



## **Integration for Biodiversity in Austria**

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## 1. Introduction

Austria's fourth national report<sup>1</sup> updated on the integration of biodiversity into several sectors, including: agriculture, forestry, spatial planning, tourism, hunting, industry/energy/traffic, transport, and fishing.

## 2. Agriculture

To promote sustainable agriculture, the revised Strategy calls for:

- Conservation of the diversity of biotopes in cultural landscapes (e.g. concerning embankments, hedges or other natural sites)
- Further promotion of organic farming, respectively of sustainable agriculture, that promotes ecological aspects
- Continuation and management of soils with marginal yields and special sites with the aim of protecting the typical biodiversity of these habitats
- Protection of agricultural and horticultural species and rare domestic animal species, in particular those species that are threatened
- Increasing the awareness of consumers

Austria has successfully integrated biodiversity aspects into the agricultural policies, in particular by the Agri-environmental Programme ÖPUL. The graph below shows the area covered by specific ÖPUL measures in the period 1998-2007. Generally, Austria's cultivated landscape has resulted from extensive management. However, this can only be secured if the income of the farmers is sufficient for an economic existence and the environmental services thereby provided are compensated adequately also in the future.



<sup>1</sup> Austria (2010). Fourth National Report to the Convention on Biological Diversity, Vienna, 2010, 79 pp.

In October 2007 the European Commission approved the Austrian Rural Development Programme 2007 – 2013, the so-called "Green Pact for Austria's Agriculture". The measures of rural development relate to the four priorities described in the box below. These priorities refer on the one hand to the diversification of the rural economy (transition to novel products and the creation of new gainful occupations) and, on the other hand, to the safeguarding and enhancing of the quality of life in rural areas. This includes measures such as diversification, rural tourism or village renewal, but also the subsidization of very small scaled-enterprises.

Four priorities of the Austrian Rural Development Programme 2007-2013

1 - Improving the Competitiveness of the Agriculture and Forestry Sectors: Key components are the investment aid to modernize agricultural holdings, the setting-up aid for young farmers and the promotion of processing and marketing. 13.8 percent of the funds allocated to the programme, or 1,078 billion euro, are available for Axis 1 in the 2007 - 2013 period.

2 - Improvement of the Environment and the Countryside: 72 percent of the funds or 5,661 billion euro, and thus the greatest part of the rural development funds for the 2007 – 2013 period, are reserved for this Axis. Key components are the environmental programme and the subsidization for mountain farmers. But also forestry measures are subsidized under this Axis.

3 - Quality of Life in Rural Areas and Diversification of the Rural Economy. The measures that go beyond the immediate fields of agriculture and forestry are summarized under this priority. Various forms of support are thus offered to a target group which consists not only of farmers and forest managers, but includes also non-agrarian enterprises, communities, and most different organizations in charge of projects.

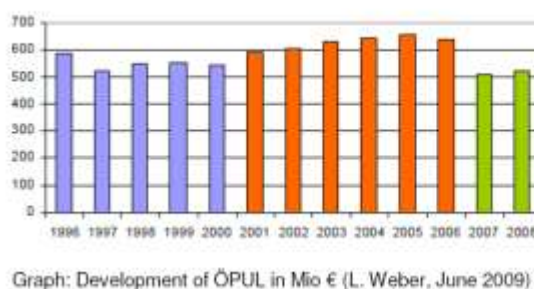
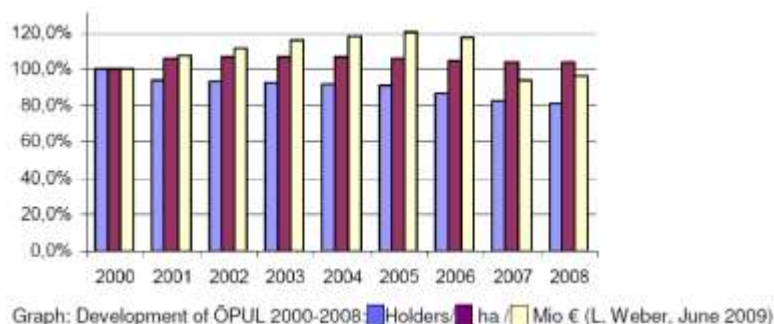
4 - Leader: This is an initiative aimed at supporting rural areas which has been implemented in selected areas of the country since Austria's accession to the European Union. With the reform of rural development for the 2007 – 2013 period Leader has been integrated into the Rural Development Programme and has become an interesting perspective for existing and new Leader regions. The regional approach offers optimum conditions for agriculture. The new legal foundations of the EU provide that in the period from 2007 to 2013 5.5 percent of the EU's rural development funds have to be reserved for Leader projects. This means an allocation of funds of approximately 423 million euro for the current programming period, and more than a tripling of the funds in this field.

The Austrian agricultural model is based on environmentally sound land management and the preservation of the existing structure of small farms. A total of 3.4 million ha of land are currently dedicated to agriculture in Austria, of which 1.4 million ha are classed as arable land. The Austrian Agri-environmental-Programme (ÖPUL) – which constitutes an important pillar of the Austrian Rural Development Programme – sets forth many measures aiming at promoting positive effects on biodiversity. By means of the ex-post evaluation the acceptance and content of the Austrian Rural Development Programme are regularly assessed.

The Agri-environmental Programme pursues an integral, horizontal approach and aims at making agriculture more environmentally friendly in the entire federal territory. Measures are structured in the form of interdependent modules; they are to ensure a basically ecological orientation in the whole country which is supplemented by specific measures, tailor-made to individual topics or regions. In general, this concept has been successful, even though there are regional differences as regards the acceptance and the effect of measures. The analysis of the area development showed an increase especially with respect to the higher-level measures (e.g. organic farming, nature conservation measures, erosion control measures, maintenance of scattered fruit trees, and groundwater protection). As regards the measure "organic farming" it has to be mentioned also that, compared to other EU Member

States, Austria already started the Agri-environmental Programme at a very high level. This high level has been maintained; and in the East, where arable farming is dominant, the arable land managed according to organic farming criteria has doubled since the year 2000. As regards assets to be protected, positive effects could be proved in connection with the subjects examined within the framework of the evaluation (soil, water, biodiversity, diversity of habitats, genetic diversity, landscape, socio-economy). Thus a positive correlation could be proved for example between bird population densities and the existence of nature conservation measures and the development of set-aside areas in arable farming. The requirement of soil cover contributes evidently to the reduction of the nitrate output. As far as the measures “organic farming” and “renunciation of the use of yield-increasing inputs in arable farming” are concerned there has been evidence for clearly positive effects on biodiversity. As to the measure “maintenance of scattered fruit trees” the studies have confirmed a high potential effect. The bundle of measures “keeping cultivated landscapes open” (mowing of steep surfaces) on sloping sites as well as “Alpine pasturage and herding” has, due to its high level of acceptance and the extent of area covered by it, enormous importance. However, in order to orient, for the purposes of the evaluation results, which have also shown some deficits, the Austrian Agri-environmental Programme even more efficiently according to “environmental goals”, a transparent and continuous monitoring of the programmes and the evaluation of their results are necessary.

The graph below depicts the development of the Agri-Environmental Programme in the period 2000-2008 with regard to farmer’s participation, ha and Euros spent.



In total ÖPUL contains 28 single measures and measures for the protection of animals. ÖPUL 2007 includes measures aiming at the protection of nature at 75,000 ha (23,000 farm holders). 38 Mio € are spent for measures aiming at nature protection. Horizontal measures with positive impacts on biodiversity are organic farming, mowing of steep slopes, managed grassland with scattered fruit trees

(Streuobstwiesen), abandonment of silage, continued management of Alpine areas and herding as well as rare crop varieties and livestock breeds. It contains also biodiversity related restrictions for other measures, e.g. maintenance of 2% of flowering areas (Blühflächen) or restriction of the mowing areas only used two times to 5%.

117,771 holdings with a total area of 2.20 million hectares (not including Alpine pastures and mountain meadows) participated in the Agri-environmental Programme (ÖPUL) in 2009. These are 73% of all farms or 89% of the total territory in Austria. € 548 Million were paid on a total of 36 measures (including Agri-environmental Programme ÖPUL 2000). - 95,701 farms - 67,485 of them mountain farms - received compensatory allowances of totally € 274 million. Farms which received a compensatory allowance managed 1.56 million hectares (not including Alpine pastures and mountain meadows); for this measure, these are about 55% of Austria's total area.

### **3. Forestry**

According to the revised Strategy, forest management should aim at

- Promoting the biological diversity of indigenous forests
- Conservation of all 93 forest biotope types including their typical biodiversity
- Sustainable management of forests
- Conservation of the genetic diversity of forests
- Promoting layered forest stock structures and the distribution of species and mixed stands in accordance with natural preconditions and strive for integrated forest health protection
- Promotion of natural regeneration in order to conserve the genetic diversity of forests.

The integration of biodiversity-related aspects into forest policy and management has been very successful in Austria. The Federal Forest Act stipulates the sustainable management of forests in Austria, and thus also acknowledges its important role for biodiversity. The Austrian National Forest Programme includes out of seven areas for actions also “forest biodiversity” as a key area. Improving the ecological quality of the forests serves to preserve and enlarge the biological diversity in the forests, and to protect and improve their health and vitality. In addition to the safeguarding of forest biodiversity also long-term improvement in the socio-cultural capacity of the forests is to be achieved by optimizing the forests’ functions as a protection from natural hazards, improving the instruments for balancing the various interests in the forests, and the expansion of job opportunities in rural areas remain challenges in the future. The economic capacity of the forests is to be achieved by better use of the available timber resources, expansion of the use of wood as a renewable, environmentally friendly raw material, and diversification of the range of products and services offered by forests.

In Austria, ensuring multifunctional forest management on a long-term basis is a matter of top priority in the context of forest, environmental and social politics. The Austrian Forest Act 2002 provides the basis

for sustainable management of the Austrian forests in terms of the economy, of ecology, of the society and of culture. It provides for forests to be declared nonproductive as a valuable supplement to the various forest functions. The ultimate goal, however, is to guarantee the extended sustainability of forest management and thus the safeguarding of the various functions (multifunctionality) for the entire forest area where possible. Due to the high level of forest cover (47.2% of the total area) and the positive balance of forested area (the annual growth amounts to 5,100 hectares), it is necessary to differentiate the growth in area. Therefore, further growth in area is only meaningful in special regions (e.g. high stands for object protection) or in regions that are under-forested (e.g. for climate and water protection). Due to the constantly increasing growing stock, utilisation of the increased cover must be promoted, inter alia to strengthen the business location for the sawmill and timber industry, to create additional income, and to improve the employment factor. Forest management as an integral part of rural areas should therefore also be able to make a positive contribution towards its further sustainable development. To achieve this, the sole responsibility of forest owners and forest managers must be promoted. Where the development of the last decades has already shown this, sole responsibility must have priority over regulation by law. In addition to a sustainable exploitation of the timber utilization potential, however, it must be ensured that non-wood services (multifunctionality) are increasingly taken into account, both with regard to economic services (e.g. protection from natural hazards, tourism, etc.) and also with regard to ecological services (e.g. concerning biodiversity and climate change). Not least, the implementation of international obligations (UN Forest Processes, Ministerial Conference on the Protection of Forests in Europe and EU Forest Strategy, as well as other EU legislation) had to be ensured to the extent possible under the Constitution.

The Forest Dialogue aims at the foresighted settling of clashing interests and the improved coordination of forest-related activities. Its objective is to secure and permanently improve the sustainable management, conservation and development of Austrian forests. As the outcome of the Austrian Forest Dialogue, and with the inclusion of over 80 organisations and institutions, the first Austrian Forest Programme was adopted. It can be regarded as a milestone of Austrian forest policy.

The seven thematic areas of the Austrian Forest Programme are:

1. Contribution of Austrian forests to climate protection
2. Health and vitality of Austrian forests
3. Productivity and economic aspects of Austrian forests
4. Biodiversity in Austrian forests
5. Protective functions of Austrian forests
6. Social and economic aspects of Austrian forests
7. Austria's international responsibility for sustainable forest management

The Austrian Forest Programme is implemented step by step applying a continuously updated work programme. The work programme comprises concrete individual measures as well as so-called “best practice” measures. Further, also indicators with their respective actual and target values form part of the work programme. As of the year 2006 a permanent body, the “Forest Forum”, was established, which meets at least once or twice every year. The tasks of the Forest Forum comprise the discussion of current forest-political developments as well as the continuing harmonization of interests in forest-relevant topics. The Forest Forum provides for the controlled implementation and development of the Work Programme of the Austrian Forest Dialogue. It is responsible for evaluating the measures taken as well as for addressing new issues of importance. With regard to biodiversity the National Forest Programme stipulates e.g. the protection of biodiversity and the strengthened cooperation between forest and nature protection, the use of private contracts for nature protection measures in forests, as well as other market instruments (e.g. eco sponsoring).

The Austrian State Forest Enterprises (Österreichische Bundesforste AG) have committed themselves to a comprehensive biodiversity programme 2005-2010 and have joined the IUCN Countdown 2010 Initiative. In total the State Forests have carried out 719 voluntary nature protection measures in 2010 ([www.bundesforste.at](http://www.bundesforste.at)).

#### **4. Spatial planning**

In Austria each Federal Province has its own legislation on spatial planning, and local authorities draw up their own land use plans: *Bebauungsplan* for urban planning, *Flächenwidmungsplan* for detailed zoning regulations. The Austrian Conference on Regional Planning, bringing together the Federal Government, the Federal Provinces and local communities, draws up a ten-year Austrian Regional Planning Concept. National spatial planning is closely linked to forestry planning through the Forestry Development Plan, which sets long-term priorities for each of the roles played by woodland (i.e. economic, social, soil protection, leisure and protection against natural disasters) and acts as a forestry and land use management tool; and ii) hazard zone plans, which map out areas at risk from avalanche or flash flooding. Hazard zone plans are generally reflected in municipal land use zoning, as it is a criterion for eligibility for the Disaster Relief Fund. The Federal Provinces do a considerable amount of mapping work. In Upper Austria, for instance, a sophisticated information system called GENISYS, available on the Internet, uses maps and texts to provide basic information on the state of the natural environment and ongoing projects concerning protected areas, natural habitats, wildlife, etc. Between 1997 and 2001, various Federal Provinces drew up 20 digital biotope maps for a range of natural habitats, including Alpine valleys, pre-Alpine moraines and flysches, and alluvial valleys. One programme, known as “Nature and Landscape: Master Images for Upper Austria”, continuously monitors 41 areas in the Federal Province, evaluating conservation and land use planning performance.

#### **5. Tourism**

According to the revised Strategy, the tourism and recreational sector should ensure

- that biological diversity is not threatened by the tourism sector and

- operational tasks are consistent with criteria for the protection of the environment

The tourism and leisure industry accounts for about 18% of Austria's GDP. Largely based on mountain holidays, Austrian tourism depends heavily on the natural environment and landscape. The mountainous regions where most tourism activities take place, are also the most environmentally sensitive ones.

Measures to promote sustainable tourism were first introduced under the 1995 National Environment Plan and were subsequently incorporated into tourism development plans and the 2002 National Strategy for Sustainable Development. Although responsibility for tourism policy lies with the Federal Provinces, the Federal Government is promoting a policy of quality tourism aimed at protecting the natural environment. The emphasis is on providing good accommodation and small-scale facilities, such as mountain refuges and hiking paths that blend into the environment (Austrian Ecolabel Tourism). More information can be found on: <http://www.umweltzeichen.at/cms/home/tourismus/content.html>.

Almost one third of all private accommodation for tourists (which accounts for 18% of the total), is offered by farms. In a few cases, payments are made from the tourism industry to local farmers for providing tourism-related services. It is recognised that preserving small-scale farming in Alpine regions (one of the objectives of ÖPUL) also serves to provide a desirable backdrop for eco-tourism.

The CBD Guidelines on Sustainable Tourism have been taken into account in the Austrian National Strategy on Biodiversity. The Strategy includes the following measures on tourism and leisure industry:

- Development of strategies to ensure the protection on nature and landscapes;
- Measures in the field of education and research;
- Measures to ensure cooperation between all stakeholders concerned;
- Measures aiming at ensuring sustainable development of tourism support systems;
- Measures related to international tourism policy.

Thus the CBD Guidelines are taken into account when planning tourism development. It also has to be noted that the building of tourism infrastructures has to follow an EIA procedure.

## **6. Hunting**

According to the revised Strategy, goals for hunting stipulate

- Long-term conservation of native populations of wildlife and their habitats
- Sustainable management of wildlife that is consistent with the requirements of their natural habitats

Hunting is a way of using wild living natural resources and as such has impacts on biodiversity and ecosystem processes. By taking and managing huntable wild animals, it has a direct influence on genetic



diversity of game species, the composition of game species, the structure of game populations, and the condition of game habitats. It also has an indirect influence on non-huntable animal species as well as on plant species and soil. This influence may have effects upon ecosystems and, in some cases, has a potential for conflicting with the interests of other users of natural resources (e.g. forestry, agriculture, recreation). Overarching objectives and principles of sustainable use of wild animals derive from a number of international conventions and agreements, including the Convention on Biological Diversity (CBD), particularly the Ecosystem Approach and the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity under the CBD. In order to define what we understand by 'sustainable hunting' and for tools to assess the sustainability of hunting activities - in its ecological, economic and socio-cultural aspects - becomes hereby very urgent. Assessment frameworks for sustainable hunting in Austria have been developed by the "Umweltbundesamt" (Federal Environment Agency), the Research Institute of Wildlife Ecology (University of Veterinary Medicine Vienna), and WWN-Technical Consulting Bureau Martin Forstner, together with hunters and other stakeholders and experts from a broad range of hunting-related fields of land use and society.

As a voluntary tool to assist in self-assessment, and the application of the principles, criteria and indicators of sustainable hunting allows hunters to self-examine the degree of sustainability of their own practice of hunting. Moreover, it can be used to:

- provide practical guidance on issues of sustainable hunting;
- support the analysis of individual strengths and weaknesses in sustainable hunting;
- provide decision-support for the definition of action to optimise sustainability;
- examine effectiveness of actions and measure progress in implementing sustainability requirements over time (monitoring);
- foster questioning of one's own hunting-related actions;
- contribute to a common understanding of 'sustainable hunting', both among hunters themselves and among hunters and the society-at-large.

Besides being a tool for self-evaluation, the Principles, Criteria and Indicators of Sustainable Hunting are practice manual for hunters, wildlife managers, nature conservationists, wildlife ecologists, planners dealing with wildlife and land use matters, members of authorities, and all persons interested in hunting and nature.

## **7. Industry / Energy / Traffic**

As regards mining operations, the revised Strategy stated that the protection of biodiversity should be taken into account in extracting operations of raw materials. The same principles of biodiversity integration should be applied to the industry sector. The Strategy also requires the traffic sector in particular to avoid the fragmentation of habitats and landscapes due to traffic infrastructure.

As far as the energy policy is concerned, the Strategy includes the following goals:

- Prevention of negative impacts on biodiversity arising from the establishment or renewing of power stations
- Enhancement of energy efficiency with regard to buildings, industry as well as trade and traffic
- Promotion of sustainably produced renewable energy

The Austrian Strategy for Sustainable Development contains is generally addressing four fields of action (“Quality of life”, “Business location”, “Living spaces”, and “International responsibility”) and strives for

- No consumption of the environment at the expense of the future
- Protection of soil, water and air
- Securing a decent life with prosperity and social security for today's generation and future generations
- Social security and fairness for all generations
- Economic control with steering effects, incentives, the burden of labor and the use of renewable raw materials and energy

It contains various objectives for promoting the sustainability in the sectors industry, energy and traffic.

The Austrian National Biodiversity Campaign “vielfaltleben” also promotes increased awareness on biodiversity within all relevant sectors thus promoting sectoral integration of biodiversity. Within the “Alliance for living diversity” Memoranda of Understanding have been signed with business companies promoting biodiversity related activities within the relevant sectors. More information can be found on [www.vielfaltleben.at](http://www.vielfaltleben.at).

Regarding biofuels and bioliquids, Austria is currently working on the implementation of Sustainability Criteria based on EU Directives 2009/30 and 2009/28 into national laws. The transposition of the EU Directives has to be finished by the end of 2010. Requirements addressing biodiversity problems in relation with biomass production are also under development.

## **8. Transport**

The Federal Ministry for Transport, Innovation and Technology released a guideline “Habitat connectivity” for the ASFINAG regulating three main points: First the design and construction of wildlife passages along new motorways. That has to be done according to the RVS guideline 04.03.12 “Wildlife protection”. Secondly the evaluations of wildlife passes have to be done every two years according to a fact sheet. The third and most important topic is the installation of 20 wildlife overpasses above existing motorways to connect internationally important corridors (according to the results of the above described studies). Those 20 green bridges need to be built within the next 20 years.

In Austria there are “guidelines for the design, construction and maintenance of roads” called RVS (“Richtlinien und Vorschriften für das Straßenwesen”). Those guidelines deal with all different topics concerning road construction, for example all technical details, as well as environmental topics. Those guidelines are obligatory for all federal roads in Austria, which are all motorways, they represent the state of the art in Austria and their implementation is recommended by the Ministry for all other roads as well. Those environmental guidelines determine how to evaluate the impact of roads on animal species and their habitats and how to minimize or mitigate negative influences.

The RVS 04.03.12 “Wildlife protection” was published in 2007. It is the updated guideline from 1997 containing the topics road signs, deterring devices / warning reflectors, fencing and wildlife passes as well as the control of functionality. The guideline is describing the technical parameters for planning and constructing wildlife protection devices. Concerning wildlife passes it indicates for example the size and design of passes according to the importance of a corridor (local, regional, international).

There are also other RVS guidelines dealing with the protection of biodiversity and with minimizing the negative impact of road infrastructure on habitats: RVS 04.03.11 “Amphibian protection along roads” (2003), RVS 04.03.13 “Bird protection at transport infrastructure” (2007) and “Wild mammals (excluding bats) conservation on the transport infrastructure (2009).

## **9. Fishing**

With regard to the fishing sector the Strategy sets out the following objectives:

- Long-term protection of all native fish species
- Fishing management and appropriate legal basis that include ecological requirements