

The EU in the world - agriculture, forestry and fisheries

Statistics Explained

Data extracted in January and February 2020.

Planned article update: February 2023.

" Among G20 members, India had the largest production of milk in absolute terms in 2018, while Australia had the largest production relative to population size. "

" Australia had the largest production of meat relative to population size in 2018 among G20 members. "

" Between 1990 and 2015, among G20 members the share of land covered by forests decreased most strongly in Indonesia. "

This article is part of a [set of statistical articles](#) based on Eurostat's publication *The EU in the world 2020*. It focuses on statistics related to agriculture, forestry and fishing in the [European Union \(EU\)](#) and the 16 non-EU members of the [Group of Twenty \(G20\)](#) and gives an insight into the EU's agriculture, forestry and fisheries activities in comparison with (most of) the major economies in the rest of the world, such as its counterparts in the so-called [Triad](#) — Japan and the United States — and the [BRICS](#) composed of Brazil, Russia, India, China and South Africa.

Structure

The agricultural area of the EU-27 was slightly larger than its forest area

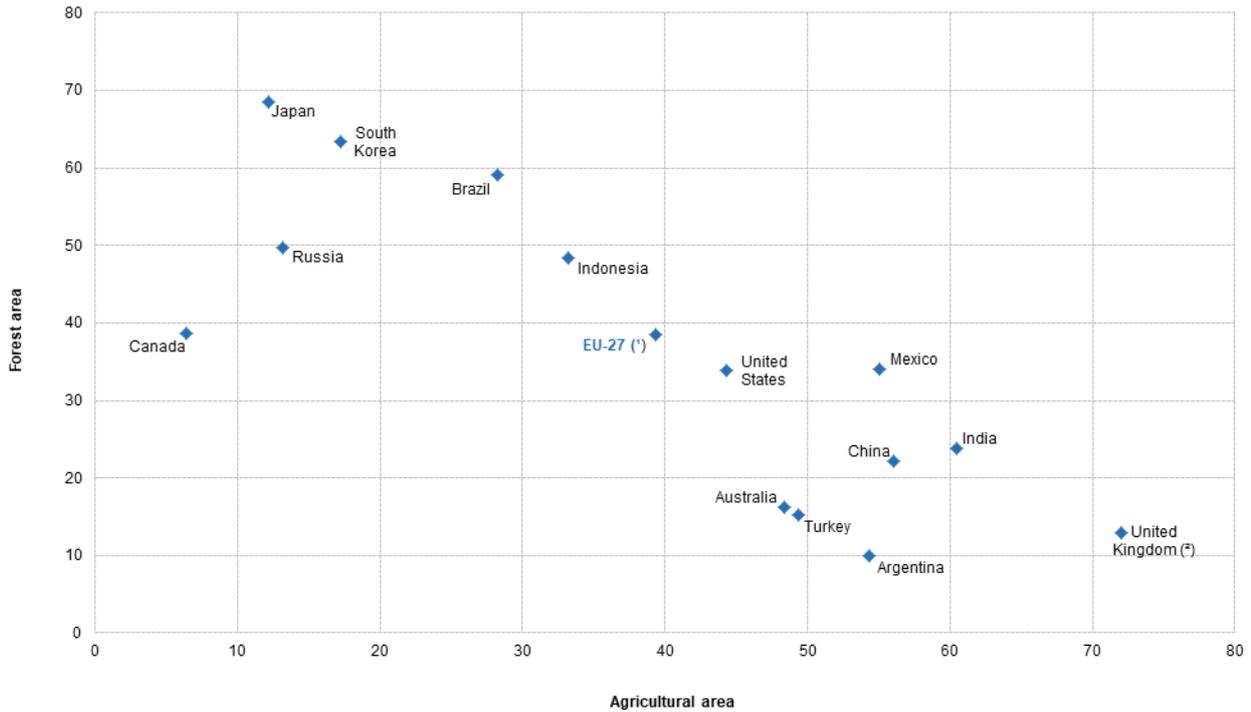
The total agricultural area of the [EU-27](#) was 161.4 million hectares (100 hectares is one km²) in 2016, some 39.3 % of its land area (see Figure 1). Forest cover within the EU-27 extended to 157.8 million hectares in 2015, around 38.4 % of its land area. Among the G20 members, the most extensive total agricultural areas in 2017 were recorded for China (529 million hectares; 56.1 % of the land area) and the United States (406 million hectares; 72.0 %) while the most extensive forest areas were in Russia (815 million hectares; 49.8 %) and Brazil (494 million hectares; 59.0 %).

Among the G20 members, the ratio of the total agricultural area to the land area in 2017 was 72.0 % in the United Kingdom, 60.4 % in India and between 54 % and 56 % in China, Mexico and Argentina. The share of agricultural land within the total land area was below 50.0 % among the other G20 members, below one fifth in South Korea, Russia and Japan, and below one tenth in Canada.

In 2017, more than half of the land area in Japan, South Korea and Brazil was forested, while the shares in Russia and Indonesia were just below half. Among the other G20 members, Australia, Turkey and the United Kingdom recorded shares that were within the range of 10-20 %, while the lowest share of land that was covered by forests was in Argentina (9.9 %).

Comparing these two ratios it can be seen that the agricultural share (2016 data) of the EU-27's land area was just 0.9 [percentage points](#) larger than its forest share (2015 data). The other G20 members reported much less balanced positions between these two ratios. A small majority recorded larger agricultural than forest areas, with the largest difference observed in the United Kingdom where the agricultural area in 2017 was 59.0 points higher than the forest area in 2015. Six of the G20 members — Indonesia, Brazil, Canada, Russia, South Korea and Japan — recorded larger forest than agricultural areas, with the difference in Japan reaching 56.3 points.

Agricultural and forest area, 2017
(% of land area)



Note: Saudi Arabia and South Africa not included due to lack of comparable land use data. Estimates. May include official, semi-official, estimated or calculated data.

(*) Agricultural area: 2016. Forest area: 2015.

(*) Forest area: 2015.

Source: Eurostat (online data code: for_area) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Inputs)



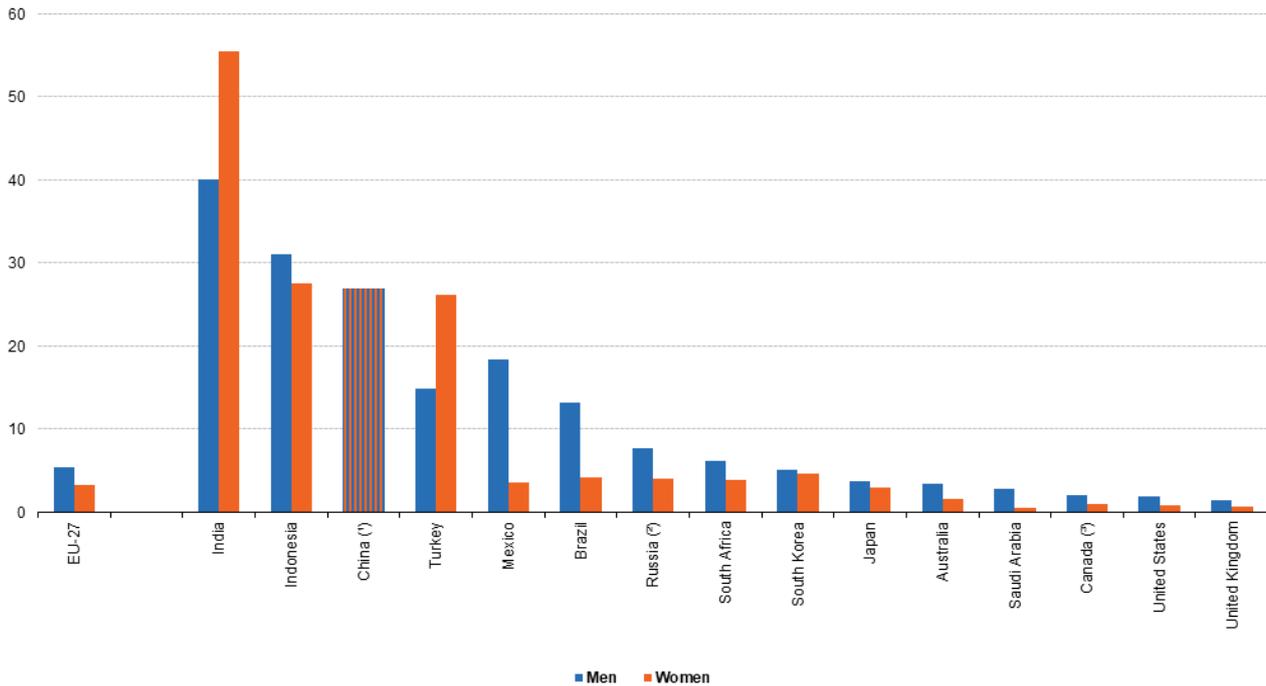
Figure 1: Agricultural and forest area, 2017 (% of land area) Source: Eurostat (for_area) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Inputs)

Less than one tenth of the workforce was active in agriculture, forestry and fisheries in most G20 members in 2018

In most G20 members, agriculture, forestry and fishing accounted for less than one tenth of total employment in 2018, according to data from the [United Nations' International Labour Organisation \(ILO\)](#). Nevertheless, this share exceeded one quarter in China (27.0 %) and Indonesia (29.6 %) and exceeded two fifths in India (43.3 %). The employment share of agriculture, forestry and fisheries in the EU-27 was 4.5 %.

In nearly all G20 members — India and Turkey were the only exceptions — the employment share of agriculture, forestry and fisheries in 2018 was higher for men than for women (see Figure 2). This was most notably the case in Mexico where there was a difference of 14.8 points between the two shares and in Brazil where the difference was 9.0 points. In the EU-27, 5.5 % of men in employment worked in these activities compared with 3.3 % of women, a difference of 2.2 points. In Turkey and India the proportions of women working in agriculture, forestry and fisheries were 11.2 points and 15.5 points higher than for men. In India, more than half (55.5 %) of all women worked in these activities, by far the highest share among the G20 members.

Employment in agriculture, forestry and fisheries, 2018
(% of total employment)



Note: ranked on the overall share for both sexes combined. More recent data are available for some countries from the ILO. Argentina, not available.

(*) Analysis by sex: not available.

(†) Statistics of the Russian Federation include statistical data for the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine, temporarily occupied by the Russian Federation. The EU does not recognise the illegal annexation of Crimea and Sevastopol to the Russian Federation.

(‡) Excluding forestry and fishing.

Source: Eurostat (online data code: Ifsa_egan2) and the International Labour Organisation (ILOSTAT)

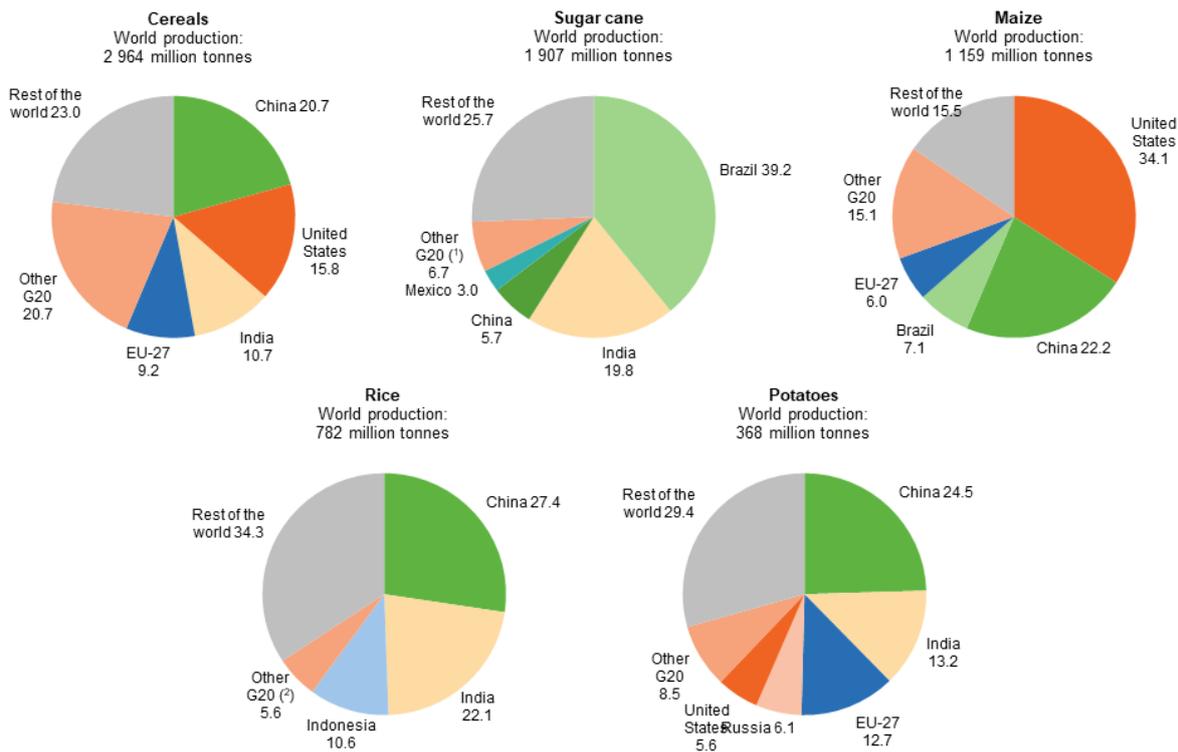
Figure 2: Employment in agriculture, forestry and fisheries, 2018 (% of total employment) Source: Eurostat (Ifsa_egan2) and the International Labour Organisation (ILOSTAT)

Agricultural products

The production of a range of different crops across the G20 members is presented in Figure 3. Crop production refers to the harvested quantity of production. China was the largest producer of cereals among the G20 members in 2018, followed by the United States, India and the EU-27; together the G20 members accounted for 77.0 % of world production. The United States had the highest maize production, followed by China and the combined production of G20 members was 84.5 % of the world total. Rice production in G20 members was dominated by China, India and Indonesia, together producing 91.4 % of the G20 total; in tune, the G20 members together produced 65.7 % of the world's rice. China, India and the EU-27 were the largest producers of potatoes; together the G20 members accounted for 70.6 % of the world's potato harvest. Sugar cane production was particularly high in Brazil (747 million tonnes), nearly two fifths of world production.

World production of selected crops, 2018

(%)



Note: may include official, semi-official, estimated or calculated data.

(*) Excluding Canada, Russia, Saudi Arabia, South Korea, Turkey and the United Kingdom.

(**) Excluding Canada.

Source: Eurostat (online data code: apro_cpnh1) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production)

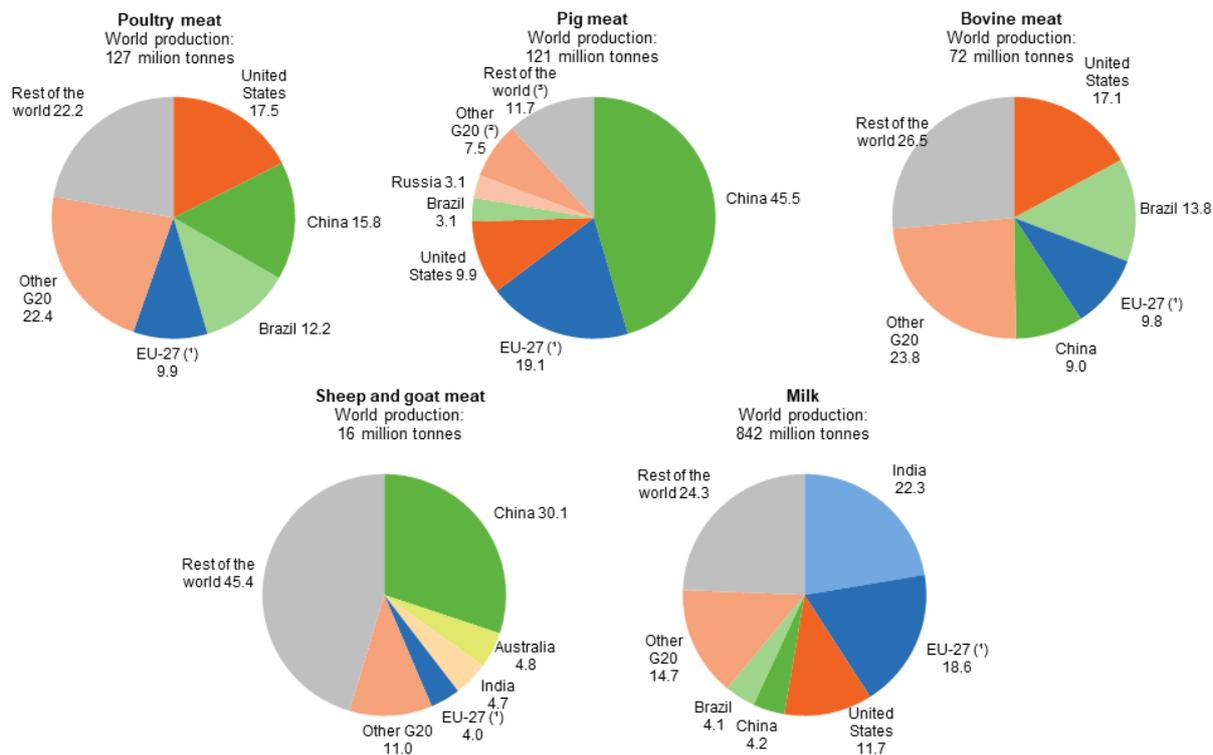
Figure 3: World production of selected crops, 2018 (%) Source: Eurostat (apro_cpnh1) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production)

The share of world production for a selection of meat products and for milk is presented in Figure 4. Meat production covers the carcass weight of slaughtered animals whose meat is declared fit for human consumption. The G20 members produced nearly four fifths (79.1 %) of the 342 million tonnes of meat produced worldwide in 2018, with China, the EU-27, the United States and Brazil collectively producing 60.8 % of the world total. The G20 members were particularly specialised in the production of pig meat, accounting for 88.3 % of the world total, while the lowest share for G20 members for the types of meat shown in Figure 4 was 54.6 % for sheep and goat meat.

China alone contributed 25.7 % of world meat production in 2018, considerably more than the next largest shares among G20 members, 13.7 % for the United States, 12.8 % for the EU-27 and 8.6 % for Brazil: none of the other G20 members produced more than 3.5 % of the world's meat.

World production of meat and milk, 2018

(%)



Note: may include official, semi-official, estimated or calculated data.

(*) Estimates based on FAO data.

(*) Excluding Saudi Arabia and Turkey.

(*) Including Saudi Arabia and Turkey.

Source: Eurostat (online data code: apro_mk_farm) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production)

eurostat 

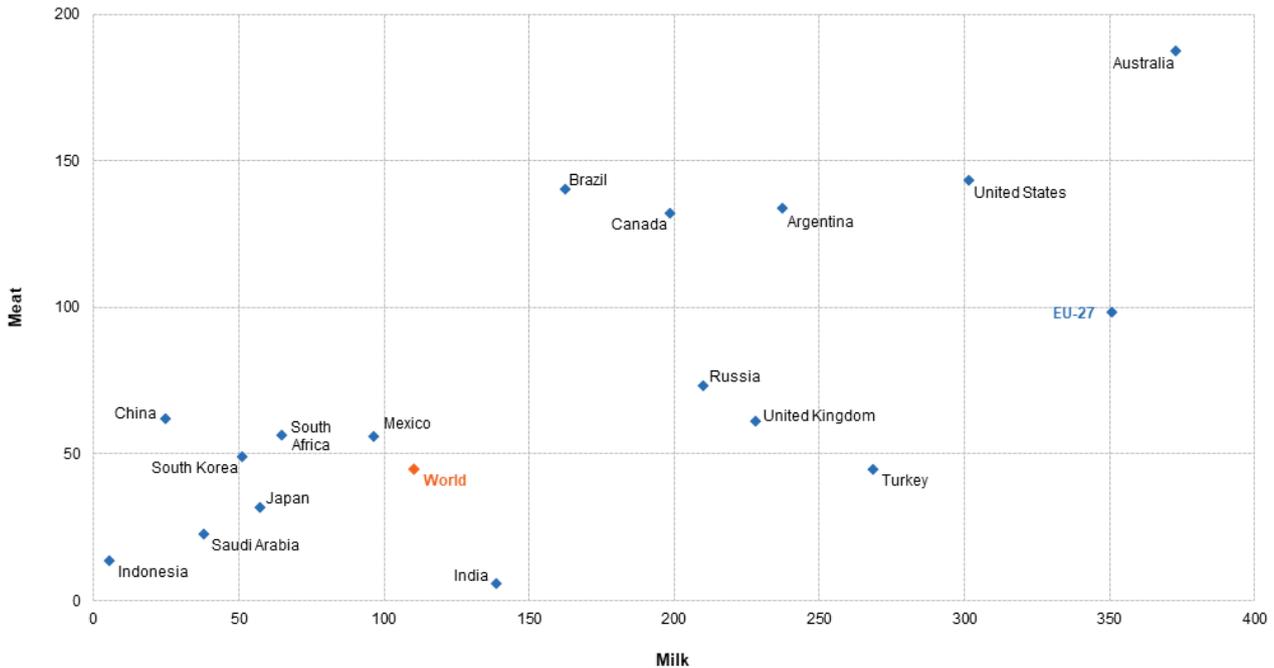
Figure 4: World production of meat and milk, 2018 (%) Source: Eurostat (apro_mk_farm) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production)

More than half of the total meat production of the four selected meat products shown in Figure 4 in Argentina was cattle meat, while a similar level of specialisation was recorded in China, South Korea and the EU-27 for pig meat, and in Saudi Arabia, Indonesia, Turkey, Japan, South Africa and Brazil for poultry meat. In several countries, the relatively low levels of meat production in general and of some types of meat in particular reflect, at least to some degree, predominant religious beliefs.

Among G20 members, Australia had the largest production in 2018 of both milk and meat relative to population size

Figure 5 presents information on the levels of meat and milk production relative to population size. Worldwide 2.5 times as much milk was produced as meat in 2018, averaging 110 kg of milk per inhabitant and 45 kg of meat. Average production per inhabitant in the EU-27 was higher, more than double the world average for meat (98 kg) and more than treble the world average for milk (351 kg). In most G20 members, meat production per inhabitant exceeded the world average, the exceptions being India, Indonesia, Saudi Arabia, Japan and Turkey, with the last of these only marginally below the world average. Averages above 100 kg per inhabitant were recorded in Canada, Argentina, Brazil and the United States, while the highest level of meat production per inhabitant was in Australia, at 187 kg per inhabitant. Australia produced 373 kg of milk per inhabitant in 2018 which was the highest level among G20 members, ahead of the EU-27's production of 351 kg per inhabitant and the United States' 302 kg per inhabitant. At the other end of the range, less than 50 kg of milk per inhabitant was produced in Saudi Arabia and China, while the lowest milk production of all G20 members was 5.6 kg per inhabitant in Indonesia.

Meat and milk production, 2018
(kg per inhabitant)



Note: ranked on the production of meat. May include official, semi-official, unofficial, estimated or calculated data.

(*) Estimates based on FAO data.

Source: the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)



Figure 5: Meat and milk production, 2018 (kg per inhabitant) Source: the Food and Agriculture Organisation of the United Nations (FAOSTAT: Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)

Forestry

Forests occur under a huge variety of climatic, geographic, ecological and socio-economic conditions and are an essential part of the natural environment. They have an impact on water resources, act as a stabiliser for the Earth's climate, provide shelter to animal and plant life, provide food, medicinal and cosmetic resources, genetic breeding stock, seeds for cultivation, wood and similar materials to be used for manufacturing, construction and as a fuel. Forestry also provides employment in many rural areas and diverse opportunities for outdoor recreation attracting tourists.

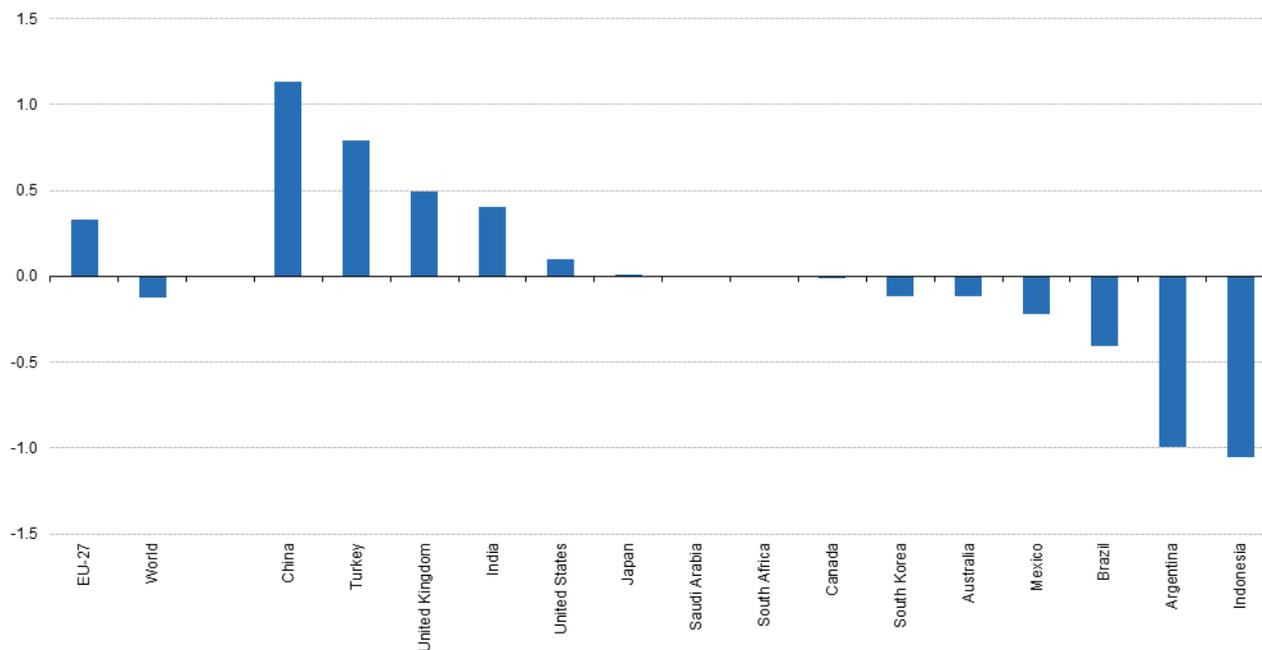
Among G20 members, between 1990 and 2015 the forest area decreased most strongly in Indonesia

Forest cover within the EU-27 extended to 158 million hectares in 2015, around 38.4 % of its total land area (see Figure 1). Between 1990 and 2015, the area increased by 12.6 million hectares, an overall increase of 8.7 %, equivalent to an average of 0.3 % per year.

In absolute terms, the world's forest area declined by 129.1 million hectares between 1990 and 2015. Among the G20 members, the largest decreases were observed in Brazil (down 53.2 million hectares) and Indonesia (down 27.5 million hectares). The largest increase was in China, where the forest area was 51.2 million hectares larger in 2015 than in 1990.

Between 1990 and 2015, the area covered by forests increased on average by 1.1 % per year in China, 0.8 % per year in Turkey, 0.5 % per year in the United Kingdom and 0.4 % per year in India — see Figure 6. The world's forest area declined on average by 0.1 % per year between 1990 and 2015. The largest declines in relative terms were in Argentina (down 1.0 % per year) and Indonesia (down 1.1 % per year).

Annual average change in forest area, 1990-2015
(%)



Note: Russia, not available. May include official, semi-official, unofficial, estimated or calculated data.
Source: Eurostat (online data code: for_area) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Inputs)



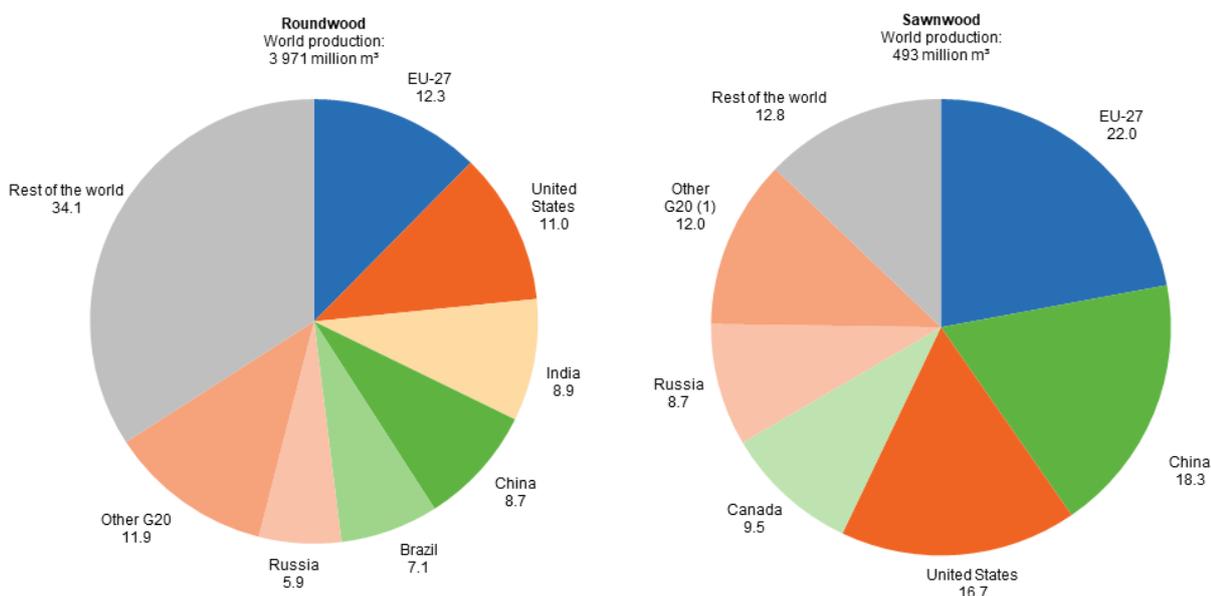
Figure 6: Annual average change in forest area, 1990-2015 (%) Source: Eurostat (for_area) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Inputs)

The EU-27 was the largest producer of roundwood and sawnwood in 2018 among the G20 members

Roundwood production (also known as removals) comprises all quantities of wood removed from forests, other wooded land, or other tree felling sites. Roundwood production in the EU-27 was 490 million m³ (9.9 % of the world total) in 2018, making the EU-27 the largest producer within the G20 with a 12.3 % world share (see Figure 7). The United States had an 11.0 % share of the world total, followed by India, China, Brazil and Russia, all with shares over 5.0 %. In total, G20 members accounted for 65.9 % of roundwood production worldwide in 2018.

Production of roundwood and sawnwood, 2018

(% of world total based on cubic metres)



(*) Excluding Saudi Arabia. May include official, semi-official, unofficial, estimated or calculated data.

Source: Eurostat (online data codes: for_basic and for_swpn) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Forestry)

eurostat

Figure 7: Production of roundwood and sawnwood, 2018 (% of world total based on cubic metres) Source: Eurostat (for_basic) and (for_swpn) and the Food and Agriculture Organisation of the United Nations (FAOSTAT: Forestry)

The EU-27 was also the largest producer of **sawnwood**, with an output of 109 million m³ in 2018, equivalent to 22.0 % of the world total. Sawnwood is produced either by sawing lengthways or by a profile-chipping process and, with a few exceptions, is greater than 6 millimetres (mm) in thickness. Sawnwood production in China and the United States was somewhat less than in the EU-27, contributing 18.3 % and 16.7 % to the world total. Collectively the G20 members (excluding Saudi Arabia) produced 87.2 % of world sawnwood production, a considerably greater share than for roundwood.

Fisheries

Aside from fish farming, fish are not owned until they have been caught, and so fish stocks continue to be regarded as a common resource, requiring collective management. This has led to a range of policies and international agreements that regulate the amount of fishing, as well as the types of fishing techniques and gear used to catch fish.

The fish catch refers to all catches of fishery products (including fish, molluscs, crustaceans and other aquatic animals, residues and aquatic plants) taken by all types and classes of fishing units that are operating in inland, inshore, offshore and high-seas fishing areas: the small quantity of aquatic mammals that are caught have been excluded from the data shown in Figure 8 for reasons of comparability. The catch statistics exclude quantities of fishery products which are caught but which, for a variety of reasons, are not landed.

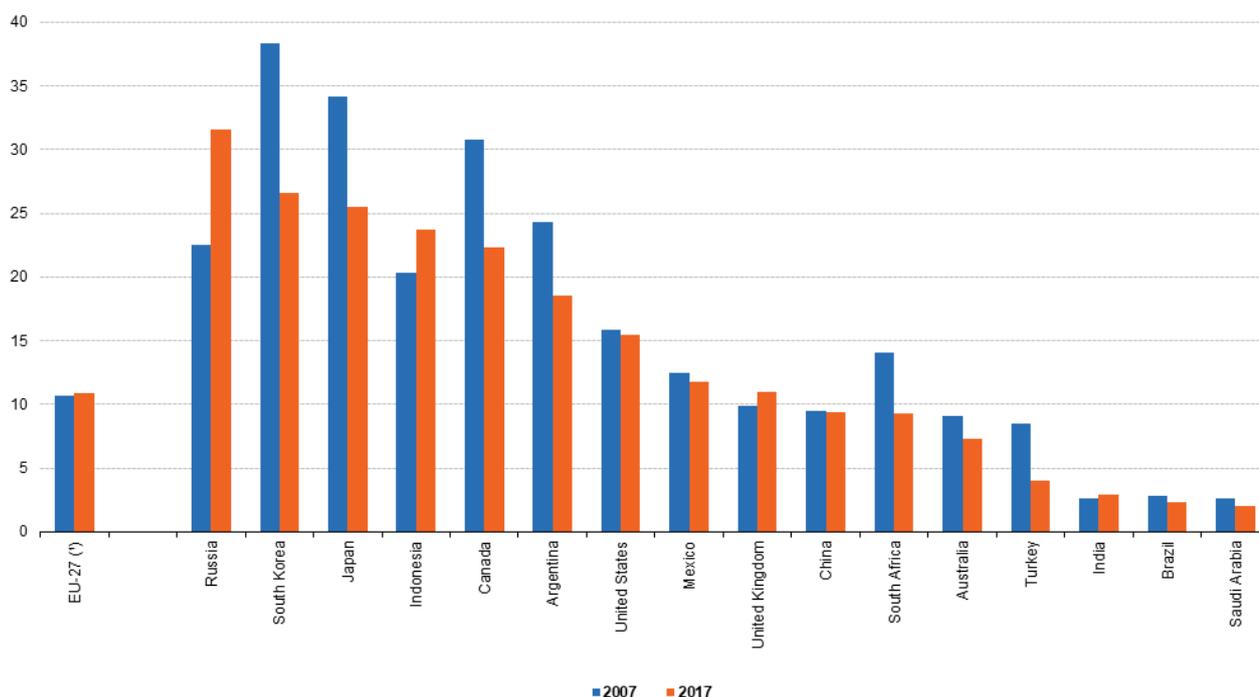
The largest fish catch relative to population size in 2017 among G20 members was reported for Russia, more than three times the level for the EU-27 in 2015

The total fish catch by the EU-27 fishing fleet was 4.8 million tonnes in 2017, 3.7 % less than had been caught in

2007. Relative to population size this was equivalent to 10.9 kg per inhabitant in 2017. The largest fish catch relative to population size among G20 members in 2017 was reported for Russia, 31.6 kg per inhabitant, some 2.9 times the level for the EU-27. Seven G20 members reported lower levels of fish catch per inhabitant than the EU-27: China, South Africa, Australia, Turkey, India, Brazil and Saudi Arabia.

Between 2007 and 2017, the fish catch relative to population size increased in Russia by 9.1 kg per inhabitant, far more than in any other G20 member (see Figure 8). Indonesia (up 3.3 kg per inhabitant), the United Kingdom (up 1.0 kg per inhabitant), India (up 0.3 kg per inhabitant) and the EU-27 (up 0.2 kg per inhabitant) were the only other G20 members to report an increase. South Korea, Japan and Canada had the largest levels of fish catch relative to population size in 2007 and they reported the largest decreases between 2007 and 2017 in their fish catches relative to their population size, each down by between 8.5 kg and 11.8 kg per inhabitant.

Fish catch, 2007 and 2017
(kg per inhabitant)



Note: more recent data are available from Eurobase for the United Kingdom. Catches in marine areas of all aquatic organisms except aquatic mammals.

(*) Estimates based on FAO data.

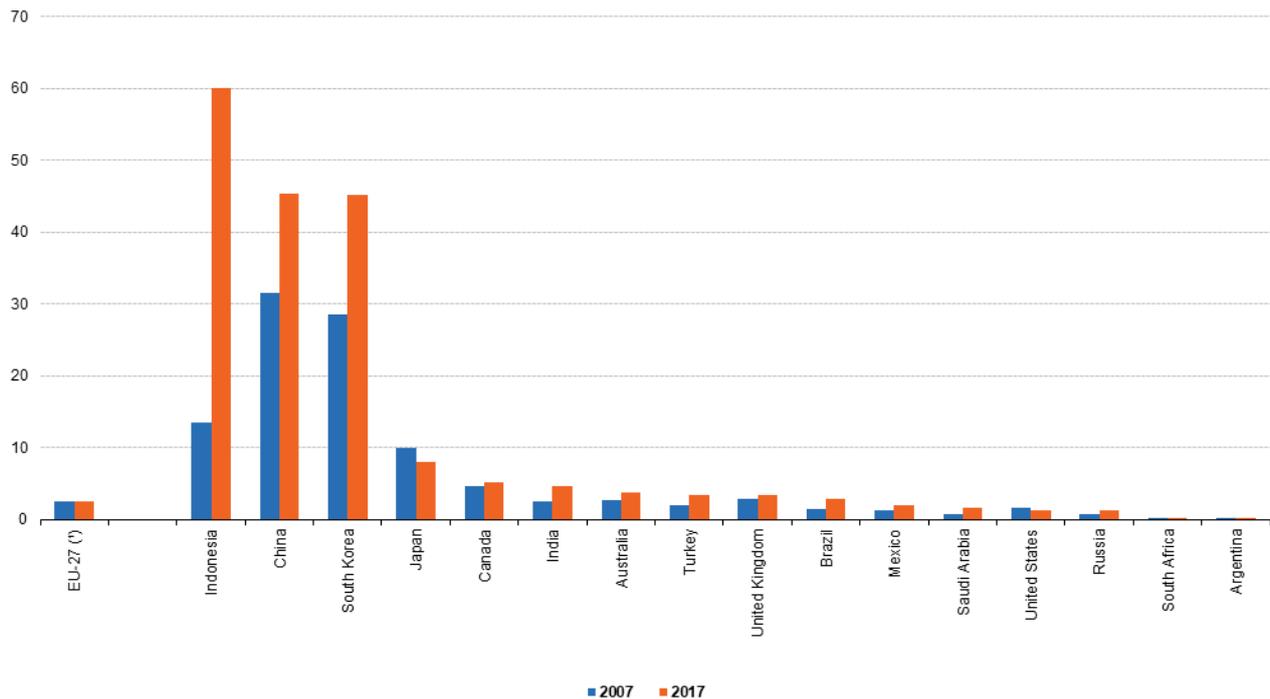
Source: Eurostat (online data code: demo_gind), the Food and Agriculture Organisation of the United Nations (Global Capture Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)

Figure 8: Fish catch, 2007 and 2017 (kg per inhabitant) Source: Eurostat (demo_gind), the Food and Agriculture Organisation of the United Nations (Global Capture Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)

Aquaculture (also known as fish farming) refers to the farming of aquatic (freshwater or saltwater) organisms, such as fish, molluscs, crustaceans and plants for human use or consumption, under controlled conditions. Aquaculture implies some form of intervention in the natural rearing process to enhance production, including regular stocking, feeding and protection from predators.

Aquaculture production in the EU-27 was estimated 2.5 kg per inhabitant (see Figure 9). While this was larger than in six of the other G20 members, it was far behind the levels of production observed in three Asian members in 2017, namely, South Korea (45.1 kg per inhabitant), China (45.3 kg per inhabitant) and Indonesia (60.1 kg per inhabitant).

Aquaculture production, 2007 and 2017
(kg per inhabitant)



Note: production in inland waters and marine areas of all aquatic organisms except aquatic mammals.

(*) Estimates based on FAO data.

Source: Eurostat (online data codes: demo_gind), the Food and Agriculture Organisation of the United Nations (Global Aquaculture Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)

eurostat 

Figure 9: Aquaculture production, 2007 and 2017 (kg per inhabitant) Source: Eurostat (demo_gind), the Food and Agriculture Organisation of the United Nations (Global Aquaculture Production) and the United Nations Department of Economic and Social Affairs, Population Division (World Population Prospects 2019)

Aquaculture production relative to population size fell between 2007 and 2017 in Japan and very slightly in the United States and the EU-27, while there was almost no change in the size of the relatively small levels of aquaculture in South Africa and Argentina. Elsewhere, increases in aquaculture production were greater than population increases, with particularly strong growth in the three Asian members with the highest levels of output per inhabitant, rising by 13.7 kg per inhabitant in China, 16.6 kg per inhabitant in South Korea and 46.6 kg per inhabitant in Indonesia. In relative terms, the highest increase in aquaculture production per inhabitant between 2007 and 2017 was also recorded in Indonesia, where output in 2017 was more than four times as high as it had been in 2007, while in Saudi Arabia production per inhabitant more than doubled.

Relative to population size, the EU-27's combined fish catch and aquaculture production was estimated at 13.4 kg per inhabitant in 2017, a relatively low level compared with most other G20 members. The highest levels of production were witnessed in Indonesia and South Korea, with 83.8 kg per inhabitant and 71.8 kg per inhabitant respectively in 2017.

Source data for tables and graphs

- [Agriculture, forestry and fisheries: tables and figures](#)

Data sources

The statistical data in this article were extracted during January and February 2020.

The indicators are often compiled according to international — sometimes worldwide — standards. Although most data are based on international concepts and definitions there may be certain discrepancies in the methods used to compile the data.

EU data

Some of the indicators presented for the EU and the United Kingdom have been drawn from Eurobase, Eurostat's online database. Eurobase is updated regularly, so there may be differences between data appearing in this article and data that is subsequently downloaded. The remainder of the data for the EU and for the United Kingdom have been extracted from international sources for reasons of comparability or availability.

G20 members from the rest of the world

For the non-EU G20 members other than the United Kingdom, the data presented have been compiled by a number of international organisations, namely the [Food and Agricultural Organisation](#), the International Labour Organisation, the [United Nations Department of Economic and Social Affairs](#), and the [World Bank](#). For some of the indicators shown a range of international statistical sources are available, each with their own policies and practices concerning data management (for example, concerning data validation, correction of errors, estimation of missing data, and frequency of updating). In general, attempts have been made to use only one source for each indicator in order to provide a comparable dataset for G20 members.

Context

The importance of agriculture, forestry and fishing goes far beyond their simple economic function, reflecting the role of these activities within society and the contribution and impact of their resources on the environment. In this respect, some of the most frequently discussed concerns include the protection of the environment, sustainable practices for farming, forestry and fishing, food safety and security, animal welfare and broader perspectives relating to rural development.

Other articles

- [All articles on agriculture, forestry and fisheries](#)
- [All articles on the non-EU countries](#)
- [Other articles from *The EU in the world*](#)

Publications

- [The EU in the world 2020](#)
- [Statistics on European Neighbourhood Policy countries: South — 2020 edition](#)
- [The European Union and the African Union — A statistical portrait — 2019 edition](#) ;
- [Key figures on the enlargement countries — 2019 edition](#)
- [Agriculture, forestry and fishery statistics — 2019 edition](#)
- [Sustainable Development in the European Union — Monitoring report on progress towards the SDGs in an EU context](#)
- [Statistics on European Neighbourhood Policy countries: East — 2018 edition](#)
- [Globalisation patterns in EU trade and investment](#)
- [40 years of EU-ASEAN cooperation — 2017 edition](#)

- [Asia-Europe Meeting \(ASEM\) — A statistical portrait — 2016 edition](#)
- [The European Union and the BRIC countries](#)
- [The European Union and the Republic of Korea — 2012](#)

Database

- [Agriculture \(agr\)](#) , see:

Agricultural production (apro)

Crops (apro_crop)

Crop production (apro_cp)

Crop production in national humidity (from 2000 onwards) (apro_cpnh)

Crop production in national humidity (apro_cpnh1)

Animal production (apro_anip)

Milk and milk products (apro_mk)

Production and utilization of milk on the farm - annual data (apro_mk_farm)

- [Forestry \(for\)](#) , see:

Timber removals, wood products and trade (for_rpt)

Roundwood production and trade (for_rptt)

Roundwood, fuelwood and other basic products (for_basic)

Production and trade in primary products (for_rptp)

Sawnwood and panels (for_swpan)

Forest resources (for_sfm)

Area of wooded land (source: FAO - FE) (for_area)

- [Demography and migration \(demo\)](#) , see:

Population change - Demographic balance and crude rates at national level (demo_gind)]

- [Employment and unemployment \(Labour force survey\) \(employ\)](#) , see:

LFS series - Detailed annual survey results (lfsa)

Employment - LFS series (lfsa_emp)

Employment by sex, age and economic activity (from 2008 onwards, NACE Rev. 2) - 1 000 (lfsa_egan2)

Dedicated section

- [Agriculture](#)
- [Fisheries](#)
- [Forestry](#)

External links

Food and Agriculture Organization of the United Nations

- [FAOSTAT](#)
 - [Global Aquaculture Production](#)
 - [Global Capture Production](#)

International Labour Organization ILO

- [ILOSTAT](#)

The World Bank

- [DataBank](#)