

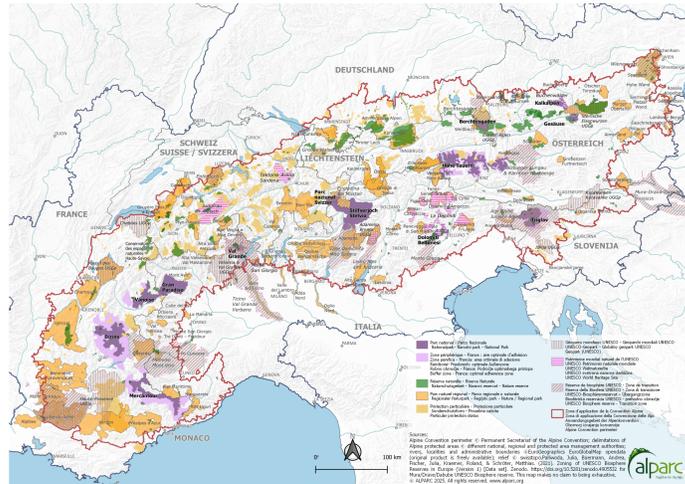
Strengthening Ecological Connectivity Across the Alps: Spatial Planning Strategies for an Integrated Alpine Network



1 Why act here? - "Ecological connectivity in the Alpine space"

Ecological connectivity in the Alpine space is threatened by urban sprawl, land-use changes, infrastructure development, agricultural intensification and other anthropogenic driven factors having major implications on habitat fragmentation and creating obstacles for species movement. Alpine Protected Areas as the core zones of the ecological network cover nearly 58 581 km² within the Alpine Convention perimeter, nevertheless this coverage alone cannot allow to maintain biodiversity and sustain ecological connectivity.

About the possible land use conflicts, road infrastructure and urbanisation are the major drivers of landscape fragmentation, the development of renewable energy sources (particularly solar and wind power) is expanding within Alpine space. It is essential to establish continuous monitoring systems to track their evolution and assess their impact on the landscape and ecological connectivity.



Technical proposal for implementing GBI connectivity networks in spatial plans - Alpine space

2 Case study objectives

The identification and conservation of *Potential planning areas for biodiversity protection along with the corridors linking them, are strategic to prevent and reduce the effects of these threats as well as to achieve the Biodiversity COP15 30x30 goal, avoid habitat isolation within the Alps and ensure the connections with other mountain ranges.

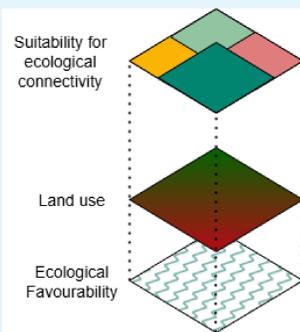
The case study aims to provide tools and strategic recommendations to improve the development of a coherent connectivity network of biodiversity valuable areas in the Alps. The objective is to identify the major barriers and threats to ecological connectivity by focussing on areas with a high value for biodiversity conservation within the Alps.

* Potential Planning Areas for Biodiversity Protection: spatial planning proposal of protected areas, distributed in nine categories combining the criteria of low fragmentation, low spatial development, and a high level of ecologically favourable areas. (Alpine Parks 2030, ALPARC)

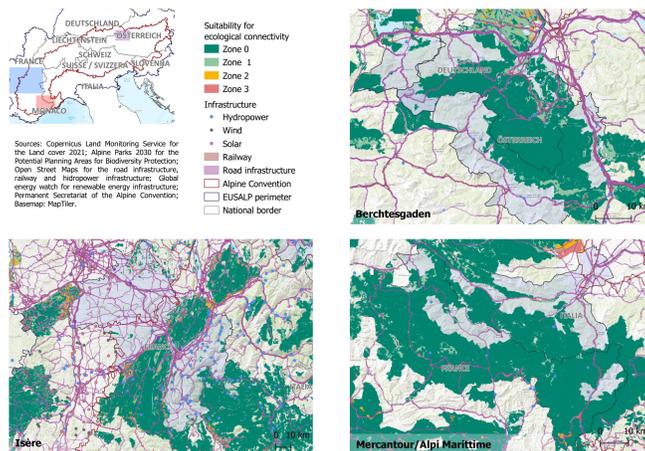
PlanToConnect

3 Methodological approach

The Alpine space case study focuses on proposing actions to improve ecological connectivity between areas with a low level of spatial development, with favourable conditions for ecological connectivity. The proposal for implementation of actions was mapped and represented in four categories assessing the ecological value and the land use alignment with ecological connectivity.



The mapping is based on structural connectivity approach and is focused on identifying suitable landscapes, large continuities with high biodiversity value and interconnecting Alpine-wide corridors.

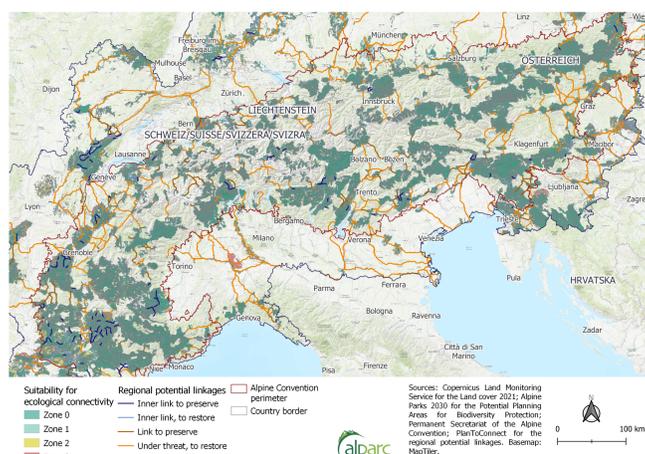


4 Pilot design

The zoning proposal allows to differentiate the territorial challenges and is presented in 4 categories of suitability for ecological connectivity.

Zones 0 and 1: less modified landscapes, forests, open spaces, scrub and/or herbaceous vegetations associations. These areas have a considerable potential for ecological connectivity, as they represent continuous, large non-fragmented areas beyond the boundaries of the current protected areas.

Zones 2 and 3: landscapes heavily influenced by anthropogenic transformations, including urban areas located near both natural and near-natural areas.



6 Key messages for planners

Effective biodiversity conservation relies on the implementation of protection and restoration measures in areas valuable for biodiversity. Enhancing ecological connectivity of remaining large continuities and their corridors, identified on the case study, is one aspect required for achieving this goal. Mapping, expert consultation, multi-stakeholder involvement are important tools for raising awareness about the main barriers to ecological connectivity and also for targeting spatial planning actions to prevent fragmentation and build or strengthen regional networks.

Complementary implementation measures

- Strengthen multilevel governance
- Strengthen transectoral cooperation
 - Protected Areas
 - Tourism
 - Transport
 - Spatial planning
 - Agriculture
- Increase stakeholder engagement through participatory planning processes
- Promote data sharing – WebGIS Jecami



Joint Ecological Continuum Analysing and Mapping Initiative

5 Governance and stakeholders

The cooperation between EUSALP and the Alpine Convention (Nature protection and landscape conservation protocol - Art 3) facilitates the conceptual alignment of approaches; however, challenges remain in harmonising implementation across the different Alpine countries. The development of a formal GBI concept in the Alpine countries national frameworks is one key step to implementation at the territorial level.

7 Next steps

ALPARC will continue disseminating the results of PlanToConnect among Alpine Protected Areas, relevant working groups of the Alpine Convention and EUSALP with the aim of advancing on the strategic implementation of ecological connectivity. This will support more coherent and better-coordinated spatial planning across the Alpine space.