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ÖSTERREICH**

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# **BIODIVERSITY STRATEGY AUSTRIA 2020+**

**CONSERVING DIVERSITY – SECURING  
QUALITY OF LIFE AND PROSPERITY FOR  
US AND FUTURE GENERATIONS!**

MIT UNTERSTÜTZUNG VON BUND, LÄNDERN UND EUROPÄISCHER UNION



**MINISTERIUM  
FÜR EIN  
LEBENSWERTES  
ÖSTERREICH**



Europäische  
Landwirtschaftspolitik für  
die Entwicklung eines  
stärkeren Österreich  
Hier investiert Europa in  
die heimischen Gebiete



## IMPRINT



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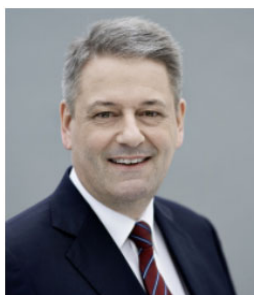
## FOREWORD

**AUSTRIA IS A COUNTRY OF DIVERSITY.** Beautiful cultivated landscapes, a great diversity of plants, animals and habitats make our country unique. They provide the basis for a liveable, healthy and economically strong country. It is up to us to safeguard these features – for us and for future generations.

The Biodiversity Strategy 2020+ aims at conserving Austria's biological diversity, at keeping in check the loss and degradation of species, genetic diversity and habitats as well as addressing and minimising the causes of hazards.

I sincerely thank all members of the National Biodiversity Commission who prepared and unanimously recommended this Strategy. The challenge we are facing now is to take the necessary further steps to implement the Austrian objectives and measures for biodiversity. This is a joint task and I will request all players and stakeholders involved in Austria's biodiversity policy to make their contribution in fulfilling it!

Our goal is to make Austria a country worth living in, with pure air, clean water, a diverse nature as well as safe and affordable food of high quality! The Biodiversity Strategy Austria 2020+ is essential if we want to achieve this goal!



ANDR  RUPPRECHTER  
Federal Minister of Agriculture, Forestry, Environment and Water Management

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# PREAMBLE

**WITH THE PRESENT BIODIVERSITY STRATEGY AUSTRIA 2020+** Austria fulfils the provisions of Article 6 of the Convention on Biological Diversity (Federal Law Gazette No 213/1995). According to this Article, each Contracting Party shall

- (a) develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes [...]; and
- (b) integrate [...] the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.



The **Biodiversity Strategy Austria 2020+** defines five fields of action and twelve targets, in which it describes the priorities, which are in future to serve as an orientation for stakeholders of the Federal Government, Federal Provinces and municipalities, NGOs and all the other relevant stakeholders, in order to conserve and promote biodiversity and its ecosystem services over the long term. To conserve biodiversity we urgently need to scale up joint efforts.

The implementation of the Biodiversity Strategy is a shared responsibility.

In legal and administrative terms, the Biodiversity Strategy Austria 2020+ is implemented by the territorial authorities competent to do so according to the Federal Constitution as well as by the other actors and stakeholders involved in the field of biological diversity and indicated in the Strategy. The implementation is to be financed from a broad mix of public and private funds as well as through the EU co-financing system. For the federal level, financing of the implementation must be covered by the funds provided for in the relevant framework financial legislation.

The National Biodiversity Commission, which is composed of representatives from all groups in society, will assist and review the implementation of the strategy and the achievement of its objectives. The members of the Commission present an annual report on the measures taken in their scope of responsibility to implement the strategy and reach the objectives. In 2017, these annual reports will be summarised and presented to the Commission. In 2020, in a comprehensive evaluation report, the changes are to be presented compared to 2010 – unless the reporting obligations require that other reference years are used. Any adjustments and further strategic planning will be developed from 2020 onward.

## **TOWARDS THE DEVELOPMENT OF THE NEW BIODIVERSITY STRATEGY AUSTRIA 2020+**

In 2012 the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) together with the Federal Provinces and the Environment Agency Austria (Umweltbundesamt) launched a broad participative project to develop a new Biodiversity Strategy for Austria. The first draft of the Biodiversity Strategy Austria 2020+ was developed on the basis of the results of seven theme-related workshops organised by the Environment Agency Austria. Stakeholders and decision-makers of relevance to the field of biodiversity at various different levels – Ministries, Federal Provinces, social partners, representatives of interest groups, scientists, experts, land owners, NGOs and many others - were involved in the further development and coordination of the strategy. **At their meeting on August 28, 2014, the National Biodiversity Commission agreed unanimously on the present strategy and recommended it to the Federal Minister of Agriculture, Forestry, Environment and Water Management.**

# INTRODUCTION

**BIOLOGICAL DIVERSITY, THE EXTRAORDINARY VARIETY OF MICROORGANISMS, FUNGI, PLANTS AND ANIMALS THAT SURROUNDS US, IS CRITICAL TO HUMANKIND.** Interacting with cycles of matter, it produces clean air and clean water, provides for fertile soils and contributes to the climate on planet Earth. Moreover, diversity is the essential basis for our food, health and well-being in an environment worth living in and for the provision of renewable raw materials, for such things as clothing or construction material. This makes biodiversity loss the most critical global environmental threat alongside climate change.<sup>1</sup> There are diverging estimates on the human-induced extinction rate; yet each one of them indicates a much higher rate of extinction than it would be under natural conditions. Globally, around 60% of all ecosystems, 25% of mammals, 13% of birds and 41% of amphibians are threatened by extinction.<sup>2</sup> About 75% of the genetic diversity of agricultural crops has been lost worldwide since 1900.<sup>3</sup>

## **THERE IS AN ABUNDANCE OF BIODIVERSITY IN AUSTRIA – BUT IT IS UNDER THREAT**

Due to its climatic and topographic conditions, Austria has great biodiversity and, compared to others, it is even one of the most species-rich countries in Central Europe. Austria's regionally adapted agricultural production also contributes to a vast genetic diversity of ecotypes, varieties and breeds. To preserve this very diversity has become the object of numerous political programmes and projects. Over the past years, these increased nature conservation and species protection efforts have helped to slow down species loss in several areas. In other areas of biodiversity, however, a trend reversal has yet to be achieved.

Besides climate change and the spreading of alien invasive species and the usage of fertilizers and pesticides, the major threats to biodiversity include

the increased sealing of land caused by housing development and infrastructure building measures, also in the area of urban green spaces and gardens and allotments. This leads to the loss and fragmentation of important habitats.

Air pollution caused by traffic and trade and industry areas has altered the local conditions in woodland, meadows and pastures. Heavy metals and road salts are adversely affecting soil organisms.

Communal green spaces, such as parks, industrial wasteland, private gardens and even areas next to infrastructure facilities (e.g. roadside environment) account for a significant part of Austria's total territory and are thus fundamentally in a position to make an important contribution towards improved biodiversity.

Areas used for agriculture and forestry account for about 80% of the country's total area. Around 25% of Austria's territory is used for production-oriented, conventional and organic farming with regionally varying intensity. The cultural landscapes shaped by mankind provide an essential habitat for many animal and plant species. The ways in which these areas are used, as well as their general maintenance, are key factors for biological diversity. To continue to ensure the diverse functions of these areas in the future, it is crucial for us to find the right balance between "protecting and using". Agricultural management is unable to deliver supply security unless it is adapted to the location and resource-efficient. According to the agricultural structure survey "Grüner Bericht 2013", 56% of the grassland in Austria is used extensively, which is an above-average proportion compared to other countries.

According to the Red Lists for selected animal species groups in Austria, 37% of mammals, 36% of birds, 64% of reptiles, 60% of amphibians and 60% of fish are assigned to a category threatened by extinction. Where fern and flowering plants are concerned, 40% were under threat around 15 years ago. Of the 488 biotope types that occur in Austria, many of which were created by the use and farming methods applied by mankind, 246 are considered threatened or highly threatened and 33 are threatened with complete extinction. Five biotope types

<sup>1</sup> European Commission (2011): Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. Our life insurance, our natural capital: an EU biodiversity strategy to 2020. Brussels, 3 Mai 2011, COM(2011) 244 final

<sup>2</sup> <http://www.iucnredlist.org/about/summary-statistics>

<sup>3</sup> [www.fao.org/worldfoodsummit/english/fsheets/environment.pdf](http://www.fao.org/worldfoodsummit/english/fsheets/environment.pdf)

are already extinct.<sup>4</sup> According to Article 17 in the 2013 report, 17% of the target features (in accordance with the Habitats Directive) in the Alpine and 5% of the target features in the Continental region are in a favourable condition of preservation.<sup>5</sup>

#### SUCCESSFUL BIODIVERSITY CONSERVATION – EXAMPLES

The entire area of land protected under various nature conservation laws is 27% of the territory of Austria. Of this area, 16% of the state territory is designated as Natura 2000 area, national park or nature conservation area and thus strictly protected. Almost 11% are less strictly protected sites such as landscape conservation areas.

Projects to improve the ecological situation are carried out by public and private organisations, many of which are co-funded by the European Union. The Austrian Agri-environmental Programme (ÖPUL) and the ecological forestry measures (WUM) help to promote agricultural and forest management activities that are environmentally friendly, extensive and protective of natural habitats. These measures therefore contribute substantially towards reaching the agricultural biodiversity targets. In the European Union, Austria is a pioneer in organic farming. By promoting rare crop varieties and plant varieties for organic farming, measures are taken to improve genetic diversity in agriculture. For ecological, health policy-related and socio-economic reasons, Austria does without cultivating genetically modified organisms (GMOs) in agricultural crops. The conservation and enhancement of biological diversity is promoted by sustainable forest management. For example, small-scale structured utilisation in small-structured wooded areas is able to create a mosaic of habitats. For restoring habitats in Austria, Austria made particular use of subsidies from the EU environmental funding framework “L’instrument Financier pour l’Environnement” (LIFE).



To raise public awareness, campaigns are carried out both by public institutions and NGOs<sup>6</sup>, information material is developed, visiting centres established, guided tours offered and a variety of media employed. The campaign “vielfaltleben” was very successful in conducting conservation projects and also projects for raising public awareness. A biodiversity municipality network was established. One part of the project “Nationalparks Austria Öffentlichkeitsarbeit 2012-2014” involved a number of effective public relations activities. The purpose of these nationwide information campaigns in Austria was to raise the awareness level and the significance of biodiversity.

A large number of specific nature conservation measures were carried out, among them activities for endangered plant and animal species, such as the sand iris, the freshwater pearl mussel, birds of prey, butterflies and beetles. Swamps and bodies of flowing water were restored; meadows and woodlands were ecologically enhanced by extensive management. Nesting, breeding and spawning sites were created for birds and amphibians.

#### THE FRAMEWORK CONDITIONS FOR THE BIODIVERSITY STRATEGY AUSTRIA 2020+

The biodiversity strategy Austria 2020+ is embedded in a variety of legal and political framework conditions. The most essential legal foundations at an international and EU level are formed by the Convention on Biological Diversity, the Habitats Directive and the Birds Directive, the Water Framework Directive and the new regulation on Invasive Alien Species. At a national level, the nature conservation laws adopted by the Federal Provinces are significant, which are complemented by further legal standards of the Federal Provinces, such as regulations on species protection and protected areas. Of relevance for biological diversity is also the National Parks Strategy. Moreover, legal

<sup>4</sup> 10<sup>th</sup> Environment Control Report. Umweltsituation in Österreich. REP-0410, Environment Agency Austria, Vienna

<sup>5</sup> Environment Agency Austria (2013): Drafting of the Austrian Report pursuant to Article 17 of the Habitats Directive, reporting period 2007-2013. Report commissioned by the Liaison Office of the Federal Provinces, Vienna.

<sup>6</sup> Non-governmental organisation



regulations such as the Austrian Forest Act and regulations relating to other sectors that have a significant impact on land use, such as spatial planning, traffic planning, water management, hunting and fishing, are of further significance. Also, the relevant protocols of the Alpine Convention, the Berne, Bonn and the Ramsar Convention, as well as environment-related criminal law and the Aarhus Convention constitute further important framework conditions. The EU Biodiversity Strategy 2020, the strategies of the Federal Government and the Federal Provinces on various topics define fundamental political objectives and intentions. Also relevant to biological diversity are the strategies and planning concepts of other sectors, for example Austria's Energy Strategy, the National Action Plan on Plant Production Products (= pesticides), the Austrian Tourism Strategy, the Austrian Spatial Development Concept, the Austrian Traffic Master Plan or plans at a regional level, such as regional development programmes or zoning plans.

We can conclude by pointing out that almost everything people do and, consequently, practically all legal rules and regulations may have an impact on the conservation and development of biological diversity. The protection of biological diversity helps to secure the business location Austria and should continue to do so in the future. In many areas, it is therefore crucial to develop holistic solution strategies by involving all societal stakeholders.

## **Vision and objective of the EU Biodiversity Strategy to 2020**

### **2050 vision**

By 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided.

### **2020 headline target**

Halting the loss of biodiversity and the degradation of ecosystem services in the European Union by 2020, and restoring them in so far as feasible, while stepping up the European Union's contribution to averting global biodiversity loss.

European Commission (2011): Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. Our life insurance, our natural capital: an EU biodiversity strategy to 2020. Brussels, May 3, 2011, COM(2011) 244 final.





# FIELD OF ACTION – KNOWING AND ACKNOWLEDGING BIODIVERSITY

## TARGET 1: THE SIGNIFICANCE OF BIODIVERSITY IS ACKNOWLEDGED BY SOCIETY

- The appreciation of biodiversity in society has increased (2020).
- More partners from a variety of sectors and a higher share of the general public support the conservation and development of biological diversity.
- An increased participation of the involved public in biodiversity-related projects has been achieved.

## BACKGROUND

Responsibility for the conservation of biodiversity is only taken if knowledge about species, ecosystems and the complex ways in which they interact is available. Moreover, the knowledge of the extent to which personal and political decisions may have an effect on biodiversity is equally essential. It is crucial to integrate biodiversity concerns in all of the relevant specialised planning activities or strategies (e.g. tourism strategy, energy strategy, infrastructure projects, spatial planning).

## MEASURES

- Target group-oriented development of public relation activities, e.g. requirements for the practical implementation of the EU directives on wildlife and nature conservation, the significance of ecosystems and their services, the interrelations between consumer behaviour and biodiversity as well as between land management and biodiversity, particularly also directed at land owners and holders of rights to use land
- Continuation and development of nationwide and specific campaigns in Austria, e.g. **vielfaltleben**, National Parks Austria, [www.naturbeobachtung.at](http://www.naturbeobachtung.at), “Natur im Garten” (“Nature in the garden”), “Biodiversität in der Stadt” (“Biodiversity in Cities”), [www.muttererde.at](http://www.muttererde.at)

- Establishment of cross-sector platforms, e.g. “Biodiversity and Health”, “Business and Biodiversity”
- Improvement of the knowledge transfer between academia and society, in particular decision-makers in business, multipliers and professional groups that specifically benefit from nature, owners of gardens and persons seeking recreation
- Adaption of syllabuses across all educational levels with a view to understanding biodiversity, its dynamics and universal value, the concept of ecosystem services as well as action options for the conservation of biodiversity
- Expansion of the available services in adult education, e.g. <http://www.vhs.or.at/>, LFI (Rural Education Institute) and NGOs, in particular also further training and consultation events for farmers, foresters and consultants
- Further development of the available services of public media (ORF, Austrian Broadcasting) in the context of their educational mandate
- Increased use of social media, for example Facebook, Twitter, blogs, apps, to reach young people
- Raising the awareness of conserving biodiversity in sites that serve as exemplary models in public spaces (municipalities, cities, public facilities)



### Evaluation parameters:

- **Activities to promote biodiversity (MOBI B1)**
- **Number of positive media reports on biodiversity and nature conservation (clippings)**
- Number of partners involved in the viel-faltleben campaign
- Acknowledgement of the significance of biodiversity values by society as well as by specific biodiversity-related sectors (nationwide, representative and/or sector-based surveys)
- Analysis of viewer ratings of relevant television programmes (Austrian Broadcasting Corporation ORF and other broadcasters)
- Accesses/ratings in selected biodiversity-related social media (“likes”) e.g. National Parks Austria
- Knowledge transfer in biology classes in compulsory education (measurement category: lessons)
- Field trips of school classes/companies/institutions to national parks, nature parks and other nature reserves
- Number of established communication and networking platforms focused on the topic of biodiversity
- Amount of funds spent on awareness-raising measures focusing on biodiversity in subsidised areas (e.g. Rural Development - LE, European Territorial Cooperation - ETZ, LIFE)
- Number of newly established biodiversity sites in public spaces

**Implementation stakeholders<sup>7</sup>:** Provincial governments, BMBF (Federal Ministry of Education and Research), BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management)

**Further stakeholders:** Education and further education and training institutions (Universities, Universities of applied sciences, adult education centres, schools), ASFINAG, BFW (Austrian Research Centre for Forests), BMWFW (Federal Ministry of Science, Research and Economy), botanical and zoological gardens, EVUs (energy supply companies), LFIs (Rural Education Institute), museums of natural history, nature conservation academies, ÖBB (Austrian Federal Railways), cities and municipalities and NGOs

<sup>7</sup> Implementation stakeholders are listed alphabetically in the German version.

### TARGET 2: BIODIVERSITY RESEARCH AND MONITORING ACTIVITIES ARE EXTENDED

- Knowledge of biology and the ecology of species and habitats as well as of taxonomy has increased (2020+).
- Knowledge of the interrelations between human activities and biodiversity has improved (2020+).
- Data on status and trends of species, their genetic diversity and habitats, as well as influencing factors and conservation measures, are available (2019, 2020+).
- Insights and data are taken into account in political decisions.

### BACKGROUND

A well-founded scientific basis on the ongoing challenges, be it the effects of land use changes on ecosystem services and biodiversity, or climate change and biodiversity, is a further essential basis that enables us to assess the dangers and risks for biodiversity and develop the appropriate measures. The Austrian Council for Research and Technology Development recommends setting overarching priorities across all departmental responsibilities for selected key issues that have a societal or strategic significance for Austria. Biodiversity research is a perfect example of the need for taking a cross-sector approach and lends itself as a “Federal Government-Federal Province-Cooperation Project”.

Biodiversity monitoring is required to track changes in the status of biological diversity. Based on the data from existing and also especially created monitoring projects and further activities (e.g. biotope mapping) to record species and habitats, reports are created, for example as set out under Article 17 of the Habitats Directive and Article 12 of the Birds Directive.

Technological advancements and innovations are regarded as a requirement for securing quality of life and prosperity for future generations. The much needed intensification of research and development activities for new technologies and their implementation in Austria and abroad must include possible effects on biological diversity.

### MEASURES

- Commitment to organismic and ecosystemic biodiversity research, as well as solution-oriented, transdisciplinary research in national research programmes, particularly on the factors affecting biodiversity

- Assessment of dangers and risks as well as opportunities to control the factors influencing biodiversity and, derived from these, the development of options for action in view of protective measures (including preservation of evidence/success monitoring)
- Promotion of open-access publications in accordance with the Berlin Declaration<sup>8</sup>
- Assessment and regular monitoring, primarily of target features as defined under European Union legislation (pursuant to the Habitats Directive and Birds Directive), as well as further expansion and harmonisation of the existing data management structures for the assessment, management and evaluation of relevant information, e.g. for reporting pursuant to Article 17 of the Habitats Directive and Article 12 of the Birds Directive and for other mandatory reporting requirements, e.g. CBD, Ramsar and Alpine Convention
- Creating updates of selected Red Lists for Austria and at the level of the Federal Provinces, development of new Red Lists for selected groups of species with high indicator value or high relevance to ecosystem services
- Expansion of extensive biotope mapping activities
- Continuation of the work on the development of a nationwide land use survey (in accordance with the land information system Austria/LISA standards) which was launched in the context of the Austrian Conference on Spatial Planning
- Expansion of education and training options in the field of biodiversity research, basic research in taxonomy, as well as taxonomic-systematic knowledge transfer in teacher training programmes and science education at universities, universities of applied sciences and extramural institutions
- Promotion of scientific collections, taking into account innovative developments and advanced technologies and networking activities of data providers (e.g. Global Biodiversity Information Facility – GBIF, Biofresh, Austrian Barcoding of Life – ABOL)<sup>9</sup>
- Development of methods to integrate biodiversity effects into life cycle analysis (life cycle assessment methods) streamlined with the relevant international developments
- Review of existing biodiversity-related monitoring programmes in view of their significance to climate change adaptation
- Horizon scanning of developments and risk factors for biodiversity, e.g. scenarios and forecast model developments
- Establishment of new concepts to assess biodiversity with participation of the public (e.g. citizen science with smartphone apps) and farmers (e.g. active inclusion of farmers and foresters in biodiversity monitoring projects) in cooperation with experts who assist with the assessment
- Assessment of soil biodiversity and its ecosystem services

#### Evaluation parameters:

- **Number of reports and peer-reviewed<sup>10</sup> publications on biodiversity research with the participation of national institutions**
- **Reduction of the number of protected target features of Community interest, which are currently still categorised as “unknown” (for EU reporting obligations)**
- **Area covered by the current biotope mapping**
- Number/participants of biodiversity-related further education, training and consultation events for farmers and foresters and other stakeholders

**Implementation stakeholders:** Provincial governments, BMWF (Federal Ministry of Science, Research and Economy)

**Further stakeholders:** AGES (Austrian Agency for Health and Food Safety), extramural research institutions, BFW (Austrian Research Centre for Forests), BMG (Federal Ministry of Health) (GMO research), BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), BMVIT (Federal Ministry of Transport, Innovation and Technology), Universities of applied sciences, natural history collections, LKÖ (Austrian Agricultural Chamber), LFBÖ (Austrian farming and forestry association), ÖAW (Austrian Academy of Sciences), nature reserve administrations, Environment Agency Austria, Universities and NGOs

<sup>8</sup> The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities aims at promoting the Internet as an instrument to distribute scientific knowledge. These possibilities of knowledge dissemination via the Internet have to be promoted according to the principle of open access (Open Access Paradigm). [http://openaccess.mpg.de/68053/Berliner\\_Erklaerung\\_dt\\_Version\\_07-2006.pdf](http://openaccess.mpg.de/68053/Berliner_Erklaerung_dt_Version_07-2006.pdf).

A further development is the Declaration of San Francisco on Research Assessment, which promotes the use of primary data. This, too, was undersigned by Austrian research institutions.

<sup>9</sup> [www.freshwaterbiodiversity.eu](http://www.freshwaterbiodiversity.eu), ABOL: Austrian Barcode of Life

<sup>10</sup> Scholarly work is checked by a group of independent experts in the same field.



# FIELD OF ACTION – SUSTAINABLE USE OF BIODIVERSITY

## TARGET 3: AGRICULTURE AND FORESTRY SUPPORT CONSERVATION AND IMPROVEMENT OF BIODIVERSITY

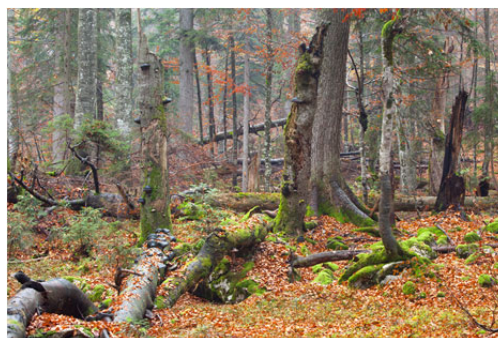
- Increase of areas with biodiversity-related agri-environmental measures (2020).
- The conservation status of the habitats and species that depend on or are affected by agricultural and forest management is measurably improved on the basis of the 2010 reference scenario (2020).
- Improvement of the Farmland Bird Index development (2020)<sup>11</sup>.
- Total amount of rare livestock breeds is stable to slightly rising; the number of bee colonies has increased to 400,000 (2020).
- The amount of dead wood and old growth, particularly in the previously low-appointed natural areas of the Alpenvorland, Mühlviertel and Waldviertel and in the eastern parts with warm summers, has increased (2020+).
- Traditional knowledge is preserved (2020).

## BACKGROUND

The method and intensity of agricultural and silvicultural utilisation is crucial to the presence and status of numerous species and habitats in the cultural landscape. A high share of semi-natural areas (e.g. set-aside land) within agricultural area is a decisive factor for the improvement and maintenance of biodiversity. It is essential, in this respect, to take account of the economic and social framework conditions that have a strong impact on farming and forestry practices and are also particularly affected by trade and the processing industry. Many types of biotopes currently regarded as valuable in terms of nature conservation were specifically also created by traditional farming and forestry practices; many animal and plant species as well as habitats depend on the continuation of extensive use. More than 80% of Austria's national territory is cultural landscape. About a third is used agriculturally,

of which a little more than half is grassland and meadows. The remaining part is managed arable land. The safeguarding of a dynamic rural area and the preservation of its diverse tasks and functions for society must also be ensured in the future. Almost half of the national territory is covered by woodland, the majority of which is also used for silvicultural purposes. Of central significance is also spatial planning along with its planning requirements for settlement and traffic development. Intensive farming practices that rely on the excess use of fertilisers and pesticides affect biodiversity and the associated ecosystem services adversely, as does abandoning utilisation altogether. Agricultural and forestry utilisation is subject to regionally differing framework conditions and therefore requires locally adapted biodiversity evaluation and promotion concepts.

Of particular significance to agriculture and, to a lesser extent, to forestry is the orientation of the Common Agricultural Policy (CAP) of the European Union. Its impact varies and also depends on the specific orientation of its targets. With its measures, the Austrian Agri-environmental Programme (ÖPUL) contributes directly and indirectly towards conserving biodiversity, for example, by enabling the adaptation of modern land use to the needs of species and habitats. The documentation of landscape features<sup>12</sup> provides important information about structural diversity in the cultural landscape. The challenge of the future will be to reconcile the conservation and promotion of biodiversity and sustainable food security.



<sup>11</sup> To achieve a turn-around in trends in the Farmland Bird Index it will also require measures in other sectors.

<sup>12</sup> AMA survey of landscape features: trees/bushes; hedgerows/riparian woodlands; ditches; copses, etc.

Due to the high forest cover, the forest's significance for the conservation of indigenous species and habitat diversity is considerable. Forest biodiversity, however, frequently falls victim to a variety of conflicting societal and economic priorities and claims on the forests. To secure the utility, protection, welfare and recreational function of the forest<sup>13</sup> in the long term, intact forest ecosystems are required. Sufficiently large zones for process protection serve the conservation of species and communities which require unrestricted, natural forest processes.<sup>14</sup>

The conservation of biological diversity is closely associated with traditional knowledge and customs, particularly so in the Alpine country of Austria. Austria has committed itself to preserving knowledge and practices of interacting with nature.

#### MEASURES

- Development and implementation of measures to ensure a "favourable conservation status" for target features as defined in the Habitat Directive relating to agricultural landscapes and woodlands, such as e.g. interdisciplinary, practical management guidelines developed by taking a participative approach
- Effective use of available funding for the single-area payment scheme as well as project subsidisation to protect biodiversity in the Rural Development Programme
- Establishment of 5% ecological priority sites (e.g. flowering strips), so that biodiversity-related ecosystem services, networking and stepping stone functions are optimised by agri-environmental measures
- Conservation of permanent grasslands, particularly of extensively farmed land, as well as further sites of high conservation value. Maintenance of the current proportion of high-nature value (HNV) areas as well as preservation of cultural landscapes to promote biodiversity by ÖPUL measures
- Maintenance of the specific support of agricultural holdings to maintain biodiversity, particularly in disadvantaged areas
- Conservation and expansion of regionally adapted livestock breeds in-situ, on-farm (in agricultural holdings) as well as ex-situ, including honey bees
- Conservation of crop varieties in-situ, on-farm (in agricultural holdings) as well as ex-situ (in collections like botanical gardens, gene banks)
- Conservation of arable plant species on fields
- Maintenance of the free exchange of seeds of rare varieties
- Raising public awareness about the significance of traditional methods of using biological diversity and the associated cultural diversity in Austria, as well as promotion of local know-how about traditional cultural species and genetic diversity (varieties, eco-types, their significance to the regional culture)
- Continuation of national dialogues in agriculture and forestry, particularly on the implementation of the EU standards (e.g. "Seed Dialogue", "Forest Dialogue", Natura 2000 Platform)
- Implementation of effective measures to safeguard honey bees and wild bees
- Implementation of measures in the context of the Austrian Forest Ecology Programme (ÖWÖP), in particular via the Rural Development Programme 2014-2020
- Creation of incentives in rural development 2014-2020 to raise the share of old growth and dead wood, particularly for woodlands with a lower share of dead wood, in accordance with professional criteria
- Transformation and transfer of forest stands that are far from their natural state and increase of the share of tree species of potentially natural forest communities adapted to climate change
- Increase of unmanaged wilderness areas in national parks (in particular forests) as defined in the Austrian National Park Strategy and in accordance with the recommendations given by the National Park Austria Advisory Board, as well as the identification and review of the establishment of further areas suitable for process protection in the context of the nature reserve concepts by means of conservation management agreements
- Assessment, conservation and sustainable development of semi-natural forest stands in the framework of appropriate support programmes after reconciliation of interests and by adding to the network of natural forest reserves any sufficiently sized forest communities not yet included and taking into account old growth stands with a long-standing habitat tradition, irrespective of the forest community
- Review of the options to implement the Woodland Bird Index
- Expansion of organic farming

<sup>13</sup> Forestry Act 1975 (Federal Law Gazette 440/1975) as amended

<sup>14</sup> In terms of the EU Biodiversity Strategy 2020 (Target 2, Target 3)

#### Evaluation parameters:

- Area with biodiversity-related agri-environmental measures
- Amount of expenditure for biodiversity-related measures as part of the Agri-environmental Programme
- Fruit variety diversity (MOBI G5)
- Naturalness of tree species composition (MOBI W1)
- Dead wood (MOBI W2)
- Biodiversity Index Forest
- Conservation status of species and habitat types in the Habitats Directive (Art. 17 Report) as well as status of bird species in agricultural landscapes and forests in the Birds Directive (Art. 12 Report)
- Threat status of selected species groups and biotope types in agricultural landscapes and forests (Red List)
- Farmland Bird Index
- Number and area of natural forest reserves
- Livestock breeds considered worthy of conserving (MOBI G6)
- Species and variety diversity in agricultural production in Austria
- Number of bee colonies
- Area and share of forests with superordinate biodiversity conservation objective through active measures (pursuant to the MCPFE Assessment Guidelines, Categories 1.3)
- Number of biodiversity-relevant and agriculture and forestry-related Austrian traditions in the list of the Convention on the Safeguarding of Intangible Cultural Heritage

**Implementation stakeholders:** Provincial governments, BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management)

**Further stakeholders:** AGES (Austrian Agency for Health and Food Safety), BFW (Austrian Research Centre for Forests), botanical and zoological gardens, regional hunting associations, Land&Forst Betriebe (farming and forestry association), LFIs (Rural Education Institute), agricultural chambers, Austrian Forests (ÖBf AG), nature reserve administrations, cities and municipalities, Universities, Austrian Economic Chamber as well as Arche Noah and further NGOs

#### TARGET 4: GAME AND FISH STOCKS ARE ADAPTED TO NATURAL ENVIRONMENT CONDITIONS

- The Forestry-Hunting Dialogue continues (2014).
- Population size and structure of hoofed game are optimally adapted to the respective natural habitat conditions (2020+).
- Game impact situation has improved (2020+).
- Public acceptance of predatory animals has improved (2020+).
- Conservation status of Habitat Directive fish species and aquatic habitat types has improved by 50% or 100%, respectively; threat status of at least 15% of fish species has improved (2020+).
- Good condition and/or good ecological potential as defined in the Water Framework Directive has been achieved by 2015 or 2021/2027, respectively.
- The fishing industry is sustainable (2020+).



#### BACKGROUND

Hunting manages game stocks and, consequently, their ecosystems. Hunting management potentially leads to conflicts with other groups of land users, for example, in the forestry, farming, traffic and settlement, tourism and nature conservation sectors. The way wildlife management is undertaken is crucial to the conservation of biodiversity. In many parts of the Austrian forests, the game impact situation shows no signs of significant improvement in the near future. If damage caused by wildlife (grazing) prevents the natural regeneration of forest stands, this can lead to a reduction in forest biodiversity, for example, by a decline in the number of mixed tree species (Austrian Game Impact Monitoring, WEM; Austrian Forest Inventory, ÖWI). A common basis of understanding is of fundamental significance if biodiversity conservation measures are to be implemented successfully. Firstly, the Austrian Forest Dialogue deals with game-related



issues and, secondly, the Austrian Forest-Hunting-Dialogue was launched in 2012. The “Principles, Criteria and Indicators of Sustainable Hunting” were developed in a participatory process and are generally intended to provide a fundamental basis. In 2012, the representatives of the provincial hunting and forestry associations signed the “Mariazell Declaration” which, among other things, seeks to ensure that the regeneration of tree species typical of the site is generally possible according to the natural potential.<sup>15</sup>

Large predators may play a role in the management of hoofed game populations/wildlife damage problems (grazing), as they have an impact on distribution and size of the hoofed game populations. By damage prevention measures (herd protection) and adequate damage compensation, the acceptance of large predator animals can be raised.

Fish fauna in Austria is specifically affected by interruptions in the water continuum due to migration obstacles, such as power plants, dams, flood protection measures, shipping, abstraction of water (e.g. for irrigation purposes), changes in the discharge regime, water level fluctuations, bank reinforcement, water use (e.g. tourism) and, to a lesser degree, pollution due to wastewater (including substances with hormonal effects). Locally, there is the possibility of financial loss due to fish predators (e.g. in fish ponds). According to the Red List, 65% of indigenous fish species are listed in a threatened category. Fishing, which in Austria is primarily significant in the form of recreational fishing, affects the species spectrum of the aquatic biocoenosis typical of the water body by fish stocking and fish removals.

#### MEASURES

- Cross-sector coordination of hunting activities with agriculture and forestry sectors, traffic, settlement and recreation use, tourism, as well as nature conservation and spatial planning
- Continuation of the Forestry and Hunting Dialogue and intensified communication of the Mariazell Declaration to all those who make use of the natural environment
- Increased consideration of the sustainable hunting criteria
- Review of the introduction of game-ecological spatial planning tools across all federal provinces and coordination of nationwide population control requirements

- Consideration of nationwide and regional game corridors, migration axes and obstacles in local and regional spatial planning
- Coordination of required wildlife control methods across hunting grounds as well as habitat improvement measures
- Continuation of the Austrian Game Impact Monitoring (WEM) and the surveys on forest regeneration and grazing conducted by the Austrian Forest Inventory (ÖWI)
- Targeted management of hoofed game populations to maintain and improve forest biodiversity
- Coordination of the contents of training programmes for hunting and forestry, particularly with a view to game impact and evaluation and the development of resulting holistic measures
- Creation and implementation of concerted management plans for predatory animals (bears, wolves, lynxes, bird of prey) to be implemented across Austria in cooperation with stakeholders; these shall also include measures for the reconciliation of interests including damage prevention (e.g. herd protection) and public relations, as well as regulations for damage compensation issues
- Improvement of morphology, hydrology and the ecological status of water bodies in the context of the implementation of the Water Framework Directive (WRRL) requirements
- Establishment of functioning fish ladders in accordance with the requirements specified in the National Water Management Plan, inspection of existing fish ladders and, where necessary, their improvement, fish protection facilities at hydroelectric power plants as well as the use of fish-friendly turbine types in the context of the implementation of the WRRL requirements
- Definition and control of maximum stocking rates and/or limitation to certain fish species typical of the site
- Ban on the release of invasive alien fish, freshwater crayfish and mussel species
- Reintroduction of extinct populations of indigenous fish, freshwater crayfish and mussels on the basis of site inspections and according to nature conservation considerations and taking into account the IUCN criteria<sup>16</sup> as well as increased production of autochthonous fish for stocking purposes to support weakened populations

<sup>15</sup> [http://www.tjv.at/uploads/mariazeller\\_erklarung\\_rep\\_osterreich.pdf](http://www.tjv.at/uploads/mariazeller_erklarung_rep_osterreich.pdf)

<sup>16</sup> <https://portals.iucn.org/library/sites/library/files/documents/2013-009.pdf>

- Development of criteria and indicators for sustainable fishing and aquaculture
- Continuation of the dialogue platform “Information Meeting for EU Fisheries Affairs and Aquaculture” (IFA)
- Periodic creation of management plans for lakes with regard to sustainable use of stocks
- Keeping of annual statistics on fish caught and fish stocked
- Implementation and requirements of the Aquaculture Council Directive as amended (2006/88/EC) and the Austrian Strategy on the Promotion of National Fish Production (Aquaculture 2020) taking into account the ecological requirements

#### **Evaluation parameters:**

- **Game impact on forest regeneration (WEM and ÖWI)**
- **Status and trends of fish species (Red List)**
- Number of legal proceedings relating to Section 16 (5) Forest Act (“Destruction of forest caused by game”)
- Hoofed game damage (ÖWI)
- Status and trends of predator animals (Red List, Habitats Directive)
- Acceptance of predators in the public (representative survey)
- Ecological status of bodies of flowing water and lakes (in accordance with WRRL)
- Share of fish produced according to sustainable principles in Austria compared to total fish consumption in Austria

**Implementation stakeholders:** Provincial governments, BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management)

**Further stakeholders:** BFW (Austrian Research Centre for Forests), Federal Office for Water Management, energy industry, fishery associations, fish breeders, municipalities, trade and industry, hunting associations, agricultural chambers, Land&Forst Betriebe (farming and forestry association), ÖBf AG, nature reserve administrations, tourism associations, Universities, water management sector and NGOs

#### **TARGET 5: TOURISM AND LEISURE ACTIVITIES ARE IN LINE WITH BIODIVERSITY OBJECTIVES**

- Biodiversity objectives are incorporated into tourism policies and guidelines (2020+).
- Cooperation projects between tourism and nature conservation are enhanced (2020).

#### **BACKGROUND**

Biological diversity is of great significance to tourism and leisure activities. A pristine natural environment and landscape is an important competitive advantage and a basic requirement for tourism. Many of the zones with the greatest tourism intensity are located in Alpine regions and conservation areas. Particularly in centres of mass tourism, as well as in ecologically sensitive natural environments, there may be an excess use of natural resources, which could have adverse effects on biodiversity, both within and outside of the protected areas. Extensive surfaces are sealed by the construction of tourism infrastructure facilities (e.g. hotels, car parks, ponds for making artificial snow) or are homogenised by tourism-related measures (e.g. levelling of skiing slopes). Leisure activities may lead to the disturbance of species, for example during breeding, foraging or hibernation periods. In addition, such activities are associated with the construction or expansion of infrastructure measures. It is therefore essential that tourism and leisure activities be controlled, and that particular attention be given to ecologically sensitive areas. In the guidelines on environmental labels for the tourism and leisure industries, biodiversity criteria were included.

#### **MEASURES**

- Participative establishment of boundaries for tourism infrastructure in accordance with the natural landscape and climate based on regionally differentiated biodiversity guidelines and the adaptation of expansion projects to suit these plans and, if necessary, review of restoration options
- Reduction of further land consumption by tourism infrastructure measures
- Enhancement of visitor control measures inside and outside of conservation areas coordinated with land owners
- Intensification of collaborative efforts between nature conservation and tourism, specifically by nature reserve administrations, nature reserve supervisors and other regional stakeholders

- Implementation of the Alpine Convention tourism protocol
- Cooperation between tourism and transport and tour operators to develop environmentally friendly mobility options (arrival, mobility at the destination) with the objective to reduce the motorised private transport associated with tourism
- Development of ecological attractions and areas where people can experience nature, also in settlement areas and local recreation areas
- Assessment of ways to collect a biodiversity contribution for using semi-natural habitats for tourism and leisure activities on a voluntary basis
- Development and implementation of a nationwide concept for tourism and nature conservation, with designation of “quiet zones” modelled on those in Tyrol<sup>17</sup>
- Further development and evaluation of measures to preserve the cultural landscape as the basis for multi-functional tourism areas
- Evaluation of the tourism industry’s impact on biodiversity

**Evaluation parameters:**

- **Number of businesses with the environmental label for the tourism and leisure industry**
- **Number of businesses and/or projects with cooperation activities between nature reserve administrations, regional stakeholders and tourism**
- Number of nature reserves as signatories of the European Charter for Sustainable Tourism (Europarc Federation), number of charter partners

**Implementation stakeholders:** Provincial governments, tourism associations and cooperation projects

**Further stakeholders:** BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), BMWFW (Federal Ministry of Science, Research and Economy), Austrian Hotelier Association, Österreich Werbung, Austrian Economic Chamber, CIPRA Austria, Alpine organisations and other NGOs



<sup>17</sup> <http://www.tiroler-schutzgebiete.at/schutzgebiete/ruhegebiete.html>



# FIELD OF ACTION – REDUCING PRESSURES ON BIODIVERSITY

## TARGET 6: ENERGY SUPPLY IS BIODIVERSITY-FRIENDLY

- Suitability or exclusion areas for wind power are defined across Austria (2020).
- Renewable energy from biomass is increasingly also generated from waste and by-products as far as is feasible; exclusively ecological use of hydropower at suitable locations and adapted to ecological requirements (2020+).
- Lighting facilities are converted to suit biodiversity requirements (2020).

### BACKGROUND

The provision, distribution and utilisation of energy sources used in Austria may directly or indirectly (in some forms of energy e.g. through the emission of harmful substances or greenhouse gases) lead to changes and adverse effects on habitats and to species endangerment. It is therefore important to avoid conflicting priorities in the environmental, energy and biodiversity policies and ensure that positive synergies are created.

The generation and utilisation of Renewable Energy Sources generally opens up new possibilities for environmentally friendly and climate-friendly energy supply and for increased regional value creation, but it may also lead to a conflict of objectives and intervention into ecosystems. Hydroelectric power plants lead to significant changes in water ecosystems; wind farms in conjunction with the necessary infrastructure lead to changes in the landscape appearance and can create obstacles for birds and bats in flight. Biomass crops must be grown in accordance with the production of foods and animal feed (food-feed-fuel principle). In the European Union, sustainable criteria were agreed for the production of bio-fuels, including their cultivation.<sup>18</sup> Work is ongoing on the development of second- and third-

generation fuels, none of which are currently expected to reach a noticeable market share before 2020.

Light pollution refers to adverse effects of night-time lighting – an issue which is gaining significance among conservationists. Reproduction, development, foraging, predator-prey relationships, migration behaviour or the activity radius of multiple insects, birds, amphibians, reptiles, fish, crayfish and mammals are affected by artificial light.<sup>19</sup> Besides a number of synergy effects (e.g. energy saving and climate protection) there are also other aspects (e.g. human health, occupational safety, traffic safety) that need attention.

### MEASURES

- Transparent consideration of public interests – in the case of new operations – regarding energy production and biodiversity conservation at a regional and local level
- Planning and establishment of suitable expansion locations by taking into account direct and indirect as well as cumulative effects
- Revitalisation, modernisation and efficiency enhancement of existing hydroelectric power plants while simultaneously carrying out ecological improvements to achieve a good ecological condition / potential
- Establishment of photovoltaic facilities, primarily on buildings and suitable open spaces but not in grassland
- Promotion of measures to reduce energy consumption and to enhance energy efficiency in all stages of energy provision and utilisation
- Promotion of the cascading use of all cycles of materials and strengthening of renewable resources from sustainable production
- Minimisation of light pollution, e.g. by providing biodiversity-friendly lighting systems with energy-efficient and long-lasting lamps, reduction of illumination periods and intensity by half-night switching, motion detectors

<sup>18</sup> Directive 2009/28/EC, Article 17 to 19 and Directive 98/70/EC. Austrian Fuels Ordinance 2012 (Federal Law Gazette II No. 398/2012): Ordinance of the Federal Minister for Agriculture, Forestry, Environment and Water Management on the quality of fuels and the sustainable use of biofuels. BMLFUW (2010): Ordinance 250/2010 on agricultural outputs for biofuels.

<sup>19</sup> <http://www.hellenot.org/>

#### Evaluation parameters:

- Zoning concepts for wind power and other land-related energy sources
- Nationwide and/or regional concepts for selecting suitable locations for hydropower utilisation and/or for the protection of ecologically sensitive water bodies
- Light emissions (MOBI S2)
- Ecological status of bodies of flowing water and lakes (in accordance with WRRL)
- Share of green electricity as part of the entire power consumption

**Implementation stakeholders:** Provincial governments, BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), BMWFW (Federal Ministry of Science, Research and Economy)

**Further stakeholders:** BMVIT (Federal Ministry of Transport, Innovation and Technology), energy industry, cities and municipalities, ÖBB (Austrian Federal Railways), Austrian Forests (ÖBf AG), Austrian biomass association, Universities and NGOs



#### TARGET 7: POLLUTION IS REDUCED

- Exceeding of critical loads is reduced (2020).
- Surface waters and groundwater have a good chemical status by 2015 or 2021/2027, respectively in accordance with the Water Framework Directive.

#### BACKGROUND

Depending on toxicity, exposure duration and cumulative effects, pollution leads to changes in biodiversity. Over the last decades, appropriate measures have led to improvements in some airborne pollutants, but pollution with some substances (e.g. particulate matter, nitrogen oxides or ozone) remains high and requires action at a national and international level. The Austrian nationwide assessment of critical loads<sup>20</sup> for eutrophication effects caused by nitrogen has shown that there are excess levels in 66% of the Austrian territory that responds sensitively to nitrogen input. This is a noticeable improvement towards the reference year 2005, in which the value was still at 95%. 73% of sensitive habitats in Natura 2000 sites are exposed to excessive pollution levels.<sup>21</sup>

The National Action Plan on Plant Protection Products (= pesticides) was created to reduce the risks and impacts of pesticide use on human health and the environment. The current situation and the already introduced measures and those yet to be implemented are assessed and documented, and targets are defined on the basis of time schedules. The relevant Action Plans for each of the federal provinces describe the implementation measures. They are reviewed and updated every five years.

#### MEASURES

- Reduction of pesticide-induced pollution (plant protection products, biocides) in groundwater, surface water and soils by optimised and state-of-the-art use in farming and forestry, business, gardens and settlements and in traffic-related areas and application of the most advanced scientific and technical insights in use

<sup>20</sup> Critical loads are ecological load limits for an ecosystem's exposure to air pollutants. In the long term there are no adverse effects on the ecosystem unless the critical loads are exceeded. Critical load is a flow figure and is given as maximum permissible pollutant exposure per year and unit of area.

<sup>21</sup> Environment Agency Austria (2013): UNECE ICP Modelling & Mapping data request 2013-2014, First Interim Report. Vienna, Austria

- Promotion of research on the ecological effects of pesticides, networking among bodies responsible for approval regulations as well as intensified public awareness-raising activities about the effects of using pesticides in various application areas
- Reduction of fertiliser-induced pollution, specifically of nitrogen
- Continuation of existing measurement series such as the “Bioindicator Network” ([www.bioindikatornetz.at](http://www.bioindikatornetz.at)), deposit assessment in forest status monitoring
- More training programmes for hobby gardeners and sales assistants on the subject of spray pesticides in view of biodiversity aspects
- Implementation of the National Action Plan on Plant Protection Products
- Promotion of research on alternatives to chemical plant protection products
- Air pollution emission reduction of motorised private transport for example by transition to vehicles with low-emission/emission-free drive systems (electric mobility) and continuation of the existing measures in the traffic sector, which have a positive effect on biodiversity (e.g. night driving ban, speed limits in accordance with the Immissionsschutzgesetz-Luft (Austrian Air Quality Protection Act), Federal Government Programme pursuant to the Emissionshöchstmengengesetz-Luft (Austrian Maximum Emission Output Act)
- Strengthening of regional production sites with regional value creation to reduce traffic-related emissions
- Reduction of pollution with priority substances as defined in the Water Framework Directive
- Reduction of input from biocides, pharmaceutical products, hormonally active substances, plastic particles and other chemical compounds foreign to the biological cycles of matter and natural ecosystems (xenobiotics), primarily by taking measures at the source of the pollution and complemented by prioritised wastewater-related technical innovations
- Intensification of the discussion processes with Austria’s neighbouring states to achieve a reduction of anthropogenic nitrogen compounds (e.g. in the context of the Convention on Long-range Trans-boundary Air Pollution, LRTAP)

#### Evaluation parameters:

- **Critical loads (MOBI BO2)**
- **Chemical status of surface waters and groundwater (pursuant to WRRL)**
- **Number of persons using plant protection products after professional qualification, including details on quantities and area**
- Soil status inventories
- Indicators to rate air quality

**Implementation stakeholders:** BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), BMWF (Federal Ministry of Science, Research and Economy)

**Further stakeholders:** AGES (Austrian Agency for Health and Food Safety), provincial governments, BFW (Austrian Research Centre for Forests), BMVIT (Federal Ministry of Transport, Innovation and Technology), gardening and gardening supplies trade, industry, chambers of agriculture, cities and municipalities, Environment Agency Austria, Austrian Economic Chamber and NGOs





## TARGET 8: NEGATIVE IMPACTS OF INVASIVE ALIEN SPECIES ARE REDUCED

- EU Regulation on the prevention and management of the introduction and spread of invasive alien species (2019) and regulations on alien species in relevant EU rules and standards in accordance with the EU Biodiversity Strategy<sup>22</sup> have been implemented.
- Updated information on alien species is available (2019).
- Public awareness of the problems with alien species has increased (2020+).

### BACKGROUND

In Austria, around 2,000 non-indigenous species are documented (as of 2009), of which around 90 species are categorised as problematic from a nature conservation perspective (Action Plan Neobiota 2004). An increase in the number of alien species in Austria is expected. In the assessment of the conservation status of habitat types as defined in the Habitats Directive, alien species were mentioned as the most important cause of threat.<sup>23</sup> Documented financial damages caused by alien invasive species in Europe are estimated at a minimum of EUR 12.5 billion per year. Alien invasive species are a comprehensive issue and must therefore be treated across all disciplines and sectors.

The EU Regulation of the European Parliament and the Council on the prevention and management of the introduction and spread of invasive alien species must be implemented according to schedule. The Regulation seeks to control the deliberate (import) and accidental introduction, establishment and spread of selected invasive species based on a risk assessment.

### MEASURES

- Enforcement of the EU Regulation on the prevention and management of the introduction and spread of invasive alien species
- Review of national legislation in view of contradictions between the EU regulation and national law
- Information and experience exchange on successes and failures in control measures, e.g. in national expert panels (e.g. fishery advisory

board, national park advisory boards, Ramsar Committee), in the context of periodical stakeholder dialogues and expert conferences as well as provision of information to the broad public

- Adaptation of existing monitoring systems for plant health and plant protection, health, forest inventory, water management and nature conservation
- Review of possibilities and, where required, introduction of “citizen science<sup>24</sup>” to record selected invasive alien species in cooperation with experts conducting the assessment
- Updating of the national inventory lists of alien species and creation of a list of invasive alien species expected in Austria in the future, including the definition of preventive measures
- Continuation of the “Focal Point Neobiota” that acts as an information hub and interface between politics and science
- Intensification of invasion-ecological research, particularly on alien species relevant to the economy and to health, as well as the interaction of these species with other factors, such as land utilisation, eutrophication or climate change
- Encouragement of prevention efforts, specifically by raising the awareness of the problem among the sectors involved in the spreading of invasive alien species, e.g. trade (e.g. animal trade, gardening business), transport and construction industry and in the broad population (particularly consumer behaviour)
- Inclusion of the issue in school syllabuses and teaching materials and in the education and further training programmes for multipliers, vocational schools for agriculture and forestry, hunting and fishery exams, national park rangers, official nature conservation experts

### Evaluation parameters:

- **Status and trends of invasive alien species (MOBI N6)**
- Control costs for invasive alien species (e.g. in nature reserves, Life projects)
- Problem awareness among selected target groups (nationwide representative survey in Austria)

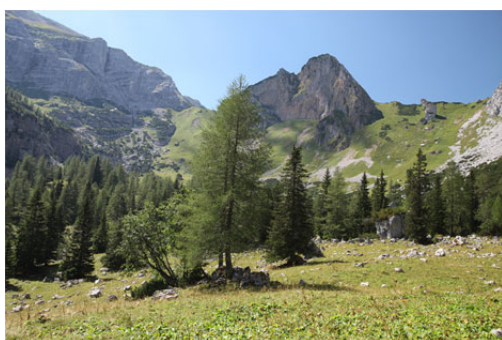
<sup>22</sup> Actions 15 and 16 of the EU Biodiversity Strategy

<sup>23</sup> Environment Agency Austria (2013, long version, unpublished): Drafting of the Austrian Report as set out under Article 17 of the Habitats Directive, reporting period 2007-2013. Report commissioned by the Liaison Office of the Federal Provinces, Vienna.

<sup>24</sup> ‘Citizen science’, also known as ‘crowd science’, is a scientific research method, where projects are conducted in whole or in part, by amateur or nonprofessional scientists, who report observations, perform measurements or evaluate data.

**Implementation stakeholders:** Provincial governments, BMWWF (Federal Ministry of Science, Research and Economy), BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management)

**Further stakeholders:** AGES (Austrian Agency for Health and Food Safety), ASFINAG, mountain rescue services and park rangers, BFW (Austrian Research Centre for Forests), BMBWF (Federal Ministry of Education and Women's Affairs), BMF (Federal Ministry of Finance) (customs duty), BMG (Federal Ministry of Health), BMVIT (Federal Ministry of Transport, Innovation and Technology), botanical and zoological gardens, EVU (energy supply companies), fishery associations, gardening and gardening trade, bee keeper associations, hunting associations, agricultural chambers, ÖBB (Austrian Federal Railways), ÖBf AG (Austrian Forests), ÖWAV (Austrian Water and Waste Management Association), nature reserve administrations, Environment Agency Austria, Via Donau, Universities and NGOs



## TARGET 9: INCENTIVES WITH NEGATIVE IMPACT ON BIODIVERSITY, INCLUDING SUBSIDIES, ARE ABOLISHED OR ADAPTED

- Relevant financial subsidies are adapted in terms of biodiversity conservation (2020+).

### BACKGROUND

In addition to legal provisions, incentive measures, such as the granting of subsidies, make it possible to control measures. Incentives with negative impacts on biodiversity, including subsidies, comprise direct financial support and also tax relief, which encourage a behaviour that can have a negative impact on climate, air, soil, water, human health and biological diversity. The arising costs (ecological consequential costs) are usually borne by the general public and not by the party responsible.

### MEASURES

- Analysis and intensified public information about how subsidies harmful to biodiversity affect the national economy and businesses
- Development and inclusion of biodiversity criteria in incentive measures, including subsidies, as well as in projects co-financed by public funding as a basis for eligibility, taking into account economic and socio-economic aspects
- Development of incentives for the increased use of environmental management systems with reference to biodiversity

### Evaluation parameters:

- **Number of abolished or adapted subsidies**
- **Number of subsidies into which biodiversity criteria were included**
- **Number of companies which have included biodiversity criteria in their production processes or procedures**

**Implementation stakeholders:** BMF (Federal Ministry of Finance), BMWWF (Federal Ministry of Science, Research and Economy)

**Further stakeholders:** All of the relevant ministries, provincial governments, cities and municipalities, WIFO (Austrian Institute of Economic Research), IHS (Institute for Advanced Studies) and NGOs

# FIELD OF ACTION – CONSERVING AND DEVELOPING BIODIVERSITY

## TARGET 10: SPECIES AND HABITATS ARE CONSERVED

- Compared to the 2007 Report, the conservation status has improved in 36% of the habitats and in 17% of the species listed in the Habitats Directive by the year 2020.
- 78% of the species listed in the Birds Directive have acquired the status “secure” or have improved<sup>25</sup> in 2020.
- Acceptance of Natura 2000 has improved in selected stakeholder groups including land users (2020).
- Threat status of species has improved in accordance with priority setting (2020+).
- Quantitatively sufficient, functioning biotope connectivity has been established(2020+).
- 15% of the deteriorated ecosystems have been improved or restored; natural development takes place in 2% of Austria’s territory (2020+).
- Climate protection measures have been taken; measures of the Austrian climate change adaptation strategy with regard to biodiversity have been implemented (2020).

## BACKGROUND

The preservation of species and habitats and the improvement of poor conservation statuses of target features is one of the main tasks of nature conservation. Species and habitat protection measures, as well as the designation of nature reserves, are among the traditional nature conservation tools. In Austria, many species would never have spread and new habitats never have developed without human utilisation, but due to changing human activities, these are now endangered.

The fact that such habitats and species are under threat, particularly the conservation status of the species and habitats listed in the Habitats Directive make it very clear that the biodiversity conservation measures taken so far are insufficient. Imperative to ensure the long-term preservation of biological

diversity in its entirety is a combination of ecologically compatible utilisation and targeted conservation activities for selected sites and species.

Specifically as regards climate change, the importance of intact ecological systems with their full spectrum of species and genetic diversity is growing, because only a functioning ecosystem is capable of raising the ecological communities’ resistance to changes. Furthermore, barrier-free landscapes should be given increased significance, so that organisms can adapt to the evolving environmental conditions (migrate away from climate effects; functional migratory corridors).

## MEASURES

- Prioritisation of species and habitats in view of their protection needs and implementation of the necessary measures taking into account regional conditions including types of utilisation
- Securing and expansion of active and effective nature reserve managements
- Maintenance of nature reserves in accordance with their conservation purpose; creation and periodical updating and implementation of management plans for the areas with management needs, in particular Natura 2000 areas
- Consideration of the effects of climate change in nature conservation-related planning processes, protection concepts and biodiversity guidelines (climate protection adaptation)
- Development of a feasibility study on the identification and improvement of deteriorating ecosystems as well as their restoration
- Development of options on how to designate natural areas (non-intervention areas having the character of wilderness) in the framework of existing protected-area concepts by means of contractual nature conservation
- Revision of the existing technical basis and adaption to the current state of scientific knowledge (studies and criteria for favourable conservation status, creation of a manual providing the minimum mapping and corresponding monitoring requirements that comply with the Habitats and Birds Directives)

<sup>25</sup> Quantified targets in line with the requirements set out in the EU Biodiversity Strategy (reference value Art. 17 Report 2007)



- Development of an Austrian floodplain forest strategy and a wetlands strategy based on the Austrian floodplain inventory and taking into account the already existing principles and priorities of the federal provinces
- Development of an action plan to conserve the genetic diversity of wild species
- Implementation of the Roadmap to the Global Strategy of Plant Conservation in Austria
- Review of representativeness, coherence and connectivity of existing conservation areas and implementation of the results, particularly in the context of existing obligations
- Implementation of the Austrian National Park Strategy and the Austrian Climate Change Adaptation Strategy with a view to biodiversity and ecosystems
- Promotion and support of voluntary measures to create a system of interlinked biotopes
- Conservation of old growth outside forests with associated improvement of the legal framework conditions (traffic safety, safety of roads and paths)
- Implementation of the Alpine Convention (in particular the protocols on nature conservation, soil protection and mountain forests)
- Strengthening of biotope connectivity by raising the quality of features constituting the biotope, quality-based improvement of the relevant areas and structural features
- Identification and development of options for the conservation of biodiversity hotspots outside protected areas, while maintaining an adequate balance of interests.

#### **Evaluation parameters:**

- **Conservation status of species and habitat types in the Habitats Directive and status of bird species (reports in accordance with Art. 17 Habitats Directive and Art. 12 Birds Directive)**
- **Status and trends of selected species and biotope types (Red List, MOBI N4, N5)**
- **Nature reserve management: Share of areas protected by nature conservation laws with their own administration (MOBI N3)**

#### **Area with natural development (for forests: pursuant to MCPFE)**

- Number and area of sites protected by nature conservation laws (MOBI N1)
- Number of management plans for Natura 2000 sites
- Acceptance of Natura 2000 sites among chosen target groups (representative survey)
- National Park Strategy indicators
- Criteria catalogue of the Austrian Climate Change Adaptation Strategy (activity field Biodiversity and Ecosystems)

**Implementation stakeholders:** Provincial governments, BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management)

**Further stakeholders:** Mountain rescue services and park rangers, BFW (Austrian Research Centre for Forests), BMLVS (Federal Ministry of Defence and Sports), BMVIT (Federal Ministry of Transport, Innovation and Technology), BMWFW (Federal Ministry of Science, Research and Economy), botanical and zoological gardens, fishery associations, hunting associations, Land&Forst Betriebe (farming and forestry association), agricultural chambers, national park administrations, ÖBf AG (Austrian Forests), nature reserve administrations, cities and municipalities, Universities and NGOs



**TARGET 11: BIODIVERSITY AND ECOSYSTEM SERVICES ARE TAKEN INTO ACCOUNT IN SPATIAL PLANNING AND TRANSPORT/MOBILITY**

- Total daily land take is significantly reduced (2020+).
- Regional target values for land take are available (2020).
- Priority areas for ecological functions (Green Infrastructure) are incorporated and designated in local and regional spatial planning (2020+).
- Ecological permeability is significantly increased for main traffic infrastructure (2020).

**BACKGROUND**

Spatial planning seeks to reach a reconciliation of interests between the spatially relevant sector policies, and by establishing requirements, e.g. in the course of zoning, it has an impact on traffic volume, energy requirements and, to a great extent, land take. By employing its planning instruments at a local and regional level, spatial planning can establish awareness for the great importance of biodiversity in municipalities and project developers; it can thus contribute substantially towards the conservation of biodiversity and ecosystem services as well as Green Infrastructure<sup>26</sup> and can help to reduce land take, fragmentation and thus the increasing pressure on ecologically valuable areas.

Traffic can adversely affect biodiversity both directly, by land take, land sealing, barrier effects caused by infrastructures, spread of alien species and, indirectly, by energy consumption, pollution and noise. The fragmentation of habitats due to road construction cuts off migratory corridors and separates reproduction, retreat, and resting areas from feeding and watering sites and even prevents gene exchange between different populations. On the other hand, game fencing and noise protection walls, which are required for traffic safety reasons, increase the separation effect further. Nationwide, species like red deer, brown bears and lynxes may be affected, but also small-scale species such as ground beetles, amphibians, small mammals or even bats. To avoid such barrier effects, wildlife crossings such as overpasses (“green bridges”) or underpasses have al-

<sup>26</sup> Green Infrastructure serves to provide ecosystem services. They comprise nature reserves, natural landscape features such as hedgerows or coppices, artificial wildlife crossings (“green bridges”) and urban parks. Also, flood protection measures like restoration structures make up Green Infrastructure, COM(2013) 249.

ready been erected and further are in the planning stage. The expansion of inland water transport, primarily on the river Danube as West-East route, places demands on the river bed.



**MEASURES**

- Improved coordination of spatially effective sector planning between and at all levels of planning in view of biodiversity aspects
- Incorporation of biodiversity aspects and consideration of ecological functions in the implementation of spatial planning and planning instruments at all levels of planning
- Assessment of nationwide data on soil consumption and land take by the Federal Government and Federal Provinces in the context of an ÖROK (Austrian Conference on Spatial Planning) implementation partnership and development of an Action Plan to reduce soil consumption and land take with regionalised, binding target values (in accordance with the Soil Charter 2014<sup>27</sup>)
- Consideration of biodiversity-related results of strategic environmental assessments in the implementation of plans and programmes
- Consideration of biodiversity concerns in the context of the Federal Government’s specialised planning responsibilities and in the context of implementation partnerships of the Austrian Spatial Planning Conference
- Safeguarding of wildlife corridors in terms of spatial development / habitat connectivity axes / Green Infrastructure
- Identification of areas with increased need for Green Infrastructure and its consideration in the planning carried out at various levels by various sectors, such as zoning, regional planning, overall traffic plan, resulting in the coordinated construction of wildlife crossings (“green bridges”) and underpasses

<sup>27</sup> <http://www.oekosozial.at/index.php?id=14105#element85508>

- Mapping of ecosystem services harmonised across Europe
- Participation in the development of the European Union's "no net loss"<sup>28</sup> initiative and implementation of useful proposals
- Treatment of peripheral areas and embankments of roads, railway lines and power line sections as possible migratory corridors and special sites to promote biodiversity, while taking into account traffic safety
- Review of possible ways to establish a landscape account<sup>29</sup>
- Consideration of functional connectivity and the habitat network when establishing compensating areas
- Increase of grasslands in urban areas, taking into account abandoned industrial, trade and residential buildings and the provision of features that promote biodiversity in newly established green areas
- Inclusion of the already available soil function evaluation tool to be used as a basis for soil protection and spatial planning
- Development of nationwide strategies for habitat connectivity

**Evaluation parameters:**

- **Land take (MOBI F1)**
- Number of spatial planning concepts which take into account ecological priority sites
- Number of wildlife crossing structures ("green bridges" and underpasses) including upgrading measures for existing systems

**Implementation stakeholders:** Provincial governments, BMVIT (Federal Ministry of Transport, Innovation and Technology), cities and municipalities

**Further stakeholders:** ASFINAG, BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), ÖBB (Austrian Federal Railways), ÖROK (Austrian Conference on Spatial Planning), road maintenance centres, Via Donau and NGOs



<sup>28</sup> Measure 7 of the EU Biodiversity Strategy: "Ensure no net loss of biodiversity and ecosystem services"

<sup>29</sup> See basic document.



# FIELD OF ACTION – SECURING GLOBAL BIODIVERSITY

## TARGET 12: CONTRIBUTION TO OVERCOME GLOBAL BIODIVERSITY CRISIS HAS BEEN MADE

- Nagoya Protocol is ratified; share of biodiversity-related funding compared to Official Development Assistance (ODA) has increased (2020+).
- Awareness of the impact of raw material consumption and consumer behaviour in Austria on the global biodiversity situation has risen (2020+).
- Capacity building to prevent GMOs and to develop sustainable agriculture adapted to the local conditions in developing countries has been carried out (2020).

## BACKGROUND

Non-sustainable production and consumption patterns are two of the main reasons for the global loss of biological diversity. Industrial countries, such as Austria, are therefore called upon to rethink their consumer behaviour and particularly support developing countries in their efforts to protect and safeguard the sustainable use of their biological diversity. This also includes the increased employment of innovative financing instruments (e.g. private sector), based on the experience gained in the field of climate change. Experience gained in development cooperation and in the area of climate change have shown that transferring responsibility to the local population (e.g. by micro credits or by establishing locally based, sustainable economic systems) provides the key to success.

The loss of biological diversity is a particular burden for the poorer population in developing countries. The integration of environmental protection and the conservation of natural resources, as set out in the law on development cooperation<sup>30</sup>, is therefore one of the most important responsibilities of development cooperation. Accordingly, 17% of projects supported by the ADA (Austrian Development Agency) in 2011 contributed specifically to

<sup>30</sup> Federal Act on Development Cooperation (EZA-G) Federal Law Gazette 49/2002

wards conserving biological diversity. A milestone on the road towards achieving policy coherence in Austria was the adoption of the Strategic Guideline on Environment & Development in Austrian Development Policy.<sup>31</sup> To accompany the implementation of the Strategic Guideline, the informal platform “Environment and Development” was set up. The AGRINATURA network<sup>32</sup> brings together research institutions in Europe to support sustainable agricultural use in developing countries by capacity building. Austria makes a substantial contribution in the context of REDDplus<sup>33</sup> and supports projects to maintain biodiversity in developing countries as part of the CBD Life-Web initiative (Convention on Biological Diversity).



Ongoing developments in the European Union in the context of the Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) aim at controlling the growing legal and illegal global trade with wild animals and plants<sup>34, 35</sup>. An EU concept has been developed, which, among other things, provides for more effective

<sup>31</sup> BMEIA 2009

<sup>32</sup> [www.agrinatura.eu](http://www.agrinatura.eu)

<sup>33</sup> REDD – The *REDD Model* plays a role in the negotiations in the context of the United Nations Framework Convention on Climate Change (succession regulation to the Kyoto Protocol) as a possible way to reduce greenhouse gases and utilise forests to store carbon (therefore referred to here as REDD+).

<sup>34</sup> Resolution of the European Parliament on January 15, 2014 on criminal acts in conjunction with wild flora and fauna (2013/2747(RSP))

<sup>35</sup> Declaration: London Conference on the Illegal Wildlife Trade. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/281289/london-wildlife-conference-declaration-140213.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281289/london-wildlife-conference-declaration-140213.pdf)

tive strategies to combat illegal trade within the EU as well as further recommendations, e.g. improved controls and monitoring, higher fines, support of international cooperation and expansion of development cooperation in the context of activities against illegal wood harvest (FLEGT<sup>36</sup>), compensation payments for developing countries if there is evidence that they have reduced deforestation and degradation of forests (REDD+<sup>37</sup>), and protection programmes for local village communities (CRM<sup>38</sup>).

## MEASURES

- Ratification of the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation, on the basis of the relevant EU regulation.
- Exploration of further optimum ways for Austria to make a relevant contribution towards financing global biodiversity conservation, particularly in partner countries.
- Intensified consideration of conservation of biological diversity in Austrian development cooperation efforts, increased promotion of projects that have a favourable impact on biological diversity
- Public awareness raising activities across Austria to inform people how our consumer behaviour in certain areas affects global biodiversity and poverty
- Knowledge transfer at university level
- Reduction of biodiversity-related raw material extraction in specific projects with Austrian participation and export credit financing abroad as well as environmental assessments and consideration of the results during implementation
- Review of projects with Austrian participation and export credit financing in view of their impact on biodiversity
- Increased implementation of capacity-building projects in developing countries focused on the application and handling of genetically modified organisms (risk assessment, socio-economic effects, verification and monitoring); awareness raising activities with regard to alternatives and access to such alternatives

- Increased collaboration of Austrian stakeholders in international institutions and global biodiversity conservation instruments (CBD, Cartagena Protocol, CITES, Ramsar, environmental programme of the United Nations, Intergovernmental Panel on Climate Change – IPCC, Intergovernmental Platform on Biodiversity and Ecosystem Services – IPBES)
- Support of efforts towards the consideration of biodiversity-related aspects in production processes at an international level, e.g. increased integration of biodiversity aspects in existing corporate social responsibility (CSR) systems
- Based on the relevant EU regulation, creation of framework conditions, structures and mechanisms that enable Austrian research institutions to conduct studies on international species protection and nature conservation topics within the scope of the Nagoya Protocol

### Evaluation parameters:

- **Share of biodiversity-related financing compared to official development assistance**
- Ratification of the Nagoya Protocol
- Knowledge of the financial flows in developing countries for biodiversity measures at ministries and the Austrian Development Agency (ADA)
- Public awareness of the significance of consumer behaviour on global biodiversity (representative survey)
- Number of projects with export credit financing which have an impact on biodiversity
- Number capacity-building projects focusing on the avoidance of GMOs and on the establishment of sustainable and locally adapted agriculture
- Awareness raising activities among consumers (representative survey)

**Implementation stakeholders:** BMEIA (Federal Ministry for Europe, Integration and Foreign Affairs), BMLFUW (Federal Ministry of Agriculture, Forestry, Environment and Water Management), BMWFW (Federal Ministry of Science, Research and Economy)

**Further stakeholders:** ADA (Austrian Development Agency), provincial governments, BMF (Federal Ministry of Finance), botanical and zoological gardens, Development Bank of Austria, Österreichische Kontrollbank AG, Environment Agency Austria, Universities and NGOs

<sup>36</sup> Forest Law Enforcement, Governance and Trade (EU Action Plan)

<sup>37</sup> The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries

<sup>38</sup> Community Resource Management

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**Note:** Some of the mentioned publications/texts are also available in English.









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## **MISSION STATEMENT.**

**OUR GOAL** is an Austria worth living in, in a strong Europe: with clean air, clean water, a diversified nature as well as safe, high-quality and affordable foods. We want to create the best possible conditions for this.

**WE ARE WORKING** for secure natural resources, a sustainable lifestyle and reliable protection of life.



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