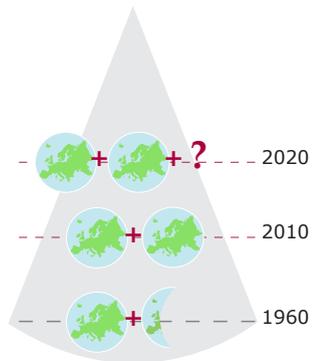
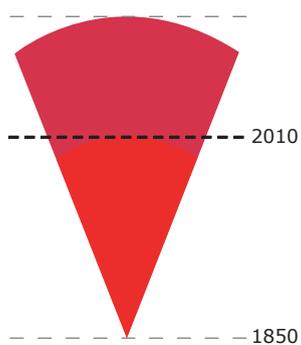


Global dimension

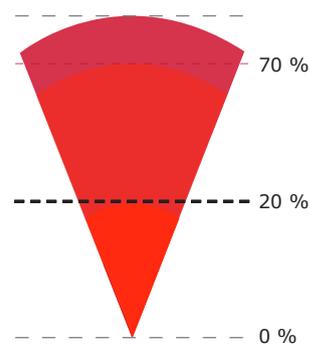
Between 12 % and 55 % of selected vertebrate, invertebrate and plant groups are threatened with extinction at the global level; the decline of wild vertebrate species between 1970 and 2006 is especially severe in the tropics (59 %) and in freshwater ecosystems (41 %) (GBO3, 2010). Currently, only 0.7 % of oceans are protected (WDPA, 2010). The rate of tropical deforestation decreased nearly 20 % between 2000 and 2010 (FAO), but is still very high: 13 million hectares lost each year (equivalent to the area of Greece). In this context Europe's demand for natural resources goes well beyond its boundaries.



Europe's ecological footprint – global impact increasing
Europe is currently consuming twice what its land and seas can produce. Global Footprint Network estimates that over the last 40 years, Europe's Ecological Footprint increased by 33 %. Europe needs to address the global dimension of its consumption.



Ocean acidification – first signs of impacts on the food chain
Globally, ocean acidity has increased by 30 % in the last 150 years mainly due to increased CO₂ emissions (UNEP). Increased acidity in marine environments affects the survival of numerous marine organisms, which in turn may affect many species that feed on them.



Coral reefs – an underestimated EU responsibility
20 % of the world's tropical coral reefs are already lost, an additional 50 % is at risk. More than 10 % of global coral reefs are located in the overseas territories of EU Member States (IUCN).

'Over the past few hundred years, humans have increased species extinction rates by as much as 1 000 times background rates that were typical over Earth's history' (MA, 2005).



European biodiversity baseline Where does Europe stand in 2010?

There is mounting evidence that the status of many ecosystems is reaching or has already reached the point of no return. In the same way that a 2 degree rise in global temperature above pre-industrial levels would lead to catastrophic climatic change, the loss of biodiversity beyond certain limits would have far-reaching consequences for the very functioning of the planet. These limits are still being defined, but it is already clear to the scientific community that the current rate of biodiversity loss puts the future well-being of citizens in the EU and worldwide at risk (European Commission, 2010).

Species faced with the risk of extinction

Up to 25 % of European animal species, including mammals, amphibians, reptiles, birds and butterflies face the risk of extinction and are therefore included in the EU Regional Red List by IUCN.



Ecosystem services in the EU

Ecosystem services still degrading
Most of the ecosystem services in Europe are judged to be 'degraded' – no longer able to deliver the optimal quality and quantity of basic services such as crop pollination, clean air and water, and control of floods or erosion (RUBICODE project 2006–2009; marine ecosystems not included).

Trend between periods

- ↑ Positive change between the periods 1950–1990 and 1990 to present
- ↓ Negative change between the periods 1950–1990 and 1990 to present
- = No change between the two periods

| Services | Ecosystems | Agro ecosystems | Forests | Grasslands | Heath and scrubs | Wetlands | Lakes and rivers |
|---------------------|------------|-----------------|---------|------------|------------------|----------|------------------|
| Provisioning | | | | | | | |
| Crops/timber | | ↓ | ↑ | | | ↓ | |
| Livestock | | ↓ | = | = | = | ↓ | |
| Wild Foods | | = | ↓ | ↓ | | = | |
| Wood fuel | | | = | | = | | |
| Capture fisheries | | | | | | = | = |
| Aquaculture | | | | | | ↓ | ↓ |
| Genetic | | = | ↓ | ↓ | = | = | |
| Fresh water | | | ↓ | | | ↑ | ↑ |
| Regulating | | | | | | | |
| Pollination | | ↑ | ↓ | = | | | |
| Climate regulation | | | ↑ | | = | = | = |
| Pest regulation | | ↑ | | = | | | |
| Erosion regulation | | | = | = | = | | |
| Water regulation | | | = | | ↑ | ↑ | = |
| Water purification | | | | | | = | = |
| Hazard regulation | | | | | | = | = |
| Cultural | | | | | | | |
| Recreation | | ↑ | = | ↓ | ↑ | ↑ | = |
| Aesthetic | | ↑ | = | = | = | ↑ | = |

Status for period 1990–present: ■ Degraded ■ Mixed ■ Enhanced ■ Unknown Not applicable

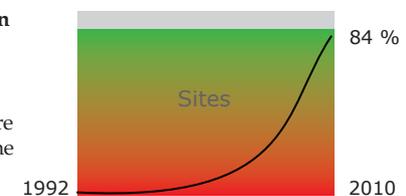
Poor conservation status

62 % of the habitats and 52 % of the species covered by the EU Habitats Directive are considered to be in an unfavourable conservation status (EEA-ETC/BD, 2009).



Natura 2000 site designation – nearly completed

Designation of Natura 2000 terrestrial sites in Europe is nearly completed. Much more effort is needed for the marine sites (EEA-ETC/BD, 2010).



Threats

The main causes of biodiversity loss are changes in natural habitats. These are mostly due to: intensive agricultural production systems and land abandonment; construction and transport (fragmentation); overexploitation of forests, oceans, rivers, lakes and soils; invasion of alien species; pollution; and — increasingly — climate change. For any policy to be effective in maintaining and restoring biodiversity in Europe, it must address these threats.

Habitat loss — a major concern

70 % of species are threatened by the loss of their habitat (IUCN). Farmland birds declined by 20–25 % between 1990 and 2007 (Eurostat, 2010).



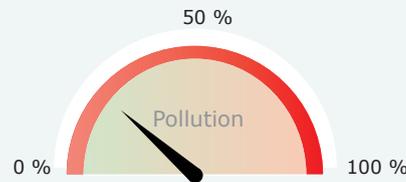
Overexploitation — more sustainability needed

30 % of species are threatened by overexploitation (IUCN). For instance: 88 % of stocks are being fished beyond Maximum Sustainable Yields (ICES, 2008) and 46 % outside safe biological limits, which means that stocks may not be replenished (EEA, 2010).



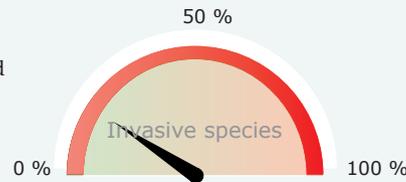
Pollution — improvements in some areas

Despite improvements in some areas, 26 % of species are threatened by pesticides, and fertilisers like nitrates and phosphates (IUCN).



Invasive alien species — an increasing phenomenon

22 % of species are threatened by invasive alien species (IUCN).

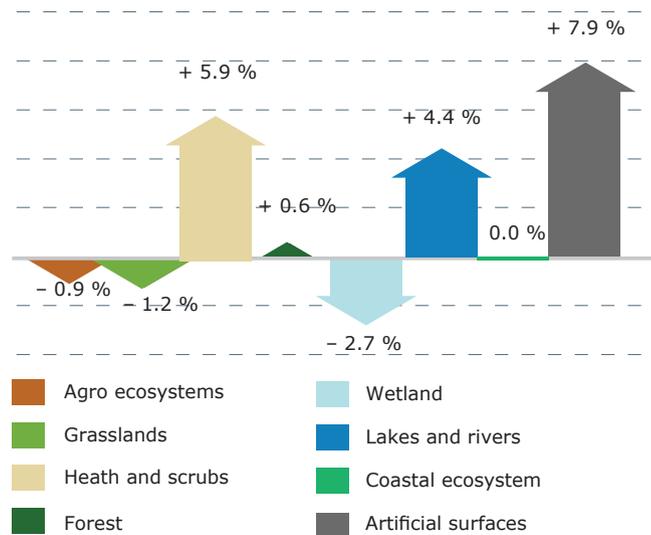


Climate change

Shifts in habitats and species distribution are being observed, so is desertification. Climate change interacts and often exacerbates other threats.

Ecosystems

Changes in ecosystems between 1990 and 2006

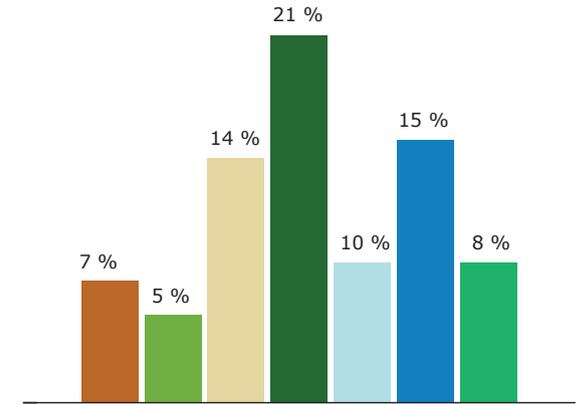


Natural areas still being lost

The latest Corine Land Cover inventory (EEA, 2010) shows a continued expansion of artificial surfaces (e.g. urban sprawl, infrastructure) and abandoned land at the expense of agricultural land, grasslands and wetlands across Europe. Natural grasslands are still being turned into arable land and built-up areas. The loss of wetlands has slowed down (near 3 % lost in the last 16 years) but Europe had already lost more than half of its wetlands before 1990. Extensive agricultural land is being converted into forms of more intensive agriculture and for parts into forest.

Exploiting natural resources at current rates is steadily reducing biodiversity and degrading ecosystems. Simply designating protected areas is not enough to halt this decline. Biodiversity must be further integrated into other relevant policies (agriculture, fisheries, energy, transport, structural policies and development). To monitor progress and measure trends beyond 2010, the European Environment Agency and the European Commission have developed a 'baseline' — a snapshot of the current state of biodiversity to establish the evidence base necessary for stepping up EU action to address the global biodiversity crisis now. For further information please see www.biodiversity.europa.eu.

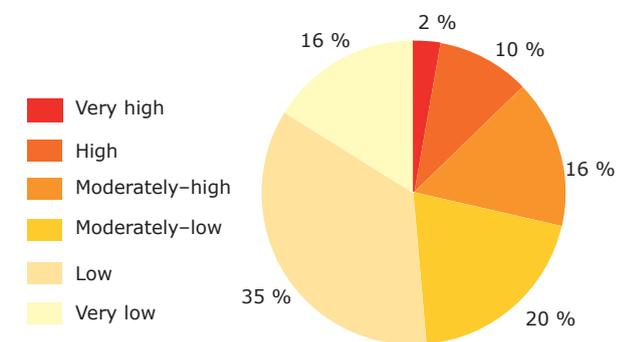
Favourable conservation status of habitats



Habitats in ecosystems — poor conservation status overall

The progress report for Article 17 of the EU Habitats Directive for the period 2001–2006 shows that the conservation status of species and habitats characteristic of the main ecosystems is poor. Depending on the ecosystem, the proportion of habitats in favourable conservation status is between 5 and 21 %.

Fragmentation in EU-27 (% of total area)



Fragmentation threatens EU green infrastructure

The fragmentation of nearly 30 % of EU-27 land is moderately-high to very high due to urban sprawl and infrastructure development. Fragmentation affects ecosystem connectivity and their health and ability to provide services (EEA, ETC/LUSI, 2010).