

## Nature restoration in the Alpine region: a challenge and an excellent opportunity for cooperation

Concept paper based on the results of the international online workshop held  
on November 19<sup>th</sup>, 2024

### ***Starting cooperation - International workshop on Nature restoration in the Alpine region***

Nature conservation experts consider the Regulation on Nature Restoration (also known as and hereinafter referred to as Nature Restoration Law - NRL) the most significant piece of nature legislation at the level of the European Union (EU) since the adoption of the Habitats Directive in 1992. It holds immense potential to restore some of Europe's nature in unfavourable condition, to increase resilience to extreme weather events, and to address the interconnected challenges of biodiversity loss and climate change.<sup>1</sup>

To pave the pathway towards **a transnational vision of nature restoration in the Alpine region** and joint restoration efforts, the Alpine Biodiversity Board (ABB) of the Alpine Convention (AC) and Action Group 7 on Green Infrastructure (AG7) of the EU Strategy for the Alpine region (EUSALP) organised a dedicated international online workshop for representatives of national authorities, research institutions and NGOs from all the eight Alpine states. The workshop provided space for discussing both the status quo of the implementation of the relevant restoration policies – specifically, the EU NRL – in the Alpine states, and the options for strengthening Alpine-wide cooperation on restoration.

After a round of presentations from almost all the Alpine states on the current situation, a panel discussion took place, with panellists from the European Commission (EU-COM), the European Biodiversity Partnership (Biodiversa+), represented by the BiodivRestore Knowledge Hub, and the Carpathian Convention (CC) Working Group on Biodiversity. All panellists underlined the need for transboundary cooperation and learning from different approaches when it comes to nature restoration measures in the Alps (and other European mountain ranges), both within and outside of protected areas and for all relevant targets of the EU NRL. Further contributions from participants highlighted the advantages for interoperable and standardized biodiversity monitoring practices, regular data exchange, and technical guides for Alpine restoration practices and measures. Moreover, participants suggested that transnational aspects be added to the format of the unified National Restoration Plan (NRP) for the EU Member States. The biggest potential for the Alpine-wide or cross-border cooperation has been identified in the trans-alpine issues with high added value in terms of synergy of action, i.e. ecological and river connectivity, pollinating insects, forest and agricultural ecosystems or peatlands. The BiodivRestore Knowledge Hub<sup>2</sup> offered to support the creation of a regional knowledge hub for nature restoration in the Alpine region.

*This publication outlines the acquired understanding of the challenges and opportunities for nature restoration in the Alpine region and suggests concrete approaches and practical tools that can facilitate a transboundary vision and coordinated and ecologically sound action. It invites the governmental officials to take these issues into account in the national restoration planning processes, besides it offers background material for everyone working on advancing nature restoration in the Alps.*

<sup>1</sup> <https://ieep.eu/news/guidance-and-recommendations-for-ambitious-nature-restoration-plans-report/>

<sup>2</sup> <https://www.biodiversa.eu/engagement/biodivrestore-knowledge-hub/>

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## 1. Introduction

### 1.1 Alpine region and its nature

The Alps are one of the largest mountain regions in Europe, characterised by a mosaic of typical landscapes shaped both by diverging climate, geological and vegetal conditions and by human activities. They constitute a unique reservoir of pristine nature and biodiversity, and its ecosystems are exceptionally vulnerable to the effects of climate change, which can be witnessed e.g. by the reduction of permafrost areas and thereby induced movement of soils and rocks or the migration of species to higher altitudes. Alpine ecosystems deliver precious services to society, such as recreation, erosion control, clean water, fertile agricultural soil or carbon sinks.

In the Alpine region (following the perimeter of the Alpine Convention with an area of 190,268 km<sup>2</sup>), about 28% of the surface is subject to some sort of protection status, of which approximately 9.6% is under strict protection regime<sup>3</sup>. Protected areas, however, do not always cover the most valuable natural areas or the ones under most pressure, as protection status has been defined according to historical coincidence (German Federal Ministry of the Environment 2016, 21). Consequently, future efforts to restore nature must include both protected and non-protected areas, including intensively used areas. In the wider Alpine region following the EUSALP boundary, type and characteristics of natural areas change to more lowland ecosystems and distribution of protected areas is much more disperse. (Compare Figure 1). Overall, space for socioeconomic activities in the Alpine Convention perimeter is comparatively scarce, which makes it very challenging to integrate acceptance for nature restoration.

Major threats to the Alpine nature and biodiversity (mostly in high altitudes or protected areas) are the intensification of tourism and leisure activities including the construction of new infrastructure or inadequate development of settlements. Other areas in lower altitudes which have traditionally been cultivated by humans are either endangered by a decrease in agricultural activity and subsequent loss of typical habitats and associated species (e.g. pollinators), or by monoculture and intensification. Long-existing infrastructure (e.g. river dams) and further economic activities like expanding settlements, mining, energy production and transport are a major threat to nature or a barrier for its recovery, too.

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<sup>3</sup> ALPARC 2023 Annual report

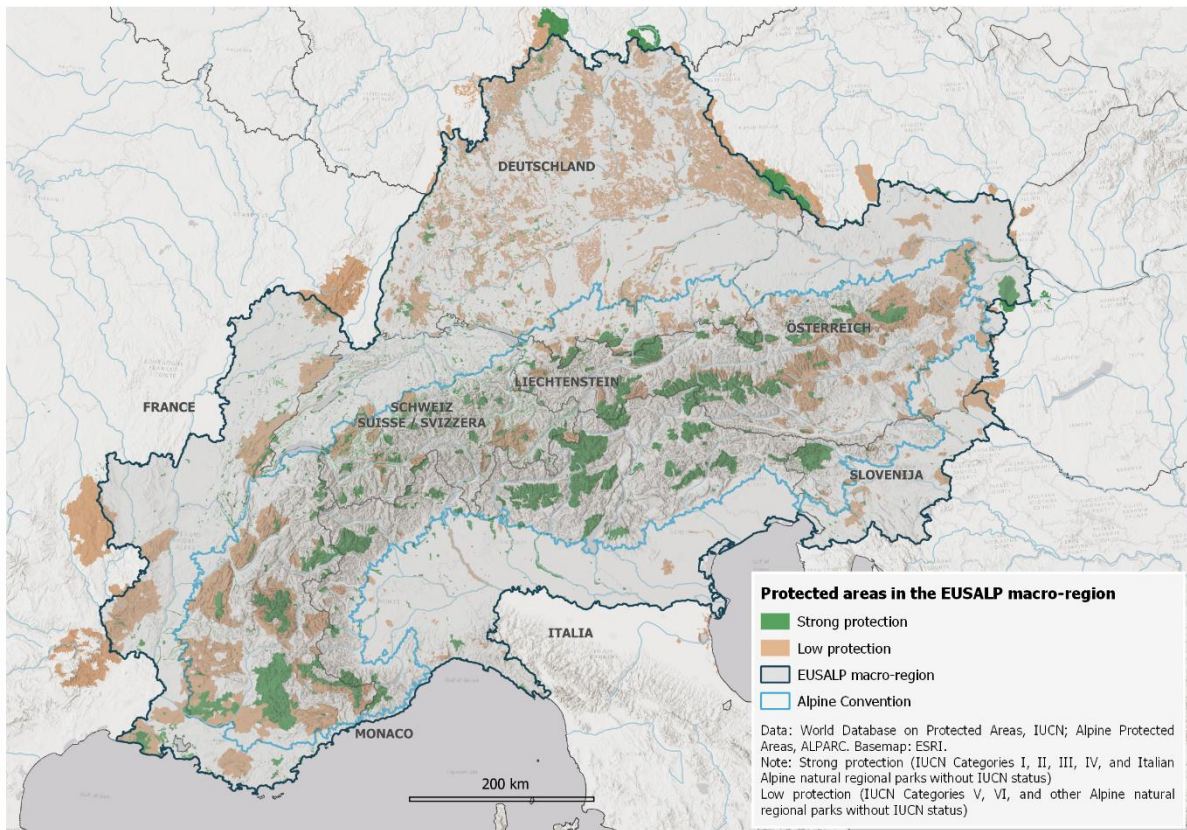


Figure 1: Protected Areas within the perimeter of the Alpine region according to the definition by the Alpine Convention and the EUSALP (© ALPARC, 2025)

## 1.2 Existing international initiatives/bodies working on biodiversity in the Alps

Given the transnational demarcation of the Alps, the region and its institutions can look upon a long tradition of transboundary cooperation. Alpine-wide cooperation is facilitated and promoted in a unique manner by various non-governmental initiatives as well as by governments and regional authorities working together in the frame of the AC and the EUSALP. The Multiannual Work Programme of the Alpine Convention 2023-2030 highlights the preservation and sustainable use of natural resources as well as biodiversity as a central focus. In line with this programme, the ABB has identified nature restoration as one of the priority areas for regional cooperation. Simultaneously, the EUSALP Action Group 7 on Green Infrastructure (AG7) and Action Group 6 on Resources (AG6) put efforts to contribute to strengthening, improving and restoring biodiversity, sustainable land use and soil protection in the macro-region of the Alps.

Beside the government authorities and sub-ordinated regional administration in the Alpine countries, academia and non-governmental organizations contribute to advancing restoration: at Alpine level the observer organizations to the Alpine Convention like ALPARC, CIPRA, Alpine Town of the Year, the community network Alliance in the Alps, WWF and both Youth Organizations of the AC and the EUSALP offer information and capacity building for



their members to raise awareness on nature restoration and to develop relevant measures. Further globally acting organisations like the IUCN<sup>4</sup>, the European Soil Partnership or BirdLife<sup>5</sup> contribute to nature conservation and biodiversity protection with specific programmes or initiatives, some tailored to the Alps.

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<sup>4</sup> IUCN European Regional Office (2024). The EU Nature Restoration Regulation. IUCN briefing; 11 p.

<sup>5</sup> BirdLife, ClientEarth, EEB, WWF (2025)



## 2. Policy and legal framework for planning and implementation of nature restoration

### 2.1 International context

In 2022, during COP 15 of the Convention on Biological Diversity, the “Kunming-Montreal Global Biodiversity Framework” (GBF) was adopted. It encompasses four long-term goals in its vision for 2050 and 23 targets with a shorter timeframe until 2030, including Target 2 on restoration: “30% of the total area of degraded terrestrial, inland water and marine and coastal ecosystems are under effective restoration by 2030.”<sup>6</sup>

The global process on nature restoration gained momentum with the declaration of the United Nations Decade on Ecosystem Restoration (UN DER) from 2021 to 2030. The United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) lead the UN Decade. Its objective is to build “...a strong, broad-based global movement to ramp up restoration and put the world on track for a sustainable future. That will include building political momentum for restoration as well as thousands of initiatives on the ground.”<sup>7</sup>

For realizing the GBF targets, according to Decision 15/6 of COP 15, all Parties were requested to submit by COP 16 (which took place in Cali, Columbia in November 2024) revised or updated National Biodiversity Strategies and Action Plans (NBSAP) with national targets. Parties who were not able to do so, were requested to submit their national targets in advance of submission of their full NBSAPs.<sup>8</sup> As to the Alpine states, update of their NBSAPs had partly been accomplished, for some countries the process is still ongoing.

The European Union prepared a compliant Nature Restoration Regulation (Nature Restoration Law), adopted in June 2024. As the EU NRL implies procedural steps, various countries have started the operational processes to implement the regulation. As a first step, the obligatory National Restoration Plan (NRP) will be elaborated, substantially based on the NBSAP. The plans can be used as core instruments for transferring the GBF targets into national targets. A binding framework and uniform format for the NRP has been finalised. Based on the public consultation run in early 2025, the format of NRP has been extended through additional fields to reflect the obligation to foster synergies, where possible, with restoration plans of other Member States.

The draft NRPs are planned to be available by September 2026 for submission to the EU-COM, for comments and revision. Publication is planned for a few months later. It is important to mention that nature restoration measures can start before approval by the EU-COM of the NRP.

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<sup>6</sup> <https://www.cbd.int/gbf/targets/2> - 12.01.2025

<sup>7</sup> <https://www.decadeonrestoration.org/about-un-decade> - 14.01.2025

<sup>8</sup> <https://www.cbd.int/nbsap> - 12.01.2025

## 2.2 The Alpine response to restore nature – a snapshot of the multisectoral policy influences on the region

As stated by the Global Assessment Report of Biodiversity and Ecosystem Services<sup>9</sup> and many other scientific documents, biodiversity is declining worldwide at unprecedented rates in human history. There is a broad general agreement that the restoration of ecosystems is considered the most effective way to slow down and finally stop the loss of biodiversity.

For the Alps, as a unique natural region, with specific territorial characteristics, two questions arise in that context:

- How can the Alps contribute to reaching the global restoration targets?
- How must cooperation be organized to best protect and restore the Alpine ecosystems and particularities?

A joint vision and common approach on nature restoration is needed – both for addressing the Alpine priorities and for achieving a maximum of synergies between all the existing initiatives. Supporting the process of NRP elaboration at national level by bringing in an Alpine perspective is a great opportunity for strengthening and streamlining restoration efforts. For instance, it fosters implementing cross-border measures that enables larger areas to be restored. In parallel, it is necessary to integrate all parts of society in this process and to organize the mainstreaming of biodiversity policy and action in all relevant economic sectors, as successful implementation of biodiversity strategies needs a holistic approach<sup>10</sup>.

In addition to the fulfilment of the NRL by the Alpine states that are members of the EU (Austria, Germany, France, Italy, Slovenia) or the European Economic Area (Liechtenstein), nature restoration in the Alpine region requires engagement of non-EU states (Switzerland, Monaco), that have their own approach to implementing the restoration component of the GBF. Cooperation between all the Alpine states and possibly sub-national administrations is therefore essential to design a coherent framework for nature restoration in the Alpine region.

For a better understanding, the following illustration gives an overview on the different policy influences and players in the region which are important for implementing restoration measures. It illustrates the thematic relation between the GBF, the EU Biodiversity Strategy and NRL, the AC and the EUSALP and the specific recommendations from the Alpine Biodiversity Board and EUSALP Action Group 7.

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<sup>9</sup> IPBES (2019): *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. IPBES secretariat, Bonn, Germany.

<sup>10</sup> Zinngrebe et al. (2024)

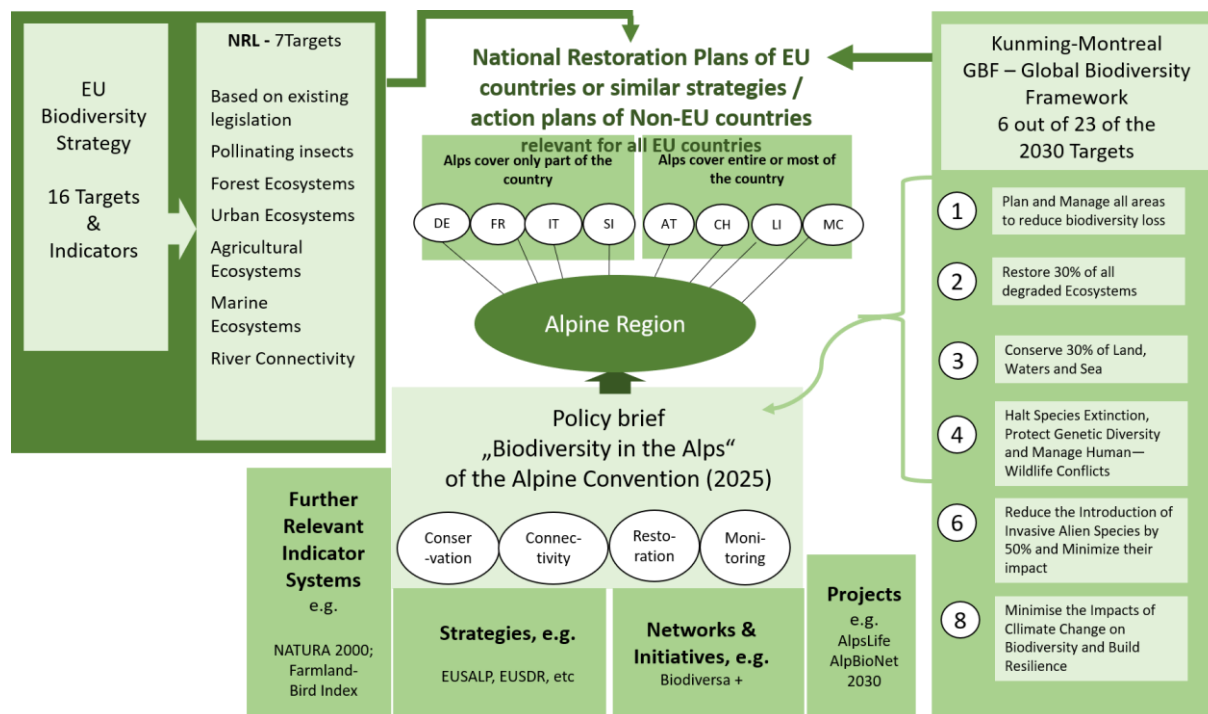


Figure 2: Overview of the connections between policies & strategies relevant for integrating the Alpine Region in the National Restoration Plans or similar documents (own source).

Both EUSALP AG7 and the AC ABB play a key role at the Alpine-wide level and beyond for reaching the global and the EU restoration targets and goals; the EU policy framework with regard to nature has considerably been strengthened by the adoption of the EU NRL. The ABB contributed to this task by organising a first online workshop (November 19<sup>th</sup>, 2024), which enabled strategic and technical exchange and awareness raising on transboundary issues of nature restoration in the Alpine region. AG7 contributed by engaging with DG ENVI in the early stage and preparing a database of existing information and efforts for restoration in the Alpine region, and by keeping the sub-national level (the regions) involved.

As the Alps are shared by eight Contracting Parties to the Alpine Convention, a focus naturally lies on creating synergies, developing common approaches and capitalizing on the cooperation potential between the Alpine countries. This is particularly important for the elaboration of the National Restoration Plans of the EU countries and their coordination with similar strategic documents of non-EU countries. It will be crucial for the Alpine ecosystems to jointly develop an Alpine-wide perspective and to tackle barriers for nature restoration.

The most recent policy brief<sup>11</sup> of the AC ‘Biodiversity in the Alps’ adopted by the XVIII. Alpine Conference in January 2025 contains relevant recommendations in that respect, in compliance with the goals of the GBF. It provides strategic guidance for ‘translating the global biodiversity

<sup>11</sup> [https://www.alpconv.org/fileadmin/user\\_upload/Organisation/SL/Biodiversity\\_in\\_the\\_Alps\\_Policy\\_Brief.pdf](https://www.alpconv.org/fileadmin/user_upload/Organisation/SL/Biodiversity_in_the_Alps_Policy_Brief.pdf)



goals to the Alpine level and will be further defined in the Alpine Biodiversity Action Plan<sup>12</sup>, which will be developed by the ABB under the Italian presidency of the Alpine Convention in 2025-2026. The policy brief defines four thematic clusters which are closely interlinked in their effects for biodiversity: conservation, connectivity, restoration and monitoring. Regarding restoration, the recommendations of the policy brief are as follows:

Recommendation no. 6 proposes to ‘Elaborate an Alpine Restoration Plan identifying strategic actions to restore priority habitats and areas at Alpine level’.

Recommendation no. 7 refers to the development of a strong technical and cross-sectoral knowledge network.

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<sup>12</sup> 2025 ‘Biodiversity in the Alps policy brief’ - Slovenian Presidency of the Alpine Convention 2023-2024.

### 3. Current stand of nature restoration planning in the Alps

#### 3.1 Brief description of the Alpine countries' approaches to restoration planning

Nonetheless, the Alpine States are acting in different legal contexts and conditions. Alpine EU Member States, including Liechtenstein as a member of the European Economic Area, or Monaco which is linked by some treaties, are about to develop their National Restoration Plans, based on an EU-wide agreed structure and the European network of protected areas Natura 2000. The non-EU countries as Switzerland are approaching global and national restoration targets through their recent NBSAP. As the Alps cover only part of the national territories in some countries, the “weight” of Alpine ecosystems in the national biodiversity policies and the resources dedicated to restoring and monitoring them, may differ.

Hereafter, a short overview is given of how the Alpine countries tackle biodiversity protection as a basis for nature restoration planning and implementation of restoration measures.

**The Swiss** Biodiversity Strategy (SBS), adopted in 2012, outlines ten goals to preserve species diversity, ecosystems, and genetic variety. The 2017 Action Plan detailed specific measures to achieve these objectives. Despite efforts, inter alia positive local incentives for restoration, biodiversity remains under pressure, with one-third of species and half of habitats threatened due to agriculture, fragmentation, pollution, and climate change. The Federal Council extended the Action Plan's first phase to 2024 and tasked the Federal Office for the Environment (FOEN) with developing measures for 2025–2030. However, a 2024 public initiative to strengthen biodiversity protection was rejected by 63% of voters. While Switzerland has robust strategies, their effectiveness is still a concern. The government remains committed to improving biodiversity, with the development of new measures until 2030.

**Austria** is actively implementing biodiversity protection through the Biodiversity Strategy Austria 2030+, introduced in December 2022<sup>13</sup>. This comprehensive strategy was developed via a participatory process involving experts, landowners, NGOs, ministries, provincial governments, and the public. It aligns with the EU's biodiversity objectives and international commitments to halt biodiversity loss and to ensure the sustainable use of biological diversity. The strategy outlines a ten-point programme, inter alia it focuses on improving status and trends of species and habitats, on effective protection and connectivity of ecologically valuable habitats, and on restoration of ecosystems vital for biodiversity and climate protection. The Austrian Federal Government allocated the Biodiversity Fund with €50 million until 2026<sup>14</sup>. This fund aims to contribute significantly to the conservation, improvement, and restoration of biological diversity in Austria, promoting a "green" economic transition, with more than 60 nature restoration projects by now. At administration level, the process of elaborating the NRP

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[https://www.bmk.gv.at/themen/klima\\_umwelt/naturschutz/biol\\_vielfalt/biodiversitaetsstrategie/biodiversitaetsstrategie\\_2030.html](https://www.bmk.gv.at/themen/klima_umwelt/naturschutz/biol_vielfalt/biodiversitaetsstrategie/biodiversitaetsstrategie_2030.html) - 20.01.2025

<sup>14</sup> [https://www.bmk.gv.at/service/presse/gewessler/2024/0910\\_biodiversitaet.html](https://www.bmk.gv.at/service/presse/gewessler/2024/0910_biodiversitaet.html) - 20.01.2025

is ongoing, a Steering Group is foreseen to coordinate several working groups (each dedicated to an article of the NRL). A guideline is under preparation for the NRP, developed by scientists, stakeholders and civil society.

In 2024, Austria started the large EU LIFE SNAP project on peatlands 'AMooRe', which assesses Austrian peatlands and starts peatland restoration processes all over the country until 2033.

**Italy's** National Biodiversity Strategy (Strategia Nazionale Biodiversità - SNB), adopted in 2023<sup>15</sup>, aligns with the EU Biodiversity Strategy 2030 and the protocols of the Alpine Convention. Drafting a National Restoration Plan is a challenging task due to coordination needs among national, regional, and municipal levels under the subsidiarity principle. The technical support of the Italian Institute for Environmental Protection and Research (ISPRA) with the network of regional agencies of the National Environmental Protection System SNPA, will play a key role.

For the Alpine region, plans focus on climate-impacted habitats, emphasizing ecosystems with high carbon storage potential. Italy, chairing the ABB, has fostered transnational cooperation, defining priorities like restoring terrestrial and freshwater habitats, improving river connectivity, and protecting pollinators. These efforts aim for a resilient Alpine region that supports nature and communities and will both be in line with the EU NRL and leverage existing biodiversity monitoring tools like the National Biodiversity Network and the Italian Hub for Nature-based Solutions within the National Research Council (CNR). These two platforms are crucial for tracking biodiversity effectively and implementing nature-based solutions including restoration measures in Italy. Italy is also the first Alpine country to have launched a National Restoration Hub.

**Germany** is actively addressing nature restoration through several key initiatives, firstly with the recently revised National Biodiversity Strategy 2030<sup>16</sup> (NBS 2030). It has been updated to align with new international agreements, such as the Kunming-Montreal GBF, and to meet the objectives of the EU Biodiversity Strategy for 2030. The revised NBS 2030, with one of the fields of action dedicated specifically to high mountain ranges, includes clear, verifiable goals and national action plans with specific measures to be achieved by 2030 or 2050. Closely linked are the Federal Biological Diversity Programme (ongoing since 2011), and the Federal Action Plan on Nature-based Solutions for Climate and Biodiversity (ANK). The latter was launched to protect and restore ecosystems, focusing on natural climate protection by leveraging the carbon sequestration capabilities of forests, wetlands, and other natural landscapes.

The National Restoration Plan will build upon existing frameworks like the above-mentioned ANK. An ongoing research project is supporting the process of NRP elaboration with several working groups and a steering group at federal level.

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<sup>15</sup> [https://www.mase.gov.it/sites/default/files/archivio/allegati/biodiversita/SNB2030\\_web\\_page\\_en.pdf](https://www.mase.gov.it/sites/default/files/archivio/allegati/biodiversita/SNB2030_web_page_en.pdf) - 17.01.2025

<sup>16</sup> 2024 <https://www.bfn.de/aktuelles/nationale-strategie-zur-biologischen-vielfalt-nbs-2030-beschlossen> - 17.01.2024

**France** is proactively addressing nature restoration through its National Biodiversity Strategy 2030 (SNB 2030)<sup>17</sup>, which aims to halt and reverse biodiversity loss by 2030. This strategy is structured around five key pillars: Protect and restore biodiversity (i.e. actively rehabilitate degraded ecosystems to enhance their functionality), sustainably use and share the benefits of biodiversity, promote research, education, and public awareness to foster a culture of biodiversity conservation and take global responsibility by strengthening France's role in international biodiversity conservation efforts.

The National Restoration Plan is under elaboration. It has a strong focus on collaboration among various stakeholders, including state agencies, local authorities, businesses, citizens, and the research community. The Biodiversity Action Plan (from 2018) complements these efforts by focusing on reducing land take of natural and agricultural areas and promoting biodiversity recovery in urban and rural settings.

The National Nature Protection Programme (NNPP, 2020) in **Slovenia** focuses on conserving biodiversity and protecting valuable natural features. It sets goals and guidelines to be implemented through various measures, including the protection of plant and animal species, their habitats, and ecosystems, as well as the establishment and restoration of protected areas. Key components include the Natura 2000 Area Management Programme (PUN), which focuses on conserving biodiversity, particularly species and habitats of EU concern as well as the Large Carnivore Management Strategie for brown bears, wolves, and lynxes.

The NNPP aligns with global biodiversity goals (Aichi Targets) and integrates biodiversity conservation into various sectoral plans and policies. Measures are detailed in the Strategic Plan for Biodiversity Conservation in Slovenia 2020–2030 and will be implemented in protected areas and Natura 2000 sites. No new Natura 2000 expansions are planned, but wider protected areas will be expanded.

The National Restoration Plan will be prepared by a cross sectoral working group coordinated by the Ministry of Natural Resources and Spatial Planning, involving also all other relevant ministries and institutes. The group will work in subgroups on specific chapters of the NRP. First drafts of chapters are expected by the end of 2025, with coordination of the content following until August 2026, when a first draft will be delivered to the European Commission. In addition to that, a public consultation on the NRP is planned in 2025. In relation to the content of the NRP, it will, where possible, build upon existing programmes, especially the PUN.

**Liechtenstein** has a National Biodiversity Strategy and adopted a Biodiversity Action Plan 2030+ in November 2024<sup>18</sup>. The plan aligns with current global biodiversity targets. The plan was developed collaboratively with municipalities, forest managers, landowners, nature conservation organizations, and the agricultural sector. It focuses on preserving existing protected areas, securing other ecologically valuable areas, enhancing and restoring habitats, supporting endangered species, and reducing pollutants.

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<sup>17</sup> <https://www.ecologie.gouv.fr/sites/default/files/documents/National-Biodiversity-Strategy-2030.pdf> - 17.01.2025

<sup>18</sup> <https://www.regierung.li/files/attachments/aktionsplan-biodiversitaet-2030-.pdf> - 17.01.2025

The national legal framework consists of the Law on the Protection of Nature and Landscape accompanied by further laws on water, fishing, hunting etc. Protected areas comprise 13% of the country's territory, efforts are ongoing to enhance their management and connectivity. As to nature restoration, in line with the European Economic Area Agreement, Liechtenstein is in the process of adopting the EU NRL. Currently, the main fields of action will be rivers and wetlands.

The smallest Alpine country, **Monaco**, is a party to the Alpine Convention and engaged in nature restoration, too. Since 1975, the Monegasque Association for Nature Protection (AMPN) has been responsible for creating and managing Protected Areas in Monaco, aiming to preserve both terrestrial and marine biodiversity. The National Biodiversity Strategy for 2030 is in place and includes among its listed strategic orientations restoration of biodiversity and ecosystem services to a favourable conservation status. In December 2024, Mareterra was opened, Monaco's first eco-district, adding six hectares to the principality, with nearly 1,000 trees planted and a 500-meter seaside promenade.<sup>19</sup>

### 3.2 Common challenges for nature restoration in the Alpine region

The Alpine countries have different approaches to planning and implementation of restoration, but certain issues seem to be common for the region. Both scientific literature and the experts from the Alpine countries (based on the discussions held in the above mentioned workshop) identify the biggest challenges for nature restoration to be:

- a challenging or lacking coordination between levels and sectors, which results for example in unclear competences for ecologically valuable areas outside of protected areas, which are under heavy pressure from different uses,
- a non-satisfactory implementation of the Habitats and Birds Directives, which becomes obvious by a still weak management of many Natura 2000 sites,
- the fact that site selection has not always been based on pure scientific criteria, but has been a result of a controversial process in some Member States, leading to not having all valuable areas protected as Natura 2000 sites,
- incomplete suitable and sufficient data i.e. for Natura 2000 sites, further protected areas and Alpine ecosystems,
- a lack of resources to carry out physical restoration measures, mostly due to the limited available space and other conflicting land uses,
- increased complexity of planning related to climate change impacts.

At present, the coherent compilation of data and the filling of data gaps turn out to be the biggest difficulties, which underlines the necessity to develop an Alpine wide perspective on the topic.

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<sup>19</sup> <https://mareterra.com/en/> - 17.01.2025



For the harmonization of the nature restoration approach for the Alpine region, it will be crucial to agree on a prioritization of habitats and ecosystems and to capitalize on existing mapping, also in view of the impact of climate change and invasive alien species, and to pool the existing knowledge and good practice (with regard to both technical knowledge on restoration and organisational processes like stakeholder engagement) across all Alpine countries.

### 3.3 The added value of the Alpine-wide cooperation for nature restoration

It is commonly agreed that maintaining and restoring ecological connectivity is crucial for biodiversity and resilient ecosystems<sup>20</sup>.

The strategic value of Alpine-wide transboundary and transnational cooperation for nature restoration can be fulfilled by:

- Pooling expertise and exchanging knowledge at the Alpine level and between technical experts for restoration of specific habitats and ecosystems ensuring that lessons are learned and the best available techniques are applied,
- Ensuring synergies of action by consistent and coherent restoration activities at the Alpine level,
- Developing sound knowledge and better understanding of Alpine specific restoration requirements,
- Learning from successful restoration techniques and monitoring approaches which then can be applied to cross-border areas and Alps-wide,
- Enlarging the areas which can be subject to restoration measures, if national boundaries are no barriers,
- Harmonizing the monitoring of specific and particularly important Alpine ecosystems, habitats or species,
- Focusing restoration action on Alpine priority ecosystems and species, especially in the geographic areas that have already been identified as strategic for the Alpine region.

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<sup>20</sup> Füreder et al. (2011) ECONNECT Policy recommendations

## 4. Resources for supporting Alpine states in further restoration planning and implementation

### 4.1 Resources available at the Alpine level

In many previous cooperation projects in the Alps, key questions and strategies to preserve ecological continuums and connectivity or to improve the status of biodiversity and protected areas have been identified. Furthermore, networks and transnational strategies produced valuable outputs. Some of the most relevant ones for the Alpine nature restoration are indicated below.

Furthermore, EUSALP Action Group 7 on Green Infrastructure and the Alpine Biodiversity Board of the Alpine Convention as coordination platforms constantly work together with the national nature conservation administrations on topics relevant to nature restoration, including biodiversity protection and ecosystem management. In the past few years Alpine peatlands, rivers, soil protection and 'green' spatial planning approaches have been addressed in more depth. The details can be found in the Working Programme of EUSALP AG7<sup>21</sup> and the current mandate of the Alpine Biodiversity Board<sup>22</sup>. Several activities shall be specifically mentioned, as they are substantial for the future Alpine nature restoration work.

#### **Database on restoration projects/ results**

EUSALP AG 7 currently compiles a catalogue of restoration projects/results relevant for the Alpine region, as a database tool to inform and facilitate the countries' work on the national restoration plans. It is capitalizing on existing efforts to organize active exchange on the Nature Restoration Law with DG Environment, to better understand how the macro-regional strategies (MRS) can facilitate the implementation of the NRL. The database is structured according to the chapters of the NRL, plus one for position papers.

#### **Alpine Biodiversity Action Plan of the Alpine Convention**

The Alpine Biodiversity Action Plan to be developed by the ABB will have restoration as one of the four pillars, in accordance with the Policy Brief approved by the XVIII Conference of the Parties, and will foster transboundary cooperation for restoring the most important Alpine habitats and ecosystems. It is expected to be approved at the Alpine Conference in January 2027.

#### **Concept and map of Strategic Alpine Connectivity Areas (SACA)<sup>23</sup>.**

The INTERREG Alpine Space project AlpBionet 2030 (2016-2019) elaborated an Alpine-wide spatial concept on main ecological corridors and barriers in and around the Alps, based on a

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<sup>21</sup> <https://alpine-region.eu/topics-action-groups/detail/green-infrastructure> - 20.01.2025

<sup>22</sup> <https://www.alpconv.org/en/home/organisation/thematic-working-bodies/detail/home/alpine-biodiversity-board/> - 20.01.2025

<sup>23</sup> German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (2016): Alpine Nature 2030 – p.64 ff

geographic information system JECAMI<sup>24</sup> which comprises all relevant data on ecological connectivity in the EUSALP perimeter. The spatial concept of Albionet 2030 proposes three different categories of areas, so-called ‘Strategic Alpine Connectivity Areas’, with defined ecological characteristics:

- SACA 1 Conservation Areas: classified as areas with a high potential for connectivity in which larger, [...] natural non-fragmented zones could easily be created; a spatial planning policy aimed at the creation of large scale non-fragmented areas is recommended.
- SACA 2 Intervention Areas: classified as areas that still have considerable space for ecological connectivity with non-fragmented surfaces; for these areas a well targeted large scale conservation policy is recommended.
- SACA 3 Restoration Areas: classified as areas where fragmentation and degradation have already considerably progressed; ad hoc measures to improve ecological connectivity are recommended. This is where restoration is most necessary.

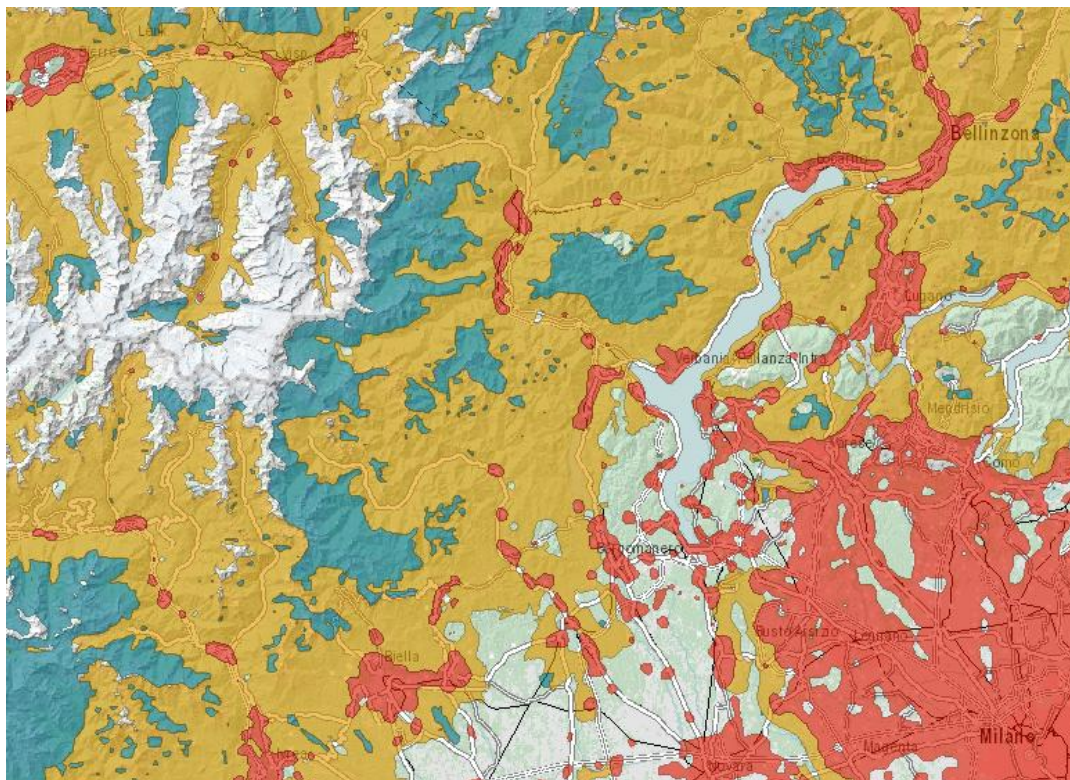


Figure 3: Extract from SACA map around Milano (Italy) - source: [www.jecami.eu](http://www.jecami.eu) (SACA 1=green, 2=orange, 3=red)

For nature restoration in the Alpine region the SACA concept provides valuable spatial information where to prioritise restoration measures and where restoration may be most effective for selected species, habitats or ecosystems.

<sup>24</sup> [www.jecami.eu](http://www.jecami.eu) – 27.01.2025

Further initiatives within and beyond the AC and EUSALP processes on stock-taking, mapping and exchange, targeting many different research questions or conflicts of interest, include, for example:

- **AlpsLife** (<https://www.alpine-space.eu/project/alpslife/>)  
The Interreg ASP project AlpsLife (2024-2027) was launched in response to the conclusions of the ABB, which highlighted the lack of interoperability between biodiversity monitoring schemes across the Alpine countries. AlpsLife aims to provide a common basis to ensure that policy decisions are based on reliable and consistent indicators at the Alpine level. This will be achieved by developing a comparable basis able to evaluate results from different existing monitoring schemes mainly in the Alpine protected areas operating for decades and allowing for the first-time Alps-wide interpretations of the evolution of Alpine biodiversity with a long-term perspective. Project activities include the establishment of a set of biodiversity-relevant spatial variables at the Alpine level, the implementation of an early warning system for the Alpine biodiversity, the development of a toolkit with technical and political recommendations for the interoperability of indicators and their usefulness for achieving multi-level objectives, and the interaction with the policy level to tailor the tools to their needs. Concrete management measures for the protection of biodiversity and the monitoring of their effectiveness will be the consequence. The results of the project will support a comprehensive understanding of the status of the pan-Alpine biodiversity and promote the efficiency of current and future conservation, protection and restoration initiatives. Regarding the elaboration of NRP, it will be important that the Alpine (EU and non-EU) countries exchange and interact with the AlpsLife project for jointly defining monitoring indicators and timelines.
  
- **PlanToConnect** - Mainstreaming ecological connectivity in spatial planning systems of the Alpine Space (<https://www.alpine-space.eu/project/plantoconnect/>)  
PlanToConnect (2022-2025) aims at supporting a coherent Alpine-wide network of green and blue infrastructures for ecological connectivity. To that end, an “Alpine planning strategy for ecological connectivity” will be elaborated based on the experiences derived from drafting regional networks in pilot regions. Training modules will be elaborated to operationalise the task of ecological connectivity planning for spatial planners and outline methods to address gaps, barriers and harmful spatial framework conditions. The project builds on results produced in previous Interreg Alpine Space Projects (AlpBioNet2030, OpenSpaceAlps, Econnect), most notably the Strategic Alpine Connectivity Areas. Pan alpine spatial data is being made available through the JECAMI platform. PlanToConnect project outputs include:
  - Mapping of priority connectivity areas for spatial planning for the EUSALP area, including a barrier analysis in priority planning areas
  - Identification and description of threats related to infrastructural development and land use
  - Alpine Planning Strategy for Ecological Connectivity



- Training modules for spatial planners
  - Spatial analyses (connectivity networks, barriers/threats, proposals for incorporation of ecological connectivity in spatial plans) and stakeholder structures (Regional Connectivity Working Groups) in pilot regions
  - The Alpine-wide modelling of regional linkages and bottlenecks could serve as a basis for identifying priorities for national nature restoration plans that specifically benefit ecological connectivity in the Alps. Additionally, it represents a data basis for member states to cooperate across Alpine borders to ensure restoration and connectivity, as foreseen in paragraph 65 of the Nature Restoration Law.
- According to the slogan ‘Think globally, act locally!’ the two networks ‘Alliance in the Alps’ (AidA) and ‘Alpine Town of the Year’ (ATY) organized a **workshop on nature restoration for local communities in December 2024** to discuss potential implementation pathways at municipal level and the opportunities for local and regional development which arise from a healthier natural environment. Download of workshop materials is possible under: <https://www.alpinetowns.org/nature-restoration-an-opportunity-for-cities-and-municipalities/>

#### 4.2 Resources and support provided by the European Commission and at European level

At the pan-European level, an expert network has been established for the topic of nature restoration: the BiodivRestore Knowledge Hub<sup>25</sup>, which consists of 52 researchers and stakeholders, fostering collaboration and knowledge sharing. The main goals are to empower countries in developing and implementing national restoration plans, ultimately achieving the targets set by the EU and UN initiatives and to provide tailored restoration law implementation support to the Member States. The experts are from various disciplines, including ecology, social sciences, political sciences, and land management. The Hub operates through two dedicated task forces: Implementation Task Force and Research & Innovation Task Force.

The Hub offers the opportunity to support regional knowledge hubs, e.g. for the Mediterranean, the Atlantic or the Alpine region. This option is currently under discussion by the bodies of the Alpine Convention and EUSALP AG7. For the Alps it would be key to (1) combine the Alps and the other mountain regions belonging to the Alpine Biogeographic region, and (2) to merge different biogeographic regions (which is an interest not only of the Alpine region, but also of individual countries laying between several biogeographic regions).

Further resources for nature restoration implementation can be applied for at several European funding schemes, following the usual application procedures, e.g. for INTERREG, LIFE or Horizon projects.

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<sup>25</sup> <https://www.biodiversa.eu/engagement/biodivrestore-knowledge-hub/> - 19.01.2025



### 4.3 Cooperation with the Carpathian region

The Carpathian Convention (CC) is often considered a “Sister Convention” of the Alpine Convention. With their thematic working groups, both are searching for implementation-orientated approaches and compliance with existing legislation.

The CC members are composed of EU and non-EU countries and led by UNEP as the “Secretariat of the Carpathian Convention”. Like the Alpine Convention, a multinational, mountainous, but also densely populated area is covered.

The Carpathian and the Alpine Conventions inspire and cross-fertilise each other. Furthermore, a Memorandum of Cooperation (2023) bridges the goals and activities between the two Conventions and the Convention on Biological Diversity with specific reference to supporting implementation of the GBF.

An inspiring development on the CC’s side, also in close relation to the future implementation of the NRL, is the Carpathian Biodiversity Framework (CBF). The Carpathian Biodiversity Framework, adopted at the Carpathian Convention COP 7 in October 2023, is a thematic adaption of the GBF to the needs of this transnational region. It is a favourable fortifier for e.g. the following developments that are currently under way:

- It encompasses country commitments to the restoration process, tailored to the capacities and territorial conditions of the region. This allows countries to integrate their individual needs into a common, transnational vision and working structure.
- it directs the focus of various CC working groups towards practical restoration measures. This leads to a more coordinated steering of nature conservation capacities toward the implementation of the NRL.
- It provides the platform to produce Carpathian-wide cooperative initiatives and implementation projects. As an example, the CC has initiated the development of a comprehensive “Strategic Nature Project – SNaP” under the EU funding programme LIFE.

With regards to the content, the Carpathian Biodiversity Framework has identified forests and wetlands as key habitats for restoration activities. The CBF actively exchanges with national authorities on how restoration measures should be implemented. A first expert workshop took place in 2024 on wetland restoration. The restoration of forest ecosystems is promoted by a short movie, addressing stakeholders outside of protected areas and to involve other sectors into the process of nature restoration.

## 5. Alpine-wide vision of nature restoration

For moving towards a joint Alpine-wide vision for nature restoration, it is essential to establish a framework that facilitates collaborative planning, coordinated action, capitalization of existing shared prioritizations and mapping, and resource sharing among the Alpine states. The vision for nature restoration should align with the Nature Restoration Law (NRL) requirements, which call for a stepwise and detailed approach to restoration measures by 2032 and a strategic overview extending to 2050, and should also contribute to reaching the global restoration targets.

### Strategic Funding and Policy Coherence

Securing adequate funding within the EU programming framework is critical for achieving restoration objectives. The current EU funding period ends in 2027, highlighting the need to influence the Multi-Annual Financial Framework discussions to ensure sufficient resources are allocated for restoration in the next funding cycle. Priority should be given to ERDF-supported initiatives, such as the Alpine Space Programme and cross-border projects, specifically to support restoration on the ground rather than developing new additional tools like guidelines and such. Additionally, policy coherence across climate change, biodiversity, and related fields is crucial to foster an integrated and effective restoration approach.

### Knowledge Sharing and Capacity Building

The potential establishment of an Alpine Restoration Knowledge Hub presents an opportunity to pool and exchange expertise across the region. Steady collaboration with the BiodivRestore Knowledge Hub has already begun, with discussions led by the Alpine Convention's Permanent Secretariat, the ABB and EUSALP AG7 on its format, content, and connection to the European expert networks. This hub could serve as a platform to experiment with new forms of cross-border cooperation and facilitate capacity building on new topics for stakeholders at all levels; this can then be reflected in lessons learned.

### Developing an Alpine Restoration Framework

The ABB's 2025-2026 mandate<sup>26</sup> includes the development of an Alpine Biodiversity Action Plan, which could incorporate a dedicated chapter or standalone pan-Alpine Nature Restoration Plan, whose format and content are yet to be defined. This plan should focus on strategic actions to restore priority habitats and amplify the impact of individual efforts through cross-border and transnational cooperation. Moreover, the ABB and AG7 could assess the tools available under the NRL (e.g. Art. 11(4)) and recommend those best suited for the Alpine context to national policymakers.

For all Alpine experts and stakeholders involved in the NRP elaboration process, a few recommendations could be formulated:

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<sup>26</sup> Within the Multi-Annual Work Programme 2023-2030 of the Alpine Convention

1. Engage in National Restoration Plan (NRP) Development: Collaborate with NRP authors to ensure cross-border cooperation is integrated into restoration measures.
2. Define Alpine Priorities: Identify regional priorities for inclusion in the NRP and communicate them at the national level.
3. Build Capacity: Address capacity-building needs in administrations and among stakeholders to support communication about restoration and relevant initiatives effectively.

By aligning strategic funding, fostering regional knowledge sharing, and integrating restoration measures into national and transnational policies, the Alpine region can lead in restoring its unique natural heritage while contributing to broader European and global biodiversity goals.

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## List of Abbreviations

- ABB – Alpine Biodiversity Board of the Alpine Convention
- AC – Alpine Convention
- AG6 – Action Group 6 of EUSALP on Resources
- AG7 – Action Group 7 of EUSALP on Green Infrastructure
- AidA – Alliance in the Alps
- AMPN – Monegasque Association for Nature Protection
- ANK – Federal Action Plan on Nature-based Solutions for Climate and Biodiversity
- ATY – Alpine Town of the Year
- CBF – Carpathian Biodiversity Framework
- CC – Carpathian Convention
- CNR – National Research Council
- COP 15 – Conference of the Parties 15
- EUSALP – EU Strategy for the Alpine Region
- FOEN – Federal Office for the Environment
- GBF – Kunming-Montreal Global Biodiversity Framework
- ISPRA – Italian Institute for Environmental Protection and Research
- MRS – Macro-regional Strategies
- NBS 2030 – National Strategy on Biological Diversity 2030
- NBSAP – National Biodiversity Strategies and Action Plans
- NRL – Nature Restoration Law
- PUN – Natura 2000 Area Management Programme
- SACA – Strategic Alpine Connectivity Areas
- SBS – Swiss Biodiversity Strategy
- SNB – Italian National Biodiversity Strategy
- SNB – French National Biodiversity Strategy
- UNEP – United Nations Environment Program
- UN DER – United Nations Decade on Ecosystem Restoration



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