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Focus on Land

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Agriculture and Rural Development

AGRICULTURAL LAND IN EUROPE

Natural resources are scarce and their preservation is a prerequisite for ensuring prosperity in the long-term. This basic fact applies even to land – it is a finite resource that cannot be imported or reproduced. The state of land in Europe is mixed. Semi-natural vegetation and wetlands, as well as agricultural land and open spaces/bare soils, show slightly decreasing trends. Meanwhile, the area of forested land and water bodies is increasing slightly.

Agricultural land accounts for almost half of the EU area. Around two thirds of agricultural land is used for arable crops, one third for permanent grassland and meadows, and the rest for permanent crops. In addition to agricultural area, forests cover 37.5% of the EU territory.

Agricultural land is exposed to **pressure** from several angles. World demand for food is steadily increasing, driven by the combined effect of population and income growth. Food and Agriculture Organization (FAO) has projected a 60% increase of agricultural production in 2050 compared to 2007 to meet demand for food for an estimated 9.7 billion people. At the same time, land will have to produce energy and biomass - the EU's Renewable Energy Directive sets an overall binding target of 20% for the share of EU energy needs to come from renewable resources. The competition for land use is therefore stiff. Furthermore, every year in Europe, soils covering an area larger than the city of Berlin are lost to urban sprawl and transport infrastructure. The production potential of land is also lost due to **soil degradation**, such as erosion by water or due to the loss of organic matter.

The area of agricultural, as well as of forest land plays an essential role in relation to **climate change**. Agricultural activity is a source of greenhouse gases (GHG) but it also creates a sink, notably through the storage of carbon in the soil organic matter and in biomass. Agriculture in Europe is not only responsible for the supply of food and raw materials, it also has a powerful influence on the state of the rural environment and on shaping the rich European landscapes. There is scarcely any true wilderness left in Europe so the quality of the rural environment depends heavily on the way land is managed. Agriculture and forestry are also important sources of employment and contribute to the character and social fabric of much of rural Europe. Agricultural land use in Europe is therefore essentially linked to the provision of a whole range of **public goods**.

These trends and pressures mean that farmers, land managers as well as policy makers have to achieve more with less, when it comes to resources and to land in particular.

LAND AND TOOLS OF THE EU'S COMMON AGRICULTURAL POLICY

The EU's Common Agricultural Policy (CAP) has had a large impact on the way agricultural land has been used over the past 50 years. The motivation for introducing this policy was originally linked to the dire need to produce more food and stabilize markets. Over the years, the original policy goal of food security has remained but has been complemented by other objectives, such as competitiveness, sustainability and territorial cohesion. In consequence, the CAP's toolbox has become more versatile and more fit to serve various needs. Amidst these changes, the CAP has been constantly increasing its effort to value land by encouraging farmers to produce in a more environmentally friendly way.

Area payments

Direct payments were originally introduced in 1992 under the MacSharry reforms. This implied a shift for the CAP from production support to income support. Nowadays, direct payments, which constitute about 70% of the CAP budget, i.e. EUR 41 billion in 2015, are no longer linked to production, and they are related to area instead. Apart from retaining the income support function, these payments also remunerate farmers for the production of public goods, such as protecting landscape features or water quality. With respect to environment and to land in particular, 30% of all direct payments are paid in exchange for **greening practices** implemented on agricultural land.

Rural development programmes (RDP) link a big part of support to land as well. For example, **agri-environment-climate** measures (AECM) support farmers that use environmentally-friendly or climate action practices over a set period of 5-7 years. The payments compensate farmers for the extra costs that they incur and the income that they forego when they undertake these practices. Some Member States are even developing result-based schemes with farmers paid for providing a certain environmental outcome. During 2014-2020, a total of EUR 16.5 billion is earmarked for this type of action. In 2015, these voluntary practices covered 47 million hectares – that is the size of Germany and Bulgaria put together.

RDPs also combat **land abandonment** – farmers receive annual payments covering income loss and additional costs for farming in areas which would otherwise be at risk of abandonment thus bearing negative consequences for the richness of biodiversity and for the quality of life in the area. This is the case in mountains as well as in other areas suffering from natural

constraints. These area payments can range from a few dozen euros to several thousand euros per hectare.

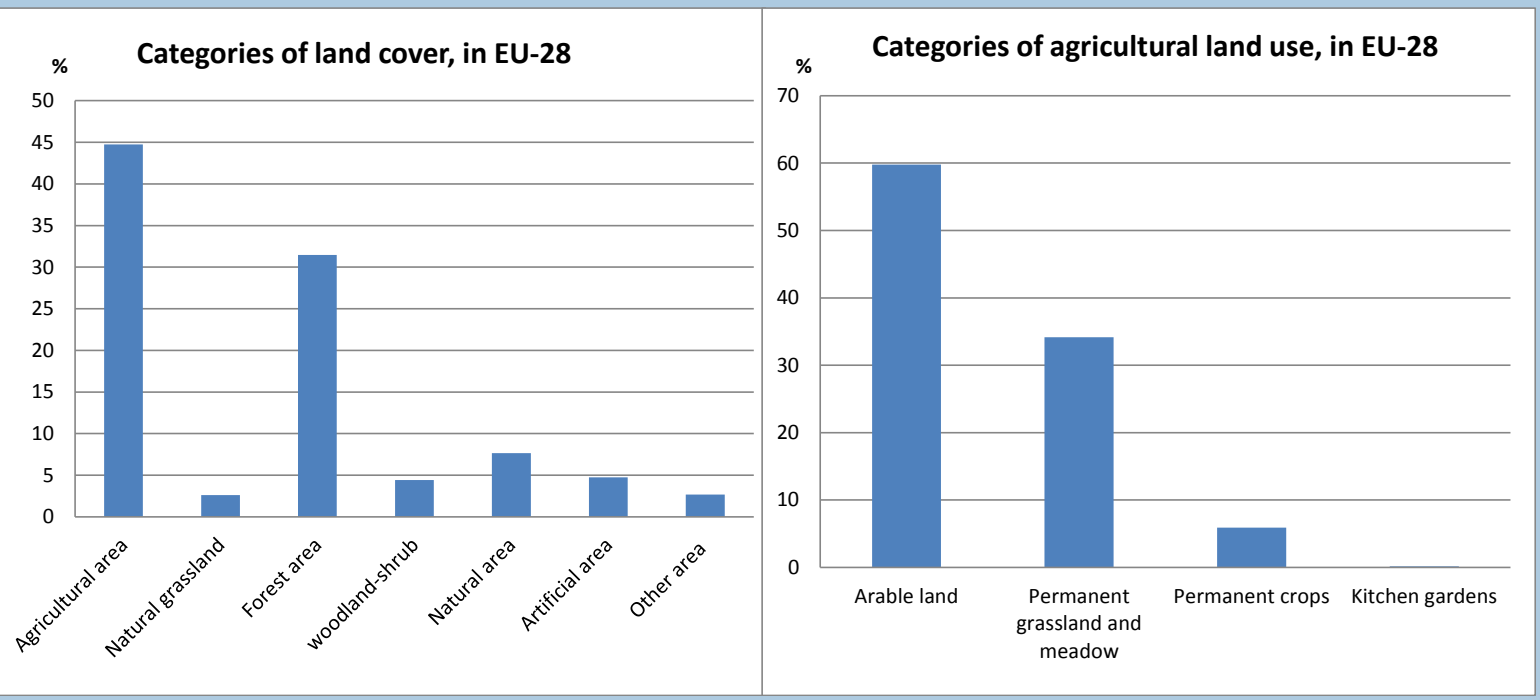
In order to receive these area payments, farmers are required to respect certain rules. This requirement is known as **cross-compliance**. These rules concern food safety, animal health, plant health, the climate, the environment, the protection of water resources, animal welfare and the condition in which farmland is maintained.

Investments

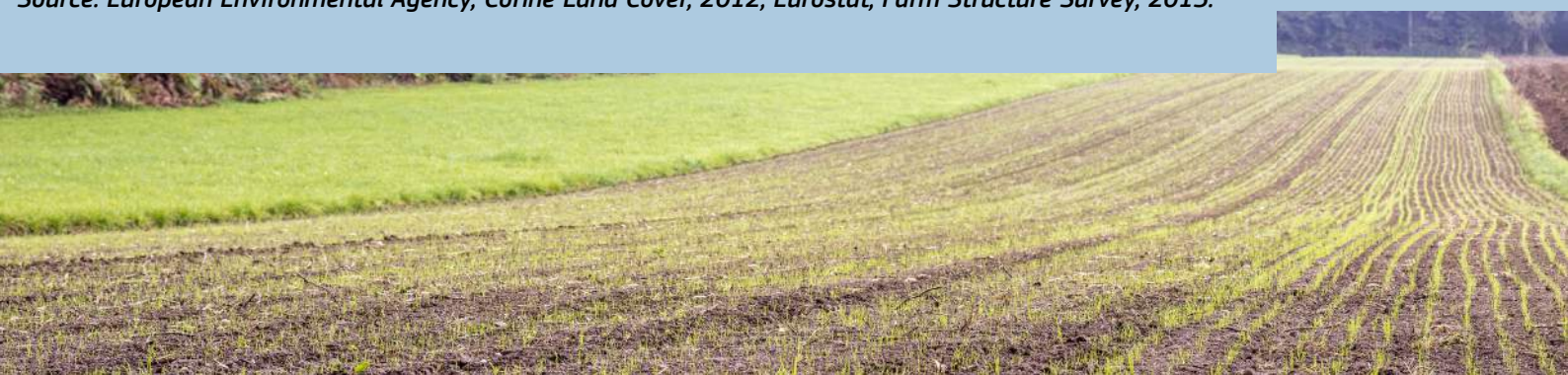
Whereas area payments provide a stable income for farmers, the investment measure of rural development policy, which accounts for approximately EUR 21 billion in 2014-2020, is targeting the positive development of agriculture in terms of economic and environmental performance. Farmers and forest managers may get support for part of the cost to purchase new machinery which is not only more efficient, but it can also be better for land – such as low tillage machinery, precision farming machinery and other ICT equipment that can reduce the farm's carbon foot print or negative environmental impact. In addition, rural development policy also provides support for non-productive investments such as hedges, restoration of wetlands and ponds etc.

Knowledge

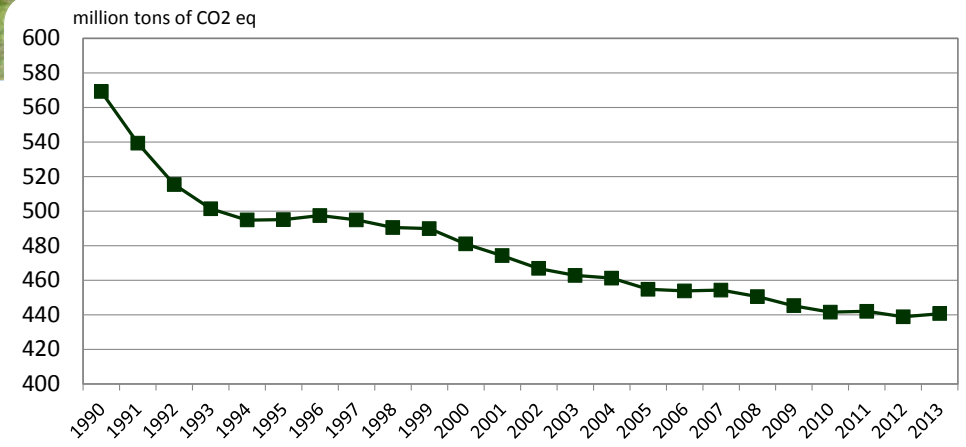
Knowledge is a key ingredient of proper land management. The CAP has a number of instruments to support the development and transfer of knowledge. Within rural development, knowledge transfer and innovation actions help deliver results across all priority areas (like competitiveness and environment). Over the period 2014-2020, rural development will support 3.9 million places in training courses as well as in discussion groups, farm exchanges and it will deliver advice to 1.4 million farmers, foresters and other land managers. In addition to this, it will support the development of interactive innovation project groups under the new European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI). These Operational Groups will help transfer research results into practical solutions that have an impact on farms and fields. Last but not least, the EIP will also help give the agricultural knowledge base a boost by linking to projects funded under the EU research policy, known as Horizon 2020.



Source: European Environmental Agency, Corine Land Cover, 2012; Eurostat, Farm Structure Survey, 2013.



Evolution of GHG emissions from agriculture in the EU-28 1990-2013



Source: CAP context indicator 45: emissions from agriculture

CAP IN ACTION

Unlike farm policies in other parts of the world, the CAP puts land and the related policy instruments at the forefront of its design. Land use as a condition and land use change as a policy objective address the necessary joint delivery of public and private goods from agriculture.

The greening of direct payments combined with cross-compliance and agri-environment-climate measures play a key role in this context by fostering the provision of **public goods** (including landscape services).

Agriculture plays a major role in landscape management through its complex interlinkages with landscape features. The CAP remains an important driver of landscape management due to its large influence on farming activities in the EU.

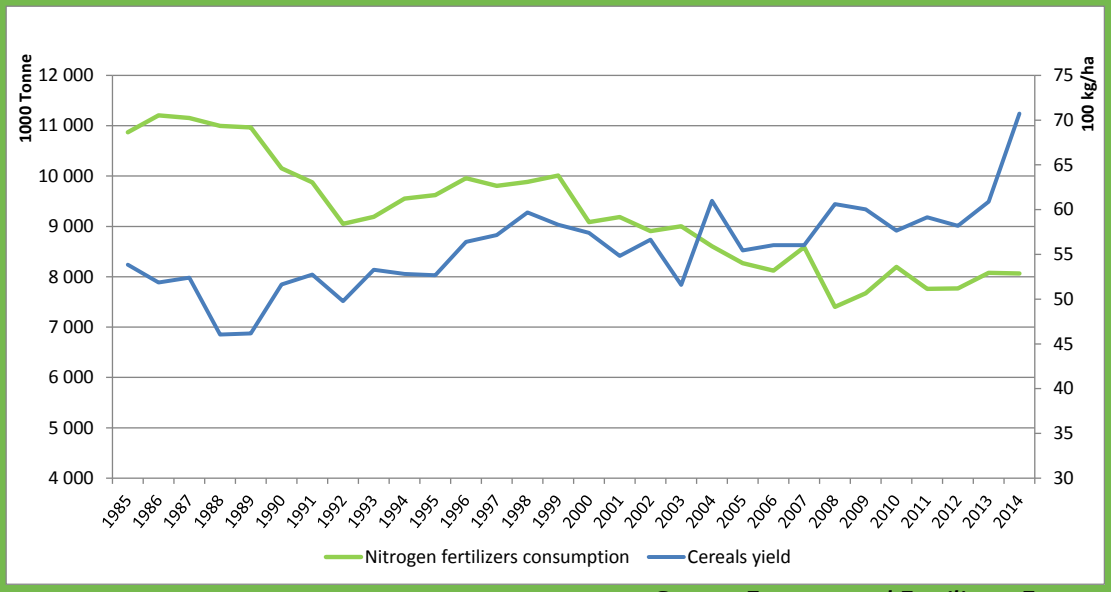
As of 2015, farmers receive more than EUR 12 billion in exchange for carrying out the prescribed greening practices, including maintenance of landscape features and crop diversification. In rural development, 17.6% of agricultural and 3.5% of forest land is expected to come under management contracts contributing to biodiversity. In addition, 14.3% of agricultural and 3.5% forested land should come under management contracts for improving soil management, and 15.4 % of agricultural and 4.3% of forest land for improving water management. All farmers receiving direct payments and all farmers taking on these commitments will have to manage their land in a way that respects the rules of cross-compliance.

One of the many strengths of the CAP is that it cuts across borders and it strives to accommodate all geographical areas in Europe as well as all types of farming. Through its strong link to the land, CAP delivers on a number of other cross-border policy objectives – and this is also where its **EU added value** lies.

The CAP's role in **combatting climate change** is perhaps the best example of its cross-border and cross-sectorial impact. The regulatory framework, support to land management and animal husbandry using modern technologies and practices, as well as improved knowledge have – amongst other things – contributed to a drop of GHG emissions in agriculture by 24% between 1990 and 2013. Furthermore, farmers receiving direct payments are no longer allowed to plough up their permanent grasslands. This is because grassland has a high capacity to store carbon, unlike land that is ploughed (and grassland also provides home to more biodiversity). While concrete figures on the impact of greening will only be known in 2016, the climate related targets of Member States' RDPs have been notified. A total of EUR 57 billion of the European Agricultural Fund for Rural Development (EAFRD) budget is foreseen for actions with a positive impact on climate.

Consecutive CAP reforms have also helped to curb the overuse of fertilizers caused by the way CAP support was linked to production until the early nineties in EU15. Apart from price fluctuations, three major factors can explain the decreasing trend. Firstly, the introduction of the Nitrates Directive and later, the Water Framework Directive. Secondly, the decoupling of direct payments in 1992 and thirdly, the large extent to which farmers are now using targeted agri-environment-climate measures under rural development policy, which also reduces the risk of nitrate leaching. Curbing the use of fertilizers has not led to negative effects on yields – on the contrary, the graph below shows that yields of cereals have been on the rise since 1985.

Consumption estimate of nitrogen fertilizers and cereals yield



Source: Eurostat and Fertilizers Europe.

THE WAY AHEAD

This paper considers the significance of agricultural land and of farming practices in a general context. While remaining responsible for food production, the impact of the CAP on how farmers treat land constitutes an integral part of a much bigger picture. With the introduction of greening and the increased focus on the principle of producing more from less, expectations have risen for a shift in agricultural practices towards better use of production factors, increased resource efficiency and better protection of natural resources such as soil and water and biodiversity across Europe.

Increased productivity and resource efficiency are essential for increased competitiveness and market orientation of EU agriculture, because only with a profitable primary production sector can EU agriculture defend its current favourable position on the world market.

However, this increase in productivity should not be at the expense of natural resources. Increased efforts in education, knowledge development and sharing, use of best practice and fostering and implementing innovations will be essential for finding new ways of producing more with less. Increased use of new technologies, farm and land management practices and new ways of cooperation are essential elements paving the way in this direction.

However, the challenge remains to make extensive farming and environmentally friendly land management as well as farming in areas with risk of land abandonment more profitable. Solutions and answers to this challenge will shape rural areas, the scenic and cultural values as well as the attractiveness of these areas as places to live, work and prosper.

In view of the importance of how land is actually used, the CAP will continue its path towards targeted and result-oriented land management support. This includes a focus on creating conditions for better knowledge sharing, testing and implementation of innovations and new technologies, improved resource efficiency and raising the potential for green growth in rural areas.

"Roughly half of the EU territory is made up of agricultural land. It is an enormous resource and a major asset, and the way in which it is managed is making a major contribution to the EU effort to mitigate Climate Change."

Phil Hogan, European Commissioner for Agriculture & Rural Development

This, and two other publications, were prepared for the "EU Agricultural Outlook Conference" taking place in Brussels on 1-2 December 2015. **#EU_AgriOutlook**

More information on the Conference and links to the publications are available at http://ec.europa.eu/agriculture/events/2015-outlook-conference_en.htm

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