

**Agriculture, forestry
and fisheries**

8





Introduction

Agriculture

Agriculture was one of the first sectors of the economy (following coal and steel) to receive the attention of EU policymakers. Article 39 of the [Treaty of Rome](#) on the EEC (1957) set out the objectives for the first [common agricultural policy \(CAP\)](#); these were focused on increasing agricultural productivity as a way to ensure a fair standard of living for the agricultural community, stabilising markets, and ensuring security of supply at affordable prices for consumers.

As the primary objective of producing more food within Europe was realised, food surpluses accrued, distorting trade and raising environmental concerns. These were the principal drivers for changes in the common agricultural policy, a process that started in the early 1990s and which resulted in a change from support for production towards a market-oriented and a more environment-friendly and sustainable form of agriculture. Further reforms of agricultural policy have taken place in recent years, most notably in 2003 and 2008. The 2003 reform introduced a new system of direct payments, known as the single payment scheme, under which aid is no longer linked to production (decoupling). The single payment scheme aims to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. In 2008 further changes were made, building on the reform package from 2003, such that all aid to the agricultural sector will be decoupled by 2012.

The Europe 2020 strategy offers a new perspective on economic, social, environmental, climate-related and technological challenges and future agricultural reform is likely to be made in relation to the goals of developing intelligent, sustainable and

inclusive growth, while taking account of the wealth and diversity of the agricultural sector within the EU Member States. The European Commission has started a process of reviewing agricultural policy within the context of the Europe 2020 strategy and has already conducted a public debate and released proposals for legislative changes. It is expected that these will be introduced progressively following debate within the European Parliament and that a revised agricultural policy will be in place by 2013.

Forestry

Contrary to what is happening in many other parts of the world, the area covered by forests and other wooded land in the EU-27 is slowly increasing. [Forests](#) occur under a huge variety of climatic, geographic, ecological and socio-economic conditions. Ecologically, the forests of the EU belong to many different biogeographical regions and have adapted to a variety of natural conditions, ranging from bogs to steppes and from lowland to alpine forests. Socioeconomically, they vary from small family holdings to state forests or to large estates owned by companies, many as part of industrial wood supply chains. About 60% of the EU's wooded land is privately owned.

Fisheries

Fish are a natural, biological, mobile (sometimes over wide distances) and renewable resource. Aside from fish farming, fish cannot be owned until they have been caught. For this reason, fish stocks continue to be regarded as a common resource, which therefore need to be managed collectively. 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.



8.1 Agricultural output, price indices and income

This subchapter gives an overview of recent changes in agricultural output, **gross value added** and prices in the **European Union (EU)**, and their effect on **income from agricultural activity**. **Economic accounts for agriculture (EAA)** provide statistics that may be used to analyse agricultural activity and the income it generates.

One of the principal objectives of the **common agricultural policy (CAP)** is to provide farmers with a reasonable standard of living. Although this concept is not defined explicitly within the CAP, a range of indicators including income development from farming activities may be used to determine the progress being made towards this objective.

Main statistical findings

The **EU-27's** agricultural industry generated EUR 138 721 million of gross value added at producer prices in 2010, which represented a 13.9% increase in relation to the previous year (see Table 8.1.1). There were increases in both the value of **crop output** (up 9.7% to EUR 185 186 million in 2010) and **animal output** (up 5.1% to EUR 138 903 million); these were partly compensated for by a modest increase in the value of **intermediate consumption** of goods and services (up 3.2%).

Changes in the value of agricultural output comprise a volume and price component: one important strand of recent changes in agricultural policy has been to move away from price support mechanisms, so that prices more accurately reflect market forces and changes in supply and demand. During the period 2005 to 2010 (see Figure 8.1.2) there were considerable differences between the Member States in the development of **deflated** agricultural output prices: such deflated prices show the extent to which agricultural prices have changed compared with consumer prices. Deflated output prices rose in 17 of the EU Member States, the largest increases being recorded for the United Kingdom (average growth of 5.0% per annum), Sweden (3.3% per annum) and Romania (2.8% per annum), while reductions were posted in ten of the Member States,

the largest declines being in Slovakia (–2.7% per annum), the Czech Republic (–2.4% per annum) and Spain (–1.9% per annum).

The development of deflated agricultural input prices showed a very different picture, as prices rose in 20 of the 27 Member States. The United Kingdom (2.9% per annum) and Portugal (2.6% per annum) reported the highest input price increases. At the other end of the range, the largest decreases were recorded in Slovakia and Lithuania (both –1.4% per annum).

There was an overall 16.9% increase in EU-27 output prices for agricultural goods between 2005 and 2010, which could be broken down for the main components into increases of 22.3% for crop output and 11.4% for animal output. The overall increase in output prices between 2005 and 2010 did not follow a smooth development, as there was a considerable reduction in prices between 2008 and 2009 when the price of agricultural goods fell by 11.1%, which could be largely attributed to falling prices for cereals, milk, fruits and olive oil which all fell by between 14% and 31% (see Table 8.1.2).

The real net value added at factor cost of agricultural activity per unit of labour (expressed in **annual work units**), also known as the agricultural income **indicator A**, increased by 13.0% in the EU-27 from 2009 to 2010. There were stark contrasts among the Member States, with income rising at a rapid pace in Denmark (56.5%), Estonia (46.2%), the Netherlands (38.9%) and France (37.7%), in contrast to falling income in the United Kingdom (–6.4%), Romania (–3.6%), Greece (–3.5%) and Italy (–2.8%) – see Table 8.1.3).

Data sources and availability

Economic accounts for agriculture (EAA) provide an insight into:

- the economic viability of agriculture;
- agriculture's contribution to a Member State's wealth;
- the structure and composition of agricultural production and inputs;



- the remuneration of factors of production;
- relationships between prices and quantities of both inputs and outputs.

These accounts comprise a **production account**, a **generation of income account**, an **entrepreneurial income account** and some elements of a **capital account**. For the production items, Member States transmit to Eurostat values at basic prices, as well as their components (values at **producer prices**, subsidies on products, and taxes on products). The data for the production account and for **gross fixed capital formation** are transmitted in both current prices and the prices of the previous year.

The output of agricultural activity includes output sold (including trade in agricultural goods and services between agricultural units), changes in stocks, output for own final use (own final consumption and own-account gross fixed capital formation), output produced for further processing by agricultural producers, as well as intra-unit consumption of livestock feed products. The output of the agricultural industry is made up of the sum of the output of agricultural products and of the goods and services produced in inseparable non-agricultural secondary activities; animal and crop output are the main product categories of agricultural output.

Gross value added equals the value of output less the value of intermediate consumption and is shown in producer prices (the producer price excludes subsidies less taxes on products). Intermediate consumption represents the value of all goods and services used as inputs in the production process, excluding fixed assets whose consumption is recorded as fixed capital consumption. The Member States transmit information on intermediate consumption to Eurostat using values at purchaser prices (basic prices).

Eurostat also collects annual agricultural prices (in principle net of VAT) to compare agricultural price levels between Member States and study sales channels. Quarterly and annual price indices for agricultural products and the means of agricultural production, on the other hand, are used principally to analyse price developments and their effect on agricultural income. Agricultural price indices are obtained by a base-weighted Laspeyres calculation

(2005 = 100), and are expressed in nominal terms or as deflated indices based on the use of an implicit HICP deflator.

Agricultural income indicators are presented in the form of:

- an index of real income of factors in agricultural activity per **annual work unit** (indicator A);
- the index of real net agricultural entrepreneurial income, per unpaid annual work unit (indicator B);
- net entrepreneurial income of agriculture (indicator C).

Context

Significant reforms of the common agricultural policy (CAP) have taken place in recent years, most notably in 2003 and 2008, with the aim of making the agricultural sector more market-oriented. The 2003 reform introduced a new system of direct payments, known as the single payment scheme, under which aid is no longer linked to production (decoupling); this single payment scheme aims to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. In 2008 further changes were made to the CAP, building on the reform package from 2003, such that all aid to the agricultural sector will be decoupled by 2012.

The Europe 2020 strategy offers a new perspective on economic, social, environmental, climate-related and technological challenges and future agricultural reform is likely to be made in relation to the goals of developing intelligent, sustainable and inclusive growth, while taking account of the wealth and diversity of the agricultural sector within the EU Member States. As part of this process, the **European Commission** launched a public debate on the future of the CAP during 2010. The outcome of the debate, coupled with input from the European Council and Parliament led the Commission to present a Communication (COM(2010) 672 final) in November 2010, titled 'The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future'.



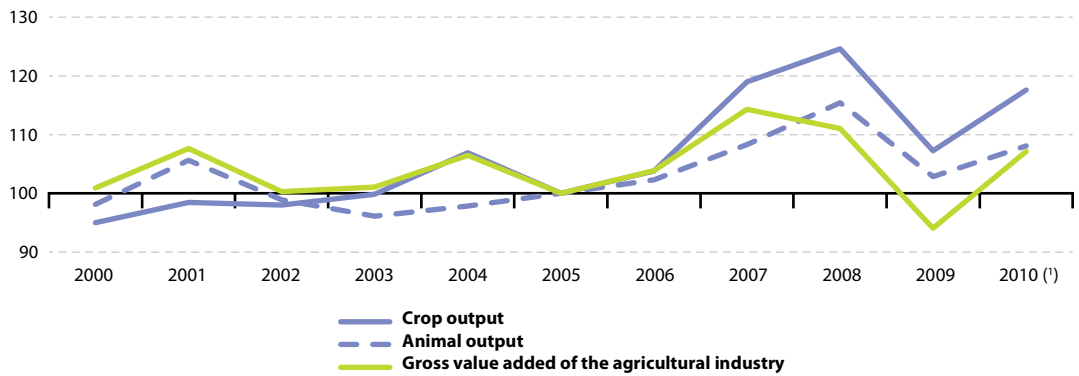
Table 8.1.1: Agricultural output and gross value added at producer prices, 2005-2010
(EUR million)

	Gross value added of the agricultural industry			Crop output			Animal output		
	2005	2009	2010	2005	2009	2010	2005	2009	2010
EU-27	129497	121784	138721	157479	168860	185186	128511	132161	138903
Belgium	2153	2049	2494	2903	2994	3561	3570	3713	3987
Bulgaria	1544	1252	1404	1627	1956	2039	1129	1125	1132
Czech Republic	970	634	960	1674	1927	2160	1574	1522	1612
Denmark	2253	1505	2125	2472	2836	3182	4867	5062	5383
Germany	12920	12916	15043	18167	20902	21766	19042	19657	21394
Estonia	197	168	232	194	218	254	267	279	315
Ireland	1623	926	1512	1376	1367	1497	3651	3361	3851
Greece	6284	5334	5350	7007	6243	6490	2685	2678	2662
Spain	20345	19698	21348	21234	21770	24354	12641	12502	12393
France	21375	20046	26004	29939	33968	37668	21663	21537	22452
Italy	24410	22202	22587	25434	24569	25273	13178	14379	14347
Cyprus	332	305	318	326	312	331	301	322	332
Latvia	222	169	230	308	412	448	282	320	359
Lithuania	409	436	500	657	854	878	693	679	796
Luxembourg	107	80	95	102	94	108	151	154	166
Hungary	1793	1643	1968	3020	3233	3777	2118	2078	2139
Malta	45	55	53	39	48	46	63	69	68
Netherlands	7751	7124	8974	10131	10816	12287	7906	8567	9424
Austria	2207	2284	2606	2199	2575	2914	2543	2750	2840
Poland	5161	5437	6135	6043	7423	8603	7585	8294	8978
Portugal	1927	1846	1864	3584	3762	3971	2241	2420	2429
Romania	6003	5964	6399	7687	8414	10141	4051	3833	3811
Slovenia	397	373	391	496	547	576	468	473	484
Slovakia	382	228	316	691	851	930	760	751	720
Finland	720	1031	1152	1062	1276	1339	1703	1860	1958
Sweden	1128	926	1370	1595	1721	2108	2091	1919	2263
United Kingdom	6842	7152	7292	7512	7769	8485	11287	11858	12608
Norway	902	922	1085	1252	1270	1465	1799	1997	2217
Switzerland	2583	2656	2742	2855	3081	3227	3171	3280	3463
Croatia	883	1131	940	1181	1500	1476	921	959	941
FYR of Macedonia	490	554	:	774	768	:	212	293	:

Source: Eurostat (online data code: [aact_eaa01](#))



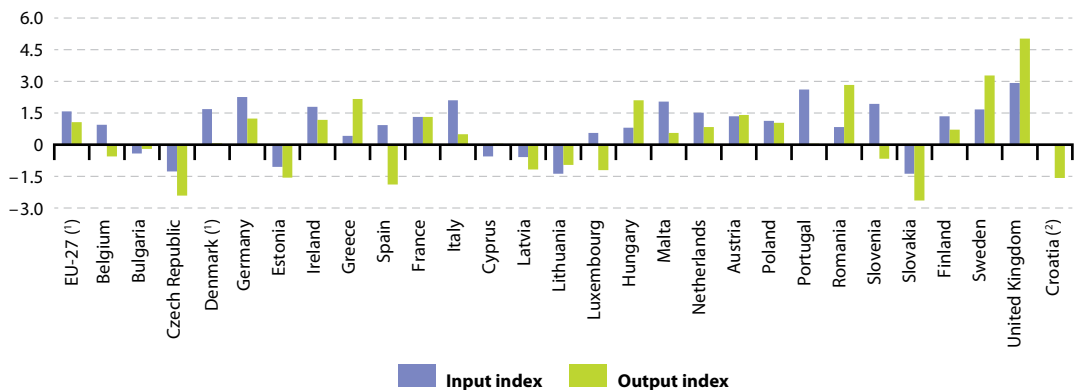
Figure 8.1.1: Agricultural output and gross value added at producer prices, EU-27, 2000-2010 (2005 = 100)



(¹) Crop output and animal output, estimates.

Source: Eurostat (online data code: [aact_eaa01](#))

Figure 8.1.2: Change in deflated price indices of agricultural input and output, 2005-2010 (average annual rate of change, %)



(¹) Provisional.

(²) Input index, not available.

Source: Eurostat (online data codes: [apri_pi05_ina](#) and [apri_pi05_outa](#))



Table 8.1.2: Price indices of agricultural output (nominal), EU-27, 2006-2010
(2005 = 100)

	2006	2007	2008	2009	2010
CROP OUTPUT	107.0	123.7	126.7	108.7	122.3
Cereals	113.9	176.0	179.2	123.6	150.9
Industrial crops	99.3	113.7	119.3	104.6	125.1
Forage plants	99.6	118.9	134.7	131.4	140.2
Vegetables and horticultural products	102.6	107.1	107.6	102.6	113.4
Potatoes	154.5	149.5	133.2	124.9	148.3
Fruits	102.2	114.8	122.1	102.5	111.4
Wine	99.7	107.5	116.3	110.6	109.1
Olive oil	110.2	92.0	88.3	75.7	75.7
Other crop products	99.8	115.8	121.8	111.4	113.3
ANIMAL OUTPUT	102.8	106.0	116.2	107.9	111.4
Animals	104.5	102.8	111.6	109.9	109.4
Cattle	108.7	106.5	110.5	110.0	110.3
Cattle (excluding calves)	107.8	104.4	111.5	111.0	110.7
Calves	112.6	115.5	105.7	104.8	107.9
Pigs	104.2	95.6	107.2	103.6	101.9
Equines	110.9	113.0	141.7	144.3	139.8
Sheep and goats	100.0	95.6	103.6	113.6	117.5
Poultry	99.8	114.6	124.9	121.3	121.0
Other animals	104.7	95.1	104.8	109.6	107.5
Animal products	100.2	110.8	123.2	104.9	114.4
Milk	98.5	108.9	122.2	99.8	111.0
Eggs	109.3	128.7	136.6	148.7	139.2
Other animal products	107.8	96.8	102.7	95.5	121.4
AGRICULTURAL GOODS	105.0	115.4	121.8	108.3	116.9

Source: Eurostat (online data code: [apri_pi05_outa](#))



Table 8.1.3: Index of income from agricultural activity (indicator A), 2000-2010
(2005 = 100)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU-27	94.8	104.1	105.7	101.6	110.2	100.0	104.0	114.8	109.7	98.6	111.4
Belgium	118.7	108.8	96.0	104.3	109.3	100.0	123.5	134.0	109.2	107.7	134.3
Bulgaria	105.1	118.0	94.7	88.6	87.4	100.0	97.5	98.8	161.2	125.3	158.7
Czech Republic	66.4	85.0	68.8	59.2	93.2	100.0	102.7	118.6	125.1	98.5	113.9
Denmark	104.9	126.6	89.7	87.8	98.8	100.0	104.2	106.4	66.6	50.3	78.7
Germany	90.1	111.0	81.8	75.5	111.9	100.0	108.8	134.9	128.8	101.8	124.6
Estonia	40.5	53.2	51.6	57.6	94.8	100.0	100.4	142.1	112.1	94.5	138.2
Ireland	95.8	90.7	79.2	75.8	80.3	100.0	84.0	94.3	87.0	66.9	85.3
Greece	118.5	118.7	114.3	104.3	99.3	100.0	98.3	99.0	88.2	89.6	86.5
Spain	104.2	112.4	108.9	123.1	113.2	100.0	95.5	107.3	97.4	93.8	101.7
France	110.3	111.5	108.3	106.6	105.4	100.0	111.1	120.9	104.4	84.3	116.1
Italy	117.9	115.4	113.5	113.8	114.6	100.0	96.3	93.7	94.3	86.0	83.6
Cyprus	95.0	105.9	107.3	98.7	96.6	100.0	90.4	90.2	85.7	92.3	92.0
Latvia	41.1	53.4	52.5	57.6	96.0	100.0	131.8	137.8	117.2	102.4	127.8
Lithuania	60.8	56.4	52.3	58.7	92.5	100.0	89.0	133.4	123.4	106.6	121.8
Luxembourg	104.3	105.4	117.9	108.4	109.2	100.0	94.7	116.1	85.8	57.4	70.2
Hungary	75.1	79.3	62.7	65.4	99.1	100.0	106.6	114.3	153.4	107.2	123.3
Malta	78.7	91.2	90.7	85.9	82.6	100.0	97.5	94.5	90.3	99.6	109.0
Netherlands	124.5	116.2	100.1	108.6	101.1	100.0	122.6	121.1	99.1	87.9	122.1
Austria	89.9	105.9	97.2	96.9	101.9	100.0	111.1	125.1	122.0	94.3	107.8
Poland	61.0	70.2	63.4	58.5	110.3	100.0	110.5	134.9	108.9	134.7	145.2
Portugal	94.8	101.8	97.3	98.4	108.7	100.0	104.4	100.2	104.2	100.6	109.2
Romania	66.9	114.2	106.8	121.2	175.2	100.0	99.3	76.8	114.4	92.4	89.1
Slovenia	71.5	62.1	81.9	64.6	99.5	100.0	97.4	109.6	99.1	86.7	92.8
Slovakia	82.4	93.7	88.6	82.9	107.3	100.0	122.1	128.9	143.5	110.5	115.2
Finland	94.5	95.1	94.6	93.4	90.0	100.0	98.8	112.6	97.1	117.0	126.5
Sweden	85.0	90.6	95.5	92.8	83.9	100.0	113.5	135.7	124.2	94.8	121.7
United Kingdom	80.8	85.6	94.7	108.5	101.2	100.0	103.9	110.8	143.5	129.6	121.3
Norway	122.9	119.7	125.0	121.8	119.8	100.0	93.6	104.6	103.3	104.7	113.4
Switzerland	103.0	95.7	102.1	94.9	105.9	100.0	97.1	102.5	107.2	105.1	103.0

Source: Eurostat (online data code: [aact_eaa06](#))



8.2 Farm structure

The structure of agriculture in the Member States of the [European Union \(EU\)](#) varies as a function of differences in geology, topography, climate and natural resources, as well as the diversity of regional activities, infrastructure and social customs. The survey on the structure of agricultural holdings, also known as the [farm structure survey \(FSS\)](#), helps assess the agricultural situation across the EU, monitoring trends and transitions in the structure of [agricultural holdings](#), while also modelling the impact of external developments or policy proposals.

This subchapter presents some statistics from the last farm structure survey that was conducted in 2007. The results of the most recent [census](#) (2009/2010) are in the process of being validated and first results should be available at the end of 2012.

Main statistical findings

There were 7.3 million commercial agricultural holdings in the [EU-27](#) in 2007, with a further 6.4 million small holdings (those below a threshold of one [European size unit \(ESU\)](#)). Almost half (48%) of the small holdings in the EU-27, principally being subsistence in nature, were found in Romania. A little over one third of the EU-27's commercial agricultural holdings (that were greater than one ESU) were located in Poland (15.5%) and Italy (18.9%), while Spain (12.8%), Romania (11.9%) and Greece (9.7%) also contributed about a third of the total commercial holdings in 2007.

Among most Member States and across the EU-27 as a whole, there was a steady decline in the number of agricultural holdings during the period between 2003 and 2007. In this four-year period, the number of agricultural holdings in the EU-27 declined by 1.3 million (or 8.8%), of which almost half were commercial holdings. There were particularly fast structural changes in Estonia, where the number of holdings declined by more than one third (-36.7%), as well as in Bulgaria (-25.9%), Portugal (-23.4%) and Hungary (-19.0%).

Cattle represent close to half of the total number of [livestock units](#) in the EU. In 2007 there were 89.5 million head of cattle in the EU-27, of which more than one fifth (21.6%) were in France. Despite being one of the smallest EU Member States, Ireland had one of the largest cattle herds, accounting for 7.3% of the EU-27 total.

The total farm [labour force](#) in the EU-27 was the equivalent of 11.7 million [full-time](#) workers in 2007, of which 10.8 million (92%) were regular workers (see Table 8.2.2). Agriculture remains very much a family-oriented activity in the majority of Member States; four fifths (80%) of the total agricultural labour force in 2007 were farm holders or members of their family. The main exceptions were Slovakia (44%) and the Czech Republic (27%), where there is a different ownership structure compared with the majority of Member States. Just over one third (34%) of the regular agricultural labour force in the EU-27 was female, although in the [Baltic Member States](#) this share was closer to half, reaching 50% in Latvia. Among EU-27 agricultural holders in 2007, relatively few (6%) were under the age of 35, while a relatively high proportion (34%) were aged 65 years or over.

Figure 8.2.1 indicates the proportion of farm holdings with another gainful economic activity. Besides agricultural activity, other gainful activities were also conducted by about one in ten (9.9%) of the EU's agricultural holdings in 2007, this proportion being slightly higher (13.5%) among commercial holdings. A little over one quarter (27.6%) of all holdings in Finland reported another gainful activity in 2007, with rates above 20% also being recorded in Austria, Germany, the United Kingdom, Sweden, Denmark and France.

Two fifths (an estimated 40.1%) of the total land area of the EU-27 was [utilised agricultural area \(UAA\)](#) in 2007. This proportion rose to two thirds (66.3%) of the land area of the United Kingdom, but was less than one tenth of the total in Sweden and Finland. [Arable land](#) (which includes cereals and other arable land) accounted for a little less than one quarter (24.3%) of the total land area of



the EU-27, with [permanent grassland](#) (which is composed of pasture, meadow and rough grazing) accounting for 13.2%. During the ten years through until 2007, the make-up of land use in the EU-27 did not change very much. Equally the overall [area utilised by agriculture](#) was relatively stable within the EU, although there was a slight tendency for an increase in the area among [Member States that joined the EU in 2004 or 2007](#), with a small decrease in the [EU-15](#) Member States.

Data sources and availability

A comprehensive farm structure survey is carried out by Member States every ten years (the full scope being the agricultural census) and intermediate sample surveys are carried out three times between these basic surveys. The Member States collect information from individual agricultural holdings. The information collected covers:

- land use;
- livestock numbers;
- rural development (for example, other gainful activities);
- management and farm labour input (including age, sex and relationship to the holder).

The survey data are [aggregated](#) to different geographic levels (Member States, regions, and for basic surveys also districts) and arranged by size class, area status, legal status of holding, objective zone and farm type.

The basic unit underlying the survey is the agricultural holding, a technical-economic unit under single management engaged in agricultural production. The survey covers all agricultural holdings with a utilised agricultural area (UAA) of at least 1 hectare (ha) and those holdings with a UAA of less than 1 hectare if their market production exceeds certain natural thresholds.

Other gainful activity is any activity other than that relating to farm work, including activities carried out on the holding itself (camp sites, accommodation for tourists, etc.) or that use its resources (machinery, etc.) or products (such as processing farm products, [renewable energy](#) production), and which have an economic impact on the holding.

Other gainful activity is carried out by the holder, his/her family members, or one or more partners on a group holding.

The farm labour force is made-up of all individuals who have completed their compulsory education (having reached school-leaving age) and who carried out farm work on the holding under survey during the 12 months up to the survey day. The figures include the holders, even when not working on the holding, whereas their spouses are counted only if they carry out farm work on the holding. The holder is the natural person (sole holder or group of individuals) or the legal person (for example, a cooperative or other institution) on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding – in other words, the entity or person that takes the economic risks of the holding; for group holdings, only the main holder (one person) is counted. The regular labour force covers the family labour force and permanently employed (regular) non-family workers. The family labour force includes the holder and the members of his/her family who carried out farm work (including all persons of retiring age who continue to work on the holding). One [annual work unit \(AWU\)](#) corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. Full-time means the minimum hours required by the national provisions governing contracts of employment. If these provisions do not explicitly indicate the number of hours, then 1800 hours are taken to be the minimum (225 working days of eight hours each).

In preparation for the 2010 survey a new legal basis was developed: Regulation (EC) 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods.

Context

Rural development policy aims to improve: competitiveness in agriculture and forestry; the quality of the environment and countryside; and life in rural areas; and the diversification of rural economies. As agriculture has modernised and the importance



of industry and services within the economy has increased, so agriculture has become much less important as a source of jobs. Consequently, increasing emphasis is placed on the role farmers can play in rural development, including forestry, **biodiversity**, the diversification of the rural economy to create alternative jobs and environmental

protection in rural areas. The common agricultural policy (CAP) is due to be reformed by 2013 and this is likely to have an impact on rural development policies. The farm structure survey continues to be adapted with the aim of trying to provide timely and relevant data to help analyse and follow these developments.

Table 8.2.1: Agricultural holdings and cattle, 2003-2007

	Number of agricultural holdings (1 000)			Head of cattle (1 000)			Holdings with irrigable area (% of holdings)		
	2003	2005	2007	2003	2005	2007	2003	2005	2007
EU-27	15 021	14 482	13 700	92 048	90 018	89 470	:	:	:
Belgium	55	52	48	2 778	2 699	2 649	4.3	4.2	4.7
Bulgaria	666	535	493	692	609	602	20.7	14.5	15.0
Czech Republic	46	42	39	1 505	1 426	1 419	4.6	4.7	5.2
Denmark	49	52	45	1 724	1 570	1 566	19.5	17.9	15.1
Germany	412	390	370	13 639	13 034	12 675	:	:	:
Estonia	37	28	23	274	261	253	:	:	:
Ireland	136	133	128	6 990	6 869	6 573	0.0	0.0	0.0
Greece	824	834	860	733	717	732	64.5	65.2	62.7
Spain	1 141	1 079	1 044	5 973	5 866	5 741	47.8	46.4	45.6
France	614	567	527	19 454	19 132	19 350	17.5	18.0	18.2
Italy	1 964	1 729	1 679	6 261	6 180	6 364	36.2	37.6	40.4
Cyprus	45	45	40	61	59	58	75.3	77.3	78.5
Latvia	127	129	108	379	370	398	0.1	0.3	0.2
Lithuania	272	253	230	895	1 009	784	0.0	0.1	0.0
Luxembourg	2	2	2	190	185	192	0.0	:	0.0
Hungary	773	715	626	706	707	704	4.3	2.5	0.2
Malta	11	11	11	19	20	19	34.6	27.8	25.5
Netherlands	86	82	77	3 759	3 799	3 763	22.6	23.6	26.1
Austria	174	171	165	2 039	2 003	1 973	3.6	4.4	4.4
Poland	2 172	2 476	2 391	5 533	5 482	5 855	0.7	1.0	1.1
Portugal	359	324	275	1 398	1 315	1 324	62.4	62.2	62.2
Romania	4 485	4 256	3 931	2 871	2 766	2 734	5.8	3.5	2.7
Slovenia	77	77	75	478	461	472	1.5	2.3	2.3
Slovakia	72	68	69	583	514	502	6.1	10.5	2.3
Finland	75	71	68	1 000	959	927	10.6	8.1	8.5
Sweden	68	76	73	1 607	1 605	1 560	7.8	6.0	5.2
United Kingdom	281	287	300	10 507	10 400	10 280	1.8	1.4	13.9
Norway	58	53	50	957	934	906	16.5	16.8	17.5
Switzerland	:	64	62	:	1 555	1 572	:	0.0	:
Croatia	:	:	181	:	:	475	:	:	:

Source: Eurostat (online data codes: [tag00001](#) and [ef_ov_jusum](#))

**Table 8.2.2:** Farm labour force, 2007

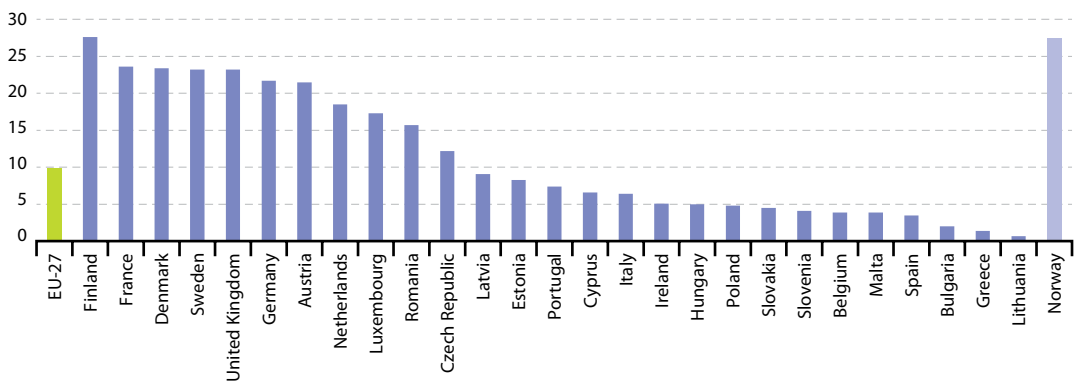
	Farm labour force (1 000 AWU) (¹)		Analysis of labour force (% of total)				Agricultural holders (1 000)		
	Total	Regular	Regular	Full-time regular	Female regular	Family	Natural persons	Age <35 years	Age ≥65 years
EU-27	11 693	10 796	92	34	34	80	13 441	823	4 584
Belgium	66	63	95	71	29	79	44	3	9
Bulgaria	491	467	95	38	39	85	490	15	222
Czech Republic	137	134	98	68	32	27	36	4	7
Denmark	56	54	96	70	23	61	44	3	9
Germany	609	555	91	50	28	69	365	28	27
Estonia	32	31	98	46	46	61	22	1	7
Ireland	148	144	98	60	21	93	128	9	32
Greece	569	489	86	22	29	82	860	60	321
Spain	968	790	82	42	20	65	988	44	361
France	805	719	89	67	25	47	428	34	66
Italy	1 302	1 169	90	37	30	84	1 664	49	741
Cyprus	26	24	94	31	32	75	40	1	12
Latvia	105	104	99	30	50	84	108	8	32
Lithuania	180	176	98	14	48	85	230	10	93
Luxembourg	4	4	98	63	27	85	2	0	0
Hungary	403	390	97	25	37	77	619	47	172
Malta	4	4	99	41	14	88	11	0	3
Netherlands	165	151	91	56	26	61	73	3	13
Austria	163	159	97	53	41	88	161	16	18
Poland	2 263	2 194	97	34	42	95	2 387	294	388
Portugal	338	315	93	35	41	82	269	5	130
Romania	2 205	2 044	93	4	42	90	3 914	167	1 762
Slovenia	84	80	96	21	41	92	75	3	26
Slovakia	91	87	96	40	32	44	67	2	22
Finland	72	68	94	56	30	83	67	6	4
Sweden	65	63	97	42	26	76	68	4	15
United Kingdom	341	318	93	55	23	67	283	7	92
Norway	56	53	94	32	25	80	50	4	4

(¹) AWU: annual work unit.

Source: Eurostat (online data codes: [tag00020](#), [tag00021](#), [ef_so_lfwtime](#), [ef_so_lfaa](#), [tag00029](#) and [tag00030](#))

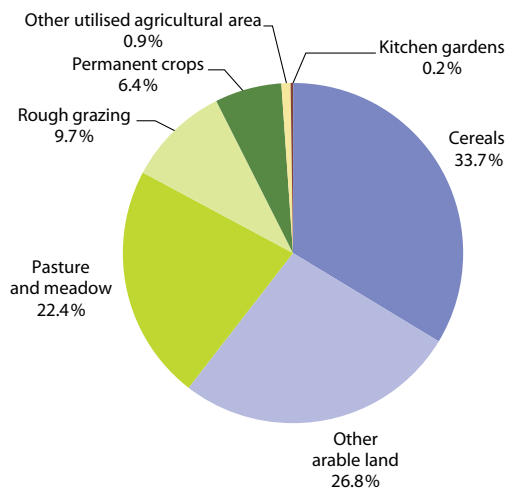


Figure 8.2.1: Agricultural holdings with another gainful activity, 2007
(%)



Source: Eurostat (online data code: [tag00096](#))

Figure 8.2.2: Utilised agricultural area by land use, EU-27, 2007 (1)
(% share of utilised agricultural area)



(1) Figures do not sum to 100 % due to rounding.

Source: Eurostat (online data code: [ef_lu_ovcropsu](#))



Table 8.2.3: Land use, 2007

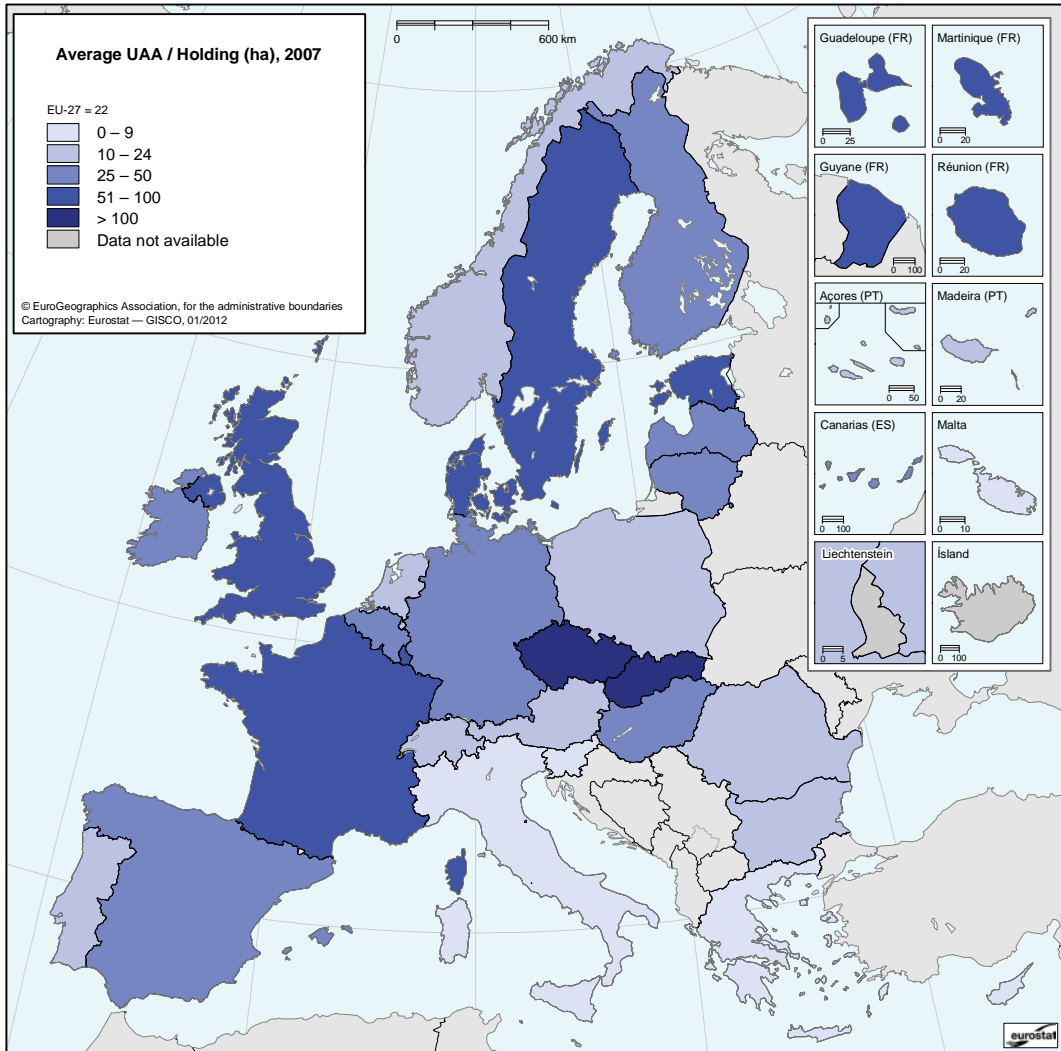
	Total land area (km ²) ⁽¹⁾	Utilised agricultural area (UAA) (km ²)	Land belonging to agricultural holdings: share of total land area (%)						
			UAA total	of which:				Wooded area	Other (un-utilised) land
				Arable land	Kitchen garden	Perma-nent grassland & meadow	Perma-nent crops		
EU-27	4 299 004	1 724 851	40.1	24.3	0.1	13.2	2.6	7.2	2.8
Belgium	30 328	13 744	45.3	27.8	0.0	16.9	0.7	0.2	0.8
Bulgaria	111 002	30 507	27.5	24.0	0.2	2.5	0.8	8.6	0.8
Czech Republic	77 246	35 181	45.5	33.3	0.0	11.8	0.5	18.9	0.7
Denmark	43 098	26 626	61.8	56.9	0.0	4.7	0.2	4.8	2.5
Germany	357 108	169 319	47.4	33.3	0.0	13.5	0.6	3.8	1.1
Estonia	43 432	9 068	20.9	14.4	0.1	6.3	0.1	5.3	1.9
Ireland	68 394	41 392	60.5	14.7	0.0	45.8	0.0	1.9	2.1
Greece	130 822	40 762	31.2	16.2	0.1	6.3	8.6	0.5	2.0
Spain	501 757	248 925	49.6	23.7	0.0	17.2	8.7	9.7	6.8
France	632 834	274 769	43.4	28.9	0.0	12.8	1.7	1.5	0.8
Italy	295 114	127 442	43.2	23.5	0.1	11.7	7.9	12.9	4.3
Cyprus	9 250	1 460	15.8	11.7	0.0	0.2	3.9	0.2	3.4
Latvia	62 290	17 738	28.5	17.8	0.1	10.3	0.3	11.4	5.9
Lithuania	62 678	26 490	42.3	28.9	0.0	13.1	0.3	2.6	1.5
Luxembourg	2 586	1 309	50.6	23.6	0.0	26.4	0.6	2.5	0.3
Hungary	93 029	42 286	45.5	38.2	0.2	5.4	1.7	14.6	4.4
Malta	316	103	32.7	25.4	3.1	0.0	4.2	0.0	4.3
Netherlands	33 756	19 143	56.7	31.4	:	24.3	1.0	0.3	4.5
Austria	82 438	31 891	38.7	16.8	0.0	21.0	0.8	33.2	11.2
Poland	312 685	154 772	49.5	37.6	0.2	10.5	1.2	3.8	4.5
Portugal	92 118	34 729	37.7	11.7	0.2	19.3	6.5	7.8	2.3
Romania	229 973	137 531	59.8	37.8	0.8	19.7	1.5	4.7	1.9
Slovenia	20 141	4 888	24.3	8.6	0.1	14.3	1.3	18.8	2.7
Slovakia	49 035	19 366	39.5	27.7	0.1	11.2	0.5	21.4	1.4
Finland	304 086	22 923	7.5	7.4	0.0	0.1	0.0	10.4	2.8
Sweden	410 335	31 180	7.6	6.4	0.0	1.2	0.0	9.1	0.5
United Kingdom	243 154	161 305	66.3	24.7	0.0	41.5	0.1	2.6	1.2
Norway	304 280	10 320	3.4	2.0	0.0	1.4	0.0	7.7	9.8
Croatia	56 594	:	:	:	:	:	:	:	:

(¹) Bulgaria, Denmark, Germany, France, Cyprus, Poland and Portugal, total area; Austria, 2008; EU-27, sum of available data for the Member States.

Source: Eurostat (online data codes: [demo_r_d3area](#) and [ef_lu_ovcropaa](#))



Map 8.2.1: Average UAA per holding, 2007
(hectares)



Source: Eurostat (online data code: [ef_ov_kvaaesu](#) and [ef_oluaareg](#))



8.3 Agricultural products

There is a wide diversity of natural environments, climates and farming practices across Europe that feed into a broad array of food and drink products for human consumption and **animal feed**, as well as providing inputs for non-food processes. Indeed, agricultural products form a major part of the cultural identity of Europe's people and regions.

With this in mind, **European Union (EU)** legislation has been developed to protect particular food and drink product names which are linked to a specific territory or a specific production method, aiming to provide guarantees as to the origin and authenticity of a range of products.

Main statistical findings

Crops

In 2010, the **EU-27** produced 285.2 million tonnes of **cereals** (including rice). Despite the vagaries of the weather, cereal production in the EU-27 was relatively stable between 2000 and 2010 (see Figure 8.3.1), albeit with notably higher harvests in 2004 and 2008. The production of cereals fell from the relative high recorded in 2008 with production falling by 6.1 % in 2009 and a further 3.6 % in 2010. Nevertheless, the production of cereals within the EU-27 remained 2.6 % higher in 2010 than it had been in 2000.

There was a large overall increase (49.9 %) in the production of oilseeds between 2000 and 2010. On the other hand, the output of potatoes declined steadily during the last decade (with production falling by 31.2 % between 2000 and 2010). The production of sugar beet also fell over the last decade (-21.9 %), with all of the losses taking place during the second half of the decade, with output contracting considerably in 2006 and again in 2010.

An analysis of the most recent developments, based on a comparison between 2009 and 2010, shows that EU-27 production of cereals fell by 3.6 %. Sugar beet and potatoes production decreased by 6.3 % and 9.0 % respectively, while there was a small increase in the production of oilseeds (0.7 %).

France and Germany were by far the largest cereal, sugar beet and oilseed producers, together accounting for 54.8 % of the EU-27's sugar beet production, 42.9 % of its oilseeds production and 38.5 % of its cereal production in 2010 (see Table 8.3.1). The production of potatoes was more widely spread across the EU Member States, with Germany recording the highest level of production (17.9 % of the EU-27 total in 2010), while Poland, the Netherlands, France and the United Kingdom each accounted for between 15.4 % and 10.6 % of the total. France was, by far, the leading producer of pulses and textile crops in 2010.

Figure 8.3.2 presents a breakdown of the production of cereals in the EU-27 in 2010. Almost half (47.8 %) of the total production of cereals was accounted for by wheat, while around one fifth of the total was composed of grain maize (20.0 %) and barley (18.7 %); rice production in the EU-27 was considerably lower (1.1 % of the EU-27's total cereals production).

In the EU-27, the most important vegetables in terms of production were tomatoes, onions and carrots, while the most important fruits were apples, oranges and peaches (see Figures 8.3.3 and 8.3.4 respectively). In 2010, Italy and Spain had the largest vegetable and fruit production among the EU Member States. Italy produced around 14.0 million tonnes of vegetables, while Spain produced approximately 9.9 million tonnes (in 2009).

The bulk of fruit and fresh vegetable production was concentrated in a few Member States. For example, some 57.4 % of the EU-27's apple production in 2010 was located in Italy, Poland and France, while 96.8 % of oranges were produced in Spain or Italy. About two thirds of all the tomatoes produced in the EU-27 originated from Italy and Spain, while almost half (45.6 %) of the onions produced in the EU-27 came from either the Netherlands or Spain.

Meat and milk

Table 8.3.2 summarises a range of different agricultural products that are related to animals. The principal meat product in the EU-27 was **pig** meat



(22.0 million tonnes in 2010), where the weight of production was almost three times as high as cuts of **beef/veal** from cattle meat (7.9 million tonnes); the production of **sheep** meat in the EU-27 was relatively modest (0.7 million tonnes).

A quarter (24.7%) of the EU-27's pig meat production in 2010 came from Germany, the next highest contributions being recorded for Spain (15.3%) and France (9.1%), while the 7.9% share for Poland and the 7.6% share for Denmark were also notable. Just under one fifth (19.2%) of the beef/veal produced in the EU-27 originated from France in 2010, with Germany and Italy the only other Member States to report production in excess of one million tonnes; Ireland reported a relatively high share (7.1%) of the EU-27's production of cattle meat.

Dairy production has a diverse structure across the Member States, in terms of farm and **dairy herd** sizes, as well as milk yields. The total collection of cows' milk in the EU-27 in 2010 amounted to 136.1 million tonnes. Figure 8.3.5 shows that over one third (36.1%) of the whole milk that was utilised in the EU-27 in 2010 was converted into cheese, with butter accounting for the next highest proportion (28.7%); just over a tenth of the whole milk utilised in the EU-27 was used for drinking milk (12.4%) and for cream (11.5%).

Germany recorded the highest share (21.4%) of EU-27 milk collected in 2010 and also accounted for the highest proportions of EU-27 butter (23.5%) and cheese (23.3%) production.

Data sources and availability

Annual statistics on the production of a range of specific crops are covered by Council Regulations, although the data for fresh fruit and vegetables are collected under various informal agreements with the EU Member States.

The statistics on crop production in this subchapter relate to harvested production. Agricultural production of crops is synonymous with harvested production and includes marketed quantities, as well as quantities consumed directly on the farm, losses and waste on the **holding**, and losses during transport, storage and packaging.

Statistics on milk, eggs and meat products are compiled according to Community legislation. Milk production covers farm production of milk from cows, sheep, goats and buffaloes. A distinction is made between milk collected by dairies and milk production on the farm. Milk collection is only a part of the total use of milk production on the farm, the remainder generally includes own consumption, direct sale and cattle feed.

Meat production is based on the carcass weight of meat fit for human consumption. The concept of **carcass weight** is generally the weight of the slaughtered animal's cold body, although the precise definition varies according to the animal under consideration.

Context

Information on agricultural products may be used to analyse developments within agricultural markets in order to help distinguish between cycles and changing production patterns; these statistics can also be used to study how markets respond to policy actions. Agricultural product data also provides supply side information, furthering understanding as regards price developments which are of particular interest to agricultural commodity traders and policy analysts.

In October 2007, the Council adopted legislation to establish a single common market organisation for agricultural products (Regulation 1234/2007). This was designed to reduce the volume of legislation in the farming sector, to improve legislative transparency, and to make agricultural policy more easily accessible. Between the start of 2008 and the start of 2009, the single common market organisation replaced 21 individual markets for a variety of different products such as fruit and vegetables, cereals, meats, eggs, dairy products, sugar or wine.

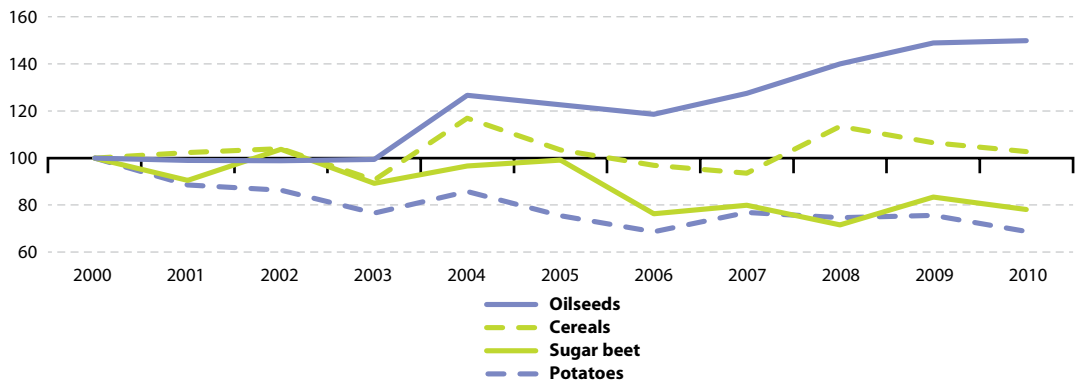
Despite reforms of the **common agricultural policy (CAP)** in 2003 and 2008, farm subsidies consume more than 40% of the EU's annual spending. During the summer of 2010 a consultation process was organised in relation to the development of future agricultural policy. This identified three key areas for the stakeholders consulted, namely, food



security, environmental concerns, and rural diversity. In November 2010 the [European Commission](#) released a Communication (COM(2010) 672 final) providing a blueprint for developing agricultural policy, titled 'The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future'. The document details some of the main

challenges facing the EU's agricultural sector in the coming decade – for example, how to preserve the EU's food production so as to guarantee long-term food security, while supporting farming communities that provide a diverse range of quality products, and ensuring environmental, water, animal and plant health requirements are met.

Figure 8.3.1: Indices of the agricultural production of crops, EU-27, 2000-2010 (2000 = 100)



Source: Eurostat (online data code: [apro_cpp_crop](#))



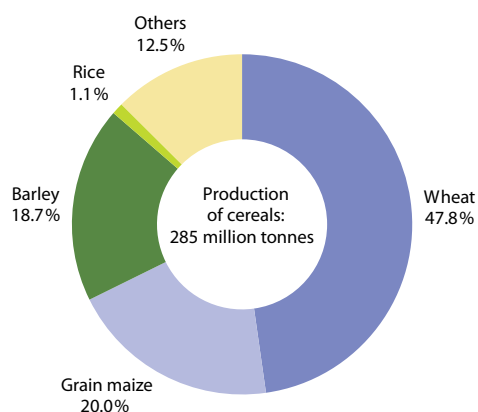
Table 8.3.1: Agricultural production of crops, 2010
(1 000 tonnes)

	Cereals	Sugar beet	Potatoes	Oilseeds	Pulses	Textile crops
EU-27	285 227	106 950	56 972	28 967	3 429	849
Belgium	3 105	4 465	3 456	54	8	64
Bulgaria	7 036	0	251	2 064	9	1
Czech Republic	6 878	3 065	665	1 160	58	0
Denmark	8 748	2 356	1 358	577	34	0
Germany	44 293	23 858	10 202	5 794	264	0
Estonia	670	0	93	131	12	0
Ireland	2 040	45	363	23	14	0
Greece	4 098	761	792	762	50	184
Spain	19 642	3 399	2 278	924	462	140
France	65 414	34 767	6 528	6 629	990	437
Italy	20 960	3 550	1 558	815	146	0
Cyprus	54	87	93	0	14	0
Latvia	1 417	0	293	168	5	0
Lithuania	2 768	723	469	178	67	0
Luxembourg	166	0	20	16	1	0
Hungary	12 300	754	440	1 623	38	0
Malta	0	0	10	0	0	0
Netherlands	1 887	5 280	6 844	109	9	17
Austria	4 818	3 132	672	332	57	3
Poland	27 299	9 823	8 766	2 103	268	3
Portugal	1 051	7	509	8	3	0
Romania	16 752	900	3 567	2 356	58	0
Slovenia	568	0	102	15	2	0
Slovakia	2 571	978	126	518	17	0
Finland	2 972	542	659	3	30	0
Sweden	4 333	1 974	816	303	85	0
United Kingdom	23 387	6 484	6 045	2 303	727	0
Croatia	2 925	1 249	179	253	3	0
FYR of Macedonia	537	:	202	13	15	:
Turkey	59 649	17 942	4 548	2 777	26	795

Source: Eurostat (online data code: [apro_cpp_crop](#))



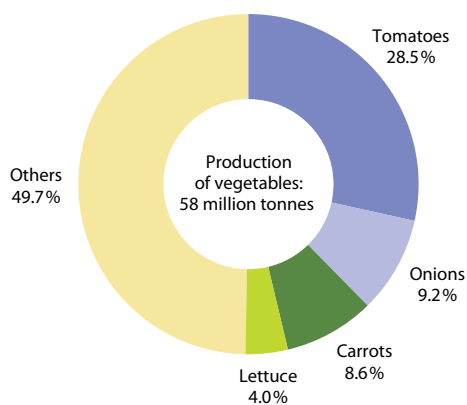
Figure 8.3.2: Production of cereals, EU-27, 2010 ⁽¹⁾
(%, based on tonnes)



⁽¹⁾ Provisional; includes Eurostat estimates made for the purpose of this publication with estimates for Italian rice production based on the area reported; figures do not sum to 100 % due to rounding.

Source: Eurostat (online data code: [apro_cpp_crop](#))

Figure 8.3.3: Production of vegetables, EU-27, 2010 ⁽¹⁾
(%, based on tonnes)

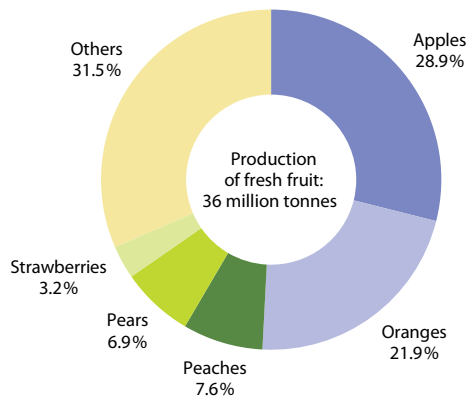


⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat (online data code: [apro_cpp_frueveg](#))



Figure 8.3.4: Production of fruit, EU-27, 2010 ⁽¹⁾
(%, based on tonnes)



⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat (online data code: [apro_cpp_fruveg](#))



Table 8.3.2: Agricultural production related to animals, 2010
(1 000 tonnes)

	Collection of cows' milk	Butter	Cheese	Cattle meat	Pig meat	Sheep meat
EU-27⁽¹⁾	136 090	1 716	8 953	7 918	22 011	725
Belgium	3 067	26	75	263	1 124	3
Bulgaria	565	1	69	5	37	4
Czech Republic	2 312	23	115	74	276	0
Denmark	4 830	33	292	131	1 666	2
Germany	29 076	404	2 083	1 187	5 443	20
Estonia	621	6	38	9	32	0
Ireland	:	:	:	559	214	48
Greece	673	2	209	58	114	71
Spain	5 877	31	302	607	3 369	131
France	23 558	342	1 925	1 521	2 010	83
Italy	10 500	:	1 177	1 075	1 633	36
Cyprus	151	0	14	4	57	3
Latvia	625	5	31	18	23	0
Lithuania	1 278	8	95	43	55	0
Luxembourg	282	:	:	10	10	0
Hungary	1 322	4	73	27	416	0
Malta	:	:	:	1	7	0
Netherlands	11 626	:	753	389	1 288	13
Austria	2 771	:	149	225	542	7
Poland	9 002	119	667	386	1 741	1
Portugal	1 829	27	69	94	384	10
Romania	904	10	64	28	234	4
Slovenia	520	:	18	36	25	0
Slovakia	800	6	29	14	69	1
Finland	2 289	45	109	82	203	1
Sweden	2 862	19	103	148	263	5
United Kingdom	13 582	:	337	925	774	281
Switzerland ⁽²⁾	3 388	48	177	:	:	:
Croatia ⁽³⁾	682	3	28	55	89	1

⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

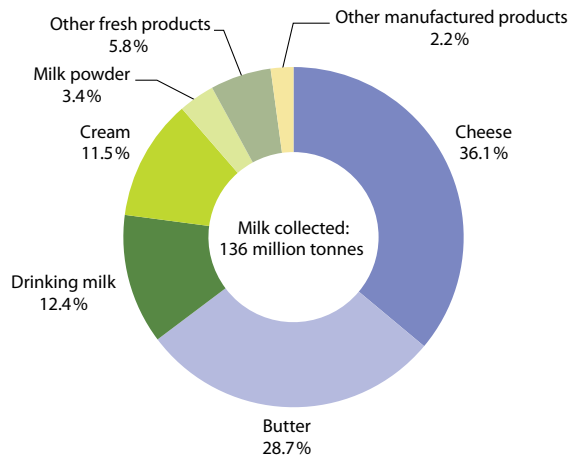
⁽²⁾ 2009, based on collection ([apro_mkCola](#)).

⁽³⁾ 2009 for milk, butter and cheese.

Source: Eurostat (online data codes: [apro_mk_pobta](#), [apro_mkCola](#) and [apro_mt_pann](#))



Figure 8.3.5: Utilisation of whole milk, EU-27, 2010 ⁽¹⁾
(%)



⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication; figures do not sum to 100 % due to rounding.

Source: Eurostat (online data code: [apro_mk_pobta](#))

8.4 Fertiliser consumption and nutrient balances

This subchapter presents data relating to **fertiliser** consumption and nutrient balances within the **European Union (EU)**. Around 40 % of the EU-27's land area is farmed, highlighting the importance of farming for the EU's natural environment. Links between the natural environment and farming practices are complex: farming has contributed over the centuries to creating and maintaining a variety of valuable semi-natural habitats within which a wide range of species rely for their survival; on the other hand, inappropriate agricultural practices and **land use** can have an adverse effect on natural resources, through the pollution of soil, water and air, or the fragmentation of habitats and a subsequent loss of wildlife.

Main statistical findings

Fertilisers consumption

Figure 8.4.1 shows the estimated consumption of manufactured fertilisers in terms of the quantity of nutrients applied to each hectare of **utilised agricultural area (UAA)**. Total consumption in the EU

(excluding Malta) was estimated at an average 76 kg of nutrients (nitrogen, phosphorus and potassium together) per hectare in 2009 (see Figure 8.4.1).

Nitrogen-based fertilisers accounted for the vast majority (77.4 %) of the nutrients consumed, with an estimated consumption of 59 kg per hectare across the EU, ranging from 19 kg per hectare in Portugal to 125 kg per hectare in the Netherlands. EU consumption of phosphorus (in the form of manufactured fertilisers) averaged 6 kg per hectare in the EU, ranging from 2 kg per hectare in Romania to 10 kg per hectare in Poland, while potassium consumption averaged 11 kg per hectare in the EU, ranging from 2 kg per hectare in Romania to 30 kg per hectare in Belgium and Luxembourg; the consumption of potassium-based fertilisers was higher still in Norway (33 kg per hectare).

The Benelux countries reported the highest levels (over 140 kg per hectare) of nutrient consumption from manufactured fertilisers. They were followed by Norway, Germany, Ireland and Poland – the only other countries to record consumption in excess of 100 kg per hectare. In contrast, Portugal and



Romania reported the lowest levels of consumption of manufactured fertilisers, at just under 30 kg per hectare.

Some European countries produce official statistics on the use of mineral fertilisers; these are presented in Figures 8.4.2 and 8.4.3, which provide details of the average annual percentage change in fertiliser use over the period from 2000 to 2008 for nitrogen-based fertilisers and phosphorus-based fertilisers. Figure 8.4.2 shows that the consumption of nitrogen-based fertilisers increased at a rapid pace in Latvia (on average by 9.6% per annum), while Lithuania (4.8%) and Poland (3.6%) reported the second and third highest growth rates. There were six additional Member States (and Norway) that reported an increase in the average tonnage of nitrogen-based fertilisers that were used during the period from 2000 to 2008, aside from Austria these were all Member States that had joined the EU in 2004 or 2007. The reduction in the use of nitrogen-based fertilisers was generally less than 4% per annum in most of the remaining Member States (and Switzerland), although somewhat bigger declines were registered in the Netherlands (-4.3%), Greece (-5.6%) and Portugal (-6.9%).

Figure 8.4.3 shows that between 2000 and 2008 the consumption of phosphorus-based fertilisers increased at a relatively rapid pace in Poland (5.7% per annum) and Hungary (4.2%). Only two other EU Member States (and Switzerland) reported growth in the quantity of phosphorous-based fertilisers that were used during the period from 2000 to 2008; while there was no change in the consumption of phosphorus-based fertilisers in Austria. In contrast, consumption of phosphorous-based fertilisers fell by between 7.4% and 10.2% per annum in Ireland, the Benelux countries and Portugal.

Gross nutrient balances

A persistent surplus of nutrients indicates potential environmental problems, such as nutrient leaching (resulting in pollution of drinking water and eutrophication of surface waters), ammonia emissions (contributing to acidification, eutrophication and atmospheric particulate pollution), or emissions of nitrous oxide (a greenhouse gas). A

persistent deficit in nutrients indicates, among others, a risk for declining soil fertility.

The **gross nitrogen balance** for the EU-27 averaged 51 kg of nitrogen per hectare of agricultural land during the period 2005 to 2008 (see Figure 8.4.4), ranging from 210 kg per hectare in the Netherlands to -4 kg per hectare in Hungary. The nitrogen balance was generally lower among those Member States that joined the EU in 2004 or 2007, as well as in southern Europe (other than Cyprus and Malta). Comparing the average nitrogen balance for the period from 2000 to 2004 with that for 2005 to 2008, the biggest reductions in the nitrogen balance were often recorded among those Member States that reported some of the highest nitrogen surpluses; this was particularly the case for the Netherlands and for Belgium. On the other hand, there were some countries that reported an increase in their nitrogen surpluses, most notably, Poland, Romania and the Czech Republic.

The **gross phosphorus balance** for the EU-27 was almost at parity during the period 2005 to 2008 (see Figure 8.4.5), averaging 1.8 kg of phosphorus per hectare of agricultural land; in part this lower surplus reflected the lower use made of phosphorus-based fertilisers when compared with nitrogen-based fertilisers. The phosphorus balance ranged from 25.5 kg per hectare in Malta to -12.2 kg per hectare in Hungary. A similar pattern (to that for nitrogen balances) was observed for the phosphorus balance, with Malta, Cyprus and several countries in north western Europe having the highest surpluses, while a deficit was recorded in eight of the Member States (all of which were either Member States that joined the EU in 2004 or 2007 or countries from southern Europe). Comparing the average phosphorus balance for the period from 2000 to 2004 with that for 2005 to 2008, the biggest reductions in the phosphorus balance were generally recorded among those Member States that reported some of the highest phosphorous surpluses; in particular, Belgium, Slovenia and the Netherlands. On the other hand, there were only two countries that reported an increase in their phosphorus surplus over the period under consideration - Poland and Norway.



Data sources and availability

Data on the estimated consumption of nutrients contained in manufactured fertilisers were provided by Fertilizers Europe, the European trade association of fertiliser manufacturers. The methodology used for the collection of these statistics is harmonised across countries and was developed as a forecasting exercise within the industry. It relies on the estimation of application rates by crop at a national and sometimes regional level by experts; figures are then multiplied by estimated cropping areas. The estimates for total consumption are reconciled with the quantities of fertilisers that are actually sold; allowance is made for changes in stocks causing differences between sales and consumption. Annual data are available for nearly all EU Member States, as well as Norway. Data on fertiliser use are broken down by nutrient type: nitrogen (N), phosphorus (P), phosphate (P_2O_5), potassium (K), potash (K_2O).

Official data on the quantities of nutrients contained in fertilisers were generally provided by national statistical offices (for Luxembourg they were provided by the Ministry of Agriculture). The data were provided under the framework of the Joint Eurostat/OECD Questionnaire on agri-environmental indicators and of the Eurostat/OECD gross nutrient balances data collection exercise. At present no harmonised European statistics on mineral fertiliser use are available from official sources. As such, different data sources were used to compile the dataset and therefore comparability may not be high. Some countries have carried out farm surveys, others have estimated consumption from statistics on production and trade of mineral fertilisers.

A gross nutrient balance is calculated as the total nutrient input to the soil minus the total nutrient output from the soil. The gross nutrient balance per hectare is derived by dividing the total balance by the reference area (in this case that of agricultural land). The reference area for the data presented in this subchapter relates to the sum of area for arable land, permanent grassland and land under permanent crops. For some countries, gross nutrient

balances were estimated by Eurostat, and afterwards approved by national authorities.

Inputs for the gross nutrient balance include fertilisers (both organic and inorganic), manure production (animal excretion), manure withdrawals (exports, processed as industrial waste, non-agricultural use, etc.), changes in manure stocks and manure imports. Other inputs include seeds and planting material, atmospheric nutrient deposition and (for nitrogen only) biological fixation by leguminous crops (such as clover, soya beans, etc.).

Outputs of the gross nutrient balance include harvesting crops (for example, cereals, dried pulses, root crops, industrial crops, vegetables, fruit), the harvest and grazing of fodder (from arable land, permanent and temporary pasture), crop residuals removed from the field. Nutrient inputs and outputs are estimated for each item of the balance by multiplying basic data (such as crop area, crop production, livestock numbers) with coefficients to convert the data into nutrient contents.

Context

Fertilisers contain important nutrients, such as nitrogen (N), phosphorus (P) and potassium (K), which plants absorb from the soil for their growth. Fertilisers are often considered as an essential input in agricultural production. In addition to livestock manure (which may be used as an organic fertiliser), most non-organic farms also apply large amounts of manufactured mineral fertilisers. When the amount of fertiliser applied exceeds the plants' nutritional requirements, there is a greater risk of nutrient losses from agricultural soils into ground and surface water. The resulting higher concentration of nutrients (eutrophication) can cause serious degradation of ecosystems. In addition to the problems associated with eutrophication, fertilisers may also have adverse environmental effects resulting from their production processes. More specifically, nitrogenous fertilisers — the most commonly consumed fertilisers — require large amounts of energy to be produced leading potentially to higher levels of greenhouse gas emissions. In a different way, phosphorus and potash fertilisers also have an environmental impact, since the raw materials used



to produce them are mined, therefore potentially leading to landscape destruction, water contamination, excessive water consumption or air pollution.

The gross nutrient balance provides an insight into the links between agricultural nutrient use, losses of nutrients into the environment, and the sustainable use of soil nutrient resources. In order to estimate the risk of nutrient loss, the consumption of manufactured fertilisers should be combined with other nutrient inputs. In addition, the nutrient requirements (and hence consumption) of plants are influenced by previous land management, soil type and climatic factors, and they vary from one crop to another.

The gross nutrient balance only provides an indication of the potential risks to the environment (air, water and soil), as the actual risks depend on a range of factors including climatic conditions, soil type and characteristics, soil saturation, and management practices such as drainage, tillage and irrigation. The gross nutrient balance may be used to represent the difference between nutrients applied to the soil and nutrients removed by crops; it reflects the risks associated with nutrients either leaching into the soil and water or being released into the atmosphere.

The complex relationship between agriculture and the environment has resulted in environmental concerns and safeguards being integrated within

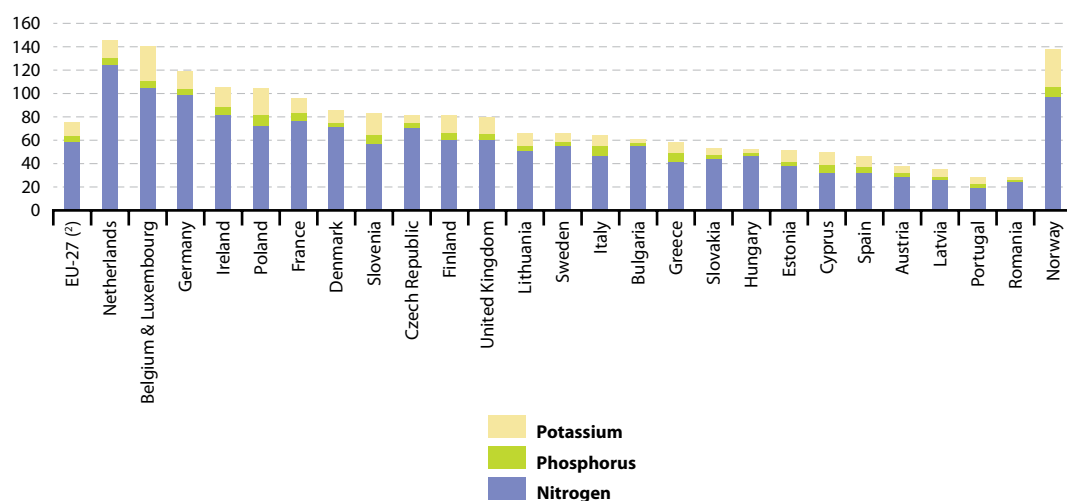
the EU's [common agricultural policy \(CAP\)](#), with particular attention being paid to reducing the risks of environmental degradation through cross-compliance criteria (as a condition for benefiting from direct payments, farmers must comply with certain requirements, some related to environmental protection) and targeted agri-environmental measures, in order to enhance the sustainability of agro-ecosystems.

The importance attached to assessing the interaction between agriculture and the environment is underlined by a [European Commission](#) Communication, titled 'Development of agri-environmental indicators for monitoring the integration of environmental concerns into the common agricultural policy' (COM(2006) 508 final), containing a list of 28 agri-environmental indicators which portray farming practices, agricultural production systems, pressures and risks to the environment, and the state of natural resources.

In order to limit the environmental damage associated with excess nutrient application, such as eutrophication, a number of legislative measures have been taken, such as the adoption of the nitrates Directive and the water framework Directive, covering the designation of nitrate-vulnerable zones where Member States have imposed regulatory limits on the load and timing of fertiliser spreading on agricultural land.



Figure 8.4.1: Estimated consumption of manufactured fertilisers, 2009 ⁽¹⁾
(kg of nutrient per hectare of UAA)

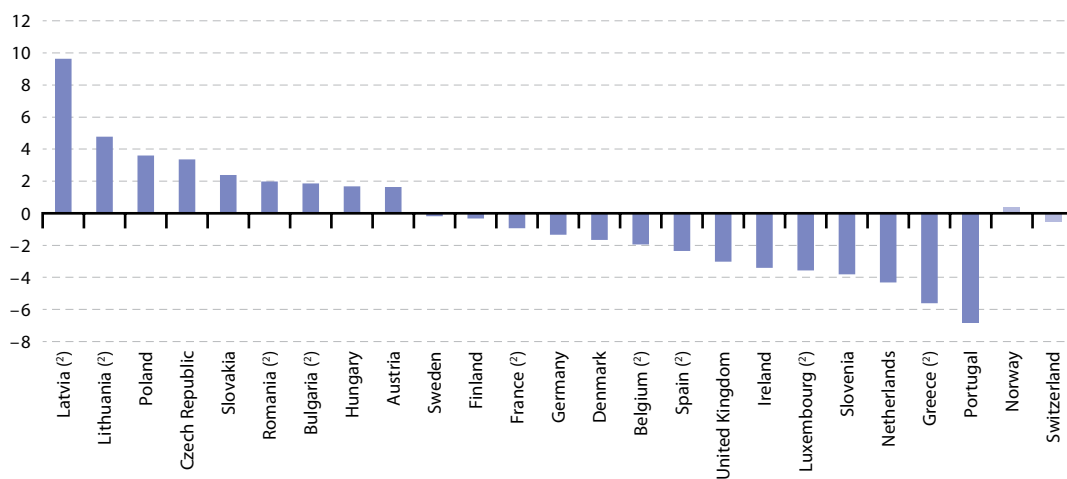


⁽¹⁾ Utilised agricultural area, 2007; Malta, not available.

⁽²⁾ Excluding Malta.

Source: Eurostat (online data codes: [aei_fm_manfert](#) and [ef_lu_ovcropaa](#)) and Fertilizers Europe

Figure 8.4.2: Average annual change in nitrogen tonnage, 2000-2008 ⁽¹⁾
(%)



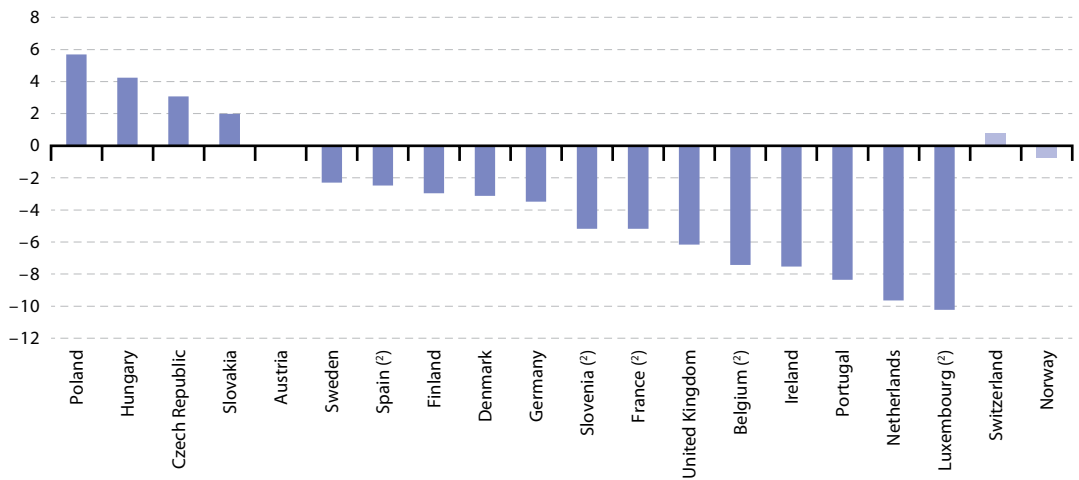
⁽¹⁾ Estonia, Italy, Cyprus and Malta, not available.

⁽²⁾ Estimates.

Source: Eurostat (online data code: [aei_fm_usefert](#))



Figure 8.4.3: Average annual change in phosphorus tonnage, 2000-2008 ⁽¹⁾
(%)

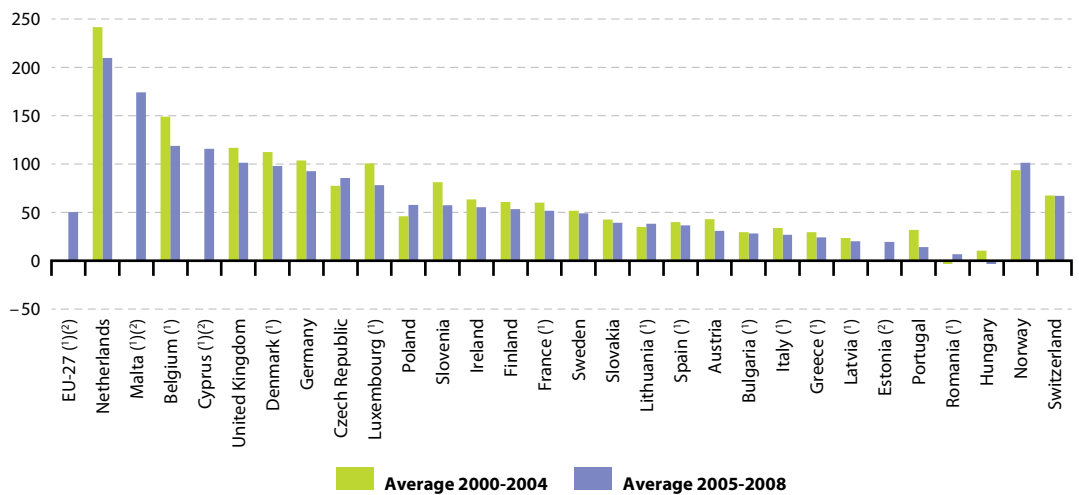


⁽¹⁾ Bulgaria, Estonia, Greece, Italy, Cyprus, Latvia, Lithuania, Malta and Romania, not available.

⁽²⁾ Estimates.

Source: Eurostat (online data code: [aei_fm_usefert](#))

Figure 8.4.4: Gross nitrogen balance, 2000-2004 and 2005-2008
(kg nitrogen per hectare of agricultural land)



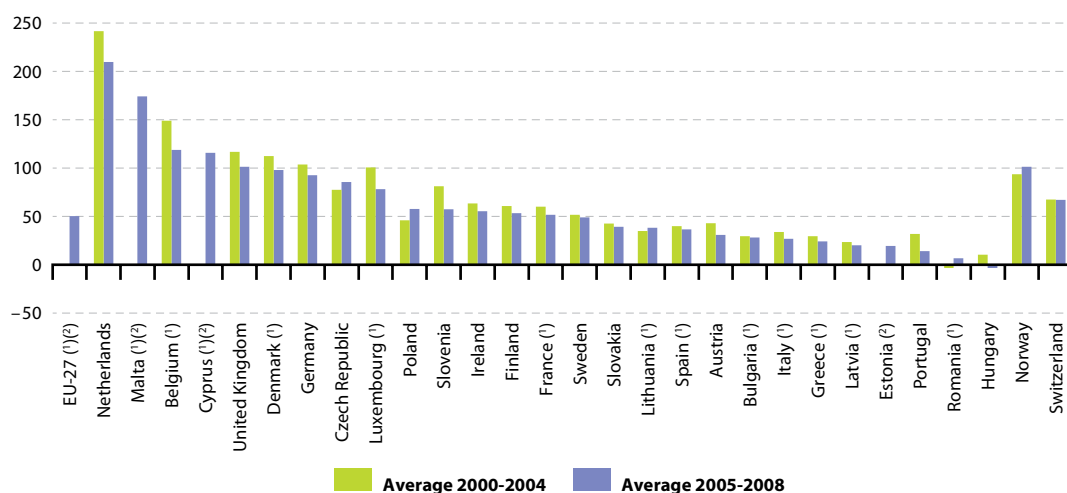
⁽¹⁾ Estimates.

⁽²⁾ 2000-2004, not available.

Source: Eurostat (online data code: [aei_pr_gnb](#))



Figure 8.4.5: Gross phosphorus balance, 2000-2004 and 2005-2008
(kg phosphorus per hectare of agricultural land)



(1) 2000-2004, not available.

(2) Estimates.

Source: Eurostat (online data code: [aei_pr_gnb](#))

8.5 Forestry

This subchapter presents statistics on forestry and logging in the [European Union \(EU\)](#). The [EU-27](#) has approximately 178 million hectares of [forests](#) and other wooded land, corresponding to 42 % of its land area, and forest cover is gradually increasing: over the past 20 years the forest area has increased by 5 % – approximately 0.3 % per year – although the rate varies substantially between Member States.

Main statistical findings

From 1995 to 2007, there was a relatively steady rise in the level of [roundwood production](#) in the [EU-27](#), both for coniferous (softwood) and non-coniferous (broadleaved or hardwood) species – see [Figure 8.5.1](#). However, the effects of the financial and economic crisis led to the level of coniferous production falling in 2008 and this was confirmed with a further reduction in 2009, when non-coniferous production also fell. Nevertheless, the overall level of roundwood production in the

[EU-27](#) in 2009 remained 25.3 million m^3 higher than in 1995.

In 2010 roundwood production increased for both categories of tree species: the larger category of coniferous species recorded an increase of 13.0 % compared with 2009, while there was production growth of 8.2 % for non-coniferous species. Overall production increased by 44.1 million m^3 in 2010, bringing the level of production back to 428.5 million m^3 , around 6.5 % below its peak level from 2007. Among the Member States, Sweden produced the most roundwood (70.2 million m^3) in 2010, followed by Germany, France and Finland (each producing between 50 million and 57 million m^3) – see [Table 8.5.1](#). Some of the peaks (most recently 2000, 2005 and 2007) in roundwood production are due to forestry and logging having to cope with unplanned numbers of trees that were felled by severe storms. The 415.1 million m^3 of roundwood produced in the [EU-27](#) in 2008 was almost 10 % less than the relative peak recorded in 2007. This latest



peak was due to exceptional windthrows by storms in many parts of Europe – notably in Germany and Sweden – after which many more trees had to be removed from forests than planned.

Approximately one quarter of roundwood production is used as wood for fuel and three quarters is industrial roundwood that is used either for sawnwood and veneers, or for pulp and paper production.

Some 100.4 million m³ of **sawnwood** were produced in the EU-27 in 2010, two fifths (39.3%) of which came from the two largest producing Member States, namely, Germany (22.3%) and Sweden (17.0%); Austria, Finland and France each accounted for around 9% of the EU-27 total. The level of sawnwood production in the EU-27 in 2010 was 10.3% higher than in 2009.

There is a strong link between the volume of roundwood produced and the value added generated by forestry and logging – see Figure 8.5.2. There is also a link between the labour input (in terms of the number of **annual work units (AWU)**) and value added. However, it is worth noting that the number of AWU per area of exploited forest varies significantly between countries, ranging from more than ten AWU per 1 000 hectares in the Czech Republic to only around one AWU per 1 000 hectares in Finland (and also Norway) – see Figure 8.5.3. Forestry and logging work in mountainous areas generally requires a higher labour input than on large tracts of flat land.

Data sources and availability

Eurostat, the Timber Committee of the **United Nations Economic Commission for Europe (UNECE)**, the Forestry Section of the **United Nations Food and Agriculture Organisation (FAO)** and the **International Tropical Timber Organisation (ITTO)** collect and collate statistics on the production and trade of wood through their **Joint Forest Sector Questionnaire**. Each partner collects data from a different part of the world. Eurostat is responsible for data from the EU Member States and **EFTA countries**.

Roundwood production is a synonym for removals; it comprises all quantities of wood removed from forests and other wooded land or other felling sites during a given period; it is reported in cubic metres (m³) underbark (in other words, excluding bark). Sawnwood production is wood that has been produced either by sawing lengthways or by a profile-chipping process and that exceeds 6 mm in thickness; it includes for example planks, beams, joists, boards, rafters, scantlings, laths, boxboards and lumber, in the following forms – unplanned, planed, and end-jointed; it is reported in cubic metres of solid volume.

Economic and employment data for forestry and logging are collected with a separate questionnaire that was developed in collaboration with Eurostat's national accountants; these statistics are part of integrated environmental and economic accounting for forests.

Context

Contrary to what is happening in many other parts of the world, the area covered by forests and other wooded land in the EU-27 is slowly increasing. The area covered by forests and other wooded land increased, on average, by 0.3% per annum over the period 1990 to 2010, although the rates of change in individual EU Member States varied substantially. The EU-27's forests and other wooded land cover approximately the same proportion of land area as that used for agriculture.

Ecologically, the forests of the EU belong to many different biogeographical regions and have adapted to a variety of natural conditions, ranging from bogs to steppes and from lowland to alpine forests. Socioeconomically, they vary from small family holdings to state forests or to large estates owned by companies, many as part of industrial wood supply chains; about 60% of the EU-27's wooded land is privately owned.

The EU's forestry strategy dates from 1998 and established a framework for forest-related actions in support of sustainable forest management. A report on its implementation was prepared in 2005 which led to the **European Commission** presenting an EU forest action plan (COM(2006) 302)



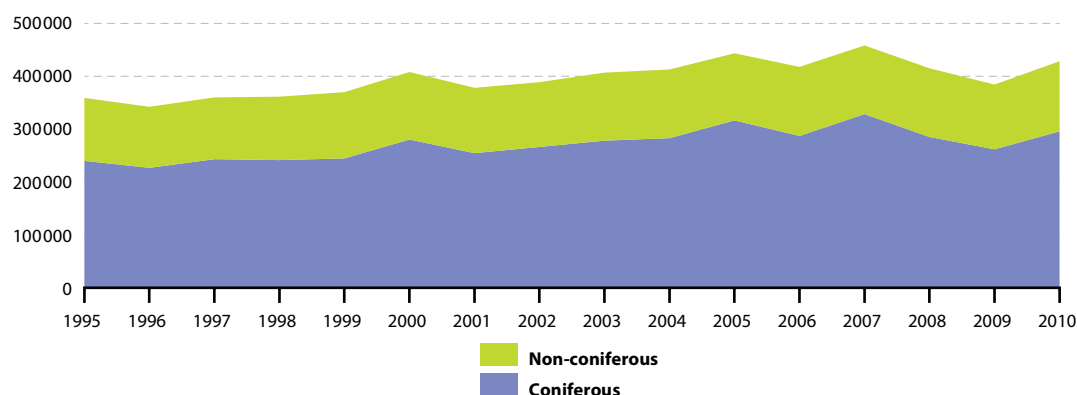
in 2006 which underpins support for sustainable forest management and the multi-functional role of forests. The plan is a framework for forest-related measures and is used to coordinate EU initiatives with the forest policies of the Member States. There are 18 key actions proposed – to be implemented jointly with the Member States. The plan focuses on four main objectives:

- improving long-term **competitiveness**;
- improving and protecting the environment;

- contributing to the quality of life;
- fostering coordination and communication.

In April 2011 the first steps were taken to organise a review of the forestry strategy. The current review may lead to the establishment of targets and indicators to measure progress. Equally, the **common agricultural policy (CAP)** is due to be reformed by 2013; this review may also have consequences for forestry policy in terms of changes to rural development policy.

Figure 8.5.1: Annual production of roundwood, EU-27, 1995-2010 ⁽¹⁾
(1 000 m³)



⁽¹⁾ 2000, 2001 and 2007, estimates.

Source: Eurostat (online data code: [for_remov](#))



Table 8.5.1: Wood production, 1995-2010
(1 000 m³)

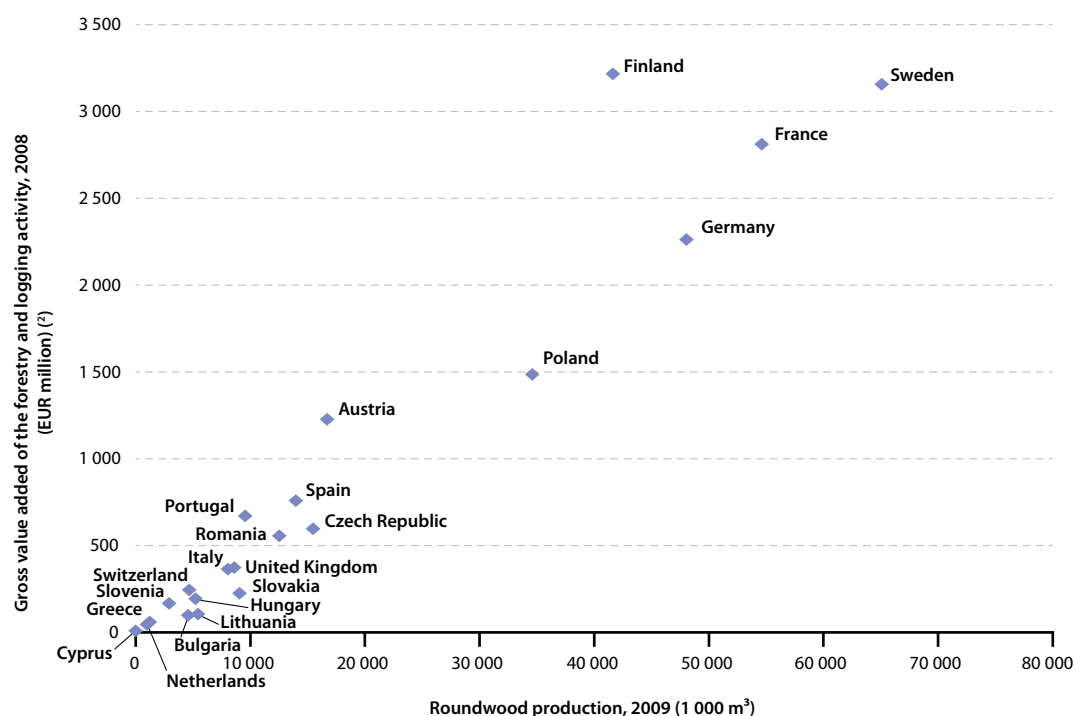
	Roundwood production					Sawnwood production				
	1995	2000	2005	2009	2010	1995	2000	2005	2009	2010
EU-27	359 132	408 095	443 484	384 394	428 526	83 146	100 064	108 082	91 078	100 430
Euro area (EA-16) (1)	212 355	236 540	232 925	214 025	240 231	52 069	61 337	66 777	54 831	60 051
Belgium	:	4 510	4 950	4 395	4 827	:	1 150	1 285	1 255	1 332
Bulgaria	2 838	4 784	5 862	4 599	5 668	257	312	569	447	633
Czech Republic	12 365	14 441	15 510	15 502	17 022	3 498	4 106	4 003	4 048	4 670
Denmark	2 282	2 952	2 962	2 813	2 669	585	364	196	441	448
Germany	39 343	53 710	56 946	48 073	54 418	14 207	16 340	21 931	20 772	22 351
Estonia	3 709	8 910	5 500	5 400	7 560	353	1 436	2 063	1 127	1 360
Ireland	2 204	2 673	2 648	2 349	2 789	678	888	1 015	774	875
Greece	1 961	2 245	1 523	1 261	1 251	337	123	191	106	118
Spain	16 075	14 321	15 531	13 980	15 648	3 312	3 760	3 660	2 072	2 038
France	60 438	65 865	52 499	54 625	57 362	10 071	10 536	9 715	7 885	8 565
Italy	9 736	9 329	8 691	8 080	7 254	1 862	1 630	1 590	1 220	1 200
Cyprus	48	21	10	10	9	15	9	4	5	4
Latvia	6 890	14 304	12 843	10 442	12 965	1 300	3 900	4 227	2 520	3 150
Lithuania	5 960	5 500	6 045	5 460	7 097	940	1 300	1 445	1 011	1 213
Luxembourg	:	260	249	274	275	:	133	133	129	94
Hungary	4 331	5 902	5 940	5 244	5 740	231	291	215	102	133
Malta	0	0	0	0	0	0	0	0	0	0
Netherlands	1 104	1 039	1 110	1 016	1 081	428	389	279	210	231
Austria	14 405	13 276	16 471	16 727	17 831	7 814	10 390	11 074	8 458	9 603
Poland	20 651	26 025	31 945	34 629	35 378	3 870	4 262	3 360	3 882	4 245
Portugal	9 350	10 831	10 746	9 564	9 648	1 831	1 427	1 010	1 093	1 045
Romania	12 178	13 148	14 501	12 557	14 333	1 777	3 396	4 321	3 598	4 349
Slovenia	1 866	2 253	2 733	2 930	2 945	513	439	527	525	596
Slovakia	5 323	6 163	9 302	9 087	13 939	661	1 265	2 621	2 254	2 524
Finland	50 219	54 542	52 250	41 653	50 952	10 007	13 420	12 269	8 072	9 473
Sweden	63 600	63 300	98 200	65 100	70 200	14 970	16 176	17 600	16 200	17 100
United Kingdom	8 146	7 791	8 519	8 624	9 662	2 446	2 622	2 780	2 871	3 078
Iceland	0	0	0	:	:	0	0	0	:	:
Liechtenstein	18	:	:	25	25	:	:	:	4	4
Norway	9 045	8 156	9 667	8 884	:	2 212	2 280	2 326	1 850	:
Switzerland	4 749	9 238	5 285	4 702	4 920	1 504	1 625	1 591	1 481	1 457
Montenegro	:	:	:	364	:	:	:	:	50	:
Croatia	2 603	3 669	4 018	4 242	:	578	642	624	653	:
FYR of Macedonia	:	:	822	639	:	:	:	18	2	:
Turkey	19 279	15 939	16 185	19 430	:	4 966	5 528	6 445	5 853	:
Brazil	:	:	255 743	256 306	:	:	:	23 557	24 987	:
Canada	188 346	201 845	203 121	107 266	:	43 838	50 465	60 187	32 820	:
China	:	:	302 028	291 850	:	:	:	18 814	29 311	:
India	:	:	328 677	330 975	:	:	:	14 789	14 789	:
Indonesia	:	:	111 291	100 585	:	:	:	4 330	4 330	:
Russia	116 510	158 100	185 000	151 400	:	27 815	20 000	22 033	18 974	:
United States	469 830	466 549	467 347	344 835	:	85 313	91 076	97 020	61 998	:

(1) EA-11 for 1995 and 2000; EA-12 for 2005.

Source: Eurostat (online data codes: [for_remov](#) and [for_swpan](#))



Figure 8.5.2: Roundwood production and gross value added of forestry and logging, 2008 and 2009 ⁽¹⁾

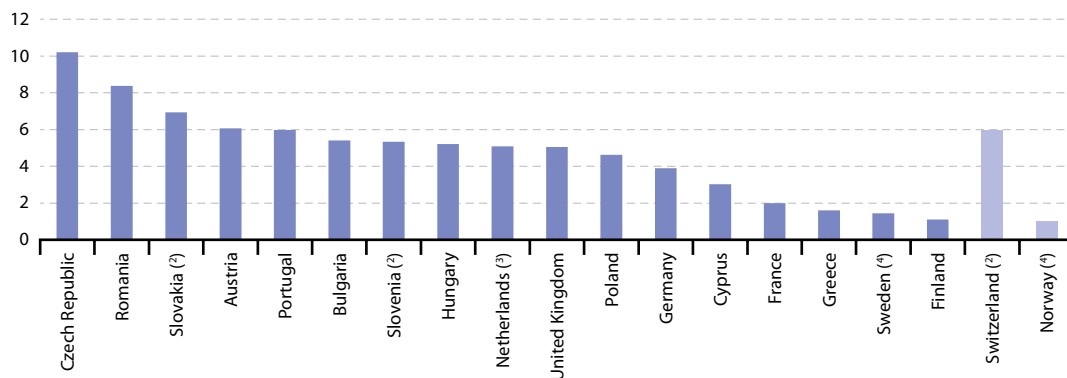


⁽¹⁾ Member States that are not shown, not available.

⁽²⁾ Italy, Lithuania and Netherlands, 2006; Spain and Sweden, 2007; Slovenia, Slovakia and Switzerland, 2009.

Source: Eurostat (online data codes: [for_remov](#) and [for_ieeaf_cp](#))

Figure 8.5.3: Volume of work per area of forest available for wood supply, 2008 ⁽¹⁾ (annual work units per 1 000 hectares)



⁽¹⁾ Forest available for wood supply, 2005; an annual work unit is equivalent to the work performed by one person employed full-time over a year; Member States that are not shown, not available. ⁽²⁾ 2009. ⁽³⁾ 2006. ⁽⁴⁾ 2007.

Source: Eurostat (online data codes: [for_awu](#) and [for_area](#)), FAO Forest Resources Assessment 2005



8.6 Fisheries

This subchapter gives an overview of recent statistics relating to fishing fleets, fish catches, and also aquaculture production in the [European Union \(EU\)](#). Fish are a natural, biological, mobile (sometimes over wide distances) and renewable resource. Aside from fish farming, fish cannot be owned until they have been caught. For this reason, fish stocks continue to be regarded as a common resource, which needs to be managed collectively. This has led to a range of policies that regulate the amount of fishing, as well as the types of fishing techniques and gear used in fish capture.

Main statistical findings

By far the largest fishing fleets among the EU Member States, in terms of power, were those from Italy, France, Spain and the United Kingdom; in 2010, the fishing fleets of each of these countries had a collective power of between 0.8 million kW and 1.1 million kW. In terms of tonnage, however, the Spanish fishing fleet was by far the largest (415 000 gross tonnes), which was more than twice the size of the fleets in the United Kingdom, Italy or France. The fishing fleets of Norway and Iceland were also relatively large. Indeed, the fleet in Norway had more power (1.2 million kW) than any of the fleets from the EU Member States, while in tonnage terms Norway (366 000) was second only to Spain (see Figure 8.6.1).

Total catches by the fishing fleets of Denmark, Spain, the United Kingdom and France accounted for just over half (50.6%) of all the catches made by EU-27 fishing fleets in 2009. This share has declined in recent years from about 60% in 2000, mainly as a result of the sharp reduction in the share of the Danish catch (see Table 8.6.1). Since 1999, the total EU-27 catch has fallen almost every year (with the exception of 2001); the total catch by the EU-27 in 2009 was 26.2% less than in 1999. Around 70% of the catches made by the EU-27 in 2009 were in the north east Atlantic, with the eastern central Atlantic the second largest [fishing area](#) (see Figure 8.6.2).

The level of aquaculture production in the EU-27 remained stable during the period from 1999 to 2009, with annual output of between 1.3 and 1.4 million tonnes. The five largest aquaculture producers among the EU Member States were Spain, France, the United Kingdom, Italy and Greece, which together accounted for around three quarters (75.6%) of total aquaculture production in 2009. Among the non-member countries included in Table 8.6.2 aquaculture production was extremely large in Norway – higher than the combined output of the three largest Member States; the aquaculture output of Turkey was also quite substantial (similar in magnitude to Italy).

The development of aquaculture production between 1999 and 2009 followed different patterns across the EU Member States. Production in the Netherlands and Germany was almost halved, while there were also relatively large reductions in aquaculture output in Italy, Spain and France. In contrast, aquaculture output increased by 44.7% in Greece during the period from 1999 to 2009 and rose by 27.0% in the United Kingdom.

Data sources and availability

Fishery statistics are collected from official national sources either directly by [Eurostat](#) for the members of the [European Economic Area \(EEA\)](#) or indirectly through other international organisations for other countries. The data are collected using internationally agreed concepts and definitions developed by the coordinating working party on fishery statistics (CWP), comprising Eurostat and several other international organisations with responsibilities in fishery statistics. The flag of the fishing vessel is used as the primary indication of the nationality of the catch, though this concept may vary in certain circumstances.

In general, the data refer to the fishing fleet size on 31 December of the reference year. The data are derived from national registers of fishing vessels which are maintained pursuant to Regulation 26/2004 which contains information on the vessel



characteristics – the administrative file of fishing vessels is maintained by the [European Commission's](#) Directorate-General for Maritime Affairs and Fisheries.

There has been a transition in measuring the tonnage of the fishing fleet from gross registered tonnage (GRT) to that of gross tonnage (GT). This change, which has taken place at different speeds within the national administrations, gives rise to the possibility of non-comparability of data over time and of non-comparability between countries.

Catches of [fishery products](#) include items taken for all purposes (commercial, industrial, recreational and subsistence) by all types and classes of fishing units operating both in inland, inshore, offshore and in high-seas fishing areas. The catch is normally expressed in live weight and derived by the application of conversion factors to the landed or product weight. As such, catch statistics exclude quantities which are caught and taken from the water (that is, before processing) but which, for a variety of reasons, are not landed.

Geographical fishing areas are defined for a number of specific areas of water, including:

- the north east Atlantic, which is roughly the area to the east of 42° W longitude and north of 36° N latitude, including the waters of the Baltic Sea;
- the north west Atlantic, which is the region that is roughly the area to the west of 42° W longitude and north of 35° N latitude;
- the eastern central Atlantic, which is the region to the east of 40° W longitude between latitudes 36° N and 6° S;
- the Mediterranean and the Black Sea (also known as [Food and Agriculture Organisation \(FAO\)](#) major fishing area 37), which comprises the Mediterranean Sea and the adjacent Black Sea.

Aquaculture is the farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding and protection from predators. Farming also implies individual or corporate ownership of, or rights resulting from contractual arrangements to, the stock being cultivated.

Context

The first common European policy measures in the fishing sector date from 1970. They set rules for access to fishing grounds, markets and structures. All these measures became more significant when, in 1976, the Member States followed an international movement and agreed to extend their rights to marine resources from 12 to 200 miles from their coasts.

After years of difficult negotiations, the [common fisheries policy \(CFP\)](#), the EU's instrument for the management of fisheries and aquaculture, was born in 1983. The CFP sets maximum quantities of fish that can be safely caught every year: the total allowable catch (TAC). Each country's share is called a national quota.

The CFP was reformed in 2002 to deal with the environmental, economic and social dimensions of fishing. Common measures were agreed in four areas:

- the conservation of stocks/environmental impact – to protect fish resources by regulating the amount of fish taken from the sea, by allowing young fish to reproduce, and by ensuring that measures are respected;
- structures and fleet management (such as vessels, port facilities and fish processing plants) – to help the fishing and aquaculture sectors adapt their equipment and organisations to the constraints imposed by scarce resources and the market;
- the organisation of the market for fish in the EU – to maintain a common organisation of the market in fish products and to match supply and demand for the benefit of both producers and consumers;
- and external fisheries policy – to set-up fisheries agreements and to negotiate at an international level within regional and international fisheries organisations for common conservation measures in deep-sea fisheries.

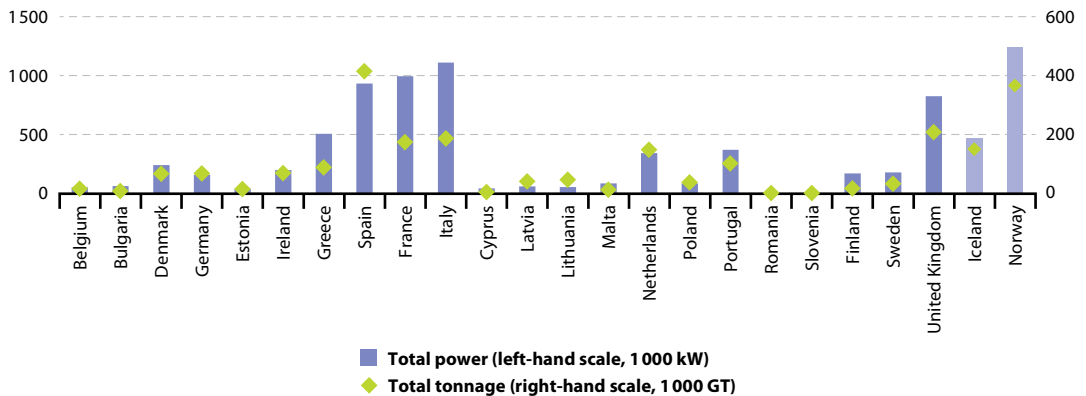
The 2002 reform identified the need to limit fishing efforts, the level of catches, and to enforce certain technical measures. To ensure sustainable fishing, it is not only the quantity of fish taken from the sea that is important, but also their species, size, and the techniques used in catching them, as well as the areas where they are caught.



The European fisheries fund (EFF) has a budget of around EUR 3 800 million and covers the period 2007 to 2013. It aims to support the objectives of the CFP by:

- supporting sustainable exploitation of fisheries resources and a stable balance between these resources and the capacity of Community fishing fleet;
- strengthening the competitiveness and the viability of operators in the sector;
- promoting environmentally-friendly fishing and production methods;
- providing adequate support to people employed in the sector;
- fostering the sustainable development of fisheries areas.

Figure 8.6.1: Fishing fleet, 2010 ⁽¹⁾



⁽¹⁾ The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.

Source: Eurostat (online data code: [fish_fleet](#))



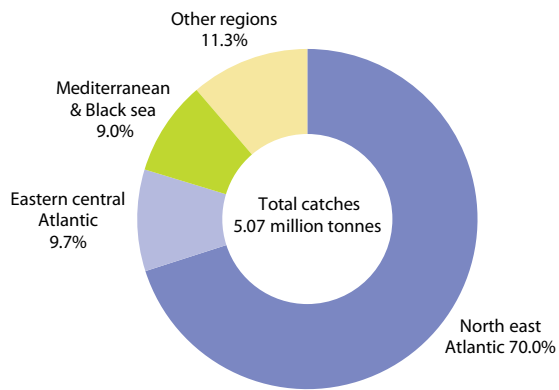
Table 8.6.1: Total catches in all fishing regions, 1999-2009
(1 000 tonnes live weight)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	6 869	6 789	6 920	6 321	5 892	5 875	5 641	5 450	5 180	5 176	5 068
Belgium	30	30	30	29	27	27	25	23	25	23	22
Bulgaria	11	7	7	15	12	8	5	8	9	9	9
Czech Republic	4	5	5	5	5	5	4	5	4	4	4
Denmark	1 405	1 534	1 511	1 442	1 031	1 090	911	868	653	691	778
Germany	238	206	211	222	261	261	286	298	295	280	250
Estonia	112	113	105	101	79	88	100	87	99	101	97
Ireland	285	278	356	282	266	280	268	212	215	205	269
Greece	121	99	94	96	93	93	92	98	95	89	83
Spain	1 164	1 067	1 096	852	857	772	768	744	738	919	761
France	665	702	680	703	709	671	595	593	558	499	440
Italy	283	302	310	270	296	279	298	316	287	236	253
Cyprus	40	67	81	2	2	2	2	2	2	2	1
Latvia	125	136	128	114	115	125	151	140	155	158	163
Lithuania	73	79	151	150	157	162	140	155	187	183	173
Luxembourg	0	0	0	0	0	0	0	0	0	:	:
Hungary	8	7	7	7	7	7	8	8	7	7	6
Malta	1	1	1	1	1	1	1	1	1	1	2
Netherlands	511	496	518	464	526	522	549	470	414	417	382
Austria	0	0	0	0	0	0	0	0	0	0	0
Poland	236	218	225	223	180	192	155	145	152	142	224
Portugal	210	189	192	202	209	221	219	229	253	224	199
Romania	8	7	8	7	10	5	6	7	6	5	4
Slovenia	2	2	2	2	1	1	1	1	1	1	1
Slovakia	1	1	2	2	2	2	2	2	2	2	2
Finland	144	156	149	145	121	135	131	149	165	151	155
Sweden	351	339	312	295	287	270	256	269	238	231	203
United Kingdom	841	748	740	690	637	655	669	621	616	595	587
Iceland	1 754	2 000	2 001	2 145	2 002	1 750	1 661	1 345	1 421	1 307	1 164
Liechtenstein	0	0	0	0	0	0	0	0	0	:	:
Norway	2 628	2 700	2 687	2 740	2 549	2 525	2 393	2 256	2 378	2 431	2 524
Switzerland	2	2	2	2	2	2	1	1	1	2	2
Montenegro	:	:	:	:	:	:	:	1	1	1	2
Croatia	19	21	18	21	20	30	35	38	49	49	56
FYR of Macedonia	0	0	0	0	0	0	0	0	0	0	0
Turkey	574	503	528	567	508	550	426	533	632	494	464

Source: Eurostat (online data code: [fish_ca_00](#))



Figure 8.6.2: Catches by fishing region, EU-27, 2009
(%, based on tonnes)



Source: Eurostat (online data code: [fish_ca_main](#))



Table 8.6.2: Aquaculture production, 1999-2009
(1 000 tonnes live weight)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	1 429	1 399	1 386	1 272	1 343	1 311	1 261	1 283	1 307	1 252	1 300
Belgium	2	2	2	2	1	1	0	0	0	0	1
Bulgaria	8	4	3	2	4	2	3	3	4	5	8
Czech Republic	19	19	20	19	20	19	20	20	20	20	20
Denmark	43	44	42	32	38	43	39	28	31	37	34
Germany	80	66	53	50	74	57	45	38	45	44	41
Estonia	0	0	0	0	0	0	1	1	1	0	1
Ireland	44	51	61	63	63	58	60	53	53	45	47
Greece	84	95	98	88	101	97	106	113	113	115	122
Spain	318	309	309	255	268	293	219	295	285	252	269
France	265	267	252	252	240	243	245	238	237	238	234
Italy	210	217	218	184	192	118	181	174	181	158	162
Cyprus	1	2	2	2	2	2	2	4	3	4	3
Latvia	0	0	0	0	1	1	1	1	1	1	1
Lithuania	2	2	2	2	2	3	2	2	3	3	3
Luxembourg	:	:	:	:	:	:	:	:	:	:	:
Hungary	12	13	13	12	12	13	14	15	16	15	14
Malta	2	2	1	1	1	1	1	7	9	7	5
Netherlands	109	75	57	54	67	79	71	42	53	47	56
Austria	3	3	2	2	2	2	2	3	3	2	2
Poland	34	36	35	33	35	35	38	36	35	37	37
Portugal	6	8	8	8	8	7	7	8	7	6	7
Romania	9	10	11	9	9	8	7	9	10	12	13
Slovenia	1	1	1	1	1	2	1	1	1	1	2
Slovakia	1	1	1	1	1	1	1	1	1	1	1
Finland	15	15	16	15	13	13	14	13	13	13	14
Sweden	6	5	7	6	6	6	6	8	5	8	9
United Kingdom	155	152	171	179	182	207	173	172	174	180	197
Iceland	4	4	4	4	6	9	8	9	5	5	:
Norway	476	491	511	551	584	637	662	709	830	844	962
Switzerland	1	1	1	1	1	1	1	1	1	1	:
Montenegro	:	:	:	:	:	:	:	0	0	0	:
Croatia	6	7	10	9	8	10	11	0	0	16	:
FYR of Macedonia	2	2	1	1	1	1	1	1	1	1	:
Turkey	63	79	67	61	80	94	120	129	140	152	:

Source: Eurostat (online data code: [fish_aq_q](#))