



2012 Global Forest Products Facts and Figures

FAO's forest product statistics present figures for the production and trade (quantity and value) of forest products, covering 53 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.

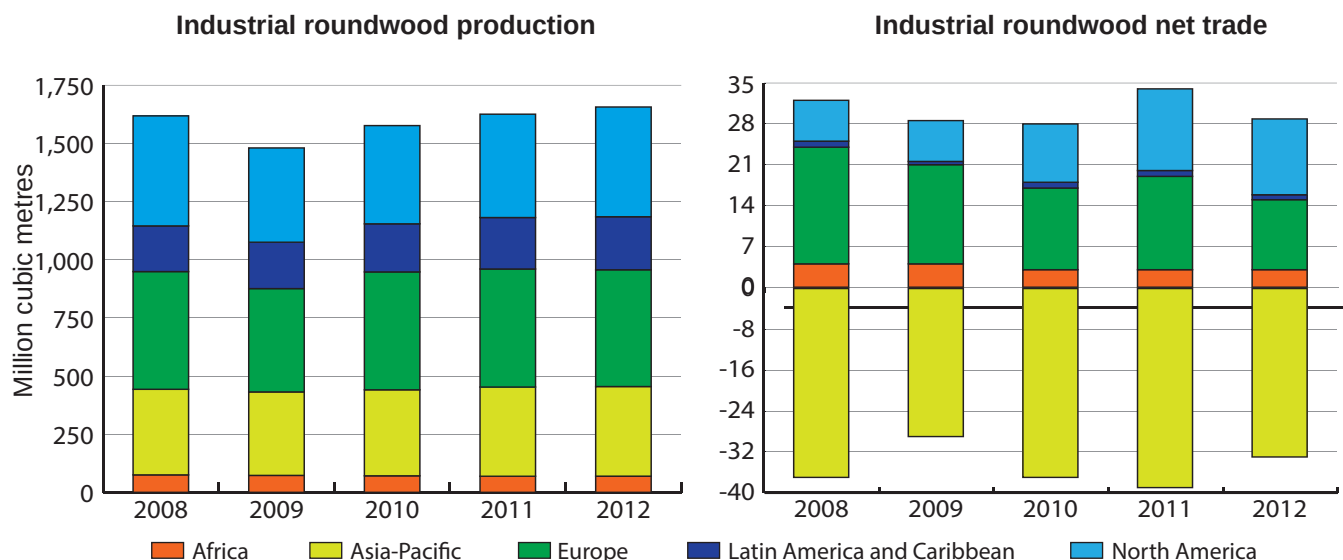
Highlights for 2008-2012

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 recent economic recession 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 in 2009 and gradually recovered in 2010-2012. Production in 2012 exceeded the level of 2008 in all these product groups, but is still below the pre-recession level (2007). The fastest recovery has been in Asia-Pacific, North America and Latin America and Caribbean. Recovery in Europe slowed down in 2012 (especially in western and southern Europe where production and consumption fell in 2012 for some products). As a result, Europe's share of global markets has fallen.
- Wood pellet production has increased dramatically in recent years, mainly due to the demand created by policies and bioenergy use targets in Europe. This is the first time that FAO is publishing data on wood pellets and the statistics show that global production in 2012 was 19 million tonnes, with about half of this (9.3 million tonnes) traded internationally. Europe and North America account for almost all global production (66% and 31% respectively) and consumption (80% and 17% respectively).
- China continues to increase in importance as a producer and consumer of forest products and has overtaken a number of other major countries in different product groups (e.g. overtaking Canada in sawnwood production and United States of America in fibre furnish consumption and paper and paperboard production). China is also highly significant for international trade in forest products, being the world's largest importer of industrial roundwood, sawnwood and fibre furnish and the largest exporter of wood-based panels.
- 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 production and exports. A lot of industrial roundwood exports previously went to China and this partly accounted for the fall in Chinese imports from 2008-09. However, Chinese imports of industrial roundwood have recovered due to increased exports from some other countries (e.g. United States of America, Canada and New Zealand).
- Production and consumption of wood-based panels appears to be growing relatively strongly in most regions. In the markets for pulp and paper, overall growth was very modest over the period 2008-12, with a growth trend of about one percent per year. However, this conceals major differences at the regional level, where pulp and paper production and consumption is increasing significantly in the Asia-Pacific region, but generally declining in Europe and North America.

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. fence posts and telegraph poles). This product group is also divided into roundwood from coniferous and non-coniferous species.

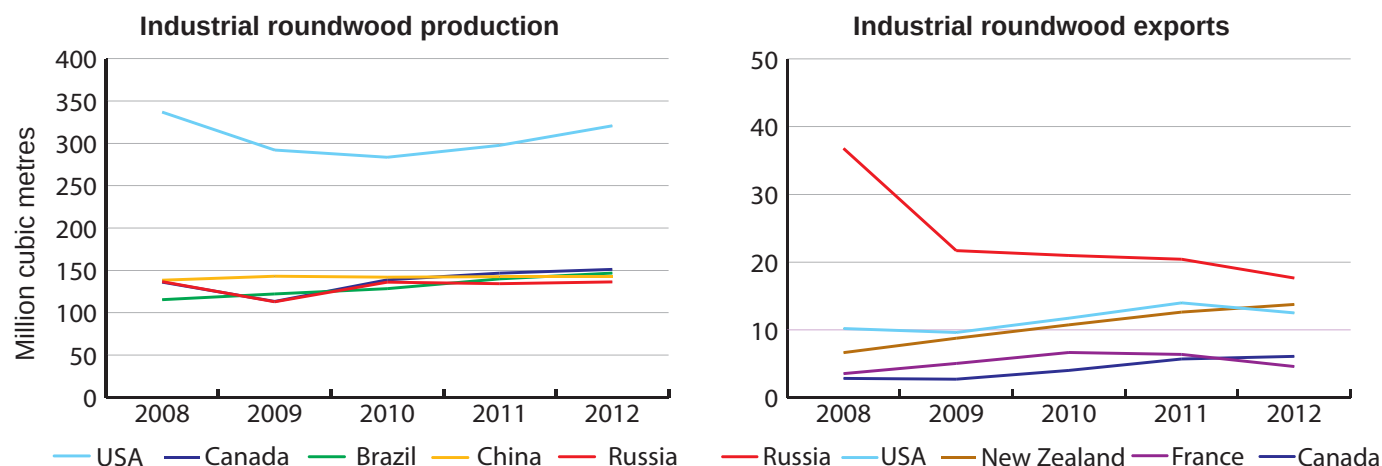


In 2012, global industrial roundwood production amounted to 1,657 million m³. This is an increase of 1.9% over the figure for 2011 (1,626 million m³). As the figure above shows, production has increased since the low point of 2009 and exceeded the level of production reported five years ago by 2.4%.

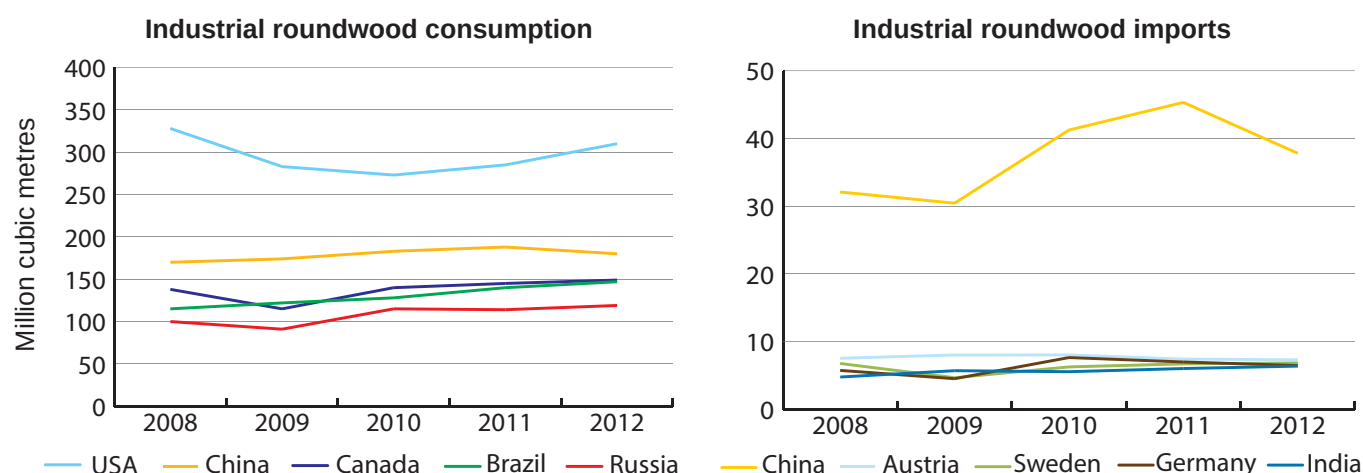
Most of the recovery in production has occurred in two regions: Asia-Pacific and Latin America and Caribbean where production volumes in 2012 were above the level of 2008. Production in the other three regions has reached the level reported five years ago. In 2012, production in each region was as follows: Europe (including Russian Federation) - 502 million m³ (30%); North America (USA and Canada) - 472 million m³ (28%); Asia-Pacific - 385 million m³ (23%); Latin America and Caribbean - 228 million m³ (14%); and Africa - 69 million m³ (4%).

Global trade in industrial roundwood amounted to 112 million m³ in 2012 (equal to about 7% of production). Trends in total trade and net trade over the last five years also show a decline to 2009 followed by a slight recovery since until 2011 and the decline by 10% in 2012. At the regional level, Asia-Pacific is a net importer of industrial roundwood and all other regions are net exporters. Net imports of 33 million m³ accounted for about 8% of consumption in the Asia-Pacific region in 2012. North America and Europe are the main net exporters of industrial roundwood with net exports in 2012 of 13 million m³ and 11 million m³ respectively. The figure for North America is twice the figure reported in 2008 and 2009.

At the country level, the five largest producers of industrial roundwood are: United States of America; Canada; Brazil; China and Russian Federation. Together, these countries produced 898 million m³ in 2012 or 54% of total global production. The United States of America is by far the largest producer in the World (321 million m³ in 2012), production has declined steeply 2009-2010, but over the last two years it recovered. Production also declined in Russian Federation and Canada in 2009, but has recovered since then. Brazil and China continue to follow a long-term trend of modest 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 55 million m³ in 2012 or 50% of all exports. Russian Federation is the main exporter, although exports have declined by over 50% in recent years. Other major exporters are: New Zealand; United States of America; Canada; and France.

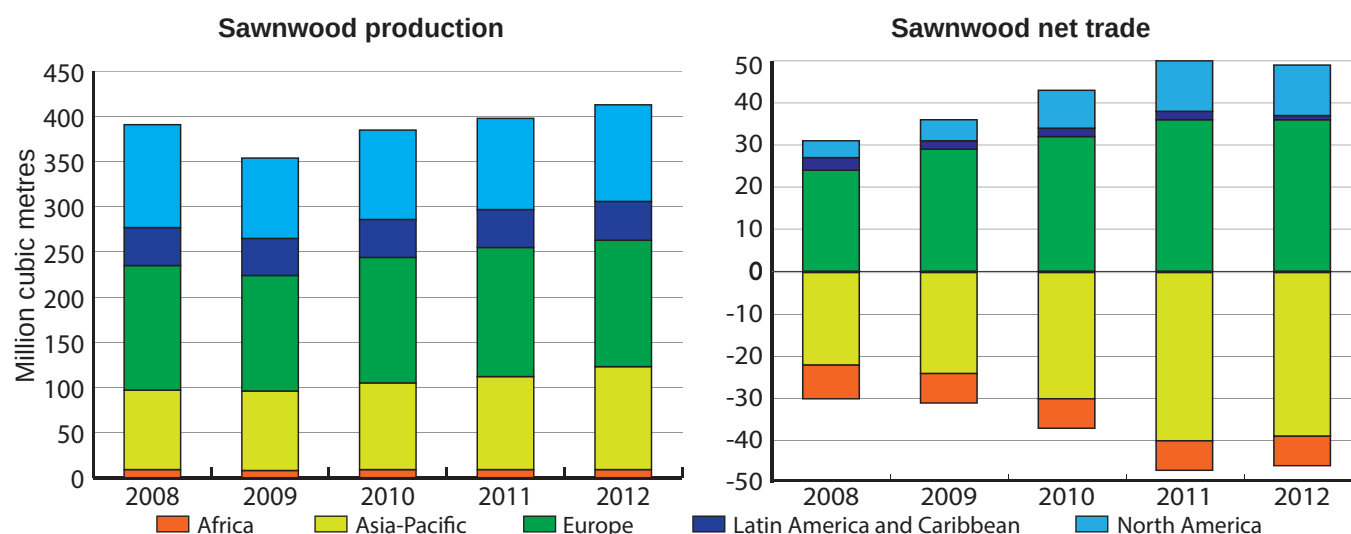


Due to the relatively small volumes of international trade in industrial roundwood, the five largest producers are also the five largest consumers. However, China is the second largest consumer (180 million m³ in 2012) and Russian Federation is in fifth place (at 119 million m³). Consumption has increased 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 (38 million m³ in 2012). Russian Federation accounts for a large share of these imports, although imports from other countries are increasing in importance. After China, other major importers of industrial roundwood are: Austria; Sweden; Germany; and India. Together, these five countries imported 65 million m³ of industrial roundwood in 2012 (equal to 57% of all imports).

Sawnwood

Sawnwood encompasses planks, beams, boards, laths, sleepers, 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.

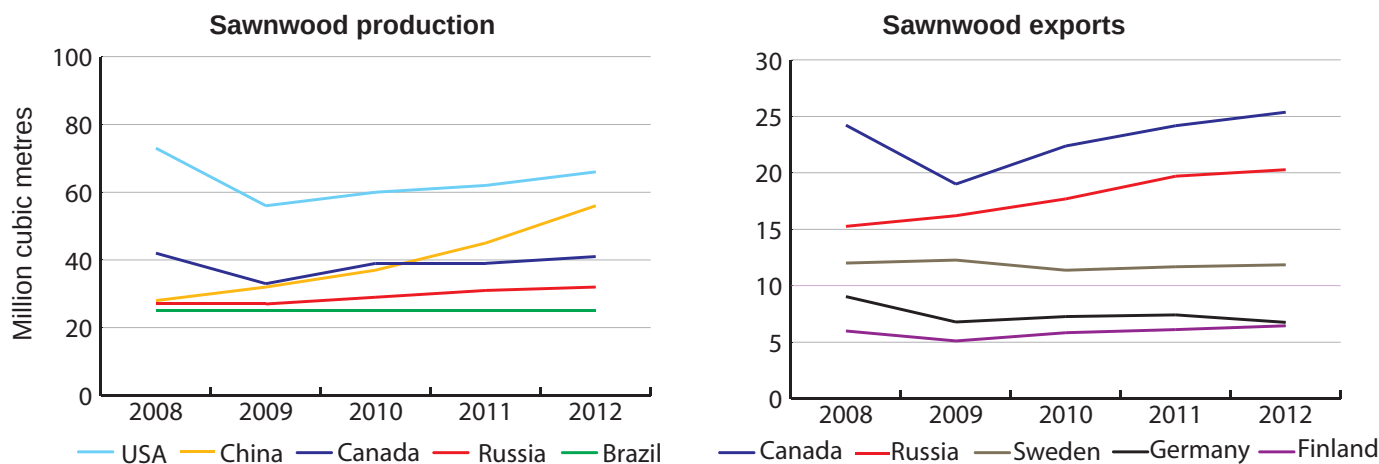


In 2012, global sawnwood production totalled 413 million m³, representing an increase of 3.8% compared to 2011 (398 million m³) and an increase of 5.5% over the figure for 2008 (391 million m³). As can be seen from the left figure above, sawnwood production declined a lot in 2009, but has been recovering gradually over the period 2010-12. This trend is largely due to changes in production in three regions: Europe, North America and Asia-Pacific. In contrast, production in Africa and Latin America and Caribbean remained steady over the period 2008-12. The latest regional production figures (for 2012) are as follows: Europe - 140 million m³ (34%); Asia-Pacific - 114 million m³ (28%); North America - 107 million m³ (26%); Latin America and Caribbean - 43 million m³ (10%); and Africa – 9 million m³ (2%).

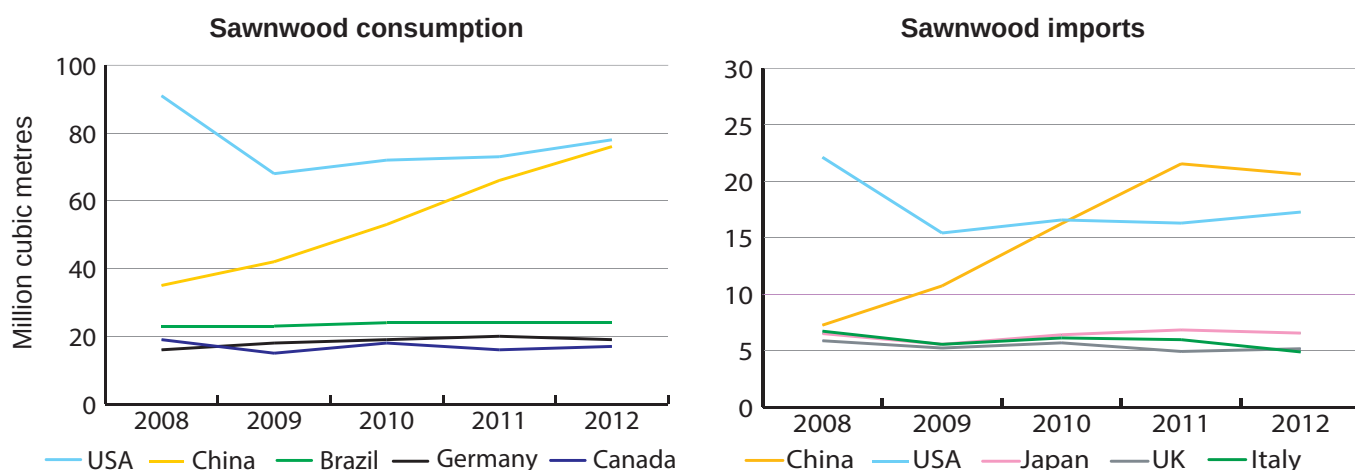
Global trade in sawnwood amounted to 119 million m³ in 2012 (equal to 29% of production) and, like production, total trade declined in 2009 followed by a slight recovery since then. However, much of this decline and recovery in trade occurred within Europe and North America. Looking at net trade between 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 7 million m³ and 39 million m³ respectively in 2012) and Europe (37 million m³) and North America (12 million m³) are the main net exporters of sawnwood. The Latin America and Caribbean region is also a net exporter, with net exports of 1 million m³ in 2012.

At the country level, the five largest producers of sawnwood are: United States of America; China; Canada; Russian Federation and Brazil. Together, these five countries produced half of the World's sawnwood in 2012 (220 million m³). The United States of America is the largest producer (66 million m³ in 2012), but production there has declined over the last five years and is recovering slowly. Production in Canada also declined in 2009, but has increased somewhat since then. Production in Brazil and Russian Federation has remained relatively stable over the last five years, but it has almost doubled in China (an increase of 96%, from 28 million m³ in 2008 to 56 million m³ in 2012) and China overtook Canada as the second largest sawnwood producer in 2011.



Two of the largest sawnwood producers are also major exporters (Canada and Russian Federation), but the other three main exporters are Sweden, Germany and Finland. Together, these five countries exported 71 million m³ in 2012 (59% of all exports). Canada was the main exporter in 2012 (25 million m³), its exports have been growing steadily since the large decline in 2009 due to increasing sales to recovering market in United States of America. Exports from Germany fell over the period and have yet to recover. Exports from Sweden and Finland have remained relatively stable over the last five years, but have been increasing consistently from Russian Federation.



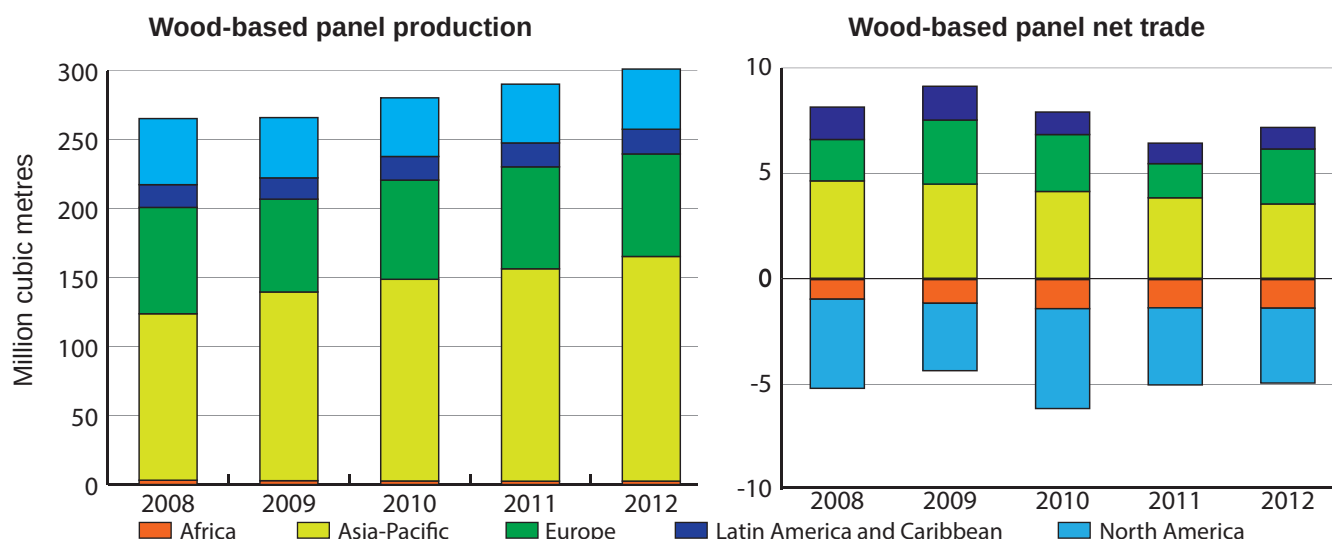
As well as being the largest producers, China and United States of America were also the two main consumers of sawnwood in 2012, with United States of America in the first position (78 million m³) and China in the second position (76 million m³). However, consumption in United States of America declined in 2009 followed by a slight recovery, while China's consumption more than doubled over the period from 2008 and 2012. The other three main consumers of sawnwood in the World are Brazil, Germany and Canada where consumption remained stable over the last years..

With respect to imports, China overtook United States of America in 2011 to become the largest importer of sawnwood (with imports of 21 million m³ and 17 million m³ in 2012, respectively). Other major sawnwood importers are: Japan; United Kingdom; and Italy. Together, these five countries imported 55 million m³ of sawnwood in 2012 (equal to 47% of all imports) and in all of these countries imports account for a significant share of sawnwood consumption (e.g. 27% in China; 22% in United States of America).

Wood-based panels

The wood-based panels product category consists of the following four products: veneer sheets; plywood; 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 2012, global wood-based panel production reached 301 million m³, which was a 3.8% increase over the previous year (290 million m³). Wood-based panels was the only product category that avoided contraction in 2009, production has been growing steadily since 2008. This is due to rapid and consistent growth in the Asia-Pacific and Latin America and Caribbean, where production has increased by 31% and 9% respectively over the period from 2008 to 2012. In other three regions production in 2012 was still below the level of 2008.



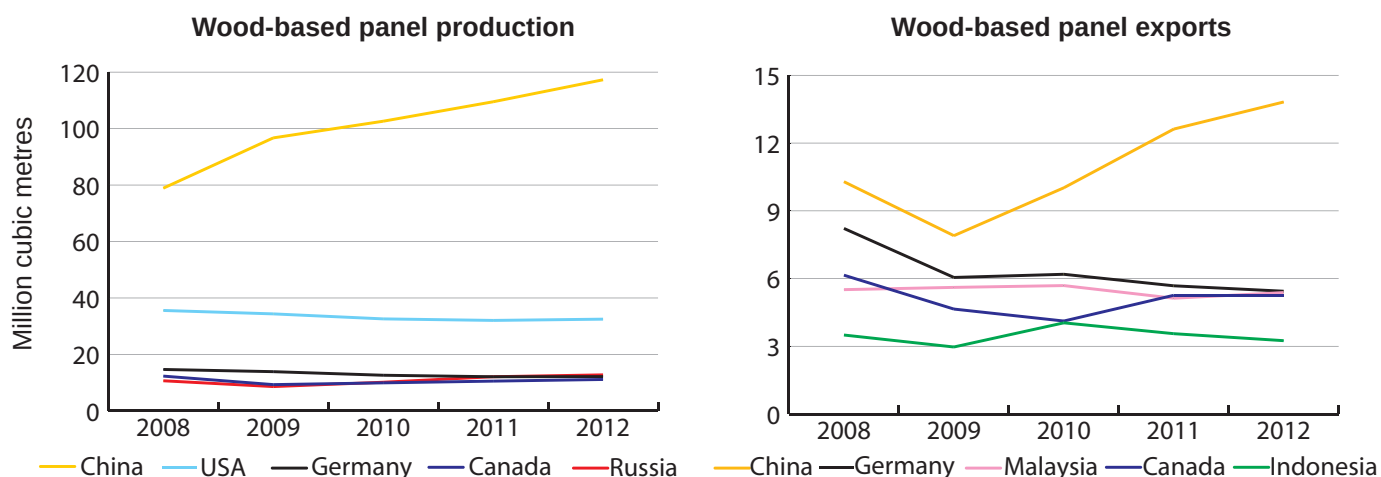
The Asia-Pacific region accounted for 54% of global production in 2012 (163 million m³), followed by Europe (74 million m³ or 25%), North America (44 million m³ or 14%), Latin America and Caribbean (18 million m³ or 6%) and Africa (2 million m³ or 1%). Europe has seen a contraction and slight recovery in production since 2008, but production in 2012 remained 4% lower than in 2008. Production declined in North America (falling by 9% between 2008 and 2012) and has yet to recover.

Global trade in wood-based panels grew by one percent in 2012, to reach 74 million m³ (equal to 25% of total production) and global trade has recovered gradually since the decline in 2009 reaching the level of 2008 in 2012.

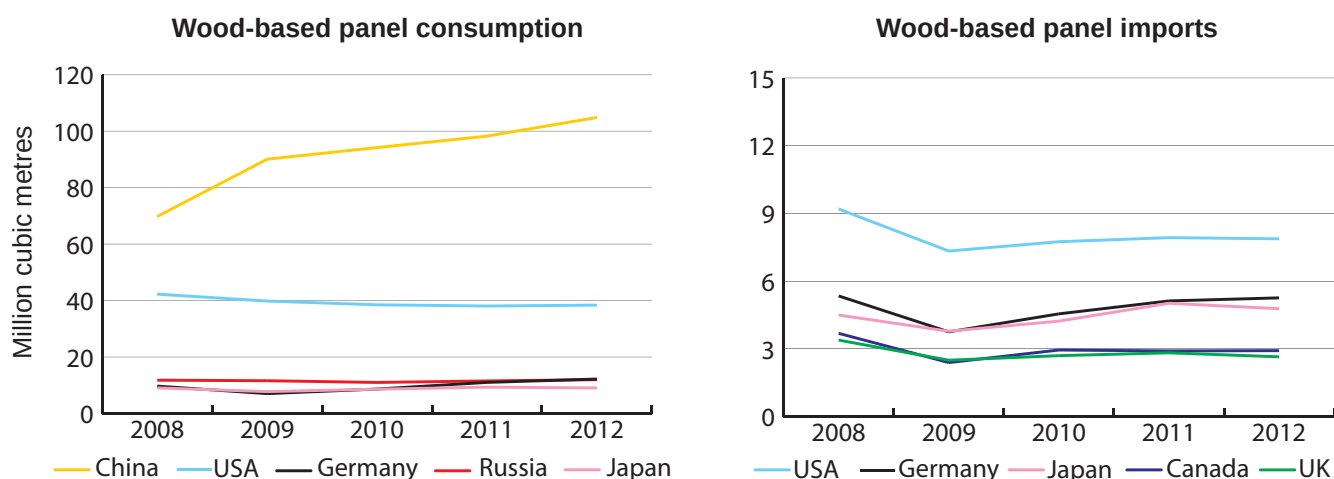
Two regions - Europe and Asia-Pacific - dominate international trade in wood-based panels and together they accounted for 78% of all imports and 84% of exports in 2012. Imports and exports fell in 2009 in both of these regions and have increased since then, but only in the Asia-Pacific region have they recovered above the levels seen in 2008. In North America, the trend in trade is the same as the trend in production with a marginal increase in 2012.

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. However, the trade statistics appear to have improved, so that the figures for total net exports and imports are very close in the period 2010-12. These show that North America was the main net importer in 2012 (4 million m³), followed by Africa (1 million m³). Balancing this, net exports from Asia-Pacific were 4 million m³, with net exports of 3 million m³ from both Europe and Latin America and Caribbean.

The five largest producers of wood-based panels (China, United States of America, Russian Federation, Germany, and Canada) accounted for 62% of global production (186 million m³) in 2012. China alone accounted for 39% of global production in 2012 and the most notable trend is the 47% increase in production in China over the period, from 79 million m³ in 2008 to 117 million m³ in 2012. Production in Russian Federation also increased slightly over the period. In 2012 Russian Federation overtook Germany and became the third largest producer. In contrast, production declined by 9% in United States of America, by 17% in Germany and by 10% in Canada over the period from 2008 to 2012.

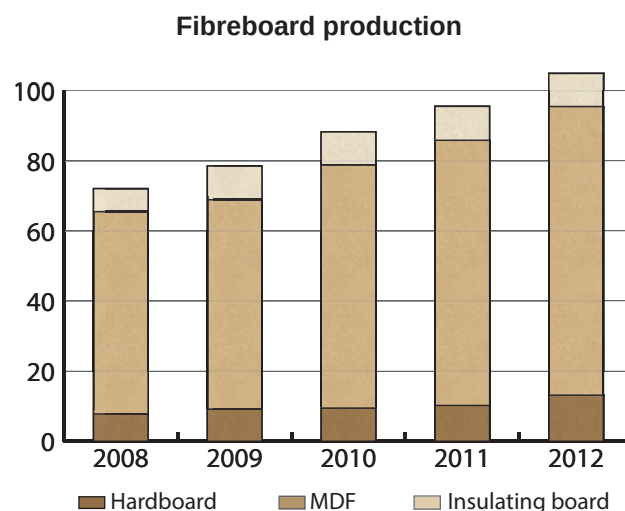
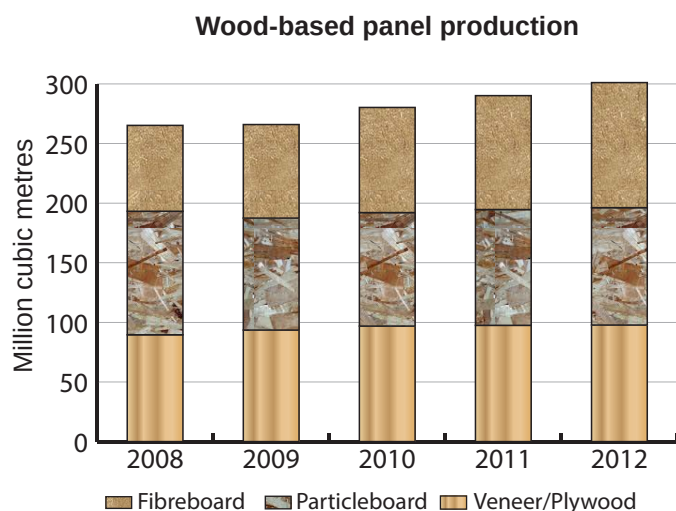


The five largest exporters (China, Germany, Malaysia, Canada and Indonesia) exported 33 million m³ in 2012 (equal to 44% of global exports). In the four of five largest exporters (except China), exports declined in 2009 and have yet to recover. In contrast, exports from China have increased over the period.



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 Japan, where consumption fell from 9 million m³ in 2008 to 8 million m³ in 2009, but has since recovered to reach 9 million m³ in 2012.

United States of America was the top importer in 2012 (with imports equal to 21% of consumption), followed by Germany, Japan, Canada and United Kingdom. Together, these five countries imported 23 million m³ (or 32% of all global imports) in 2012. Imports declined in all of these countries in 2009, but have recovered since then. The recovery in imports has been weakest in United States of America, United Kingdom and Japan. Imports have recovered quite well in Germany, Japan and Canada from 2009 to 2012.

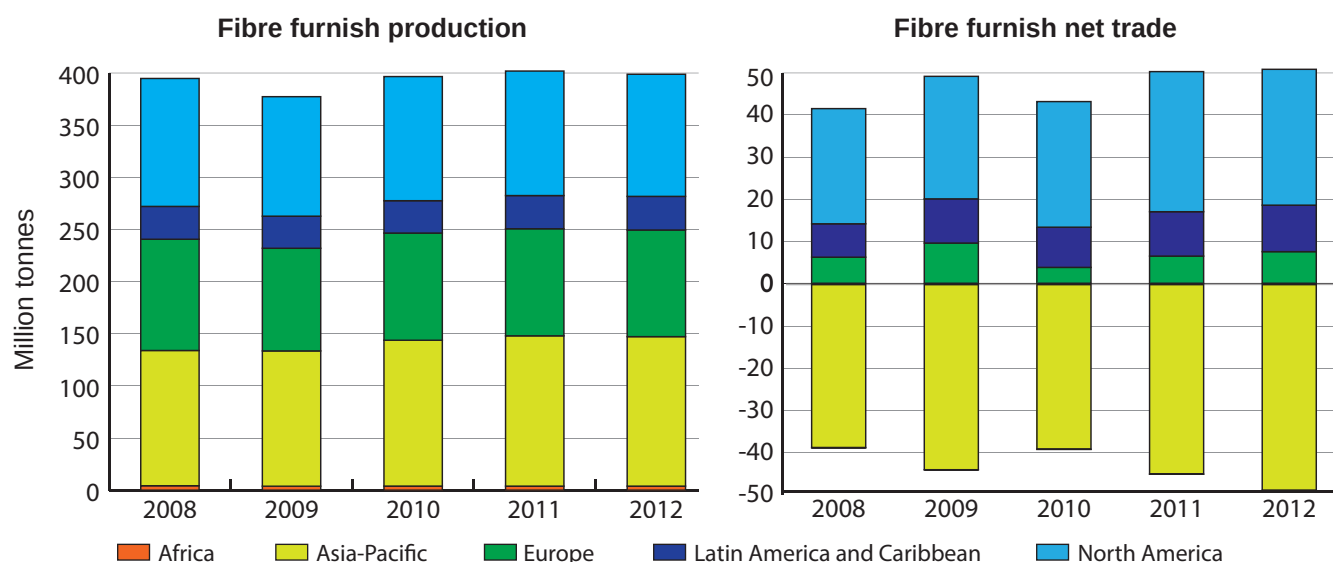


The two figures above show recent trends in production within the wood-based panel product category. Fibreboard emerged as the dominant wood-based panel type in 2012, with production of 105 million m³ (representing 35% of all wood-based panel production). Growth in production of fibreboard was 10% in 2011-12 and 46% over the period 2008-12. Production of all types of fibreboard has increased over the period 2008-12, 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.

Particleboard production increased slightly in 2011-12 (by 1%), but has not recovered from the fall in production from 2008-09 and, at 98 million m³ in 2012, is still 5% lower than in 2008. In contrast, veneer and plywood production has shown a sustained (if modest) recovery to reach a level of 98 million m³ in 2012.

Fibre furnish

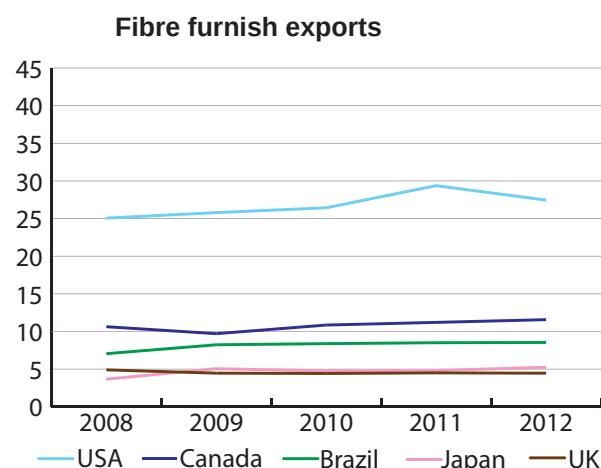
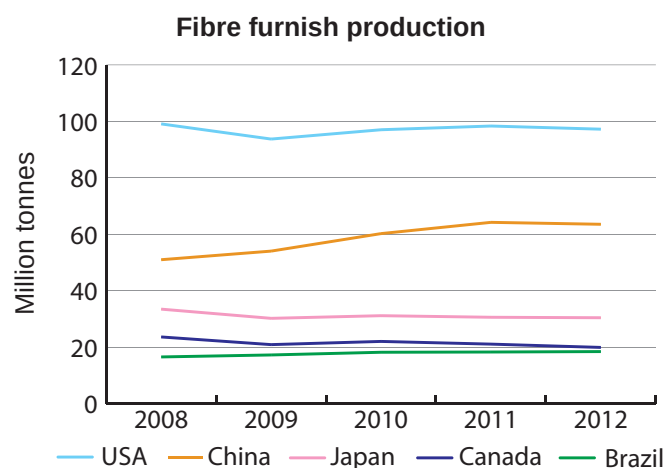
In FAO's forest product statistics, the fibre used to manufacture paper and paperboard is referred to as "fibre furnish". This includes recovered paper (wastepaper), other fibre pulp and the woodpulp used to make paper. The latter includes mechanical, chemical and semi-chemical woodpulp, but does not 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.



Global production of fibre furnish in 2012 amounted to 399 million metric tonnes (tonnes). This was a very small (1%) decrease on the previous year. As the figure above shows, at the global level, the trend in production of fibre furnish is similar to the trends for other forest products, with a fall in 2009 and recovery thereafter. However, the decline (to 377 million tonnes in 2009) occurred in only that year and the other years over the period 2008-12 show a quite stable production level at about 400 million tonnes.

The regional distribution of production in 2012 was as follows: Asia-Pacific - 143 million tonnes (36%); North America - 117 million tonnes (29%); Europe - 102 million tonnes (26%); Latin America and Caribbean - 32 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 2012 about 10% higher than the figure of 130 million tonnes in 2008). Production in Latin America and Caribbean has also grown consistently over the period, although at a much lower level. In contrast, production has declined by 5% in both Europe and North America (from production levels in 2008 of 107 million tonnes and 123 million tonnes respectively).

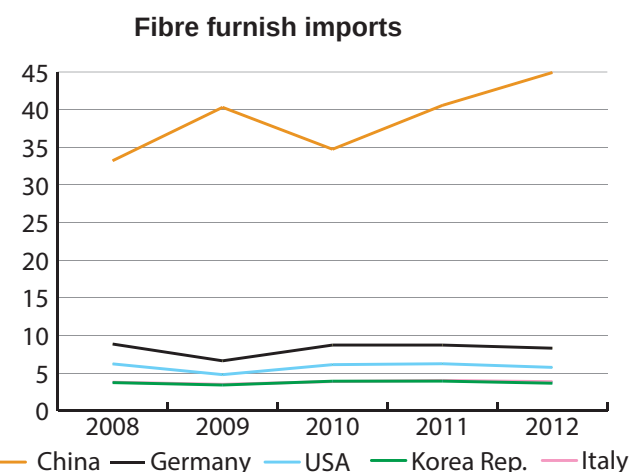
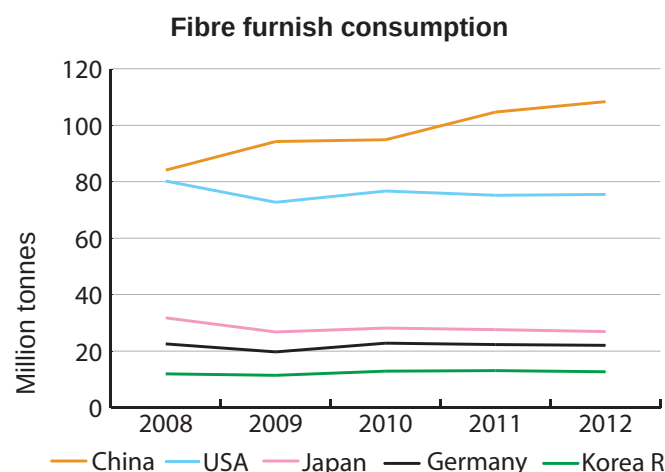
About one-quarter of fibre furnish production was traded in international markets in 2012 and this trade has increased consistently over the period (from 98 million tonnes in 2008 to 109 million tonnes in 2012 - equal to an increase of 11% in total). Net trade also increased over the period 2008-12. The Asia-Pacific region is the only net importing region and net imports of fibre furnish have increased over the period by 27%, from 39 million tonnes in 2008 to 49 million tonnes in 2012. Net imports have also increased at about the same rate as consumption in the Asia-Pacific region and accounted for 25% of consumption in 2012. The main net exporter is North America, with net exports of 32 million tonnes in 2012, followed by Latin America and Caribbean (11 million tonnes) and Europe (8 million tonnes). Net exports have increased over the period in all three regions, but not by much in Europe.



The main producers of fibre furnish are United States of America, China, Japan, Canada and Brazil. Together, these countries produced 229 million tonnes of fibre furnish in 2012 (58% of the global total). As the figure above shows, production has declined over the period 2008-12 in United States of America, Japan and Canada (by 2%, 9% and 16% respectively). 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. In contrast, production in China increased by 25% over the period, from 51 million tonnes to 64 million tonnes. This is partly due to increased use of packaging paper in the rapidly growing manufacturing industries there. Fibre furnish production (and exports) also increased in Brazil, where fast-growing planted forests give the country a competitive advantage in the manufacturing of woodpulp.

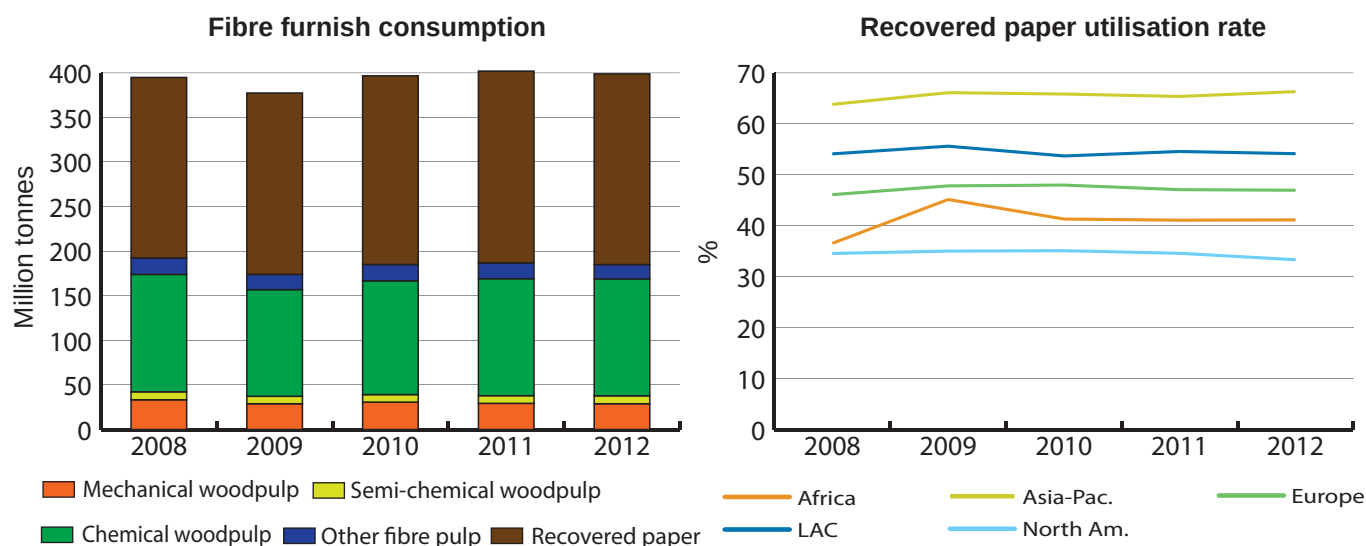
Four of the main producers of fibre furnish are also the main exporters (United States of America, Japan, Canada and Brazil) and the fifth largest exporter is United Kingdom. These five countries exported 57 million tonnes of fibre furnish in 2012 (52% of the global total). Exports increased over the period 2008-12 in Japan (by 43%), Brazil (by 21%), United States of America and Canada (by 10% in both countries). Only United Kingdom saw a decline by 9%.

As already noted for Brazil, these trends are partly driven by 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, Japan and United Kingdom.



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 2012 (62% of the global total). The consumption trends in these five countries show a slight decline in consumption in Germany (2% over the period 2008-12), United States of America (6%) and a larger decline in Japan (15%). Consumption has increased a little in Korean Republic (6%) and a lot in China (29%), making China the World's largest consumer of fibre furnish.

Four of the largest consumers of fibre furnish are also the largest importers (China, Germany, United States of America and Republic of Korea) and the other main importer is Italy. Together, imports into these five countries amounted to 67 million tonnes in 2012 (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 40% of consumption in China and Germany and 30% in Republic of Korea. However, imports have only grown significantly in China, with an increase of 35% over the period 2008-12.



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 54% and 33% (respectively) of all fibre furnish consumption in 2012. Mechanical woodpulp is the next most important (7%), followed by other fibre pulp (4%) 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 2008, recovered paper consumption amounted to 202 million tonnes (51% of the total) compared with the figure of 214 million tonnes (54% of the total) in 2012. In contrast, consumption of all four of the other components of fibre furnish declined (both in absolute and percentage terms) over the same period.

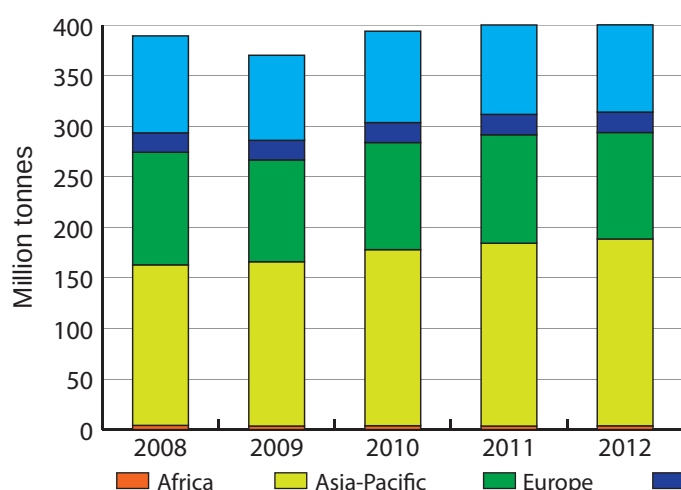
The second figure above shows the share of recovered paper consumption in total fibre furnish consumption (the utilisation rate) in each of the main regions. In all regions, recovered paper utilisation increased over the period 2008-12.

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 North 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.

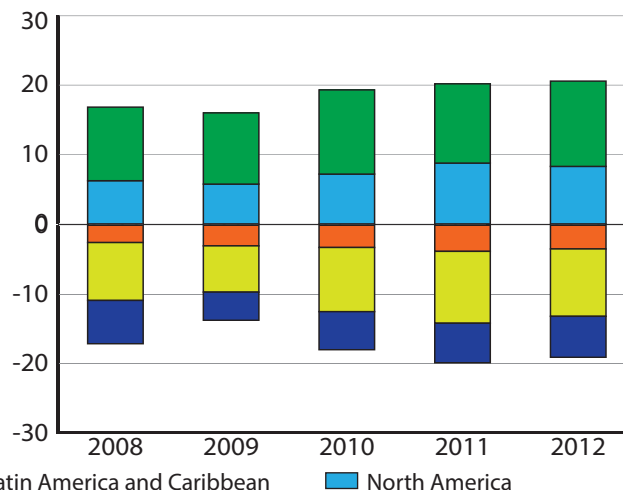
Paper and paperboard

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

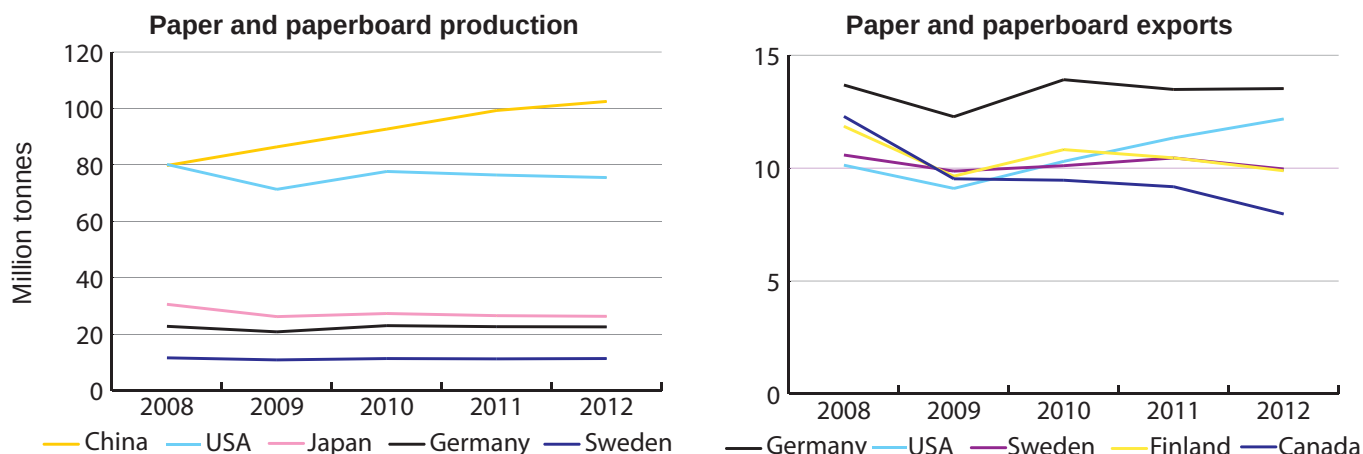


Paper and paperboard production has increased gradually over the period 2008-12 (with the exception of a sudden decrease in 2009), from 390 million tonnes in 2008 to 400 million tonnes in 2012. Production in 2012 remained unchanged as compared to the previous year.

Almost all of this growth is due to increased production in the Asia-Pacific region (an increase of 16% from 2008 to 2012). Production in North America and Europe declined over the period (by 10% and 5% respectively), while production in Africa and Latin America and Caribbean remained roughly the same. In 2012, the regional distribution of production was as follows: Asia-Pacific – 185 million tonnes (46%); Europe - 105 million tonnes (26%); North America - 86 million tonnes (22%); Latin America and Caribbean - 20 million tonnes (5%); and Africa - 3 million tonnes (1%).

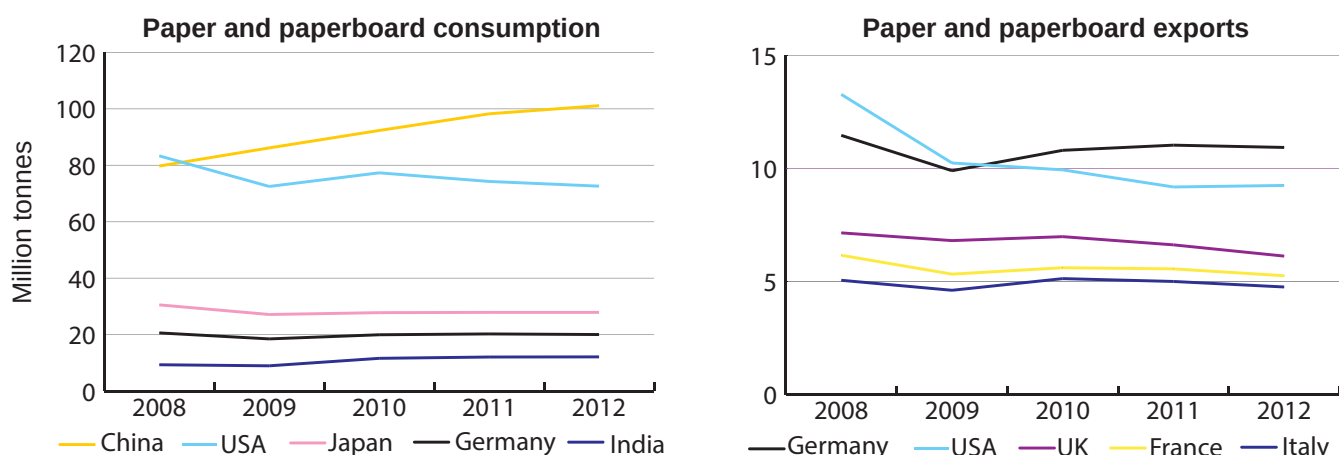
With respect to international trade, about one-quarter of production is exported (roughly the same as the proportion of fibre furnish that is exported), but exports declined slightly over the period from 114 million tonnes in 2008 to 106 million tonnes in 2012. Thus, the current changes in global demand (e.g. high demand growth in Asia-Pacific and declining demand in Europe and North 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 2008-12. Europe and North America are net exporting regions, with net exports of 12 million tonnes and 8 million tonnes respectively in 2012. Asia-Pacific, Latin America and Caribbean and Africa are all net importers, with net imports of 10 million tonnes, 6 million tonnes and 3 million tonnes in 2012. Net trade in all five regions increased at roughly the same rate over the period 2008-12.



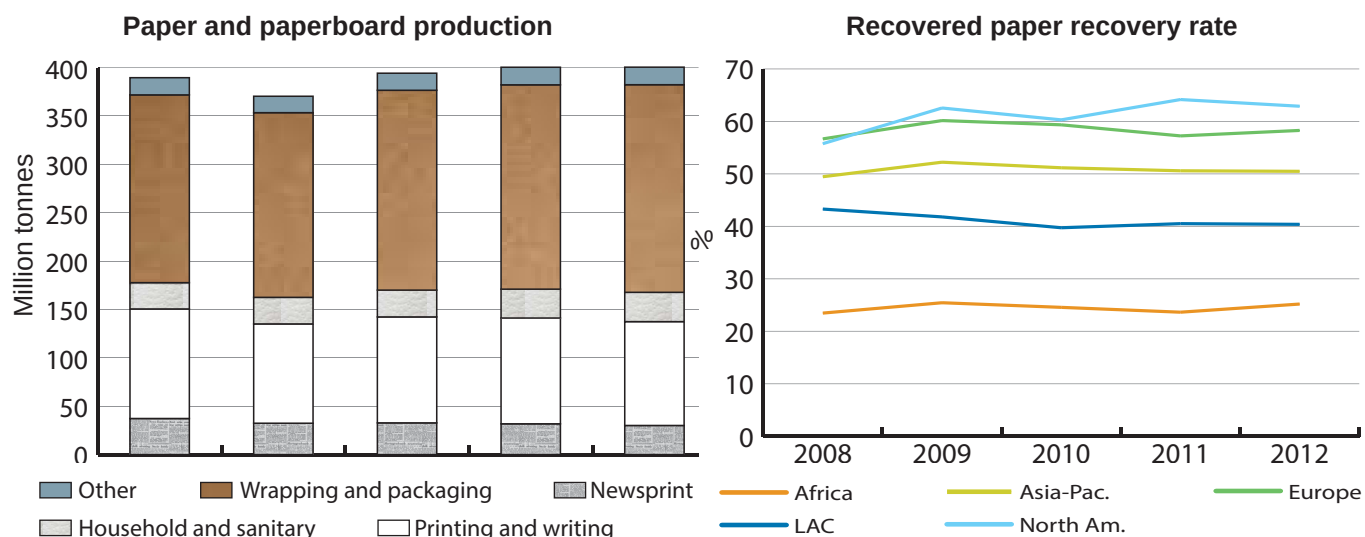
The two largest paper and paperboard producers in 2012 were China (103 million tonnes) and United States of America (76 million tonnes) and, together, their production accounted for 44% of global production. The other three largest producers were Japan (26 million tonnes), Germany (23 million tonnes) and Sweden (11 million tonnes), which accounted for another 15% of global production. Again, China was the only major producer where production increased over the period 2008-12 (by 28%). Production in Germany and Sweden was about the same in 2008 and 2012 and decreased in the other two countries (a fall of 6% in United States of America and 14% in Japan).

Exports from the five largest paper and paperboard exporters are roughly the same (between 8 million tonnes and 14 million tonnes). These five countries - United States of America, Germany, Finland, Sweden and Canada - exported 54 million tonnes in 2012 (50% of global exports). The figure also shows that exports are very 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 20% over the period 2008-12), while they declined in the four other countries, particularly in Canada and Finland (35% and 17% respectively over the period 2008-12).



Trends in paper and paperboard consumption are similar to the trends in production, except that India (rather than Sweden) is the fifth largest consumer in the World. Consumption in China increased significantly over the period 2008-12 (by 27%, from 80 million tonnes in 2008 to 101 million tonnes in 2012) and consumption in India grew by 29% over the same period. Consumption declined slightly in Germany, but fell by 13% in United States of America (from 83 million tonnes to 73 million tonnes) and by 9% in Japan (from 31 million tonnes to 28 million tonnes). Total consumption in the five largest consumers amounted to 234 million tonnes in 2012, or 59% of global consumption.

The decline in international trade mentioned previously is shown very clearly in the import statistics for the five largest importers of paper and paperboard. In 2008, the five largest importers - Germany, United States of America, United Kingdom, France and Italy - imported 43 million tonnes, but by 2012 this figure had fallen by 16% to 36 million tonnes. The decline in imports appeared in all of the five countries, but was most significant in United States of America where imports fell by 30%, from 13 million tonnes to 9 million tonnes 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 2012.



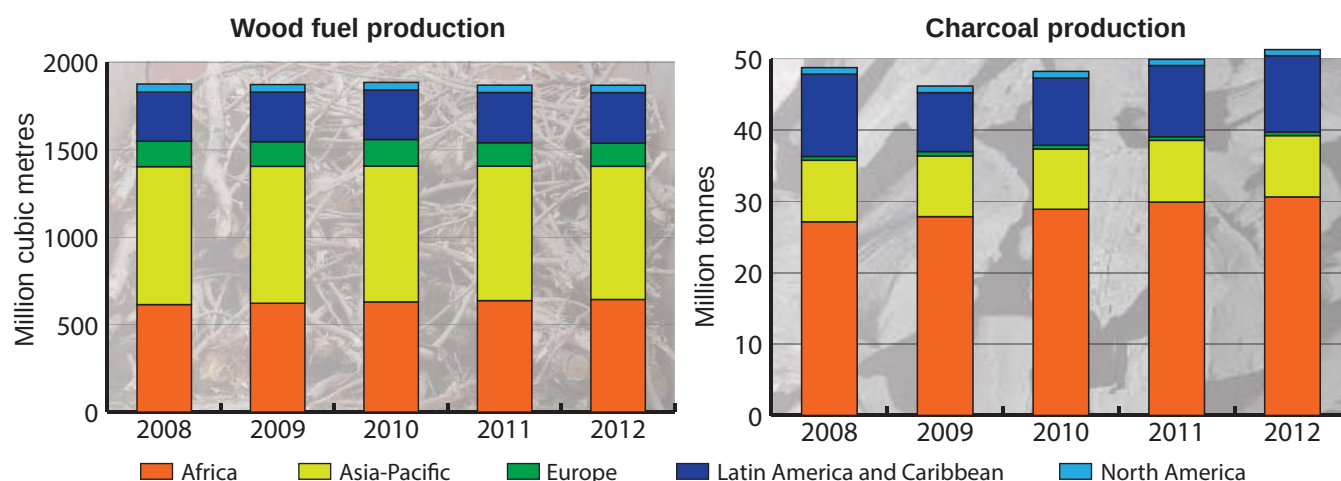
The figure on the left above shows the distribution of paper and paperboard production amongst the five different product types that are included in this group. As the figure shows, wrapping and packaging paper accounted for over half of all production in 2012 (215 million tonnes, or 54% of the total). Printing and writing paper was the next largest (107 million tonnes or 27% of the total), followed by newsprint and household and sanitary paper (8% each) and other paper. The two main trends in the different products is the gradual decline in newsprint production (a fall of 19%, from 37 million tonnes in 2008 to 30 million tonnes in 2012) and the 11% increase in wrapping and packaging paper over the period (from 194 million tonnes to 215 million tonnes). Household and sanitary paper production also increased over the period (an increase of 11%, from 27 million tonnes to 30 million tonnes). Printing and writing paper has decreased by 5% (from 113 million tonnes to 107 million tonnes), while production of the other paper remained roughly the same over the period from 2008 to 2012.

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 has increased from 52% in 2008 to 54% in 2012. In the three main regions that consume paper and paperboard (and use recovered paper), the recovery rates are high and also increased over the period 2008-12. North America now has the highest recovery rate (63% in 2012), followed by Europe (58%) and the Asia-Pacific region (50%).

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 North America.

Wood fuel

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.



Global woodfuel production amounted to 1,870 million m³ in 2012. This was a very minor decrease (less than 1%) below the figures for 2011 and 2008. 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 North America (by 12%), Asia-Pacific (by 4%) and Europe (by 9%) over the period 2008-12, while it increased in Africa (5%) and Latin America and Caribbean (3%) over the same period.

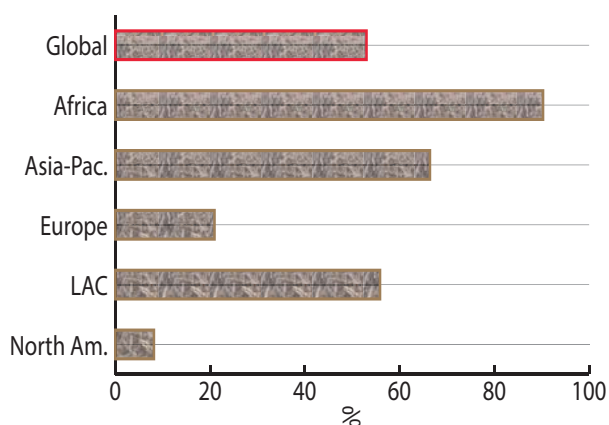
The Asia-Pacific region was the largest woodfuel producer in 2012, accounting for 41% of global production (762 million m³). Africa ranked second, with a 34% share (644 million m³), followed by Latin America and Caribbean (15%), Europe (7%) and North America (2%). If current growth trends continue, Africa 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 2012, with an increase of 5% over the period 2008-12. Thus, at the global level, the overall trend in charcoal production opposite to the trend for wood fuel.

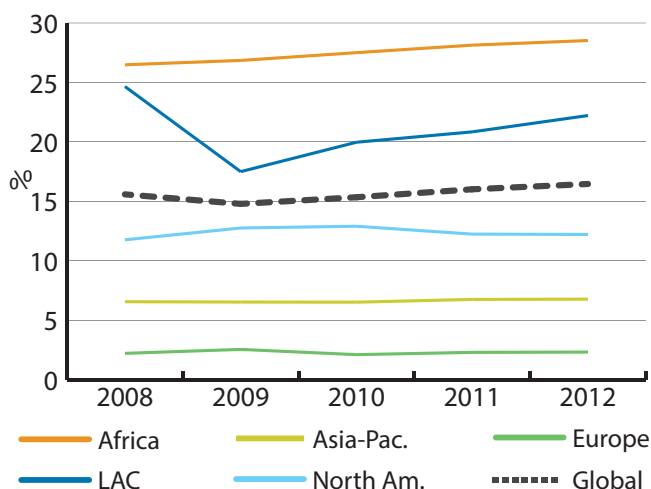
In 2012, Africa accounted for 60% of global charcoal production and Africa is the only region in the World where charcoal production is increasing rapidly both in absolute and relative terms (with an increase in production from 27 million tonnes in 2008 to 31 million tonnes in 2012). After a significant fall in Latin America and Caribbean in 2009, production has rebounded in 2012 it was back to the level of 2008 (11 million tonnes) the same period (a decrease from 13 million tonnes to 10 million tonnes). Charcoal production is relatively small and remained mostly unchanged in the other three global regions.

These differences in trends occur because charcoal users are very different in the two regions. In Africa, charcoal is mainly used in urban settings for cooking, so consumption trends change only gradually. In Latin America and Caribbean, the steel industry is the main charcoal consumer, so trends in production are closely linked to (more volatile) economic trends. This is demonstrated by the sudden large decrease in production in Latin America and Caribbean from 11.5 million tonnes in 2008 to 8.3 million tonnes in 2009, which was so large that it had an impact on the global charcoal production figure that year. However, charcoal production in Latin America and Caribbean might increase strongly when higher global growth returns and demand for steel improves.

Amount of roundwood used as wood fuel in 2012



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 2012. (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 (54%) of all roundwood produced in 2012. This proportion was also the same over the whole period (2008-12).

The importance of trees and forests as a source of fuel is highest in Africa, where wood fuel accounted for 90% of roundwood production in 2012. Wood fuel was also relatively important in the Asia-Pacific region, where it accounted for 67% of production. Woodfuel use in Latin America and Caribbean (at 56% of all roundwood production) was close to the global average, whereas wood fuel in Europe and North America accounted for only 21% and 8% (respectively) of all roundwood production in these two regions. These proportions did not change very much in most of the regions over the period 2008-12.

The proportion of wood used to make charcoal remained the same over the period 2008-12 (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). The two exceptions are Latin America and Caribbean and Africa. In the former, the proportion changed a lot due to changes in steel production (explained previously). In Africa, there was a slight increase from 26% in 2008 to 29% in 2012. This is part of a longer trend observed in Africa, where charcoal consumption has been increasing due to people gradually moving from rural to urban areas. In Latin America and Caribbean, the proportion fell a lot in 2009, but has since recovered slightly (for reasons discussed previously).

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), two statistical capacity building workshops were held:
 - National workshop in China (1-3 April 2013). Workshop proceedings are available at: <http://www.fao.org/forestry/statistics/80566@183509/en/>. An outcome of this workshop was the collection of new and better data on plywood production in China that will be added to the FAOSTAT Forestry database when the results are finalized.
 - Subregional Workshop for countries in Eastern Africa (Ethiopia, 2-4 December). For more information see: <http://www.fao.org/forestry/statistics/80565@189486/en/>. As a result of this workshop, forest product statistics for several countries in this region have been revised and new data has been added to the FAOSTAT Forestry database.
- Russian language was added to the Yearbook 2011; now the publication is available in all six official languages of FAO: Arabic, Chinese, English, French, Russian, and Spanish.
- FAO Forest products statistics website (www.fao.org/forestry/statistics/en) has been regularly updated and fully aligned in seven languages: Arabic, Chinese, English, Italian, French, Russian, and Spanish.
- FAO, in collaboration with ITTO, UN-ECE and Eurostat, provided additional justifications on 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 system and a few other minor improvements. The final structure of HS2017 will be approved in 2014.
- In addition, based on a proposal by UN-ECE in 2008, a specific code for wood pellets has been added to the HS and, from 2012, wood pellets can be clearly and precisely recorded in international trade statistics (HS2012). This change is very important considering the huge growth in wood pellet trade in recent years. FAO (with partner agencies) has started collecting global statistics on production and trade of wood pellets and has just produced the global estimate for the first time. This shows that global production and trade of wood pellets were **19 million tonnes and 9 million tonnes respectively in 2012. Further details of production and trade at the country level can be found in the FAOSTAT Forestry database.**

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