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DANUBE PARKS
network of protected areas



ALPBIONET2030

Recommendations and Action Plan
ALPS-DANUBE-CARPATHIANS cooperation for ecological connectivity

The case of the pilot area "Alpine-Carpathian ecological corridor"

ALPBIONET2030 Integrative Alpine Wildlife And Habitat Management For The Next Generation

Recommendations and Action Plan
ALPS-DANUBE-CARPATHIANS cooperation for ecological connectivity

The case of the pilot area "Alpine-Carpathian ecological corridor"

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By

| ALPARC | Dr. Guido Plassmann
with contributions from | DanubeParks | Georg Frank

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Table of contents

Executive Summary

1.	Introduction	3
2.	Recommendations for cooperation between the Alpine and Danube Spaces within the pilot area:	4
	Define and harmonize common procedures	4
	Establish an experience and knowledge base	4
	Form a common team of competent experts for ecological connectivity	4
	Promote a stakeholder and cooperation platform	4
	Integrate Europe wide strategies and policies (EUSALP, EUSDR)	4
	Define priorities in interest of activities	4
	Focus on the connectivity area between the Alps (EUSALP) and the Danube/Carpathian region (EUSDR)	4
	Analyze different funding possibilities	4
3.	ADC Network mission and cooperation statement within the framework of the EUSALP and DANUBE macro-regional strategies: ..	5
4.	ACTIONS for the coordination of ecological connectivity within the pilot “Alpine-Carpathian ecological corridor” area: ...	5
	Framework for proposed actions in the pilot areas	6
	Actions	6
5.	Conclusion	7

1. Introduction

The coordinators of ALPARC, DANUBEPARS and the CNPA decided to strengthen their cooperation on the basis of a Memorandum of Cooperation and to focus primarily on the establishment of ecological networks within and between all three regions. The **area between the Alps and the Carpathians and especially between the agglomeration of Vienna and Bratislava** is a highly significant region for ecological connectivity. This region is also an interface between the Alpine macro-regional strategy (EUSALP) and the macro-regional strategy of the Danube region (EUSDR) and therefore constitutes an interesting pilot site. The project ALPBIONET2030 engendered cooperation between stakeholders through the proposal of projects, measures and recommendations for the improvement of ecological connectivity within this pilot area.

Why focus especially on ecological connectivity in this area?

- The links between the three regions are hotspots of biodiversity for Europe
- Here, there are important migration movements linking more biogeographical regions (six) than in any other part of Europe
- Ecological connectivity is part of a climate change adaptation strategy
- Hydrological and geological phenomena are linked between the regions (e.g. the water, gravel and sediments from the Alps and Carpathians are transported to the Danube)
- Seasonal migrations involve this region
- Large carnivores migrate from the Carpathians towards the Alps
- In this region, diverse species exist whose population maintenance requires joint efforts
- etc.

From an ecological point of view, numerous interfaces and interdependencies exist in this area. Therefore, cooperation for the realisation of an ecological network is logical and would provide a major contribution to the preservation of Europe's biodiversity.

For this reason, stronger ecological connectivity is a major consideration for the region. This can be notably realized through ecological macro-corridors in an area that is highly fragmented by anthropogenic activities, such as agriculture, energy production, tourism, industry, urbanization and grey infrastructure, especially highway, railway and other transport infrastructure.

Ecological macro-corridors ensure long distance links between habitats and less fragmented regions by providing the opportunity not only for north-south but also east-west ecological connectivity in (and through) the Alps. North-south "corridors" are highly significant for species migration and constitute an important "green-infrastructure" and adaptation strategy to climate change. It is of high ecological interest to conserve areas along these macro-corridors, which are often composed of protected areas. Furthermore, the east-west macro-corridor between the Alps and the Danube space also has a very high importance, as it links both major mountain ranges in the heart of Europe.

2. Recommendations for cooperation between the Alpine and Danube Spaces within the pilot area:

- **Define and harmonize common procedures**

For the issue of ecological connectivity, it is crucial to employ comparable methodologies and analytic tools adapted to the different local or regional situations. A very sophisticated yet pragmatic approach was developed for the Alps and was updated during the project ALPBIONET2030 (JECAMI 2.0). The tool is on-line and can be adapted and transferred to other regions.
- **Establish an experience and knowledge base**

The three networks (ALPARC, DANUBEPARKS and CNPA) face similar questions, opportunities and challenges. Exchange of experiences, amalgamation of learnings and creation of a common knowledge base strengthens each network facing supra-regional issues, like EU programmes and EU policies, and contributes to the implementation of policies linked to the Alpine Convention, Carpathian Convention, Bern Convention or Ramsar Convention and the macro-regional strategies (Alps and Danube).
- **Form a common team of competent experts for ecological connectivity**

The three networks should foster a team of experts for questions of ecological connectivity. The experts of the three networks will exchange their knowledge and experience regularly and launch common projects.
- **Promote a stakeholder and cooperation platform**

Cooperation is an essential platform for effective coordination between networks and associated partners. In collaboration with one of the three protected area organisations, additional networks may join different projects and support common positions like the Carpathian Wetlands Initiative (CWI) or national protected area networks. Raising capacity could also involve other transnational protected area networks.
- **Integrate Europe wide strategies and policies (EUSALP, EUSDR)**

Cooperation between the three networks allows for meaningful involvement in transnational European strategies such as the Alpine and the Danube macro-regional strategies. This is also true within the existing common treaties of international law, such as the Alpine Convention and the Carpathian Convention, or the Ramsar Convention on Wetlands and other relevant conventions and programmes. For all these strategies and policies, ecological connectivity is a crucial issue contributing to their biodiversity conservation goals.
- **Define priorities in interest of activities**

Cooperation allows for sharing of common interests, such as the research of funding possibilities for concrete actions in areas of concern, the establishment of a collaborative policy approach and of a combined network of competence. A list of activities prioritized by efficiency should be defined.
- **Focus on the connectivity area between the Alps (EUSALP) and the Danube/Carpathian region (EUSDR)**

The Alpine-Carpathian connectivity area defined by the project ALPBIONET2030 (number XVII on the connectivity map) is of high interest for ecological connectivity between both mountain ranges and the Danube region. For this reason, efforts should be concentrated on the area south of Vienna to Bratislava.
- **Analyze different funding possibilities**

To realize concrete outcomes, in concert with the responsible institutions of the EUSALP and EUSDR strategies and the ALPINE and CARPATHIAN Conventions, the stakeholders of the three networks should analyze all possibilities for common funding to restore ecological connectivity in this border area between the two macro-regional strategies.

3. ADC Network mission and cooperation statement within the framework of the EUSALP and DANUBE macro-regional strategies:

Establish permeable landscapes and ecological connectivity between the EUSALP and the EUSDR space and contribute to their management by:

- Creating large non-fragmented areas ensured by linking protected areas and Natura 2000 sites and equivalents
- Ensuring the conservation of European biodiversity by including relatively small protected areas and hotspots of biodiversity (reducing the “island” effect) and by creating links (ecological corridors) to strengthen the significance of these sites
- Minimizing the negative effects of fragmentation of habitats
- Ensuring capacity building for protected area managers and other stakeholders in the field of ecological connectivity
- Contributing to the efficiency of ecological connectivity initiatives through cooperation between the three regions within the framework of the macro-regional strategies (EUSALP, EUSDR)
- Enabling and promoting closer cooperation between both macro-regions in the field of ecological connectivity

4. Actions for the coordination of ecological connectivity within the pilot “Alpine-Carpathian ecological corridor” area:

Level of activities:

- International harmonization of approaches and methods (mapping) in cooperation with international policies (Alpine Convention, Carpathian Convention, Ramsar Convention, Danube and Alpine macro-regional strategies)
- National programs about ecological connectivity (involving different levels of decision makers)
- Local implementation (based on local and regional planning of the defined pilot area)

Main fields of activities:

- Common policy work
- Exchange of know-how, methodologies and tools
- Establishment of a competence network
- Identification of requirements for ecological connectivity within the entire area
- Implementation of ecological connectivity within the entire area
- Communication about ecological connectivity and the cooperation needed to achieve it

Framework for proposed actions in the pilot area

Exchange, methods and training

- Elaborate on common tools and methodologies (e.g. JECAMI 2.0)
- Define approaches to establish and manage ecological corridors in the area
- Exchange ideas regarding existing strategies and new concepts
- Exchange regarding projects about ecological connectivity, especially between Austria and Slovakia

Pilot area

- Define the exact perimeter of this pilot area as part of a networks of pilot areas for ecological connectivity
- Define the priorities of this pilot area concerning ecological connectivity
- Consider the special situation of agglomerations in this pilot area and determine adapted connectivity measures. Define the role of this pilot area for species and habitat protection

Implementation actions for connectivity and green infrastructure (pilot area)

- Interlink small protected areas (steppingstones) by connectivity measures and policies
- Promote the Alpine-Carpathian river corridors (Austria-Slovakia)
- Verify declared ecological corridors (site visits)
- Identify special measures for connectivity that favor threatened species

Communication and policy actions

- Communicate the need for ecological connectivity in the pilot area
- Refer to national laws, strategies of biodiversity and the international conventions of the Alps and the Carpathians (legal framework)
- Refer to competent action groups and decisions of EUSALP and EUSDR
- Share species success stories of ecological connectivity in this pilot area

Actions

Preserve and restore the Alpine-Carpathian river corridor

The Alpine-Carpathian river corridor is a central element of ecological connectivity in this region, as this is one of the last non-fragmented riverine habitats including both aquatic and terrestrial habitats surrounding the river Danube and tributaries.

Foster permeability of the landscape through an integrated management plan

The territory of the pilot area is strongly impacted by all kinds of anthropogenic activities, such as agriculture, energy production and distribution, urbanization and transportation. An integrated management plan to preserve open spaces with natural features and concrete measures to allow migration corridors for species is essential for biodiversity. This should build on results from transnational projects (e.g. ConnectGREEN).

Interlink small protected areas by connectivity measures at local level

Link small protected areas and steppingstones, such as small biotopes, wetlands, hedges and other landscape elements, through protection, agro-environmental measures, adapted spatial planning and other measures, thereby ensuring a continuous network connecting habitats.

Expand a strategy for communication with the local population

Develop strong identification with biodiversity protection through the communication of success stories, illustration with flagship species and examples of other regions succeeding in ecological connectivity approaches and realizations.

Launch the project Danube WILDisland Corridor

Islands are threatened hotspots of biodiversity, providing habitats that various species depend on. The initiative of DANUBEparksCONNECTED emphasizes the need for protection of these vital river sites ensuring both aquatic and terrestrial connectivity.

Establish Green Infrastructure to improve Ecosystem Services in the area

While protected areas preserve some of the most valuable natural sites, habitat fragmentation limits efforts to preserve a cohesive ecosystem. Human infrastructure, extensions of urban areas, the establishment of new transport

routes and energy infrastructure as well as the ongoing intensification of land-use place increasing pressure on natural treasures. Often, protected areas are too small to cover home-ranges of certain organisms or to host sustainable populations of species (in: Ecological Connectivity in the Danube River Basin. Future Perspectives and Guiding Principles, 2019), so it is also important to support identification and establishment of other effective area-based conservation measures in the region. These will play an important role in the post-2020 biodiversity framework of the Convention on Biological Diversity (CBD).

Create new mechanisms for cooperation, dialogue and participation supporting an ecological connectivity area between the Alps and the Carpathians

It is crucial to establish a large partnership of stakeholders and decision makers to realize better ecological connectivity in the pilot area between the Alps and the Carpathians. Adapted mechanisms and formats need to be defined to achieve this goal.

Foster Permeability among macro-regions (through concrete activities at local level)

The Danube River floodplain, as well as the mountain regions in the Alps and the Carpathians, represent the most important natural and semi-natural areas in central and south-east Europe. Economic pressure is increasing constantly in the Alps, Carpathians and in the DRB regions, increasing the strain on their natural treasures. Therefore, in the EU macro-regions, significant efforts are being made to strengthen ecological connectivity. Both the EU Strategy for the Danube Region (EUSDR) Priority Area 6 and the Action Group 7 of the EU Strategy for the Alpine Region consider ecological corridors and Green Infrastructure as key elements in their respective action plans. Hydrological and geological phenomena are linked between the regions (e.g. the water from mountains flows to the Danube, gravel and sediments from the Alps and Carpathians are transported to the Danube), large carnivores migrate from the Carpathians towards the Alps, and various species exist in respective regions whose population maintenance require joint efforts. Consequently, the interface between the EU macro-regions along the Danube and in the Alps can offer excellent opportunities for ecological connectivity and cooperation between these two EU macro-regional strategies to trigger good practice initiatives and pilot projects (such as the ADC Net and the Alpine Carpathian (River) Corridor). Possible synergies need to be identified and concerted efforts are required with other neighbouring macro-regions, with the Danube as an important link (in: Ecological Connectivity in the Danube River Basin. Future Perspectives and Guiding Principles, 2019).

5. Conclusion

Different activities and projects have been discussed and evaluated within the partnership of the ADCnet concerning cooperation between the two macro-regional strategies and especially proposals based on riverine systems linking both mountain ranges and macro-regions. Some projects have been submitted (e.g. WILDIsland), and others are still in preparation.

Cooperation regarding ecological connectivity has existed for over 15 years. Methodologies, approaches, tools and experiences have been exchanged, and ALPBIONET2030 advanced the common understanding of how to harmonize and to meet common goals of both mountain regions of the EUSALP and DANUBE strategies.

The pilot area between the Alps and the Carpathians including the Danube River is highly significant for ecological connectivity for a variety of reasons, but it is also highly symbolic for the cooperation between both mountain ranges, both conventions and both macro-regional strategies on this specific topic.