlights for 2009-2013

This note - "*Global Forest Products Facts and Figures*" - presents highlights and recent trends in the data for each of the main product groups, as well as a short summary of recent changes or improvements to the statistics. Some of the main highlights from the statistics are as follows:

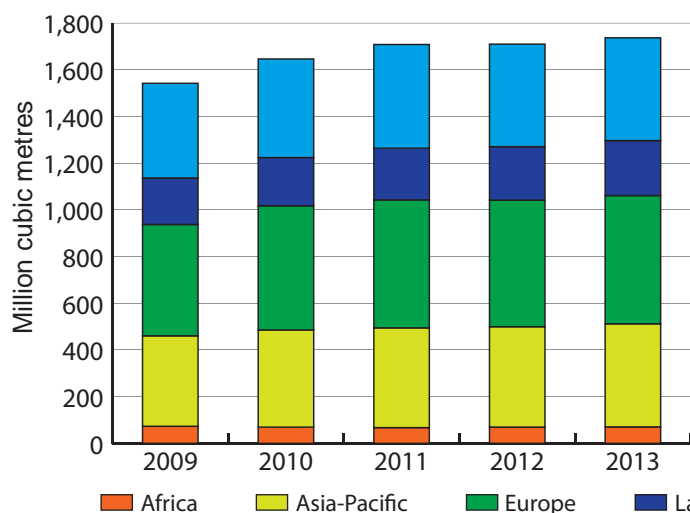
- The recovery after the recent economic recession (2008-2009) appears very clearly in the statistics for the last five years. Globally, production of all major products (industrial roundwood, sawnwood, wood-based panels, pulp and paper) declined steeply in 2009 and gradually recovered in 2010-2013. Production in 2013 exceeded the level of 2009 in all these product groups, but is still below the pre-recession level (2007) for sawnwood. In addition, growth in pulp and paper stagnated in 2012-13. The fastest recovery in markets has been in Asia-Pacific, Latin America and Caribbean and Northern America. In contrast, recovery in Europe paused in 2012 (especially in western and southern Europe where production and consumption fell in 2012-13 for some products). As a result, Europe's share of global markets has fallen.
- China continues to increase in importance as a producer and consumer of forest products and has recently overtaken a number of other major countries in different product groups (e.g. overtaking Canada in sawnwood production and United States of America in sawnwood consumption). The country is by far the largest producer and consumer of wood-based panels and paper. China is also highly significant for international trade in forest products, being the world's largest importer of industrial roundwood, sawnwood and fibre furnish (pulp and wastepaper) and the largest exporter of wood-based panels. China's imports of industrial roundwood and sawnwood surged by 18% and reached record levels in 2013, but paper production and consumption in China contracted slightly in 2013 for the first time since 1970s.
- Wood pellet production has increased dramatically in recent years, mainly due to the demand created by policies and bioenergy use targets in Europe. Global production grew by another 12% reaching 22 million tonnes in 2013. Over half of this (13 million tonnes) was traded internationally. Europe and Northern America account for almost all global production (62% and 34% respectively) and consumption (81% and 15% respectively). Trade in pellets from Northern America to Europe (mainly UK) also doubled in 2013, year on year.
- Production and consumption of wood-based panels and sawnwood appears to be growing strongly in most regions. In 2013, global production of panels increased by 8% and sawnwood by 5%. In the markets for pulp and paper, overall growth was very modest over the period 2009-13, with a growth trend of below one percent per year.
- The structure of production and trade in the Russian Federation has also changed in the last five years, with a decline in industrial roundwood exports and increases in sawnwood and wood-based panel production and exports. The country has recently overtaken Canada and Germany to become the 3rd largest producer and consumer of wood-based panels in the world.

Industrial Roundwood

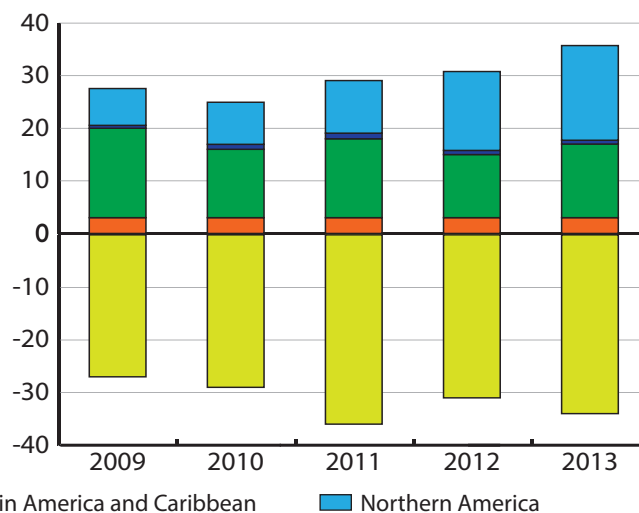
Industrial roundwood is all roundwood used for any purpose other than energy. It comprises: pulpwood; sawlogs and veneer logs; and other industrial roundwood (e.g. used for fence posts and telegraph poles). This product group is also divided into roundwood from coniferous and non-coniferous species.



Industrial roundwood production



Industrial roundwood net trade



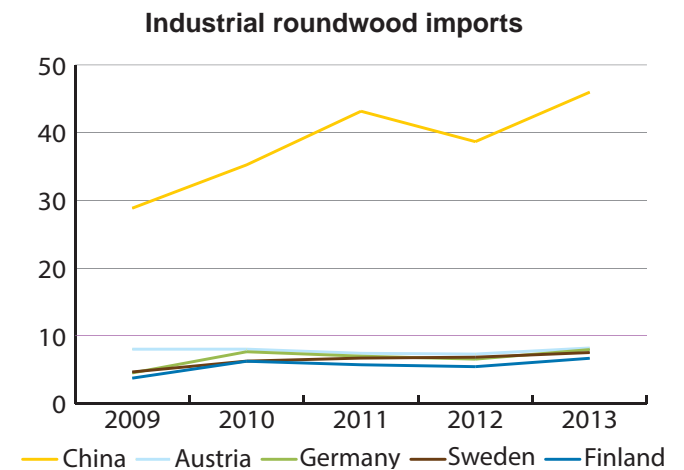
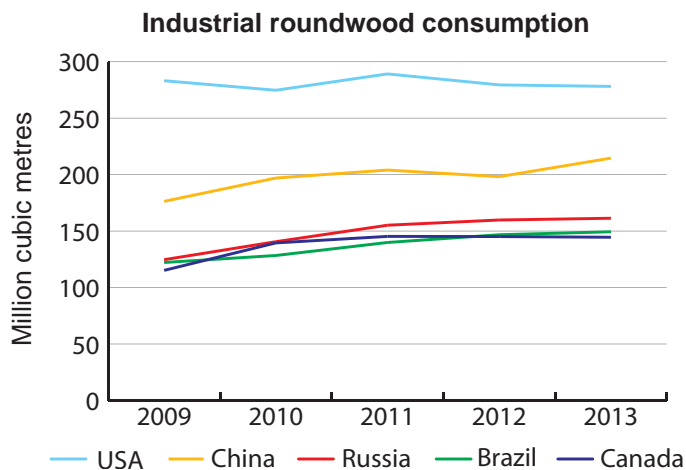
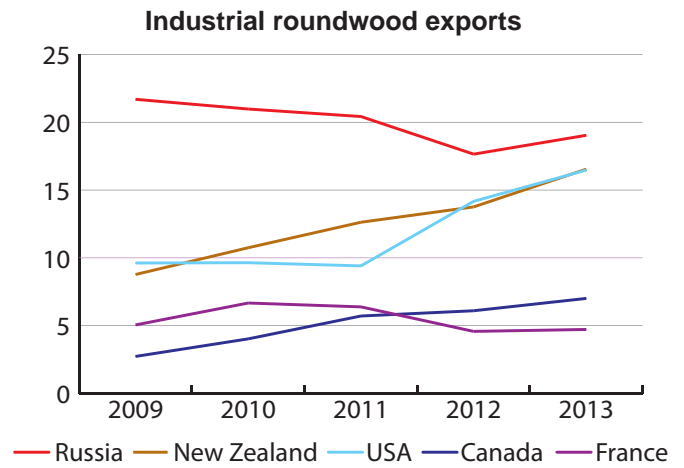
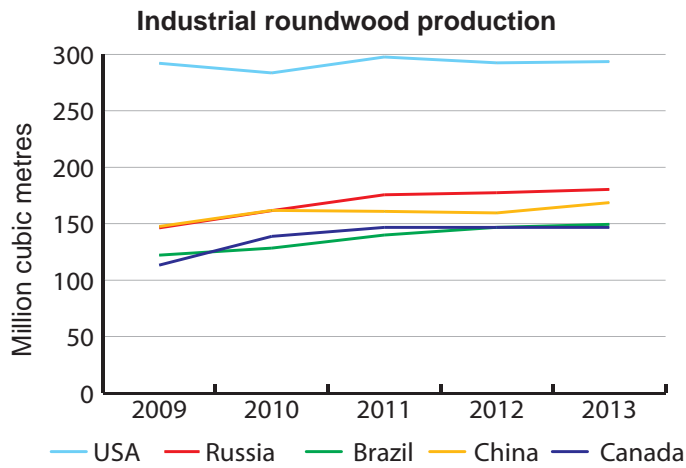
In 2013, global industrial roundwood production amounted to 1,737 million m³. This is an increase of 1.6% over the figure for 2012 (1,710 million m³). As the figure above shows, production has increased since the low point of 2009 and exceeded the level of production reported five years ago by 13%.

Most of the recovery in production has occurred in four regions: Asia-Pacific, Europe, Latin America and Caribbean and Northern America where production volumes (combined) in 2013 were by 13% above the level of 2009. Production in Africa has not changed much over the last five years. In 2013, production in each region was as follows: Europe (including Russian Federation) - 550 million m³ (32%); Asia-Pacific - 442 million m³ (25%); Northern America (USA and Canada) - 440 million m³ (25%); Latin America and Caribbean - 235 million m³ (14%); and Africa - 70 million m³ (4%).

Global trade in industrial roundwood amounted to 127 million m³ in 2013 (equal to about 7% of production). Trends in total trade and net trade over the last five years also show a recovery to 2011, then decline of 4% in 2012 followed by an increase of 13% in 2013. At the regional level, Asia-Pacific is a net importer of industrial roundwood and all

other regions are net exporters. Net imports of 34 million m³ accounted for about 7% of consumption in the Asia-Pacific region in 2013. Northern America and Europe are the main net exporters of industrial roundwood with net exports in 2013 of 18 million m³ and 14 million m³ respectively. The figure for Northern America is more than twice the figure reported in 2009 and 2010.

At the country level, the five largest producers of industrial roundwood are: United States of America; Russian Federation; China; Brazil; and Canada. Together, these countries produced 939 million m³ in 2013 or 54% of total global production. The United States of America is by far the largest producer in the World (294 million m³ in 2013), production declined slightly in 2010, but over the last three years it recovered. Production in Russian Federation and Canada has recovered since 2009. Brazil and China continue to follow a long-term trend of growth in production, with a significant proportion of this production coming from planted forests.



Compared with other forest products, exports of industrial roundwood are relatively small and only 15-20 countries export more than 1 million m³ each year. Exports from the five largest exporters amounted to 64 million m³ in 2013 or 50% of all exports. Russian Federation is the main exporter, although exports have not increased in recent years. Other major exporters are: New Zealand; United States of America; Canada; and France. Exports have doubled from New Zealand, United States of America and Canada in recent years.

Due to the relatively small volumes of international trade in industrial roundwood, the five largest producers are also the five largest consumers. However, China is the second largest consumer (215 million m³ in 2013) and

Russian Federation is in third place (at 161 million m³). Consumption has increased in all five major consumer countries since the low point in 2009.

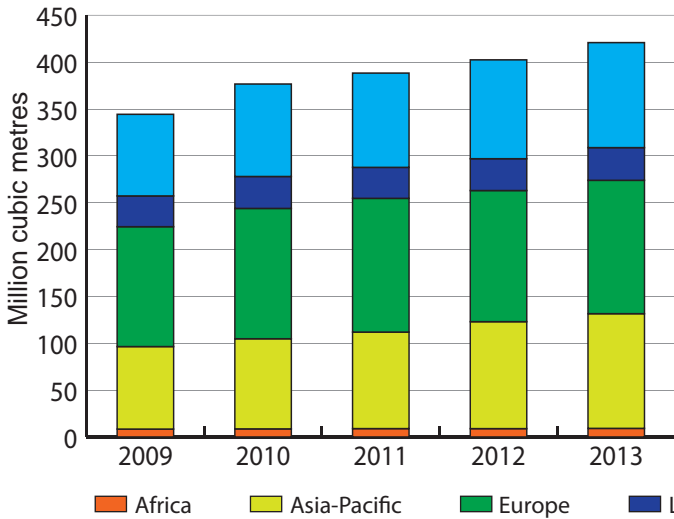
As the second figure shows, about 20% of China's industrial roundwood consumption is satisfied by imports (46 million m³ in 2013). Russian Federation accounts for a large share of these imports, although imports from other countries, especially New Zealand, are increasing in importance. After China, other major importers of industrial roundwood are: Austria; Germany; Sweden; and Finland. Together, these five countries imported 76 million m³ of industrial roundwood in 2013 (equal to 60% of all imports).

Sawnwood

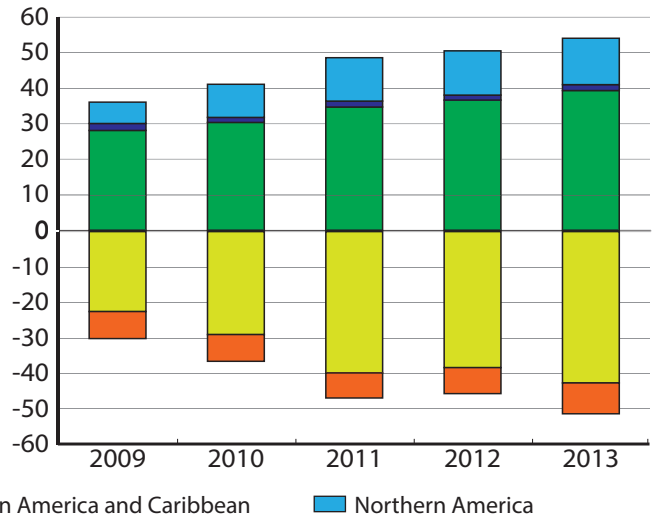
Sawnwood encompasses planks, beams, boards, laths, etc. that exceed 5 mm in thickness. It includes sawnwood that is planed, unplaned, grooved, chamfered, beaded, etc., but it excludes wooden flooring. This category is subdivided in FAO statistics into coniferous and non-coniferous sawnwood.



Sawnwood production



Sawnwood net trade



In 2013, global sawnwood production totalled 421 million m³, representing an increase of 4.6% compared to 2012 (402 million m³) and an increase of 22% over the figure for 2009 (344 million m³). As can be seen from the left figure above, sawnwood production has been recovering gradually over the period 2009-12. This trend is largely due to changes in production in three regions: Europe, Northern America and Asia-Pacific. In contrast, production in Africa and Latin America and Caribbean remained modest over the period 2009-13. The latest regional production figures (for 2013) are as follows: Europe - 142 million m³ (34%); Asia-Pacific - 122 million m³ (29%); Northern America - 112 million m³ (26%); Latin America and Caribbean - 35 million m³ (8%); and Africa - 9 million m³ (2%).

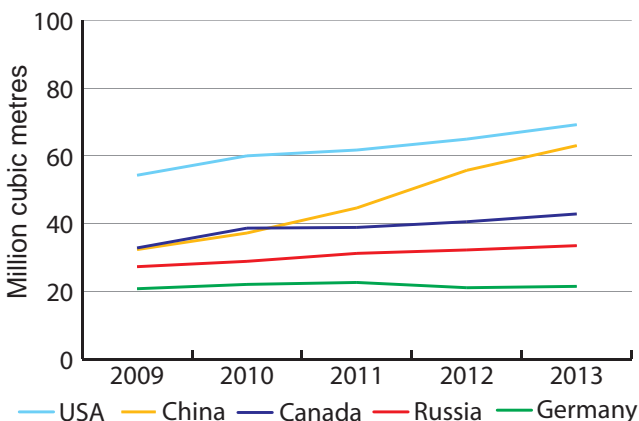
Global trade in sawnwood amounted to 123 million m³ in 2013 (equal to 29% of production) and, like production, gradually recovered since 2009. However, much of this recovery in trade occurred within Europe and Northern America. Looking at net trade between the five regions, this has consistently increased in the last five years.

Africa and Asia-Pacific are the two regions that are net importers of sawnwood (with net imports of 9

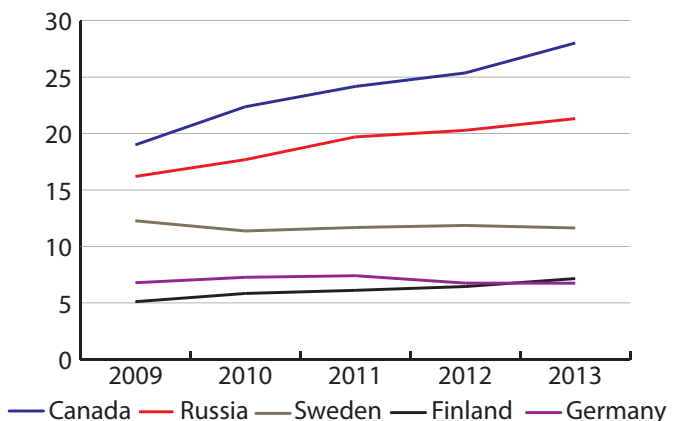
million m³ and 43 million m³ respectively in 2013) and Europe (39 million m³) and Northern America (13 million m³) are the main net exporters of sawnwood. The Latin America and Caribbean region is also a minor net exporter, with net exports of 2 million m³ in 2013.

At the country level, the five largest producers of sawnwood are: United States of America; China; Canada; Russian Federation and Germany. Together, these five countries produced over half (55%) of the World's sawnwood in 2013 (230 million m³). The United States of America is the largest producer (69 million m³ in 2013); production there has grown in a fifth consecutive year since 2009. Production in Canada has been growing since 2009 too; overall production in Northern America grew by 29% from the bottom level reached in 2009. Production in Russian Federation has been growing over the last five years and reached 34 million m³ in 2013, an increase of 23% from 2009. Production in Germany has remained relatively stable over the last five years, but it has almost doubled in China (an increase of 95%, from 32 million m³ in 2009 to 63 million m³ in 2013) and China overtook Canada as the second largest sawnwood producer in 2011.

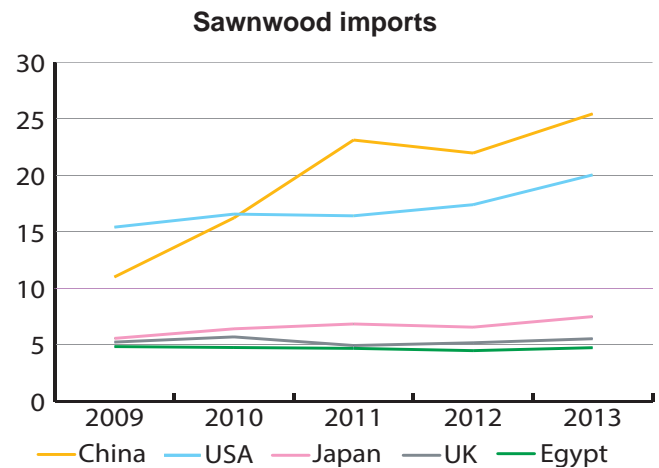
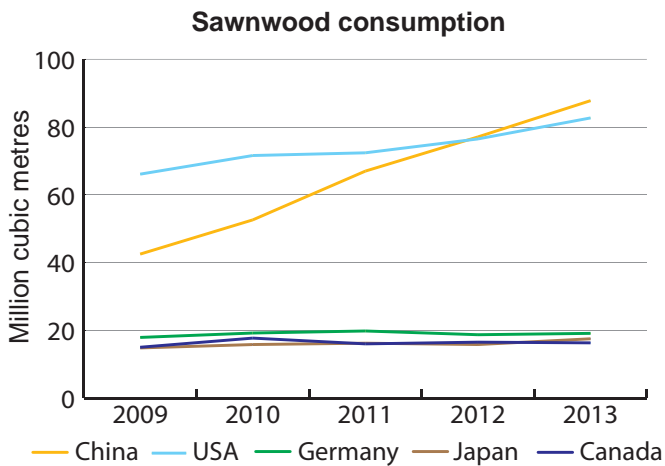
Sawnwood production



Sawnwood exports



Three of the largest sawnwood producers are also major exporters (Canada, Russian Federation and Germany), but the other two main exporters are Sweden and Finland. Together, these five countries exported 75 million m³ in 2013 (60% of all exports). Canada was the main exporter in 2013 (28 million m³) and its exports have been growing steadily since the large decline in 2009. This is largely due to increasing sales to the recovering market in United States of America. Exports from Sweden, Finland and Germany have remained relatively stable over the last five years, but have been increasing consistently from Russian Federation.



As well as being the largest producers, China and United States of America were also the two main consumers of sawnwood in 2013, with China in the first position (88 million m³) and United States of America in the second position (83 million m³). Consumption in United States of America increased by 8% in 2013, and China's consumption more than doubled over the period from 2009 and 2013. The other three main consumers of sawnwood in the World are Germany, Japan and Canada where consumption remained quite stable over the last five years.

With respect to imports, China overtook United States of America in 2011 to become the largest importer of sawnwood (with imports of 25 million m³ and 20 million m³ in 2013, respectively). Other major sawnwood importers are: Japan; United Kingdom; and Egypt. Together, these five countries imported 63 million m³ of sawnwood in 2013 (equal to 52% of all imports) and in all of these countries imports account for a significant share of sawnwood consumption (30% in China; 23% in United States of America and more in other three countries).

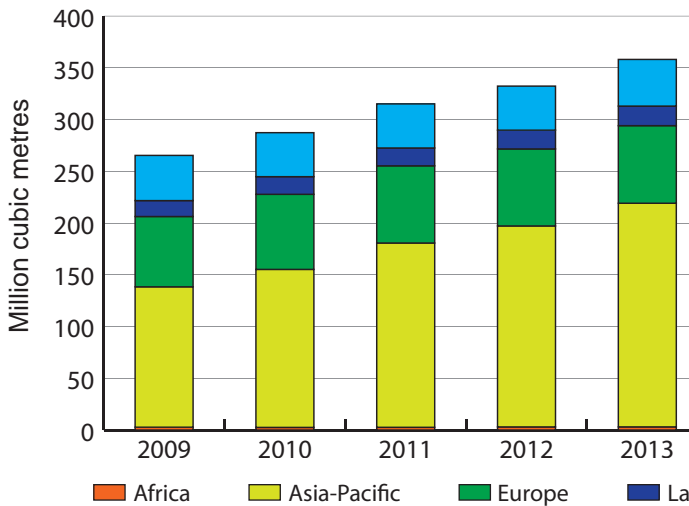
Wood-based panels

The wood-based panels product category consists of the following four products: veneer sheets; plywood (including blockboard); particleboard (including OSB) and fibreboard. Fibreboard is also subdivided in FAO's statistics into hardboard, medium density fibreboard (MDF) and insulating board, based on the density and manufacturing process of these panels.

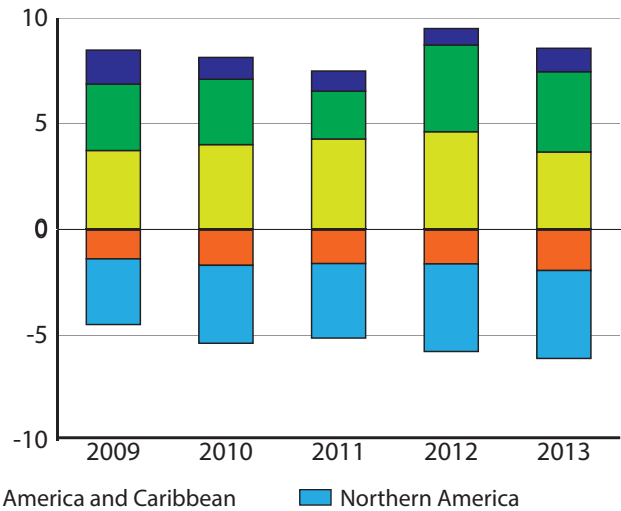
In 2013, global wood-based panel production reached 358 million m³, which was a 7.8% increase over the previous year (332 million m³) and 35% increase over the period from 2009 to 2013. Wood-based panels was the only product category that never contracted and production has been growing steadily. This is due to rapid and consistent growth in the Asia-Pacific and Latin America and Caribbean regions, where production has increased by 59% and 23% respectively over the period from 2009 to 2013. Production in other three regions has grown slowly and in 2013 was by 8% above the level of 2009.



Wood-based panel production



Wood-based panel net trade



The Asia-Pacific region accounted for 60% of global production in 2013 (216 million m³), followed by Europe (75 million m³ or 21%), Northern America (45 million m³ or 13%), Latin America and Caribbean (19 million m³ or 5%) and Africa (3 million m³ or 1%). Northern America has seen a contraction and slight recovery in production, but production in 2013 remained just 3% higher than in 2009. Production in Europe and Africa has grown by 10% over the last five years.

Global trade in wood-based panels grew by four percent in 2013, to reach 76 million m³ (equal to 21% of total production) and global trade has recovered gradually since the decline in 2009. Two regions - Europe and Asia-Pacific - dominate international trade in wood-based panels and together they accounted for 76% of all imports and 83% of exports in 2013. Imports and exports in both of these regions have increased since 2009. In Northern America, the trend in trade is the same as the trend in production.

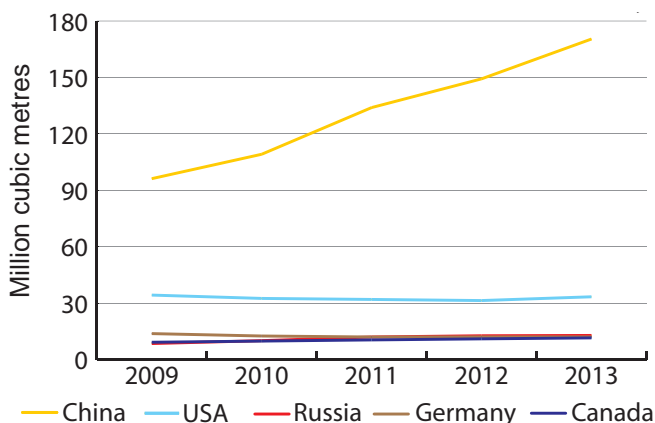
Trends in net trade in wood-based panels are difficult to interpret because, at the global level, total reported exports have been higher than reported imports over the whole period and the trends for net exporters and net importers do not match. These show that Northern America was the main net

importer in 2013 (4 million m³), followed by Africa (2 million m³). Balancing this, net exports from Asia-Pacific were 4 million m³ and net exports from Europe and Latin America (combined) were another 5 million m³.

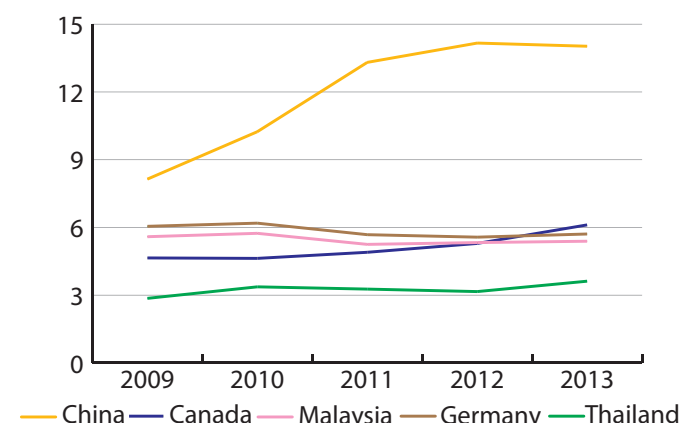
The five largest producers of wood-based panels (China, United States of America, Russian Federation, Germany, and Canada) accounted for 67% of global production (241 million m³) in 2013. China alone accounted for 48% of global production in 2013 and the most notable trend is the 77% increase in production in China over the period, from 96 million m³ in 2009 to 170 million m³ in 2013. Production in Russian Federation and Canada also increased slightly over the period. In 2012 Russian Federation overtook Germany and became the third largest producer. In contrast, production declined by 3% in United States of America and by 13% in Germany over the period from 2009 to 2013.

The five largest exporters (China, Malaysia, Germany, Canada and Thailand) exported 35 million m³ in 2013 (equal to 45% of global exports). In four of the five largest exporters (except China), exports remained relatively stable from 2009. In contrast, exports from China jumped by 75% over the period 2009-2012 but stopped growing in 2013.

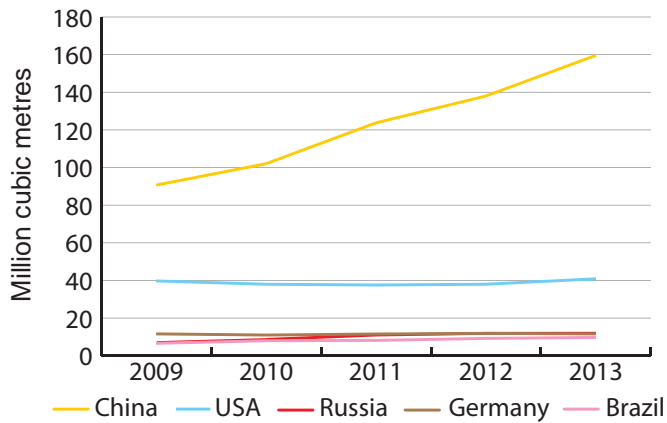
Wood-based panel production



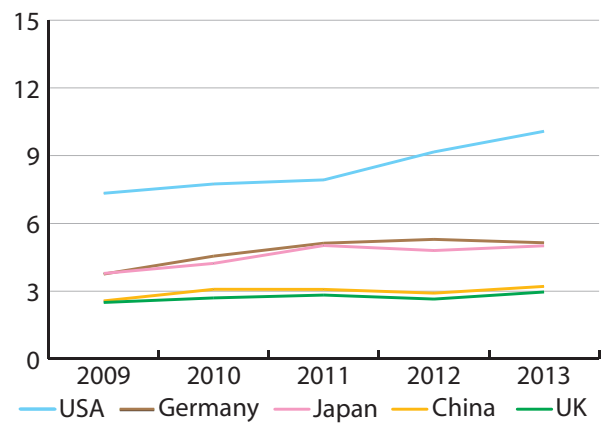
Wood-based panel exports



Wood-based panel consumption



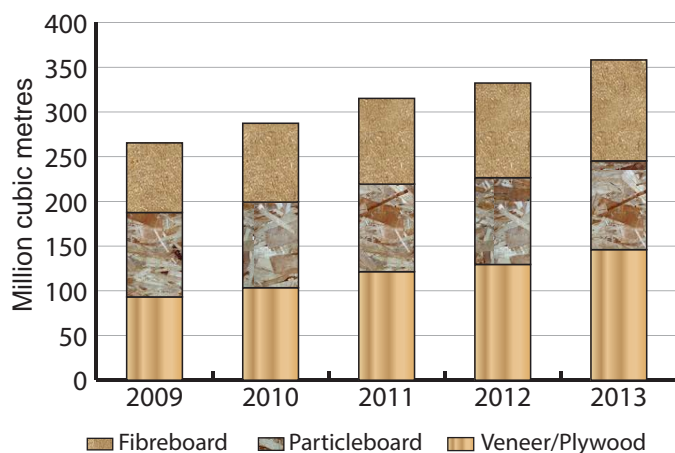
Wood-based panel imports



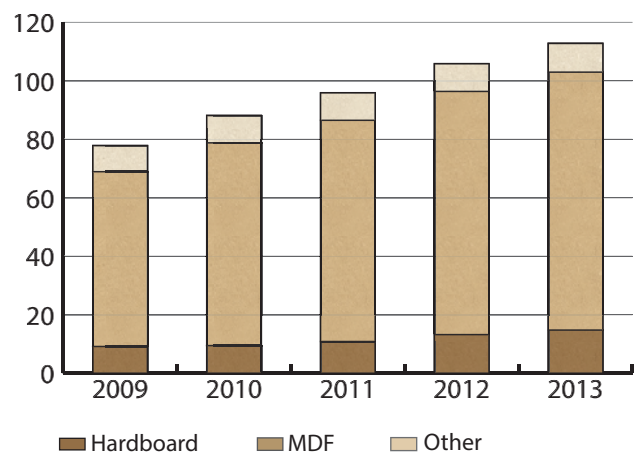
The four top consumers of wood-based panels are the same as the four largest producers and the trends in consumption are very similar to those presented earlier. The fifth largest consumer is Brazil, where consumption increased from 7 million m³ in 2009 to 10 million m³ in 2013.

United States of America was the top importer in 2013 (with imports equal to 25% of consumption), followed by Germany, Japan, China and United Kingdom. Together, these five countries imported 26 million m³ (or 35% of all global imports) in 2013. Imports have increased in all of these countries since 2009. The growth in imports has been fastest in United States of America, Germany and Japan, while in China and United Kingdom the growth was slower.

Wood-based panel production



Fibreboard production



The two figures above show recent trends in production within the wood-based panel product category. Veneer and plywood (including blockboard) has become as the dominant wood-based panel type with production of 146 million m³ in 2013 (representing 41% of all wood-based panel production), an increase of 57% from 2009. Plywood production in China doubled over the period 2009-13, this country that now accounts for 69% of global production. In the remaining countries the growth in veneer and plywood was moderate (13%) over the same period.

Growth in production of fibreboard was 7% in 2012-13 and 45% over the period 2009-13. Production of all types of fibreboard has increased over the period 2009-13, but most growth has occurred in MDF production (which now accounts for 78% of all fibreboard production). Since 2009, global MDF production has been growing by about 10% every year; China accounted for most of this increase.

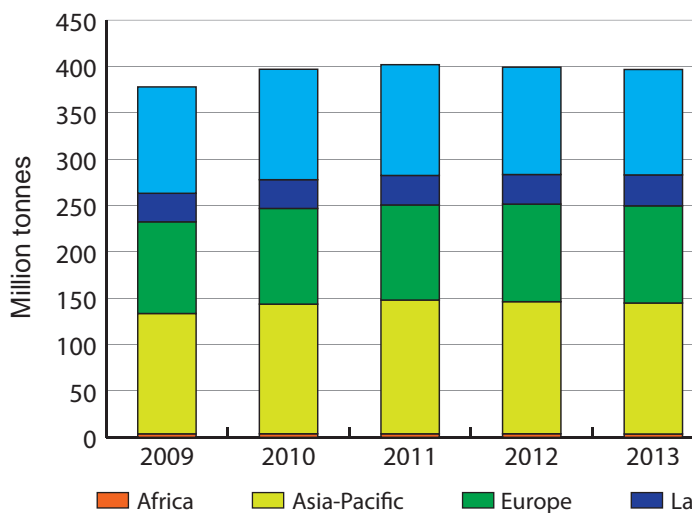
In contrast to plywood and fibreboard, production of particleboard (including OSB) increased only slightly (by 2% to 99 million m³) in 2013; it was just 5% above the low level recorded in 2009.

Fibre furnish

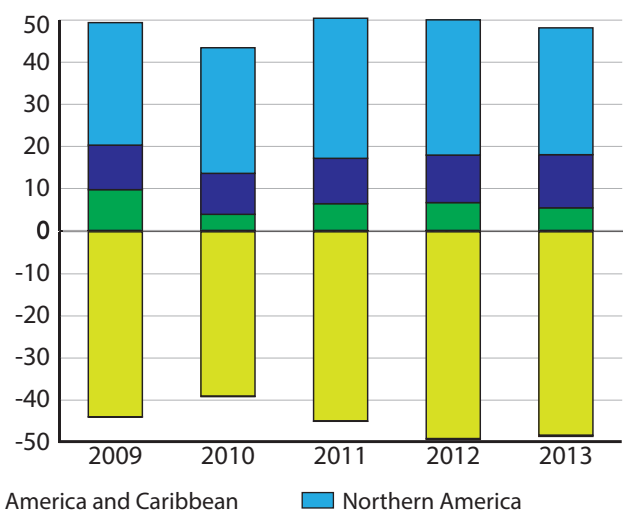
In FAO's forest products statistics, the fibre used to manufacture paper and paperboard is referred to as "fibre furnish". This includes recovered paper (wastepaper), other fibre pulp and the woodpulp used to make paper. The latter includes mechanical, chemical and semi-chemical woodpulp, but does not include dissolving pulp (which is used for other purposes). Chemical woodpulp is also sub-divided in the statistics into bleached or unbleached and sulphite or sulphate woodpulp and various combinations of these different products are presented as product groups in FAOSTAT and the Yearbook.



Fibre furnish production



Fibre furnish net trade

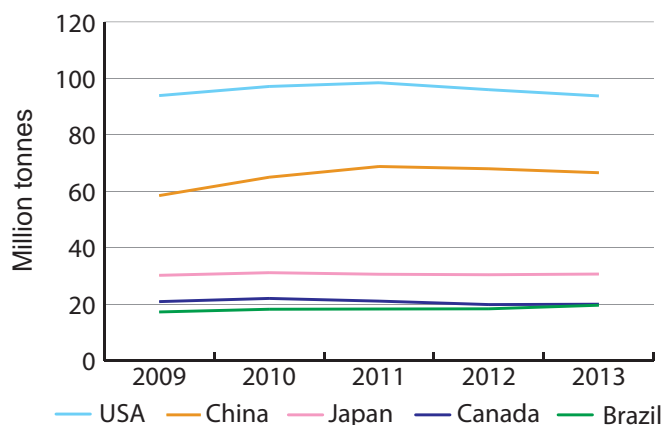


Global production of fibre furnish in 2013 amounted to 397 million metric tonnes (tonnes). This was a very small (1%) decrease on the previous year. At the global level, the production of fibre furnish increased in 2010 and remained quite stable thereafter. The increase (from 377 to 397 million tonnes in 2009-10) occurred in only that year and the other years over the period 2010-13 show a quite stable production level at about 400 million tonnes.

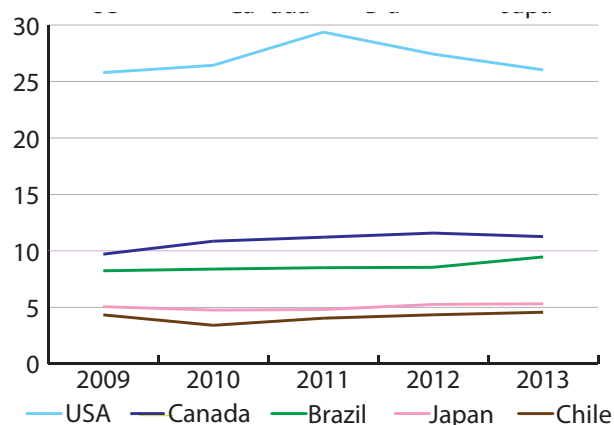
The regional distribution of production in 2013 was as follows: Asia-Pacific - 141 million tonnes (36%); Northern America - 114 million tonnes (29%); Europe - 105 million tonnes (26%); Latin America and Caribbean - 33 million tonnes (8%); and Africa - 4 million tonnes (1%). The Asia-Pacific region is now the largest producer of fibre furnish due to consistent growth over the period (with production in 2013 about 10% higher than the figure of 130 million tonnes in 2009). Production in Europe and Latin America and Caribbean has also grown consistently over the period, although at a much lower level. In contrast, production has not changed or slightly declined in Northern America and Africa.

About one-quarter of fibre furnish production was traded in international markets in 2013 and this trade has increased consistently over the period (from 99 million tonnes in 2009 to 110 million tonnes in 2013 - equal to an increase of 11% in total). Net trade also remained at quite stable over the period 2009-13. The Asia-Pacific region is the only net importing region and net imports of fibre furnish have increased over the period by 10%, from 44 million tonnes in 2009 to 48 million tonnes in 2013. Net imports have also increased at about the same rate as consumption in the Asia-Pacific region and accounted for 26% of consumption in 2013. The main net exporter is Northern America, with net exports of 30 million tonnes in 2013, followed by Latin America and Caribbean (13 million tonnes) and Europe (5 million tonnes). Net exports have increased over the period in Latin America and Caribbean and Northern America, but declined by half in Europe.

Fibre furnish production



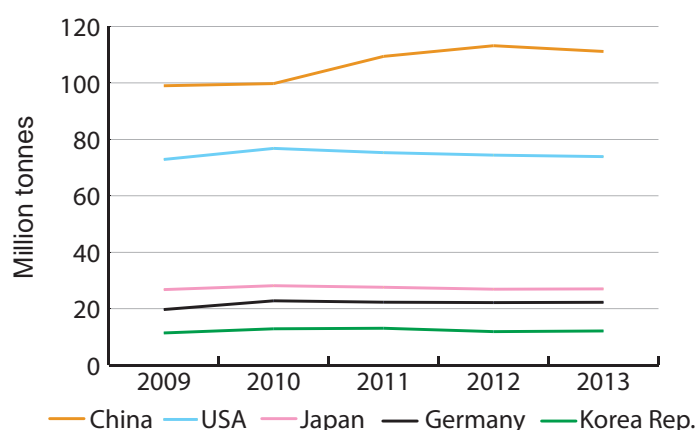
Fibre furnish exports



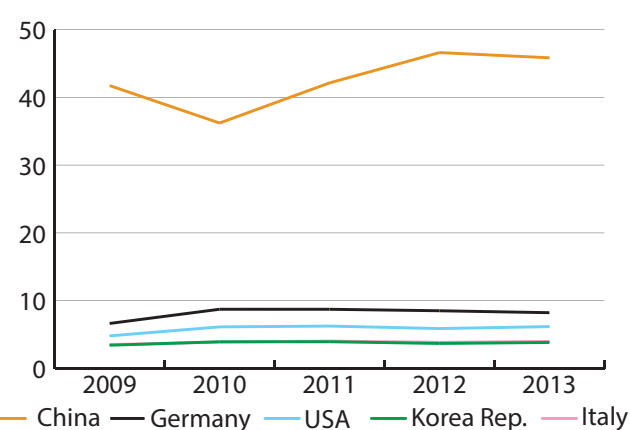
The main producers of fibre furnish are United States of America, China, Japan, Canada and Brazil. Together, these countries produced 231 million tonnes of fibre furnish in 2013 (58% of the global total). As the figure above shows, production has remained roughly the same over the period 2009-13 in United States of America, Japan and Canada. This is due to declining paper production and consumption in these three countries, which is now a common trend in many developed countries where people are using more electronic communication media. Production in China increased by 18% over the period 2009-11 (from 58 million tonnes to 69 million tonnes) and remained quite stable in the following years. Fibre furnish production (and exports) has been consistently increasing in Brazil, where fast-growing planted forests give the country a competitive advantage in the manufacturing of woodpulp.

Four of the main producers of fibre furnish are also the main exporters (United States of America, Japan, Canada and Brazil) and the fifth largest exporter is Chile. These five countries exported 57 million tonnes of fibre furnish in 2013 (52% of the global total). Exports increased over the period 2009-13 in Canada (by 16%), Brazil (by 15%), Japan and Chile (by 5% in both countries). Only in United States of America, after an increase in 2009-11, exports in 2013 came back to the level of 2009. As already noted for Brazil (and Chile), these trends are partly driven by each country's competitiveness in woodpulp manufacturing. However, because a large part of fibre furnish is recovered paper, the need to dispose of wastepaper can also be important in places like United States of America and Japan.

Fibre furnish consumption



Fibre furnish imports

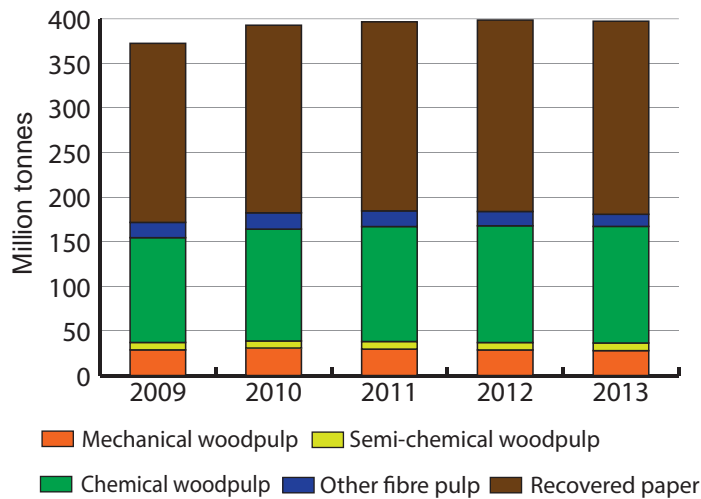


The five main consumers of fibre furnish are China, United States of America, Japan, Germany and Republic of Korea and these countries consumed 246 million tonnes of fibre furnish in 2013 (62% of the global total). The consumption trends in these five countries show a stable consumption in United States of America and Japan (only 1% increase in both countries over the period 2009-13). Consumption has

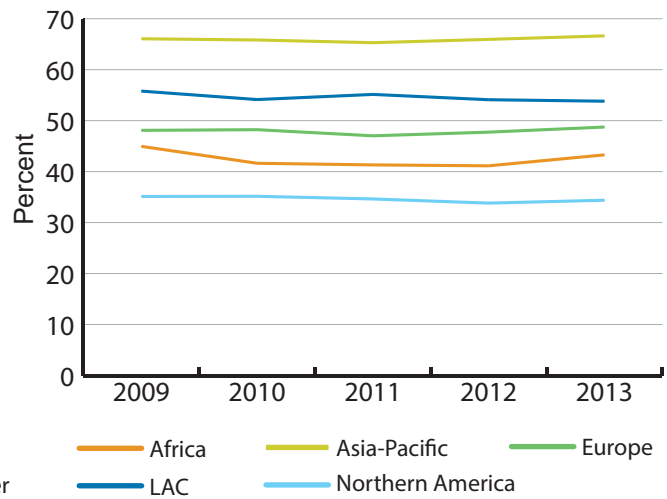
increased a little in Korean Republic (6%) and a bit faster in China and Germany (12% in both countries). In China, consumption (and imports) declined slightly in 2013 (2%), this decrease is in line with a slight drop (1%) in paper and paperboard production in this country.

Four of the largest consumers of fibre furnish are also the largest importers (China, Germany, United

Fibre furnish consumption



Recovered paper utilisation rate



States of America and Republic of Korea) and the other main importer is Italy. Together, imports into these five countries amounted to 68 million tonnes in 2013 (62% of the global total). Comparing the two figures, it can be seen that consumption in several of these countries is highly dependent on imports, with imports accounting for about 30 to 40% of consumption in China, Germany and Republic of Korea. Imports have grown in all five countries, with an increase ranging 10% to 30% over the period 2009-13.

The two figures above show the trends in the composition of fibre furnish consumption between the main products included in this product group. The figure on the left shows that recovered paper and chemical woodpulp are the two main products used to manufacture paper, accounting for 55% and 33% (respectively) of all fibre furnish consumption in 2013. Mechanical woodpulp is the next most important (7%), followed by other fibre pulp (3%) and semi-chemical woodpulp (2%).

The trends in consumption also show that not only does recovered paper account for more than half of all fibre used to make paper, but it is also increasing in importance. In 2009, recovered paper consumption amounted to 201 million tonnes (54% of the total)

compared with the figure of 216 million tonnes (55% of the total) in 2013. In contrast, consumption other fibre pulp has declined (both in absolute and percentage terms). Woodpulp consumption increased slightly (5%) and its share remained unchanged over the same period.

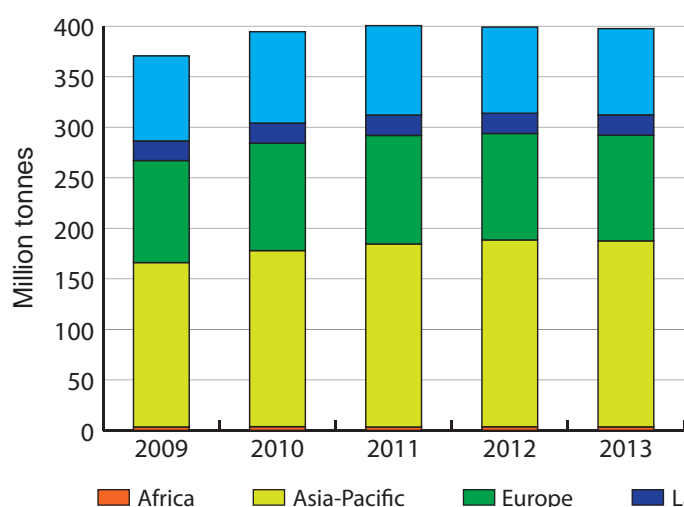
The second figure above shows the share of recovered paper in consumption of total fibre furnish (the utilisation rate) in each of the main regions. Differences in the levels of utilisation and the different trends reflect the geographical and socio-economic situations in each region as well as other factors such as policies on recycling and waste disposal and the availability of pulpwood. Thus, for example, the Asia-Pacific region has a high utilisation rate (partly met by a large amount of recovered paper imports) due to the high demand and intense competition for wood fibre there. Conversely, in Northern America, where the availability of wood fibre is relatively high, recovered paper utilisation is much lower (and a lot of recovered paper is actually exported to the Asia-Pacific region). Europe lies somewhere in between with both a relatively high availability of wood fibre, but also many policies promoting recycling that encourage the use of recovered paper.

Paper and paperboard

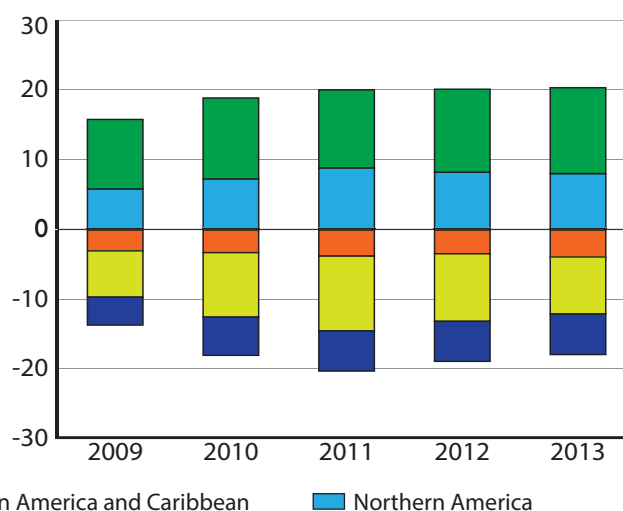
The paper and paperboard product group comprises: newsprint; printing and writing paper; and other paper and paperboard. The latter is also subdivided into: wrapping and packaging paper; household and sanitary paper; and other paper and paperboard not elsewhere specified (NES). Various combinations of these different products are presented as product groups in FAOSTAT and the Yearbook.



Paper and paperboard production



Paper and paperboard net trade



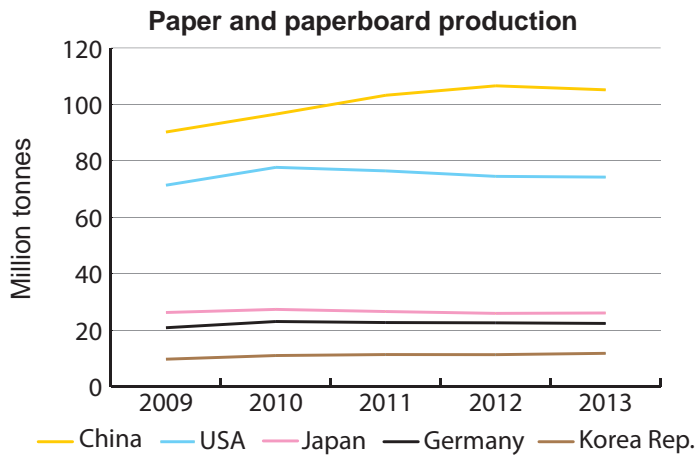
Paper and paperboard production has increased over the period 2009-13 from 371 million tonnes in 2009 to 398 million tonnes in 2013. Production in 2013 remained roughly the same as in the previous three years.

Almost all of this growth is due to increased production in the Asia-Pacific region (an increase of 13% from 2009 to 2013). Production in all other four regions remained roughly the same. In 2013, the regional distribution of production was as follows: Asia-Pacific – 184 million tonnes (46%); Europe - 105 million tonnes (26%); Northern America - 85 million tonnes (22%); Latin America and Caribbean - 20 million tonnes (5%); and Africa - 4 million tonnes (1%).

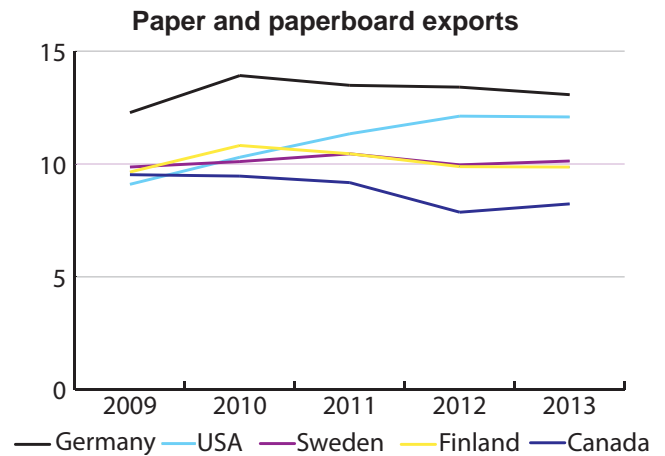
With respect to international trade, about one-quarter of production is exported (roughly the same as the proportion of fibre furnish that is exported). Exports

increased slightly over the period from 102 million tonnes in 2009 to 108 million tonnes in 2013. Thus, the current changes in global demand (e.g. high demand growth in Asia-Pacific and declining demand in Europe and Northern America) appear to be having more of an impact on international trade in fibre furnish rather than on trade in paper and paperboard.

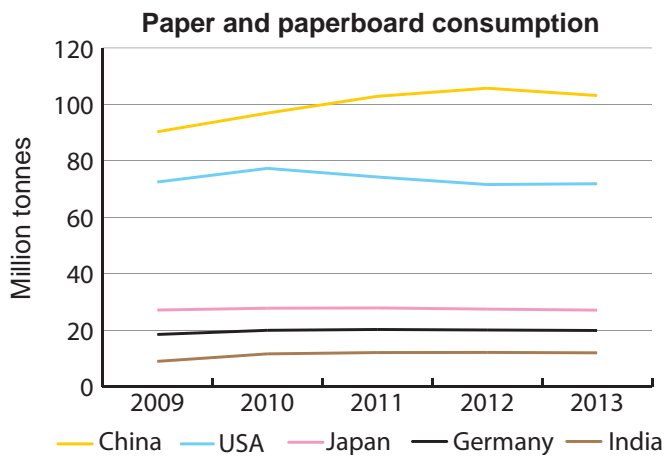
The figures for net trade between the regions show some growth in the period 2009-13. Europe and Northern America are net exporting regions, with net exports of 12 million tonnes and 8 million tonnes respectively in 2013. Asia-Pacific, Latin America and Caribbean and Africa are all net importers, with net imports of 8 million tonnes, 6 million tonnes and 4 million tonnes in 2013.



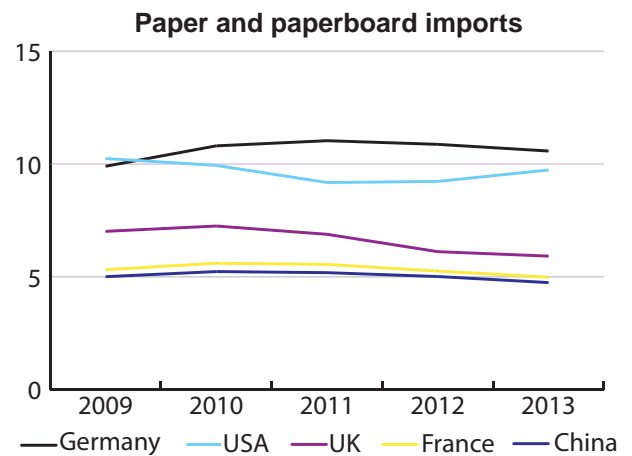
The two largest paper and paperboard producers in 2013 were China (105 million tonnes) and United States of America (74 million tonnes) and, together, their production accounted for 45% of global production. The other three largest producers were Japan (26 million tonnes), Germany (22 million tonnes) and Republic of Korea (12 million tonnes), which accounted for another 15% of global production. China and Republic of Korea were the only major producers where production increased over the period 2009-13 (by about 20%). Production in United States of America, Japan and Germany was about the same in 2009 and 2013.



Exports from the five largest paper and paperboard exporters are roughly the same (between 8 million tonnes and 13 million tonnes). These five countries - Germany, United States of America, Sweden, Finland and Canada - exported 53 million tonnes in 2013 (49% of global exports). The figure also shows that exports are quite variable from year to year. However, it seems that exports from United States of America are on an upward trend (e.g. an increase of 33% over the period 2009-13), while they declined or remained unchanged in the four other countries. Exports from Canada have declined by 14% over the period 2009-13.

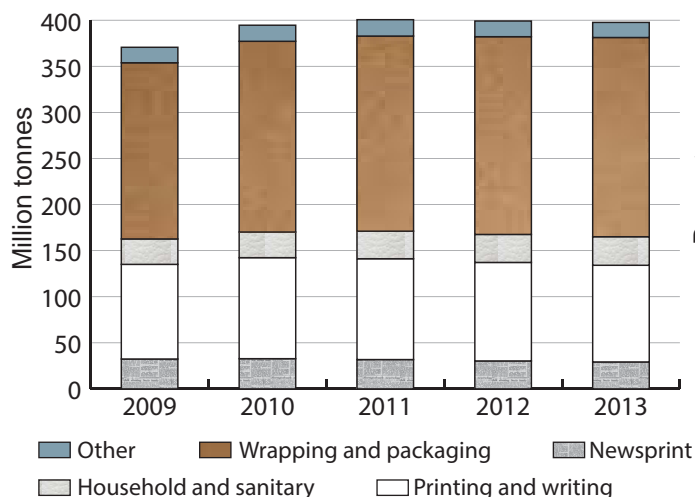


Trends in paper and paperboard consumption are similar to the trends in production, except that India (rather than Republic of Korea) is the fifth largest consumer in the World. Consumption in China increased over the period 2009-13 (by 14%, from 90 million tonnes in 2009 to 103 million tonnes in 2013). However consumption (and production) declined slightly (by 1%) in 2013 for the first time after 38 years of uninterrupted growth in this country. Consumption in India grew by 35% and in Germany by 8% over the same period. Consumption remained unchanged in United States of America and Japan. Total consumption in the five largest consumers amounted to 234 million tonnes in 2013, or 59% of global consumption.

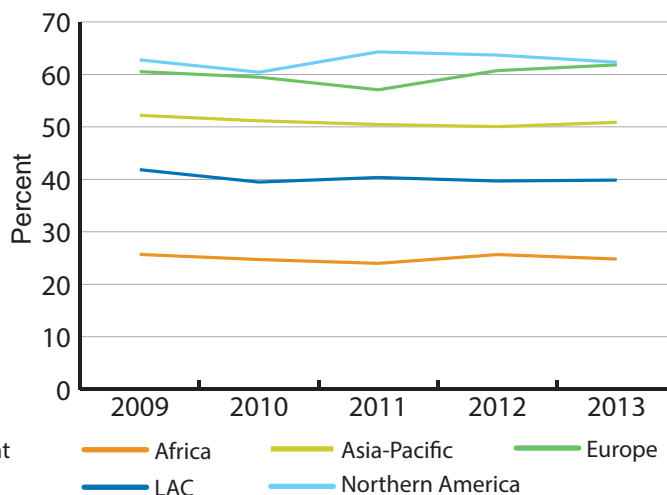


The five largest importers - Germany, United States of America, United Kingdom, France and China – imported similar amount of paper and paperboard every year (from 36 to 39 million tonnes over the period 2009-13). The slight decline in imports appeared in all of the four countries except Germany, but was most significant in United Kingdom where imports fell by 16% over the period. The other notable feature of international trade in paper and paperboard is that imports are distributed much more evenly across different countries, with these top five importers accounting for only 34% of global imports in 2013.

Paper and paperboard production



Recovered paper recovery rate



The figure on the left above shows the distribution of paper and paperboard production amongst the five different product types that are included in this group. As the figure shows, wrapping and packaging paper accounted for over half of all production in 2013 (216 million tonnes, or 54% of the total). Printing and writing paper was the next largest (105 million tonnes or 27% of the total), followed by household and sanitary paper (8%), newsprint (7%) and other paper and paperboard. The two main trends in the different products are the gradual decline in newsprint production (a fall of 10%, from 32 million tonnes in 2009 to 29 million tonnes in 2013) and the 13% increase in wrapping and packaging paper over the period (from 191 million tonnes to 216 million tonnes). Household and sanitary paper production also increased over the period (an increase of 12%, from 28 million tonnes to 31 million tonnes). Printing and writing paper has increased marginally by 2% (from 103 million tonnes to 105 million tonnes), while production of other paper remained roughly the same over the period from 2009 to 2013.

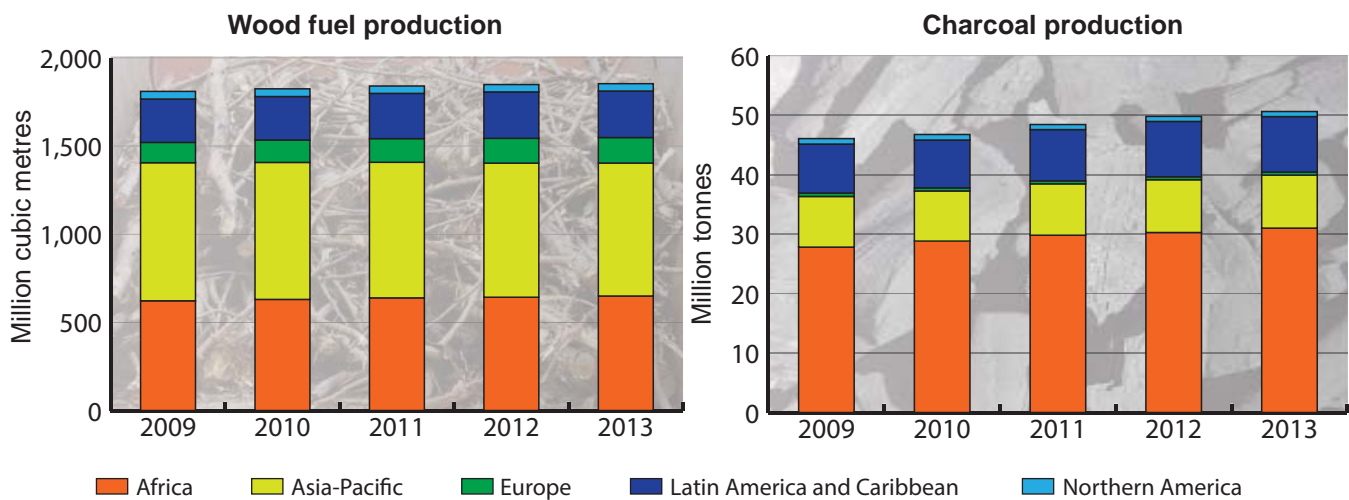
The other figure above shows the amount of paper consumption that is collected for re-use in the pulp and paper industry (the recovery rate). At the global level, this remained roughly the same at 54% over

the period 2009-2013. In the three main regions that consume paper and paperboard (and use recovered paper), the recovery rates are high and remained stable over the period 2009-13. Northern America and Europe now have the highest recovery rate (both 62% in 2013), followed the Asia-Pacific region (51%).

Some of the factors that explain differences in recovery rates are the same as noted previously (for the utilisation rate), but one other important factor is the “hidden” trade in wrapping and packaging paper. This occurs where manufactured goods are packed in paperboard and traded across borders (and the movement of the paperboard is not recorded). This partly explains the relatively low recovery rate in the Asia Pacific region, where packaging of goods for export is counted as paperboard consumption in the region, but then this packaging is recovered and counts as fibre furnish production in other regions such as Europe and Northern America.

Wood fuel, charcoal and pellets

Wood fuel is roundwood that is used as fuel for purposes such as cooking, heating or power production and it includes wood that is used to make charcoal. It includes wood harvested from main stems, branches and other parts of trees (where these will be used for fuel) and wood chips to be used for fuel that are made directly (i.e. in the forest) from roundwood. However, it does not include all types of wood used for energy (e.g. wood residues from the forest processing industry, black liquor or recovered wood waste). It is subdivided into wood fuel from coniferous and non-coniferous species and statistics for charcoal production and trade are also presented as a separate dataset in FAOSTAT and the Yearbook. Series for wood pellets and other agglomerates (briquettes, etc.) start in FAOSTAT from 2012 onwards.



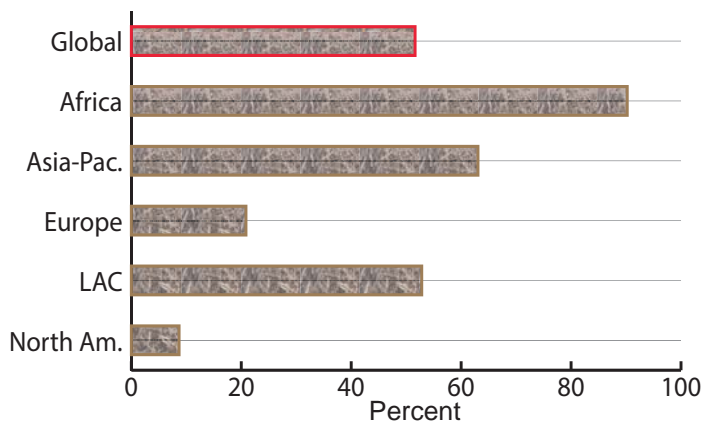
Global woodfuel production amounted to 1,854 million m³ in 2013. This was a very minor increase (less than 1%) over the figure for 2012 and 2% increase over the figure for 2009. Thus, in contrast to many other forest products, woodfuel production has remained almost unchanged at the global level. However, at the regional level there are some differences in trends. For example, wood fuel production decreased in Northern America and Asia-Pacific (both by 4%) over the period 2009-13, while it increased in Europe (by 20%), Latin America and Caribbean (7%) and Africa (4%) and over the same period.

The Asia-Pacific region was the largest woodfuel producer in 2013, accounting for 41% of global production (754 million m³). Africa ranked second, with a 35% share (649 million m³), followed by Latin America and Caribbean (14%), Europe (8%) and Northern America (2%). If current growth trends continue, Africa will produce about the same amount of wood fuel as the Asia-Pacific region by 2025.

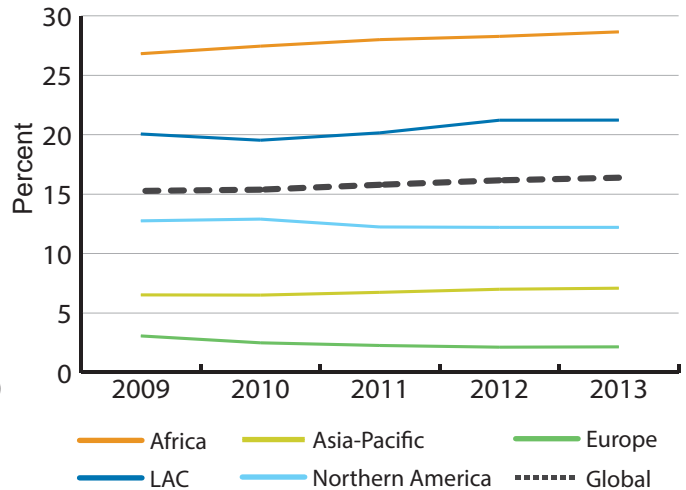
About 51 million tonnes of wood charcoal was produced in 2013, with an increase of 9% over the period 2009-13. In 2013, Africa accounted for 61% of global charcoal production and Africa is the only region in the World where charcoal production is increasing constantly both in absolute and relative terms (with an increase in production from 28 million tonnes in 2009 to 31 million tonnes in 2013). After a slight decrease in Latin America and Caribbean in 2010, production has grown consistently to reach 9 million tonnes in 2013. Charcoal production is relatively small and remained mostly unchanged in the other three global regions.

The different production trends in Africa and Latin America are because charcoal users are very different in these two regions. In Africa, charcoal is mainly used in by urban households for cooking, so consumption trends change only gradually. In Latin America and Caribbean, the steel industry in Brazil is the main charcoal consumer, so trends in production are closely linked to (more volatile) economic trends.

Amount of roundwood used as wood fuel in 2013



Amount of wood fuel used as charcoal



The graph on the left above shows the proportion of all roundwood production that was used as wood fuel in 2013 (in FAO statistics, roundwood is simply divided into industrial roundwood and wood fuel). The other graph shows how much of this wood fuel was converted into charcoal before it was used.

At the global level, wood fuel production accounted for slightly more than half (52%) of all roundwood produced in 2013. This proportion has gradually declined from 54% over the whole period (2009-13).

The importance of wood fuel production is highest in Africa, where wood fuel accounted for 90% of roundwood production in 2013. Wood fuel was also relatively important in the Asia-Pacific region, where it accounted for 65% of roundwood production. Woodfuel use in Latin America and Caribbean (at 54% of all roundwood production) was close to the global average, whereas wood fuel in Europe and Northern America accounted for only 20% and 9% (respectively) of all roundwood production in these two regions. These proportions did not change very much in most of the regions over the period 2009-13.

The proportion of wood used to make charcoal remained the same over the period 2009-13 (at 16%) and, in many regions, the proportion did not change very much (although there are quite large differences in the proportions in different countries).

In contrast to the trends for wood fuel and charcoal, production and trade in wood pellets continued to surge. Pellet production from 20 million tonnes in 2012 to 22 million tonnes in 2013. Nearly all production is concentrated in Europe and Northern America. In 2013, the regional distribution of production was as follows: Europe – 13.8 million tonnes (62%); Northern America – 7.5 million tonnes (34%); and Asia-Pacific – 0.6 million tonnes (3%); and Latin America and Caribbean and Africa – each 0.1 million tonnes (1% combined).

With respect to international trade, over half of production is exported (56% in 2013). Exports increased from 10 million tonnes in 2012 to 13 million tonnes in 2013. Net trade between the regions has been growing as well. Northern America is net exporting region, with net exports of 4 million tonnes in 2013. Europe and Asia-Pacific are net importers, with net imports of 4 million tonnes and 0.3 million tonnes in 2013.

The five largest pellet producers in 2013 were United States of America (5.7 million tonnes), Germany (2.2 million tonnes), Canada (1.8 million tonnes), Sweden (1.3 million tonnes) and Latvia (1.1 million tonnes). Together, their production accounted for 55% of global production.

Three of the five largest pellet producers are also largest exporters. Another two major exporters are Portugal and Russian Federation. These five countries - United States of America, Canada, Latvia, Portugal and Russian Federation - exported 7 million tonnes in 2013 (56% of global exports).

Only two main producers (United States of America and Germany) are also largest consumers. Another three countries that rank among top-five consumers of wood pellets in 2013 were: United Kingdom (1st), Denmark (3rd after United States of America) and Italy (4th). Total consumption in the five largest consumers amounted to 13 million tonnes in 2013, or 60% of global consumption.

The five largest importers - United Kingdom, Denmark, Italy, Belgium and Sweden – imported 9 million tonnes of wood pellets, an increase of 46% over the year 2012. The increase in imports appeared in all of the four countries except Belgium, but was most significant in United Kingdom where imports more than doubled from 1.5 million tonnes in 2012 to 3.4 million tonnes in 2013. These top five importers accounted for 74% of global imports in 2013.

Development of FAO's forest products statistics

This last section presents some details of recent changes to FAO's forest products statistics, the results of capacity building efforts and improvements in dissemination of the statistics. Highlights for 2013, include the following:

- In collaboration with the International Tropical Timber Organization (ITTO) and UN Economic Commission for Europe (UN-ECE), three statistical capacity building workshops were held:
 - Subregional Workshop for countries in Eastern Europe, Central Asia and Caucasus. (Turkey, 27-28 May). For more information see: <http://www.fao.org/forestry/statistics/80567@192665/en/>
 - Subregional Workshop for countries in Greater Mekong region. (China, 17-19 September). For more information see: <http://www.fao.org/forestry/statistics/80566@194642/en/>.
 - Subregional Workshop for countries in Southern Africa (South Africa, 25-27 November). For more information see: <http://www.fao.org/forestry/statistics/80565@195953/en/>.
As a result of these workshops, forest products statistics for several countries in these regions have been revised and new data has been added to the FAOSTAT Forestry database.
- FAO's Forest products statistics website (www.fao.org/forestry/statistics/en) has been regularly updated and is displayed in seven languages: Arabic, Chinese, English, Italian, French, Russian and Spanish.
- FAO, in collaboration with ATIBT, ITTO, UN-ECE and Eurostat, provided additional justifications for the proposal to the World Customs Organization (WCO) to improve international trade statistics (the Harmonized System 2017 Edition or HS2017). The original proposal was submitted in 2012 (available at: <http://www.fao.org/forestry/statistics/80577/en/>). The proposal includes an improvement to the explanatory notes describing the species that should be recorded as "tropical" wood products, an expansion of the species groups used in some parts of the nomenclature and a few other minor improvements. The final structure of HS2017 will be officially endorsed in 2015.
- FAO and ITTO funded a China plywood industry study undertaken by the Chinese Academy of Forestry. The survey included 308 enterprises in 21 provinces. Preliminary results were received in September 2014 and the final report will be published in 2015. This study will help to understand better the current status of China's plywood industry that has developed rapidly in recent years.
- FAO carried out a study to estimate the share of wood from forest plantations in global wood supply. An estimate for 2012 shows that currently plantations account for 33% industrial roundwood supply in the World (see report at: <http://www.fao.org/3/a-i3384e.pdf>).
- Data series from 2012 onwards for wood agglomerates (briquettes and other, excluding pellets) were launched in FAOSTAT-Forestry database (available at: <http://faostat3.fao.org/download/F/FO/E>).

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