# Biodiversity Factsheet for Agriculture

*According to the Convention on Biological Diversity, 'biodiversity' means the variability among living organisms from all sources including, among other things, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.*

## Agriculture and Biodiversity

Biodiversity and the related ecosystem services provide us with food, raw material, oxygen, clean drinking water, fertile soil, protection from natural disasters and pollination. They also provide us with health and aesthetic benefits and reasonable job and investment opportunities. Only in the EU, approximately 14,6 million jobs are dependent on these services[1], whereas the benefit flow from Natura 2000 areas, the EU's conservation network, is estimated to be 200-300 billion EUR annually derived from tourism and additional economic activities[2].

However, these 'free' assets of nature are highly endangered: 25% of European species face extinction, most of our ecosystems labelled as degraded, whereas 30% of EU's area is highly or moderately fragmented due to grey infrastructure sprawl.[3] With the inaction of not addressing the loss of biodiversity and their services we potentially face the cost of 50 billion EUR/year in the EU[4].

It is easy to see therefore that every stakeholder should act in favour of biodiversity and in favour of us before it is too late. Within these actions, agricultural plays key role to shape the future of the environment. It is multifunctional: yield is just one piece of the agricultural system's outputs. There are many other direct benefits like fibres, timber and compost, but also regulation of natural processes such as maintaining soil biodiversity, water supply, carbon sequestration and pollination are not least important benefits, many of which are critically important for long-term sustainability. In order to have a good balance between the wide variety of its services, it is crucial to maintain healthy biodiversity in soils and aboveground alike. If we just take the example of pollination, we will find a range of pollinator species, such as bees, bumble bees, flies, hoverflies, butterflies and beetles providing an ecosystem service for the agriculture worth of billions of Euros. Diversity of habitats and species, including both wild and domesticated ones, contributes to healthy, biological farming systems able to protect crops from pests, store large amounts of carbon and be more resilient to natural disasters as compared to highly intensified systems.

1 FEEM. The Social Dimension of Biodiversity Policy. 2011.

2 European Commission Staff Working Paper on Financing Natura 2000.

3 The EU Biodiversity Strategy to 2020

4 The costs of not implementing the environmental acquis - Final report ENV.G.1/FRA/2006/0073.


## The European Union's Biodiversity Strategy to 2020 – the Relevancy for Agriculture

Acknowledging the fact that biodiversity loss is one of the key environmental challenges of the EU, the European Union adopted a new strategy to put an end of losing biological diversity. The strategy consists of six main targets, out of which four are relevant for the agriculture.

## TARGET 1– Fully implement the Birds and Habitats Directives

**The first target focuses on the adequate implementation of the Birds and Habitats Directives and the improvement of the fundament of the EU's nature protection, the Natura 2000 network.**

As many players of agriculture are somehow involved in Natura 2000 via site management and/or involvement in various agri-environmental schemes, this target can be quite relevant to them. The target prescribes that **by 2020 100% more habitat and 50% more species assessments under the Habitats and Bird Directives show an improved conservation status.** To achieve this, the strategy calls for integration of protection and management requirements into major land and water policies, the promotion of experience exchange and good practice and the enhanced cooperation with the main stakeholders.

## TARGET 2 – Maintain and restore ecosystems and their services

**The second target focuses on the restoration of degraded ecosystems and their valuable services by 2020 through assessing their status, building a Green Infrastructure Strategy and ensuring no net loss of biodiversity.**

**By 2020, 15% of degraded ecosystems should be restored and green infrastructure should be established.** A strategic framework will be worked out by 2014, which maps and assesses the status of ecosystems and their services, and sets priorities for restoration at EU, national and sub-national level. Given their high proportion, agricultural landscapes will play an important role both in providing ecosystem services and in forming green infrastructure. The latter will ensure the proper functioning of ecosystems through providing connection between and permeability of the highly fragmented landscapes. The target of ensuring no net loss of biodiversity will also have strong relation to agriculture. New investments will have to undergo so-called biodiversity-proofing that ensures no detrimental impacts on the environment are done without proper compensation or offsetting.

## TARGET 3 –Increase the contribution of agriculture and forestry to biodiversity

**The third target aims to integrate biodiversity conservation into agriculture and forestry policies by encouraging forest and landowners to adopt sustainable management.**

By 2020, the EU target is to maximise areas under agriculture across grasslands, arable land and permanent crops that are covered by biodiversity-related measures under the CAP; so as to ensure the conservation of biodiversity. The aim is to bring about a measurable improvement[5] in the conservation status of species and habitats that depend on or are affected by agriculture. Improvement is needed also in the

5 For both targets, improvement is to be measured against the quantified enhancement targets for the conservation status of species and habitats of EU interest in Target 1 and the restoration of degraded ecosystems under target 2.

provision of ecosystem services as compared to the EU2010 baseline, thus enhancing the sustainable management.

Biodiversity needs to be better integrated also into the EU's financial mechanisms. The EU plans to enhance direct payments for environmental public goods in the EU Common Agricultural Policy and the Commission proposes that CAP direct payments shall reward the delivery of environmental public goods that go beyond cross-compliance (e.g. permanent pasture, green cover, crop rotation, ecological set-aside, Natura 2000). The Commission also propose to improve and simplify the GAEC (Good Agricultural and Environmental Conditions) cross-compliance standards and consider including the Water Framework Directive within the scope of cross-compliance once the Directive has been implemented and the operational obligations for farmers have been identified in order to improve the state of aquatic ecosystems in rural areas.

Better targeting Rural Development to biodiversity conservation is also among the main aims. The Commission and Member States aim to integrate quantified biodiversity targets into Rural Development strategies and programmes, tailoring action to regional and local needs. Mechanisms are to be established to facilitate collaboration among farmers and foresters to achieve continuity of landscape features, protection of genetic resources and other cooperation mechanisms to protect biodiversity. Conserve Europe's agricultural genetic diversity is going to be supported as well. The Commission and Member States will encourage the uptake of agri-environmental measures to support genetic diversity in agriculture and explore the scope for developing a strategy for the conservation of genetic diversity.

## TARGET 5 – Combat Invasive Alien Species

**Invasive Alien Species (IAS)establish themselves outside their natural ranges and can cause chief economic and environmental problems estimated at a 12.5 billion EUR every year. These species have to be controlled or eradicated.**

To act on behalf of natural ecosystems and hinder the spread of IAS, an early-warning system establishment and rapid response mechanism will be essential - at local level, as well, where these species can cause in fact the largest damage.

In order to aid the implementation of the Strategy, the European Commission will work out jointly with the Member States and other stakeholders the Common Implementation Framework that will specify the further steps.

*The factsheet is supported by the European Commission, however it does not necessary reflect its position or opinion.*

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