



## Biodiversity

# Promoting partnerships with the private sector to save our global heritage

## Background

**Between 10 and 100 million different species.** Although by no means all animal or plant species have been recorded, scientists estimate that between 10 and 100 million different species now exist on the planet – the product of 3 billion years of evolution. The number of species of animals and plants occurring in Switzerland is put at around 50,000.

**Numerous goods and services for society.** Biological diversity – at the genetic, species, or ecosystem level – provides a wide range of goods and services for society. It helps to maintain the fertility of soils and the stability of the climate, and to diminish the impact of natural disasters by mitigating flooding, droughts and extremes of temperature. The diversity of genetic resources is indispensable to the production of crops and livestock, and hence food security. It is also required for the production of pharmaceuticals and other industrial goods. Natural habitats and resources ultimately underlie cultural and spiritual values.

## Threats facing humans and the environment

**Unprecedented threat.** Although extinction is a natural phenomenon, human activities have never before posed the same level of threat to ecosystems and species. According to the World Conservation Union (IUCN), 27,000 species disappear worldwide every year, and 24% of mammal and 12% of bird species are now critically endangered. Switzerland is not exempt from these silent losses: 32% of wild plant species, 95% of amphibian species and 80% of reptile species are threatened or have become extinct. In Switzerland's forests, 24% of bird species (e.g. the capercaillie) are threatened by extinction.

**Inexorable loss of natural habitats.** The public's attention is often caught by the plight of species such as the whale or elephant; however, the main threat – both in Switzerland and worldwide – is posed by the fragmentation, degradation and inexorable loss of natural habitats under pressure from urbanization and intensive agriculture. Owing to non-sustainable patterns of exploitation, tropical rainforests and wetlands which harbour the bulk of the world's biodiversity are continuing to vanish at an alarming rate.

**Alien species.** Biodiversity is not only affected by soil, water or atmospheric pollution, which may reduce or eliminate particularly vulnerable populations or species. The introduction of invasive alien species by humans – especially in isolated ecosystems – may also precipitate the rapid extinction of indigenous species.

## Measures taken to date

### *In Switzerland:*

**Federal Inventories of habitats to be protected.** The protection of species and biotopes is enshrined in Swiss legislation. Federal Inventories of sites of national importance (e.g. mires, dry grasslands and alluvial zones) have been prepared with the assistance of the cantons. These sites enjoy legal protection. Reserves have also been established for wildlife. Almost 3000 natural sites, varying widely in area but covering about 2000 km<sup>2</sup> overall, have been designated as protected areas over the past 20 years, including the Swiss National Park, originally established in the Lower Engadine region (canton of Graubünden) in 1914.

**Biodiversity Monitoring in Switzerland.** A major, long-term programme known as Biodiversity Monitoring in Switzerland (BDM) was launched by SAEFL in 1998. This programme collects the statistical data required to ensure that species and habitats are appropriately managed.

**Agriculture.** Species protection depends crucially on close collaboration with the agricultural sector. This essentially involves provision of support for sustainable production methods and the establishment of near-natural zones known as ecological compensation areas. These areas serve as corridors in ecological networks, comprising hedgerows, field margins or extensively managed grassland. Since 1992, the Federal Law on Agriculture has provided for subsidies to support measures designed to promote biodiversity – integrated production, organic farming, or restoration of agroecosystems and habitats.

**Forestry policy.** The preservation of biodiversity has also become a priority aim of forestry policy. Clear-felling is prohibited, and support is provided for the re-establishment or management of ecological networks and the creation of reserves for the conservation of forest genetic resources. Legislation also provides for subsidies to support forest owners' efforts to promote biodiversity.

### *Internationally:*

**UN Convention on Biological Diversity.** Aware of the global significance of protecting biodiversity, the international community adopted the UN Convention on Biological Diversity at the 1992 Earth Summit in Rio. This legally binding agreement covers every aspect of biodiversity: genetic resources, species and ecosystems. It also calls on the Parties to preserve and develop indigenous communities' traditional knowledge regarding the sustainable use of biodiversity. The Convention is also conceived as an important instrument of sustainable development, strengthening cooperation between the countries of the North and the South. The Biodiversity Convention was ratified by Switzerland on 21 November 1994.

**“Green gold”** The provisions of the Biodiversity Convention relating to access to genetic resources and benefit sharing (ABS) represent a key political issue in North/South relations. Developing countries, which harbour the bulk of the world's genetic resources, regard them as “green gold” in view of their potential significance for biotechnological developments in the agricultural, industrial and (especially) pharmaceutical sectors. Switzerland played an active role in securing the adoption of the Bonn Guidelines on ABS at the 6th Conference of the Parties in April 2002. These guidelines now provide an international framework for the regulation of access to genetic resources and fair and equitable sharing of the benefits arising from their utilization.

## Agenda for the future

**Promotion of the ecosystem approach.** Consideration needs to be given to the impact of human activities on the environment and on all forms of life. Management of soils, water, plants and wildlife according to the ecosystem approach promotes the aims of conservation, sustainable use and benefit sharing. In developing countries where a large proportion of the population is closely dependent on natural habitats, conservation of biodiversity is indispensable for the alleviation of poverty.

**Integration of ecosystem protection into economic activities.** The needs of biodiversity protection should be considered systematically in spatial planning, forest and water management, agriculture, transport and tourism in particular. The possible impact on biodiversity should be assessed for projects involving the utilization of natural resources. Certification systems recognizing sustainable methods of agricultural or forestry production should be further developed. At the international level, greater emphasis should be given to the preservation of biodiversity in trade policies developed within the WTO.

**Partnerships with the private sector.** Although funding has been made available at the national and international level, additional financial resources will be required if the decline in biodiversity is to be arrested. While public authorities' commitment to biodiversity protection needs to be strengthened, partnerships should also be developed with private enterprise in order to generate investment in projects supporting biodiversity in promising sectors such as ecotourism, organic farming, certification of forestry products or the development of natural cosmetic or pharmaceutical products.

**Implementation of benefit sharing.** Switzerland remains committed to cooperating at the international level to ensure rapid implementation of the Bonn Guidelines. The federal authorities are also collaborating closely with partners from industry, the pharmaceutical sector, agriculture and the scientific community in order to put the guidelines into effect in Switzerland.

### **Further information:**

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