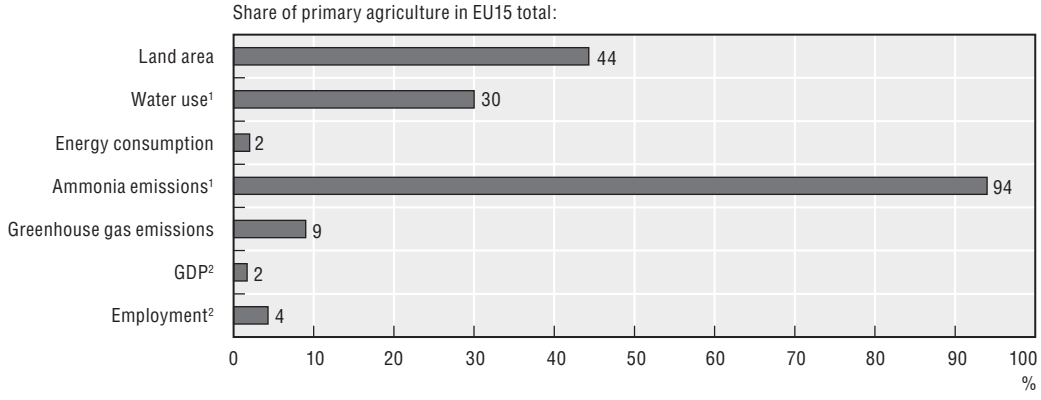
3.31. EUROPEAN UNION

Figure 3.31.1. **National agri-environmental and economic profile, 2002-04: European Union (15)**



StatLink http://dx.doi.org/10.1787/301357140147

1. Data refer to the period 2001-03.
2. Data refer to the year 2004.

Source: OECD Secretariat. For full details of these indicators, see Chapter 1 of the *Main Report*.

3.31.1. Agricultural sector trends and policy context

Overall agricultural production in the EU15 has changed little over the past decade. Over the period 1990-92 to 2002-04 the volume of production rose by 2%, although the value of production increased by almost 30%, despite a nearly 5% reduction in the area farmed (Figures 3.31.2, 3.31.3 and 3.31.4). Agriculture accounted for around 2% of GDP and over 4% of total employment in the EU15 in 2003, but these averages mask great variation across EU member countries (Figure 3.31.1). There is also great diversity of production and farm structures in the EU agricultural sector, and that diversity has increased with the addition of 10 new member states in 2004 [1].

European agri-environmental trends highlight continuing challenges. The main source of agricultural production growth over the next 20 years is expected to arise from crop yield increases and improvements in livestock productivity, rather than any expansion in the area under cultivation or livestock numbers. Projections of EU15 wheat and coarse grains from 2007 to 2016, for example, suggest yields rising at around 1% per annum while the area cultivated is likely to be stable or slightly reduced [2]. Similarly for milk production, while cow numbers are projected to fall by nearly 1% per annum up to 2016, milk yields are expected to rise by over 0.5% annually [2].

The purchase of agricultural inputs, such as mineral fertilisers, pesticides, energy and water, are expected to increase considerably in certain new member states. This could lead to increased risks for water pollution and biodiversity, although the intensity of input use in the new member states is likely to remain lower than in most EU15 countries. Environmental

pressure is also likely to increase on water resources, especially as there has been a 7% increase in the EU15 area irrigated over the period from 1990-92 to 2001-03, compared to the OECD average of 8% over this period. Also demand for water is rising from other users in some EU regions, including the need to maintain water flows for the conservation of aquatic ecosystems (*e.g.* rivers, lakes and wetlands) [3]. Overall total water use across the EU15, however, decreased by 9% between 1990-92 to 2001-03.

Farming is mainly supported under the Common Agricultural Policy (CAP), together with additional national expenditure within the CAP framework. Support to EU15 agriculture has declined from 39% of farm receipts in the mid-1980s to 34% in 2002-04 (as measured by the OECD Producer Support Estimate) compared to the OECD average of 30%. Nearly 70% of EU15 farm support was output and input linked up to 2004, falling from over 98% in the mid-1980s [1]. Support to farmers includes agri-environmental measures (AEMs), for undertaking activities deemed as environmentally beneficial, with EUR 13.5 billion of EU15 co-financed payments for the period 2000-06 allocated for AEMs [4]

Agricultural support payments are increasingly subject to environmental cross-compliance requirements. Voluntary (for EU member states) cross compliance was introduced under the *Agenda 2000 CAP Reform* and became mandatory with the 2003 CAP Reform. As of January 2005, for farmers to receive the *Single Farm Payment*, they must comply with 19 *Statutory Management Requirements* (SMRs) – five of which are environmental – and with a number of standards to ensure the "good agricultural and environmental condition" (GAEC) of agricultural land (as set out in EC Regulation 1782/2003) [5, 6]. The SMRs are based on pre-existing EU directives and regulations, while GAEC is a new requirement and consists of eleven standards relating to soil erosion, soil organic matter, soil structure and a minimum level of maintenance of the land.

Agri-environmental payments largely focus on farm management practices to enhance environmental benefits. Support for agricultural management practices compatible with protection of environment was established under EU Council Regulation (EEC) No. 2078/92, which covered the period 1993-99, and was extended over the period 2000-06 under Regulation 1257/1999. Under these measures farmers are required to meet certain agri-environmental commitments for at least five years. These commitments go beyond the application of usual "good farming practice" (defined as the standard of farming which a "reasonable" farmer would follow in the region concerned), and must at least entail compliance with general environmental objectives (Regulation 445/2002). Support is granted annually and is calculated on the basis of: income forgone; additional costs resulting from the commitments; and the need to provide an incentive to alter practices. The maximum annual payments per hectare are: EUR 600 for crops; EUR 900 for specialised perennial crops; and EUR 450 for all other land uses. Payment rates vary between different measures and member states, but the average agri-environmental payment in 2001 was EUR 89 per hectare. Between 1993 and 2001 the total EU15 spending under these two agri-environmental regulations amounted to EUR 2.3 billion [4, 5].

Some agri-environmental payments are specific to organic farming. In 2001, a total of EUR 275 million was spent on organic farming, within the framework of agri-environmental measures, covering more than 18 000 holdings farming nearly 3 million hectares or about 4% of total EU15 agricultural land area (2002-04), compared to the OECD average of under 2%. The average annual payment rate for organic farming conversion is EUR 183 per hectare, which is higher than for the average of other agri-environmental

measures in all countries, except Portugal and the United Kingdom. Council Regulation (EEC) N° 2092/91 defines a conversion period of a minimum of two years before sowing annual crops and three years in the case of perennials. It also defines a method for organic production for crops and livestock, regulates the labeling, processing, inspection and marketing of organic products within the EU, and the import of organic products from non-EU countries [5, 7].

Agriculture is also affected by EU-wide environmental policies. In many cases these environmental policies are implemented in conjunction with the cross-compliance requirements mentioned above. The ***Nitrates Directive*** requires member states to designate as *Nitrate Vulnerable Zones* all areas of land where the corresponding surface water or groundwater contain more than 50mg nitrates per litre or where the corresponding freshwater bodies, estuaries, coastal and marine waters are found to be or risk being eutrophic. Member states must establish and implement mandatory measures for farmers located in these zones. The ***Directive on Integrated Pollution Prevention and Control*** requires member states to impose their own emission limits and other appropriate conditions in environmental permits, which are mandatory for potentially polluting plants of a given scale, including large-scale intensive poultry and pig operations.

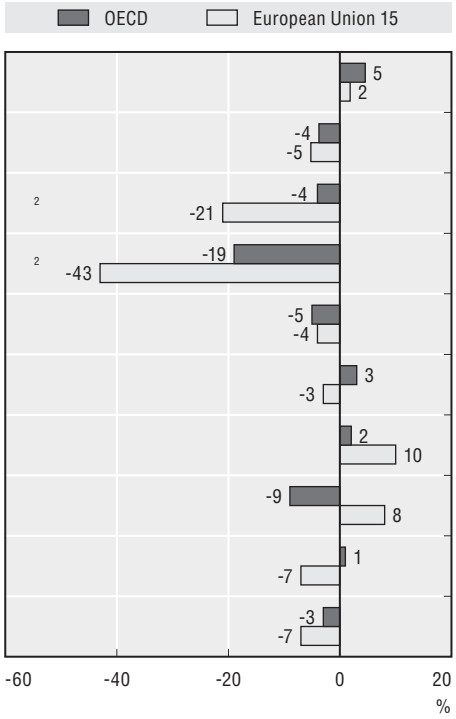
With regard to water quality, the Drinking Water Directive specifies limits for levels of nitrates, active ingredients of pesticides and residues from plant protection products, which member states are required to meet. The ***Groundwater Directive*** requires member states to take steps to prevent (limit) the introduction into groundwater of substances presenting a high risk of toxicity (low risk of toxicity, but potential harmful effect). The *Nitrates, Groundwater and Drinking Water Directives* are now part of the broader ***Water Framework Directive*** which requires member states to: develop by 2009 a Management Plan and a Programme of Measures for each river basin to protect, enhance and restore bodies of surface and groundwater; and ensure by 2010 that water pricing policies provide adequate incentives for users to use water resources efficiently [5].

Concerning biodiversity and soils, the ***Birds and Habitat Directives*** requires member states to take steps to protect all rare, threatened or vulnerable plant and animal species of community interest, and all wild bird species. In the case of soil as part of the EU's 6th *Environment Action Programme* [8], the EU has decided to adopt a ***Thematic Strategy on Soil Protection*** as part of its aim of protection and preservation of soils, including agricultural soils, which was adopted in 2006.

EU agriculture is also affected by a number of international environmental agreements. In most cases member countries sign and ratify these agreements and implement the necessary actions to comply with the agreements, unlike trade agreements, such as under the *World Trade Organisation*, where the EU signs and ratifies these agreements as a group and not through individual member states. Some international environmental agreements that affect agriculture are regional, such as the: North-east Atlantic (*OSPAR Convention*) and the Baltic Sea (*HELCOM Convention*) in relation to marine pollution from agricultural nutrients and pesticides; the Convention on the Conservation of European Wildlife and Natural Habitats (*Bern Convention*); and the European Landscape Convention. In other cases agreements are global, for example, the Convention on Long-Range Transboundary Air Pollution (*Gothenburg Protocol*); the *Montreal Protocol* on Substances that Deplete the Ozone Layers; the *Convention on Biological Biodiversity*; the *United Nations Convention to Combat Desertification*; and the *Kyoto Protocol* to the United Nations Framework Convention on Climate Change [9].

Figure 3.31.2. **EU15 agri-environmental performance compared to the OECD average**

Percentage change 1990-92 to 2002-04[1]



Absolute and economy-wide change/level

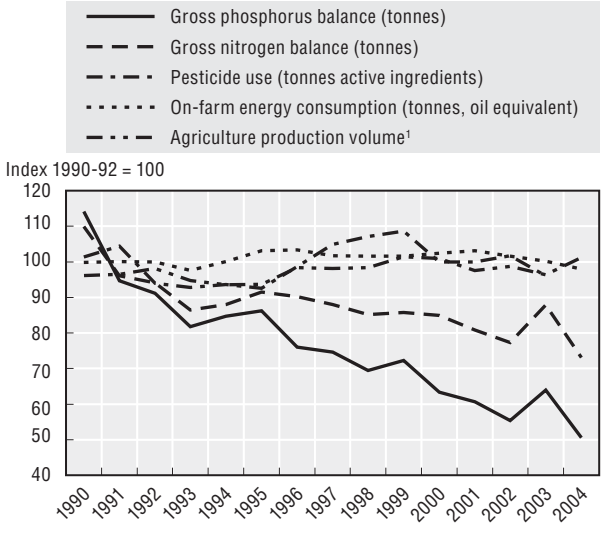
Variable	Unit		European Union 15	**OECD**
Agricultural production volume	Index (1999-01 = 100)	1990-92 to 2002-04	102	105
Agricultural land area	000 hectares	1990-92 to 2002-04	–7 662	–48 901
Agricultural nitrogen (N) balance	Kg N/hectare	2002-04	83	74
Agricultural phosphorus (P) balance	Kg P/hectare	2002-04	10	10
Agricultural pesticide use	Tonnes	1990-92 to 2001-03	–12 144	–46 762
Direct on-farm energy consumption	000 tonnes of oil equivalent	1990-92 to 2002-04	–640	+1 997
Agricultural water use	Million m^3	1990-92 to 2001-03	+3 916	+8 102
Irrigation water application rates	Megalitres/ha of irrigated land	2001-03	6.1	8.4
Agricultural ammonia emissions	000 tonnes	1990-92 to 2001-03	–249	+115
Agricultural greenhouse gas emissions	000 tonnes CO_2 equivalent	1990-92 to 2002-04	–30 611	–30 462

n.a.: Data not available. Zero equals value between –0.5% to < +0.5%.

1. For agricultural water use, pesticide use, irrigation water application rates, and agricultural ammonia emissions the % change is over the period 1990-92 to 2001-03.
2. Percentage change in nitrogen and phosphorus balances in tonnes.

Source: OECD Secretariat. For full details of these indicators, see Chapter 1 of the *Main Report*.

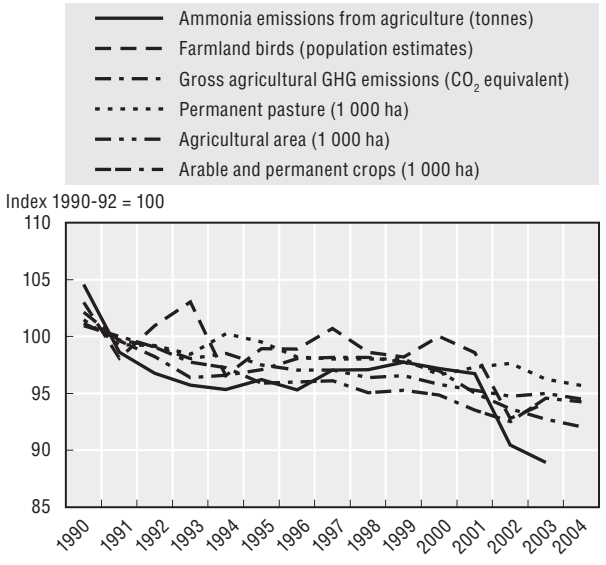
Figure 3.31.3. **Agri-environmental trends, EU15**



1. Index 1999-2001 = 100.

Source: OECD Secretariat.

Figure 3.31.4. **Agri-environmental trends, EU15**



Source: OECD Secretariat.

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