

# TRANSFERABILITY STUDY AND STRATEGY FOR BEST PRACTICES

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# Output 5.5 Transferability Study and Strategy for Best Practices

ConnectGREEN Project “Restoring and managing ecological corridors in mountains as the green infrastructure in the Danube basin”

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# 1. INTRODUCTION AND BACKGROUND

**T**he Danube-Carpathian region is one of Europe's last remaining strongholds for the large carnivore species: grey wolf, Eurasian lynx and brown bear, protected under EU law. Planned infrastructure development projects, such as the Trans-European Network of Transport (TEN-T), threaten to cut through the movement corridors of large carnivores and increase the fragmentation of their habitats causing large-scale fragmentation of the ecological corridors network, which was preliminarily identified, and is supposed to be further elaborated by the Trans-European Network of Green Infrastructure (TEN-G). The TEN-G initiative disposes of a platform for data and information sharing on biodiversity, the Biodiversity Information System for Europe (BISE), which is fully embedded in the Knowledge Centre for Biodiversity. TEN-G initiative goals are in line with the EU Biodiversity Strategy, which includes specific actions to improve monitoring and reporting, to build on the biodiversity knowledge base and to continue to fill research gaps, including on the mapping and assessment of ecosystem services in Europe. It improves understanding of the links between biodiversity and climate change, and especially of the role of soil in

delivering key ecosystem services, such as carbon sequestration and food supply as the central pillars of green infrastructure.

The EU 2010 biodiversity baseline and the updated EU biodiversity indicators will be key components of the work on TEN-G, which will also draw on other data and information, such as those produced by the Shared Environmental Information System and Global Monitoring for Environment and Security, the European Forest Data Centre and the LUCAS Land Use Cover Area Frame Survey.

There are currently too few trained spatial planners in the region possessing the knowledge and experience to ensure that conflicts between development and nature conservation are minimized as they develop new structural plans. More importantly, legally binding mechanisms taking into consideration the requirements of functioning ecological corridors are poorly implemented, mainly because of the lack of reliable data and political will. These effects require a coherent transnational approach to issues such as large carnivores frequently moving across state borders in search

of food, mates or shelter, or connecting Natura 2000/Emerald networks across borders in the aim of making the TEN-G and TEN-N plans a binding regional reality.

The recognition of this regional challenge led to the launch of the ConnectGREEN Project.

This paper aims to collect best practice examples for integrated ecological corridor planning including an action plan for a joint cooperation on securing ecological connectivity between the adjacent regions, and thus serve as a transferability strategy for the implementation of ConnectGREEN's outputs beyond the project itself.

*"Making peace with nature is the defining task of the 21<sup>st</sup> century; it must be the top, top priority for everyone, everywhere."*

**Antonio Guterres**, Director General, United Nations

## The ConnectGREEN Project

Running from June 2018 to the end of October 2021, ConnectGREEN (Restoring and managing ecological corridors in mountains as the green infrastructure in the Danube basin) is an Interreg Danube Transnational Programme project aiming to increase the capacity of ecological corridor identification and management and to overcome the conflict between infrastructure development and wildlife conservation. ConnectGREEN brings together 23 partners from multiple countries (Austria, Czech Republic, Slovakia, Hungary, Romania, Ukraine, Montenegro, France, and Serbia) and various fields of activity and expertise (spatial planning, research, government, biodiversity conservation) to address the challenges of habitat fragmentation and degradation affecting the conservation of large carnivores in the Carpathian ecoregion.

The main objective of the ConnectGREEN Project is to maintain, respectively improve the ecological connectivity between natural habitats, especially between Natura 2000 sites and other protected areas of transnational relevance in the Carpathian ecoregion, namely in the Czech Republic, Hungary, Romania, Serbia and Slovakia. More specifically, the project aims to:

- » Develop innovative solutions (Decision Support Tool and CCIBIS Geoportal) and guidance to

identify ecological corridors and connectivity gaps in a harmonized way across the Carpathian ecoregion to maintain long-term, cross-border wildlife movement, associated ecosystem services and a high level of biodiversity in the region.

- » Engage protected area and Natura 2000 site managers, conservationists, spatial planners and other key stakeholders in an integrated approach to strengthen the capacity for identifying and managing ecological corridors.
- » Reconcile nature conservation and spatial planning and development in ecological corridors and Natura 2000 sites by identifying and implementing strategic directions and instruments and practices.

Over its 3.5-year runtime (2018 - 2021), ConnectGREEN has produced the following outputs, which are to be used beyond the spatial and temporal limits of the project

- » Methodology for Identification of Ecological Corridors in the Carpathian Countries by Using Large Carnivores as Umbrella Species,
- » State of the Art Report on Existing Planning Systems and their Application for Ecological Corridor Identification and Management in the Carpathians,
- » Gap Analysis Report on the Identification of the Needs for Improving the Planning Processes and Tools,
- » Set of Recommendations Developed Together with Spatial Planners to Avoid/ Minimise Fragmentation of Ecological Corridors and Natura 2000 Sites,
- » Ecological connectivity related database, including all relevant spatial information from the ConnectGREEN pilot sites, under the Carpathian Countries Integrated Biodiversity Information System (CCIBIS),
- » Map of Ecological Corridors,
- » International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity in the Carpathians.

The ConnectGREEN outputs and the overall presentation of the projects are available online on the project's website: <http://www.interreg-danube.eu/approved-projects/ConnectGREEN/outputs>



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## 2. TRANSFERABLE OUTPUTS

### 2.1. Methodology for Identification of Ecological Corridors in the Carpathian Countries by Using Large Carnivores as Umbrella Species

The Methodology, when applied in close cooperation between nature conservation managers and spatial planners, will contribute to translating the connectivity approach into practice and to securing consistent territorial protection of a coherent ecological network.

It is crucial to ensure that the results provided by the Methodology will be accepted in practice and will be applied in spatial planning and implementation systems throughout the relevant sectors. This will only be possible if there is:

- » Political will/support to prioritize nature protection and in particular connectivity protection and to improve the cooperation between the sectors of nature protection and spatial development,
- » Bullet-proof data and arguments from nature protection managers on the needs of and for ecological connectivity conservation,
- » Harmonization of interests of spatial development and nature protection.

The Methodology was developed to be used at two levels: at a larger scale, it provides a methodology for habitat restoration, but it also includes

information specifically tailored to the needs of large carnivore protection.

The Methodology contains a step-by-step guide based on habitat suitability modelling, connectivity modelling, and the identification of critical zones resulting in the definition of an ecological network for large carnivores. The Carpathian-wide methodology provides a tool to create a coherent ecological network using the data related to large carnivores as an umbrella species. Furthermore, the ecological corridors will be identified in more detail while implementing relevant steps on the level of smaller regions, e.g. protected areas. The results can serve as a basis for specific management and restoration measures. To achieve the best results and desired improvements on the ground, it is essential to develop measures for safeguarding the ecological connectivity in these areas in a participative way and to actively engage key stakeholders.

The Methodology has two main target groups:

- » Entities and experts who are going to use the Methodology as a guide, and
- » Entities and individuals who are going to use the results of the applied Methodology.

The main target group for whom this document was developed are nature protection experts. The Methodology provides nature protection managers and experts with a hands-on guide for the identification of ecological corridors. A second target group are spatial planners who will use the results of the applied Methodology (the identified ecological network) to effectively plan the development of infrastructure projects. Finally, the results of the applied methodology are also aimed at the authorities making decisions on the further development of an area. Providing decision makers with solid data underpinned by an acknowledged methodology is crucial for their ability to make an informed decision on a topic often governed by strongly conflicting interests.

The Methodology provides a replicable tool for gaining a set of variable data, which can be used in decision-making processes in both spatial planning and the management of protected areas at different levels of governance (local, regional, national, transboundary). The Methodology has been and will be presented at different international fora with the ambition to also serve as a model for other mountain range areas.

## 2.2. State of the Art Report on Existing Planning Systems and their Application for Ecological Corridor Identification and Management in the Carpathians

The State of Art Report provides a very important dataset on the different approaches of countries in the Carpathians when implementing the many international requirements related to terrestrial planning. It thus represents a comprehensive set of good and wrong practices, allowing for lessons to be drawn from the last centuries of spatial planning.

Spatial planning is the most important tool for balancing the needs of the society, economy and the environment. Spatial planning offers the institutional, technical and policy framework for managing the territorial dimensions of sustainability, and safeguarding the values of our habitats, ecosystems and landscapes. The key role of spatial planning is to promote a more rational arrangement of activities.

Using a questionnaire survey, the ConnectGREEN team collected information about the spatial planning systems of the Czech Republic, Hungary, Slovakia, Serbia and Romania and analysed their major characteristics. The ensuing analysis highlighted the differences of the relevant policy frameworks and legislation regarding spatial planning, and, specifically, the tools and methods of integration of ecological networks into the spatial planning. Other considered variables included the coordination mechanisms, stakeholder involvement and realization of the plans, the application of a strategic management approach, and monitoring.

In terms of their territorial governance, the ConnectGREEN partner countries are decentralized unitary countries (Illés 2011), meaning that the regional level plays a considerable role in spatial planning, but mostly with limited competences. It is at the national level that decision makers formulate the framework for spatial development and elaborate the legal background, while the regions carry out the detailed

spatial plans under national control. In some countries, the national authorities elaborate the regional plans directly. Especially the effectiveness of planning and implementation in all of the analysed countries was found to not be appropriate because of the fact that spatial planning has a strong multisectoral approach which results in a shared responsibility, yet conflicts in the cooperation abound, especially at the national level. The regional level refers mostly to NUTS3 (Nomenclature of Territorial Units for Statistics – level 3) regions in the analysed countries, with the exception of Serbia and Romania, where plans are elaborated for the NUTS2 units as well. In all countries, the local level has the strongest authority in land use planning (local level plans, zonal plans, building permissions). In some countries, next to the general master plans, more detailed plans are elaborated for specific settlement areas or for specific regions (world heritage sites, tourist destinations, and strictly protected areas in Romania, for example, are all subject to a common planning process with national authorities).

Spatial planning mostly covers two types of planning: a social-economic, strategic approach combined with land use planning. Serbia, where a regional plan is elaborated as a complex strategic plan, is an exception in this regard. The elaboration of strategies and land use plans is based on a detailed analysis of social, economic, environmental and landscape conditions, but in most of the countries, landscape planning does not occur as an independent planning activity as it does in Slovakia. In all the analysed countries, the European Union is strongly integrated into the spatial planning system, however on different levels and forms. At the regional level, special maps provided by the EU are integrated into spatial plans. Alongside strategic and land use plans in Slovakia, the Landscape Ecological Plan is a document elaborated as a part of the procurement of land use plans at the regional and municipal level with a focus on landscape ecological analysis, assessment and optimisation of functional use in harmony with landscape ecologic potentials and limits for the development. In the Czech Republic, a similar analysis is carried out, entitled “Territorial System of Ecological Stability”.

Beyond the frame of the ConnectGREEN project, it is important to overcome these problems and inefficiencies in the functionality of the spatial planning systems in all of the partner countries. The authors of the Report highlighted several problems related to the efficiency of spatial planning:

- » Problems occur in the whole life cycle of the planning, from the plan-making process to the lack of financial resources. Often, the strategic development plans are understood only as obligatory exercises to get access to the public financial resources and not real management tools.
- » A general problem of land use plans is that the plans have a high regulatory effect, but a lack of economic instruments and financial resources limit the efficiency of their implementation.
- » Due to the strong lobbying power of some stakeholders, legal regulations cannot appropriately answer specific problems or exceptional legal arrangements are introduced to satisfy specific interests.
- » A general problem is that there usually is no sufficient and transparent mechanism for monitoring the implementation and effects of the spatial and urban plans, as most of the countries reported problems related to monitoring.

The survey also revealed positive examples in the fields of spatial planning and ecological network protection. In the Czech Republic and Slovakia, landscape ecology has a strong tradition, and the Landscape Ecological Plan in Slovakia and the Territorial System of Ecological Stability in the Czech Republic form important bases for spatial planning. Other promising initiatives were found in other countries as well, such as specific regional plans in Romania and in Hungary.

One such national good example are the landscape planning approaches in Slovakia, which began in the 1980s with the introduction of the LANDEP (Landscape Ecological Planning) methodology, representing an integrated approach for optimizing the landscape structure and composition, aiming for balance between socio-economic activities and the environment, thus ensuring sustainable use of natural resources. Currently, the elaboration of the Territorial System of Ecological Stability (TSES) documentation is part of the territorial planning process in Slovakia and the outputs represent legally binding documents. As defined in the Act Nr. 543/2002 on Nature and Landscape Protection, the TSES is a spatial structure of interconnected ecosystems, which provides for the diversity of conditions and forms of life in the landscape. This system consists of biocenters, biocorridors and interacting elements of supra-regional, regional or local importance.

Another good example is the ecosystem mapping project from Hungary, which started in 2016 and

completed the mapping of the entire country in 2021. The National Ecosystem Services Mapping and Assessment (NÖSZTÉP) project was embedded in the project entitled Strategic Studies Establishing the Long-Term Conservation and Development of Natural Values of Community Importance and the Implementation of the EU Biodiversity Strategy 2020. The existence and condition of ecosystems are also crucial for human well-being and economic growth, which rely heavily on natural resources. Preserving the good condition of ecosystems and halting the loss of biodiversity can only be achieved through coordinated measures, for which it is necessary to know in detail the natural and ecological system and its functioning, to map the spatial distribution of the natural capital and to develop the related knowledge base. In the NÖSZTÉP project, the purpose of ecosystem status mapping is to determine the real service-providing capacity of a given habitat during the evaluation of ecosystem services, on the one hand, and to produce informative indicators and maps that can be used directly by all practical users. The indicators to be produced for the whole country in the NÖSZTÉP project element are the following: naturalness/degradation; soil fertility; habitat diversity. The primary service of agro-ecosystems is the (food) supply function. Within the framework of the NÖSZTÉP project, food production as a supply service is evaluated by the Hungarian Institute of Agricultural Economics (AKI) in relation to arable land, plantations and grasslands, by determining the quantity of crops grown there.

The target groups for the utilization and dissemination of the results are:

- » Authorities:
- » Publishing of articles,
- » Papers in journals or special issues of online or printed publications,
- » Dissemination of experiences in frames of workshops, conferences.
- » Planners, experts:
- » Presentation of results in frame of
- » Trainings,
- » Educational programs for example in landscape architecture courses, and
- » Other specific programs.
- » Conferences, for example the ECLAS conference (European Council of Landscape Architecture Schools).

## 2.3. Gap Analysis Report on the Identification of the Needs for Improving the Planning Processes and Tools

Within the framework of the ConnectGREEN project, a questionnaire was carried out to identify the main gaps in the planning processes and tools related to the ecological corridors. It was crucial to find these gaps first in order to then identify the most suitable and necessary improvements for the planning systems. The comparative analysis of the countries highlighted the crucial unique and common gaps in their systems and pointed out good solutions as showcase examples for other countries.

In relation to the relevant policy frameworks and legislation for ecological networks (the main gaps in the related policy framework; the most important challenges and used indicators during the identification of the ecological network; the monitoring activities), 5 main problem areas were identified:

- » Methodology,
- » Definition,
- » Types of regulations and consistency,
- » Social agreement and conflicting interests,
- » Institutional framework.

In general, all of the countries express the importance of ecological networks in their policy framework. However, in many cases the implementation of this idea is insufficient. All of the countries use indicator systems for identification of ecological networks. They are usually based on the Natura 2000 and the Pan-European Ecological Network methodologies.

The 6 main areas of challenges related to lacking implementation were:

- » Financial,
- » Technical,
- » Communicational,
- » Methodical,

- » Interest,
- » Skills.

Only 2 of the countries have foreseen direct monitoring activities after the development of ecological networks. However, the others also have provisions for optional, indirect monitoring activity.

In the field of participatory planning and stakeholder involvement (the main gaps in the stakeholder involvement; and in the compensation systems; the main conflicts between the different stakeholders; and the awareness of the importance of the ecological networks), the importance attributed to stakeholder involvement is very similar in all of the analysed countries. In all cases, specific legal rules define the types of stakeholders. In most of the countries, the scope of stakeholders is broadened by the SEA and EIA Directives. Regarding the type of compensation, the countries can be broadly clustered into 2 groups: compensation regulated by law; compensation is existing, but needs further clarification. The results indicated the lack of proper communication or miscommunication as the main reason for conflict. One could conclude that most of the locals and the stakeholders are not aware of the importance of ecological networks. None of countries hosted an information campaign on the topic.

When considering the integration of spatial planning and ecological networks (the form and depth of ecological network integration into spatial planning; the limitations related to ecological networks in spatial plans; the gaps in the integration of the ecological networks in other policy sectors; and the integration of the ecological network-related issues in the SEA), we found that the ecological networks were integrated into the spatial planning systems of all of the looked at countries, however to varying degrees. At the local level, gaps were identified in most of the countries. However, internationally and nationally significant conservation areas are cared for on all spatial levels. All of them foresee some forms of limitation to land use and development possibilities according to the ecologic network in their spatial plans. The types of limitations and rules are very similar in all cases: disturbing activities and activities that reduce ecological stability are forbidden. While this means that planners can usually limit the changes, they cannot prevent them completely. The ecological network-related issues are integrated into the strategic impact assessment.

This gap analysis can help policy and decision

makers to identify the weakest points of their systems, and it can also provide them with good examples from neighbouring countries. With the help of these results, the shortcomings of the legislation can be improved in the future and the findings could be a strong base of much stronger and more efficient planning systems in harmony with the ecological networks. The target groups for the utilization and dissemination of the results are:

» **Authorities, decision makers:**

- » Publishing of articles, papers in journals or special issues of online or printed publications,
- » Dissemination of experiences at workshops, conferences.

» **Planners, experts:**

- » Presentation of results in trainings and educational programs. for example in landscape architecture courses,
- » Presentation of results in specific programs,
- » Sharing of lessons learnt at conferences, for example the ECLAS conference (European Council of Landscape Architecture Schools), or the project closing conference.

The specific target groups are

- » Decision-makers (e.g. ministries, governmental institutes),
- » NGOs,
- » Governments,
- » Local governments,
- » Policy-makers and spatial planners,
- » University students,
- » Researchers.

Plan for utilization of the results:

- » University lectures and workshops (e.g. landscape architect students on BSc and MSc levels),
- » Online and printed books and hand-books for planners, policy-makers and other stakeholders,
- » Presentations at scientific conference (both international and in the project countries),
- » Scientific journal papers (both international and in the project countries).

## 2.4. Ecological connectivity related database, including all relevant spatial information from the ConnectGREEN pilot sites, under the Carpathian Countries Integrated Biodiversity Information System (CCIBIS)

The Carpathian Countries Integrated Biodiversity Information System - CCIBIS has been developed out of the need for an increased information exchange in the region on protected areas and biodiversity. Identified by the Convention on Biological Diversity, under the Programme of Work on Protected Areas, information exchange is a main priority. The dissemination of information, experience, and knowledge is not only practical, but improves the discourse in providing effective and improved protected area and project work. The CCIBIS works to provide a scientific platform of the state of art scientific information for professionals, but serves as a deposit of local evidenced knowledge towards increasing the awareness of the value of biodiversity, not only for relevant stakeholders, but members of civil society as well as anyone who has an interest in the Carpathian region.

The CCIBIS serves partners within the Carpathian Convention by allowing them to share information and build a set of data that is useful for project planning and implementation. It is an open-source website; thus, any organization, institution or private person is welcome to share their data.

The CCIBIS website features a descriptive part with information on nature conservation with a range of relevant topics, e.g. fauna, flora, sustainable development, etc., and a geo-portal including an interactive map of the Carpathians which allows the viewing of several different GIS layers that detail the multitude of data sets making up the CCIBIS database. With this tool, it is possible to explore the Carpathian region and discover information about the protected areas. Beyond locating protected areas, the

map is capable of displaying the biodiversity of the region, current infrastructure data, case studies, best practices, and much more. The map system provides multiple functions for the user as well:

The most innovative solution of CCIBIS lies in its ability to correlate different categories of information between by layering data sets (i.e. biodiversity and tourism, road-infrastructure-habitat protection, etc.). It provides the following services for the users:

- » Adjust datasets detailed on the map,
- » Generate reports,
- » Export maps with selected details,
- » Store data,
- » Modify and update existing data,
- » Add new data.

Improving efficiency in protected areas by providing a platform for professionals working within these areas allows for an integrated approach that advances the needs of nature conservation in the region.

The CCIBIS link: <https://ccibis.org/>

## 2.5. International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity in the Carpathians

The Action Plan on Identification, Preservation and Management of Ecological Connectivity in the Carpathians, hereinafter referred to as the "Action Plan" is the last output of ConnectGREEN. This document gathers and summarizes previous ConnectGREEN findings and outputs, articulating them into a vision for the conservation and management of Carpathian ecological corridors, and further developing it into a comprehensive set of strategic goals, targets, and actions. It therefore requires special mention and attention when considering the transferability of the learning and knowledge generated by ConnectGREEN.

The Action Plan is an innovative and proactive initiative to protecting and managing the natural environment.

It provides an opportunity to establish strategic ecological corridors to assist in the conservation of flora and fauna species. The ecological corridor concept is also being developed and explored in the wider European region and promoted by other countries with the intent of extending corridors beyond local and national boundaries for enhanced

ecosystem integrity and connectivity and wildlife movement across boundaries.

The Action Plan can be found at Carpathian Convention website: [http://www.interreg-danube.eu/uploads/media/approved\\_project\\_output/0001/44/741ca8b6ec56eae76a7fcdeb6fc128b1409c59f.pdf](http://www.interreg-danube.eu/uploads/media/approved_project_output/0001/44/741ca8b6ec56eae76a7fcdeb6fc128b1409c59f.pdf)



## 3. TRANSFERABILITY STRATEGY OBJECTIVES

ConnectGREEN has created and made available a corpus of valuable knowledge and experience in order to help decision-makers, spatial planners, and other stakeholders to find the best ways to develop infrastructure and other plans in order to secure ecological connectivity in the Carpathians.

However, in order to achieve an effective transferability of ConnectGREEN knowledge three objectives have to be accomplished:

### 3.1. Distribution of outputs

The overall body of ConnectGREEN knowledge has to be distributed among and shared with the relevant stakeholders, who in turn have to build ownership of it and are ultimately responsible for putting it into practice. Thus, this document has the objective of setting a roadmap for the diffusion and transfer of ConnectGREEN's generated

knowledge. It is worth highlighting that when discussing the transfer of the International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity (2020) and the other outputs of the ConnectGREEN Project, we do not just aim for concrete policy changes (although these are a key objective indeed) but also wish to influence society as a whole, contributing to more fundamental changes within the awareness of all societal actors to achieve an ecological and social societal transition.

## 3.2. Achieve a societal transition

A societal transition is a “fundamental, systemic shift in structures, cultures, and practices in a society.” These processes are typically non-linear and disruptive. Institutional and incremental processes, which focus on optimization, fail to adequately anticipate and adapt to such chaotic, non-linear patterns of change. Dealing with emergence through anticipation is a key capacity in order to deal with transitions. Controlling transitions is impossible; we hence rather speak of navigating on the edge of disruption. Regular policy and planning are often focused on improving the existing, rather than facilitating transformative changes towards desired futures. Transition governance is about developing the capacities, networks, and tools to achieve this structural systemic change towards sustainable futures. With this Strategy, we seek to facilitate a transfer of ConnectGREEN project results and thereby contribute to the body of tools and capacities required to achieve structural systemic change.

## 3.3. Definition of fields for the use of outputs and tools

After the adoption of the project outputs (and its associated knowledge products), the countries will be able to integrate these into national-level policies, strategies, and frameworks related to:

1. Biodiversity conservation,
2. Environmental Impact Assessments (EIAs),
3. Strategic Planning of Green Infrastructure development, mainstreaming biodiversity and implementation of the Mitigation Hierarchy (Avoidance - Mitigation - Compensation) and the Precautionary Principle in order to avoid or minimize the negative environmental impacts,
4. Human-wildlife conflict,
5. Hunting,
6. Natura 2000 Network,
7. Protected Area designation and management,
8. Spatial planning processes.

## 3.4. Definition of the scale of outputs' capitalization

We can identify four different levels of capitalization for ConnectGREEN outputs: local, national, regional (Carpathian-level), and international. In turn, at each of these levels, we can identify two main kinds of stakeholders to target: those that can capitalize on this knowledge directly, and those who will be affected indirectly. Table 1 offers a summary of the different groups identified:

Type/Level	Direct Capitalization	Indirect Capitalization
<b>Local</b>	Local municipalities National Park management	Local NGOs, civil society associations, and collectives Local chambers of commerce Infrastructure developers
<b>National</b>	Ministries dealing with environmental protection, spatial planning, and infrastructure development National chambers: engineers', architects', agronomy, commerce	Local NGOs, civil society associations, and collectives
<b>Regional (Carpathian)</b>	Carpathian basin countries (Carpathian Convention Member States), Carpathian Network of Protected Areas	Regional NGOs, regional infrastructure and biodiversity conservation projects,
<b>International</b>	International conventions (CBD, CMS, UNFCCC)	European Union decision-makers and stakeholders

Table 1: Scale of direct and indirect capitalization of ConnectGREEN outputs



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## 4. ACTION PLAN TO IMPLEMENT COMMON FUTURE ACTIVITIES ON ECOLOGICAL CONNECTIVITY

In order to achieve the effective transferability of ConnectGREEN outputs, an Action Plan was developed to implement common future activities on ecological connectivity, including the concrete steps required to bring the outputs (Chapter 2) to the target groups – regions/ institutions/policies (Chapter 3) as described below.

### 4.1. Contribution to international discussions and policy processes

The body of knowledge built by ConnectGREEN has the potential to provide valuable input to rele-

vant international processes regarding biodiversity conservation, climate action, and other aspects of environmental protection. One clear example is the upcoming new Global Biodiversity Agreement to be approved at the UN 2020 Biodiversity Conference (the COP15 of the Convention on Biological Diversity), scheduled to take place in Kunming (China) in autumn and spring 2021/2022.

Other international processes and platforms into which learnings from ConnectGREEN can be fed include:

- » UNFCCC - United Nations Framework Convention on Climate Change,
- » EU Natura 2000 Network,
- » Bern Convention and its Emerald Network (<https://www.coe.int/en/web/bern-convention/emerald-network>),

- » European Union Strategy for the Danube Region (EUSDR),
- » Global Landscapes Forum,
- » Trans-European Network for Green Infrastructure (TEN-G),
- » IENE - Infrastructure & Ecology Network Europe,
- » CBD - Convention of Biological Diversity:
  - » Leading Sustainable Production and Consumption Working Group (WG), and
  - » Taking part in Smart cities WG, Biodiversity WG

The dissemination and advocacy activities are undertaken by ConnectGREEN partners through participation in relevant international events (see below Chapter).

## 4.2. Processes within the Carpathian Convention

The outputs of ConnectGREEN contribute directly to the work of the Biodiversity, Transport, and Water Working Groups of the Carpathian Convention. Specifically, the Action Plan on Identification, Preservation and Management of Ecological Connectivity in the Carpathians was conceived as an instrument to feed ConnectGREEN into decision-making processes of the Carpathian Convention. The Action Plan was presented to the Carpathian Convention Member States in their Meeting of the Parties in November 2020 for its adoption.

This milestone was the first step towards the transfer of the learning into national-level policies and regulations. It will contribute to the harmonization of policies and regulations across countries in the Carpathian ecoregion, allowing for concerted action for effective conservation measures and coordinated infrastructure development.

ConnectGREEN was a region-oriented project, and its outputs directly concern all countries of the Carpathian ecoregion, especially concentrating on protected areas, and their management. Hence, the generated knowledge can be transferred to and capitalized by regional organizations working in the fields of biodiversity

conservation, spatial planning, and infrastructural development, within the Carpathian Convention's umbrella or within the region independently from it, including:

- » Carpathian Network of Protected Areas:
  - » The CNPA is a body of the Carpathian Convention and at the same time an independent, non-obligatory cross-country association of protected areas from all Carpathian countries providing a platform of conversation. After 2 decades of work, it needs refreshing in order to respond to the new needs of the membership,
  - » The refreshment process is supported by the Centralparks and ConnectGREEN DTP, Interreg projects with roundtables, conferences, general assemblies.
- » Science for the Carpathians (S4C) initiative and its bi-annual conference the Forum Carpaticum:
  - » S4C connects scientists in Central Europe, defines research priorities for the region and enhances international collaboration with partners from outside the Carpathians as a body of the Carpathian Convention,
  - » Established in 2008, the Forum Carpaticum is an open meeting of the Science for the Carpathians (S4C) initiative, including a broad spectrum of scientific disciplines from both the natural and social sciences, as well as the knowledge of practitioners. The Forum Carpaticum is an attempt to integrate different fields of expertise to generate value for the Carpathian Mountain region and to provide a platform for knowledge transfer in the region.

## 4.3. Integration into regional cooperation action projects and consortia

The outputs and learning from ConnectGREEN can be capitalized by other on-going regional projects and organizations:

- » Alparc projects - <https://www.alparc.com/>,
- » BeechPower - <https://beechpower.eu/>,

- » BioRegio - <https://www.interregeurope.eu/bioregio/>,
- » Carpathian Parks - [carpathianparks.org](http://carpathianparks.org),
- » CEEweb network - [ceeweb.org](http://ceeweb.org),
- » Centralparks project - <https://www.interreg-central.eu/Content.Node/Centralparks.html>,
- » EuroLarge Carnivores - <https://www.eurolargecarnivores.eu/hu/>,
- » Green Go! Project - <https://projectgreengo.com/>,
- » MaGIC Land project - <https://magic-h2020.eu/>.

## 4.4. Integration into national policies

After the adoption of the Action Plan (and its associated knowledge products), the countries will be able to integrate this into national-level policies, strategies, and frameworks related to:

- » Natura 2000,
- » Strategic planning of Green Infrastructure development mainstreaming biodiversity and implementation of the Mitigation Hierarchy (Avoidance – Mitigation-Compensation) and Precautionary Principle in order to avoid or minimize the environmental impacts,
- » Environmental Impact Assessments (EIA),
- » Protected Area designation and management,
- » Spatial planning processes,
- » Biodiversity conservation,
- » Human-wildlife conflict,
- » Hunting.

## 4.5. Other concrete actions

Other identified, urgent, and critical actions include:

- » Free Svydovets project to protect the Protected area in Svydovets from the repercussions of a ski resort construction project.

## 4.6. Transferability steps in Carpathians neighbouring bioregions

In order to promote the ConnectGREEN outputs in the Carpathians and their neighbouring bioregions, a framework of available cooperative platforms is presented in the Table 2 for the Carpathians, Alps and Dinaric Arch-Balkans.

<b>International</b>	<b>Tool, contributor, activity</b>
Bern Convention and Emerald Network	Projects, CNPA-Alparc cooperation, Carpathian Convention (CC) - Alpine Convention cooperation Cooperation with Ukraine NGOs, within CC Tourism Working Group, SaveGREEN project and CEEweb membership
CBD – through IPBES and Eklipse projects	Taking part in Transformative change process, such as Leading the Sustainable Production and Consumption WG and taking part in: Smart cities WG, Biodiversity WG.
EU Natura 2000 Network	Through CEEweb policy work
European Union Strategy for the Danube Region (EUSDR)	Trans-European Network for Green Infrastructure (TEN-G)
IENE	IENE conference in Cluj-Napoca, Romania, 2022 IENE HU workshop 2021 (biannually)
European Regions and Cities <a href="https://europa.eu/regions-and-cities/event-series">https://europa.eu/regions-and-cities/event-series</a>	The ongoing projects and their results (so the transferability study or at least some part of it), The actual EU related policies (as the event is supposed to be an EU policy focused event), and how to transfer each other's project results and policy targets (so the transferability strategy on a bigger scale). This could be the basis for a strategy between the Alp-Carp regions or at least a formal/informal step forward as there are many connections so far.
<b>Platform, initiative, project</b>	<b>Tool, contributor, activity</b>
CC Working Groups	CC WG Biodiversity meeting, Development of documents, SAP, etc.
CNPA Conference	Session, side event
Centralparks Interreg project	CNPA round table, sharing social media information
Forum Carpaticum	CNPA round table + Regional Park Associations
Alpine Convention/Alparc	EU Regions and Cities 2020 Park Dinarides involvement into projects by EURAC research
<b>Dinaric Arc</b>	
European Regions and Cities <a href="https://europa.eu/regions-and-cities/event-series">https://europa.eu/regions-and-cities/event-series</a>	Presenting EU project progresses implemented in the region
CNPA Conference	Aiming to declare a memorandum of cooperation looking forward - this has been already begun.

Table 2. Available cooperative platforms in Carpathians, Alps, and Dinaric Arc-Balkans and for transferring the ConnectGREEN knowledge and tools.



## **ConnectGREEN DTP2-072-2.3**

**Restoring and managing ecological corridors in mountains as the green infrastructure in the Danube basin**

### **Project partners**

**Romania:** WWF Romania (Lead Partner) · National Institute for Research and Development in Constructions, Urban Planning and Sustainable Spatial Development · Piatra Craiului National Park Administration

**Austria:** WWF Central and Eastern Europe

**Czech Republic:** Nature Conservation Agency of the Czech Republic · Silva Tarouca Research Institute for Landscape and Ornamental Gardening

**Hungary:** CEEweb for Biodiversity · Hungarian University for Agriculture and Life Sciences (formerly Szent Istvan University)

**Slovakia:** Slovak Environment Agency · The State Nature Conservancy of the Slovak Republic · Slovak University of Technology in Bratislava – SPECTRA Centre of Excellence of EU

**Serbia:** Institute of Architecture and Urban & Spatial Planning of Serbia · National Park Djerdap

### **Associated Strategic Partners**

**Czech Republic:** Ministry of the Environment · Ministry of Regional Development of the Czech Republic

**Hungary:** Bükk National Park Directorate

**Romania:** Ministry of Environment of Romania

**Serbia:** Ministry of Environmental Protection of the Republic of Serbia

**Slovakia:** Ministry of Transport and Construction of the Slovak Republic

**Ukraine:** Ministry of Ecology and Natural Resource of Ukraine

**Austria:** Danubeparks – Danube River Network of Protected Areas

**France:** Alpine Network of Protected Areas – ALPARC

**Montenegro:** Parks Dinarides – Network of Protected Areas of Dinarides

### **Pilot Areas**

1. Piatra Craiului National Park – Bucegi Nature Park (Romania)

2. Apuseni-SW Carpathians (Romania) / National Park Djerdap (Serbia)

3. Western Carpathians (Czech Republic – Slovakia)

4. Bükk National Park (Hungary) / Cerová vrchovina Protected Landscape Area (Slovakia)

### **Project co-funded by the European Regional Development Funds (ERDF, IPA)**

#### **Budget**

Overall Budget: 2,603,415.83 EUR

ERDF Contribution: 2,040,010.84 EUR

IPA Contribution: 172,892.55 EUR

**[www.interreg-danube.eu/connectgreen](http://www.interreg-danube.eu/connectgreen)**