Work Package T.2 - FACILITATING STRATEGIC PROJECT DEVELOPMENT AND FINANCIAL DIALOGUE

– focused on

FACILITATING STRATEGIC PROJECT DEVELOPMENT

A TSG 3 FRAMEWORK PROJECT:

January 2023

Contents:

1 Context and motivation

This overall objective of the EUSAIR pillar 3. ENVIRONMENTAL QUALITY which is coordinated by Slovenia and Bosna and Herzegovina, is to address the issue of environmental quality, with respect to marine, coastal and terrestrial ecosystems in the Region. Environmental quality is essential for underpinning human activities in the Region and for ensuring economic and social well-being for its peoples. The pillar will deal with the environmental issues that can only be adequately tackled through cooperation at the level and scale of the macro-region [1].

The specific objectives for this pillar are:

1. To ensure a **good environmental and ecological status** of the marine and coastal environment by 2020 in line with the relevant EU acquis and the ecosystem approach of the Barcelona Convention.

2. To contribute to the goal of the **EU Biodiversity Strategy** to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, by addressing threats to marine and terrestrial biodiversity.

3. To improve waste management by reducing waste flows to the sea and, to reduce nutrient flows and other pollutants to the rivers and the sea.

Two topics are identified as pivotal in relation to environmental quality in the Adriatic-Ionian Region:

- Topic 1 - The marine environment.
- **Topic 2 - Transnational terrestrial habitats and biodiversity.**

Actions under both topics are expected to contribute to attaining a good ecological and environmental status for marine, coastal and terrestrial ecosystems by 2020.

In order to reach the pillar objectives, the Technical Steering Group of Pillar 3 (TSG-3) promotes the development of specific projects on different aspects, all focusing in the overall objective of the pillar.

The objective of this document is to identify the contents and the activities for a framework project on **Protection and enhancement of natural terrestrial habitats and ecosystems (acronym PET HAB ECO)** in the AIR.

[1] EC, (2020), COMMISSION STAFF WORKING DOCUMENT Action Plan Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning the European Union Strategy for the Adriatic and Ionian Region, {COM(2020) 132 final}, Brussels, 2.4.2020, SWD(2020) 57 final.

2 Approach to project development

The approach to project development is based on EUSAIR pillar 3. ENVIRONMENTAL QUALITY policy context, links to other pillars and cross cutting issues explained below [2].

2.1 The policy context of EUSAIR pillar 3. ENVIRONMENTAL QUALITY

EUSAIR pillar 3. ENVIRONMENTAL QUALITY strongly supports the Europe 2020 Strategy[3]:

- It contributes to **smart growth** by strengthening of technical and scientific capacities, and establishment of common platforms and innovative solutions for research, observation and monitoring;
- It contributes to **sustainable growth**, in particular to the objectives of 'A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy'. The actions under the pillar will support efficient and sustainable use of natural resources including fish stocks, materials and water, preservation of biodiversity, habitats and ecosystems, and will contribute to minimising the impact of climate change on marine and terrestrial ecosystems;
- It contributes to **inclusive growth** by promoting stakeholder involvement in exploring sustainable options, including the involvement notably of fishermen and farmers, thereby ensuring the economic and social sustainability of actions.

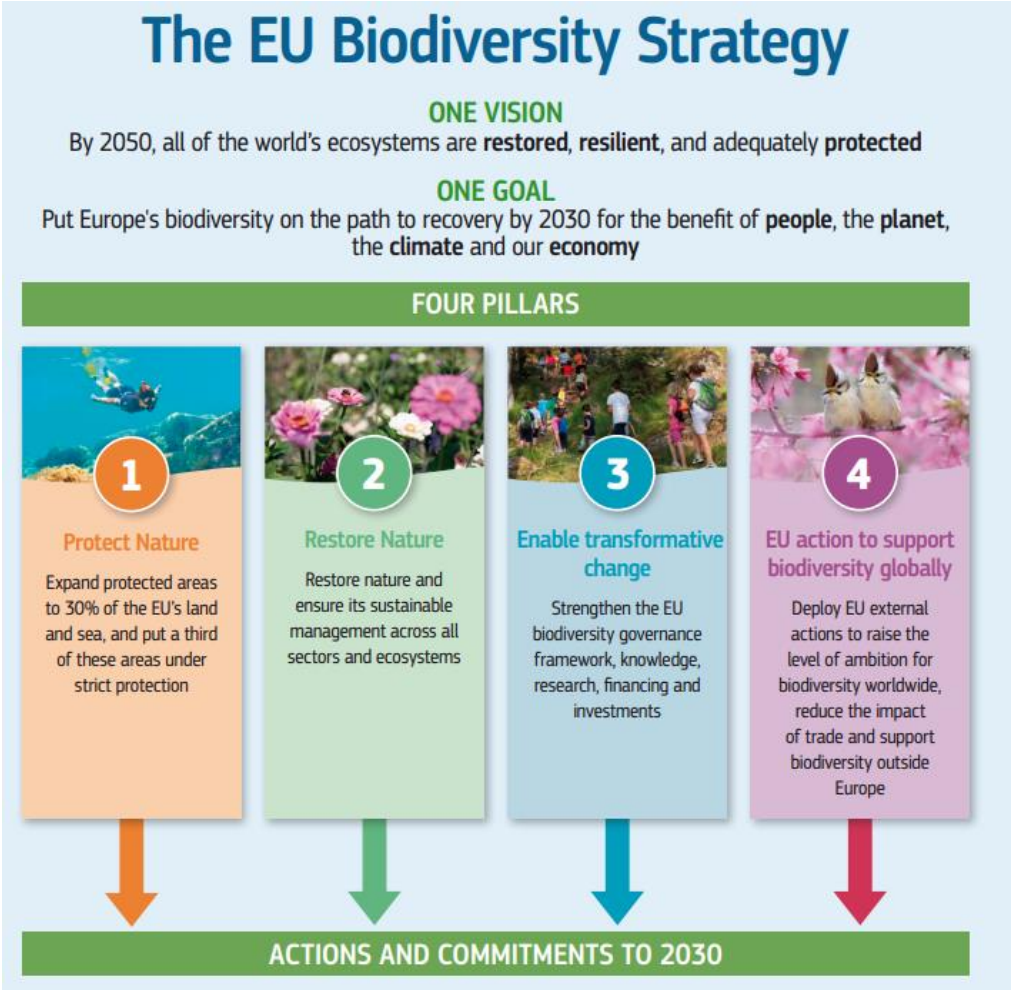
Taking appropriate actions to address environmental issues faced by the macro-region will contribute to implementing the **EU Environmental *acquis***, particularly the Marine Strategy Framework, Maritime Spatial Planning, Water Framework, Urban Wastewater, Nitrates, Waste, Birds, Habitats Directives as well the Green Infrastructure Strategy[4]. It will also contribute to

[2] EC, (2020), COMMISSION STAFF WORKING DOCUMENT Action Plan Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning the European Union Strategy for the Adriatic and Ionian Region, {COM(2020) 132 final}, Brussels, 2.4.2020, SWD(2020) 57 final.

[3] EC, (2020), COMMUNICATION FROM THE COMMISSION EUROPE 2020, A strategy for smart, sustainable and inclusive growth, COM(2010) (online) https://ec.europa.eu/eu2020/pdf/...

[4] EC, (2013), COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Green Infrastructure (GI) — Enhancing Europe's Natural Capital, Brussels, 6.5.2013, COM(2013) 249 final.

achieving the goals set out in the Common Fisheries Policy, the EU Adaptation Strategy[5] and the EU Biodiversity Strategy[6].



EU Biodiversity Strategy vision, goal and pillars. (source: EC, 2021).

The Adriatic and Ionian Region is vulnerable to disasters and to the **impact of climate change** and comprehensive actions to adapt to those circumstances are needed. Enhancing cooperation in this area, through different actions such as conducting adequate comprehensive risk assessment, implementing a disaster risk management policy, as well as developing a regional strategy on **adaptation to climate change**, will make the Region more resilient to such changes.

[5] EC, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS EMPTY, Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change, Brussels, 24.2.2021, COM(2021) 82 final (online). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN

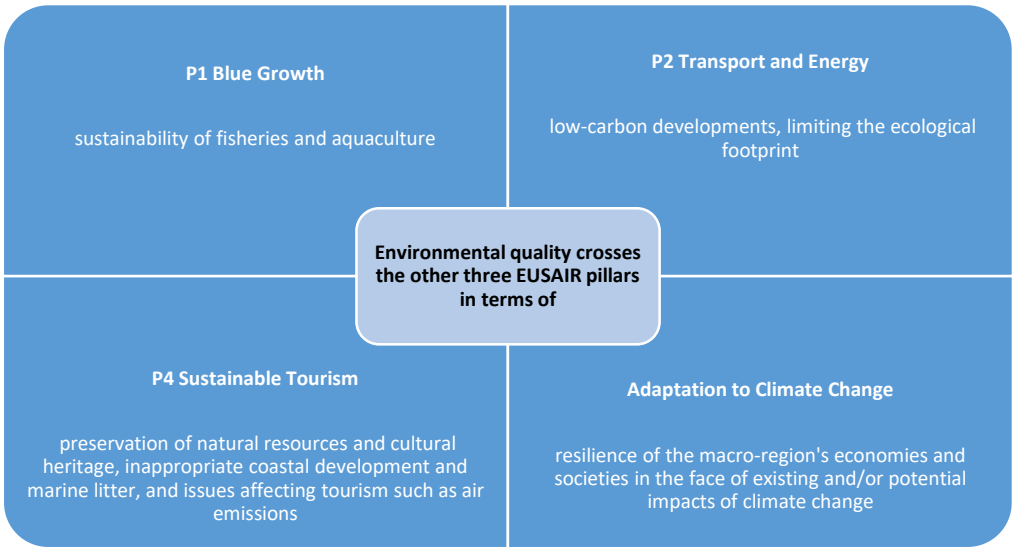
[6] EC, Directorate-General for Environment, (2021),EU biodiversity strategy for 2030 : bringing nature back into our lives, (online). https://data.europa.eu/doi/10.2779/677548

The pillar also contributes to the South East Europe 2020 Strategy[7] of the Regional Cooperation Council, in particular to the Environment Dimension of its Sustainable Growth Pillar, by addressing issues related to water quality, disaster risk reduction and climate change mitigation and adaptation.

Involvement of a wide range of stakeholders in the implementation of all actions proposed under this pillar and, more specifically, the social partners and private sector actors, as well as the scientific community and civil society, will further contribute to an integrated approach.

2.2 Links of EUSAIR Pillar 3. ENVIRONMENTAL QUALITY with other EUSAIR pillars

While being addressed as a separate pillar, this issue runs across the other three pillars of the Strategy. In line with the Strategy's emphasis on an integrated approach tying together different policy areas and sectors, this pillar is to be linked to the other three pillars on which the Strategy is built. In addition to supporting **low-carbon developments and helping limit the ecological footprint**, for example transport and energy programmes and projects, it directs attention to how environmental quality can ultimately enhance prospects for smart and inclusive growth under the three other pillars. It thus **reinforces Blue Growth**, through actions related to ensuring the sustainability of fisheries and aquaculture. It also contributes to **sustainable tourism** by ensuring preservation of natural resources and cultural heritage on which tourism depends, and by addressing issues resulting in part from tourism, such as inappropriate coastal development and marine litter, and issues affecting tourism such as air emissions (e.g. from shipping and road transport). It also contributes to **bolstering the resilience of the macro-region's economies and societies in the face of existing and/or potential impacts of climate change**.

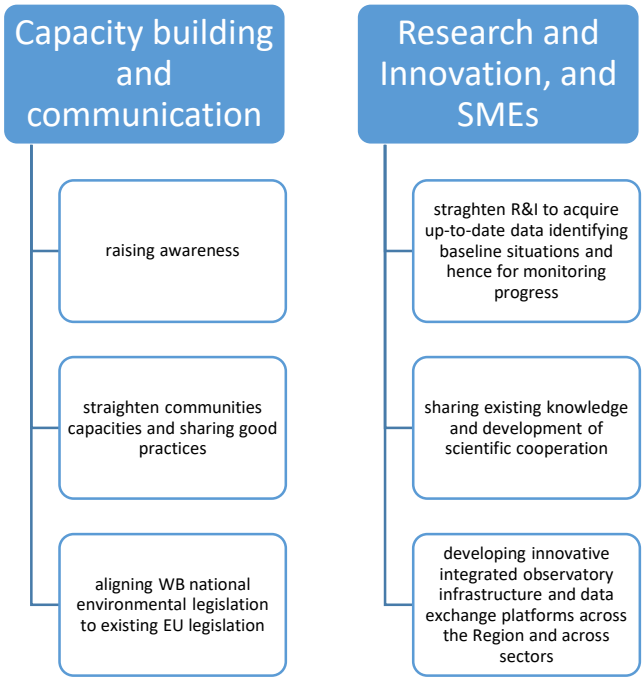


[7] RCC, (2013), SEE2020 Strategy (online). https://www.rcc.int/pages/86/south-east-europe-2020-strategy

2.3 Cross-cutting issues of EUSAIR Pillar 3. ENVIRONMENTAL QUALITY

Capacity building and communication is of paramount importance for both topics under Pillar 3. Macro-regional cooperation in the field of environment can only be successful if there are adequate legislative and institutional conditions at the national level. Moreover, after the necessary legislation has been put in place, environmental protection requires monitoring and enforcement. **Capacity building and communication can contribute to raising awareness of the issues and ownership of efforts to address them as well as to aligning national environmental legislation to existing EU legislation, thereby also improving implementation where relevant.**

Research and Innovation, and SMEs - Many of the actions listed under both topics depend on research and innovation for reliable and up-to-date data for identifying baseline situations and hence for monitoring progress. There is a clear need for sharing existing knowledge and development of scientific cooperation, notably through **innovative integrated observatory infrastructure and data exchange platforms across the Region and across sectors**.



3 PET HAB ECO framework project development in the AIR

Within the **2014-20 Adrion programme, the Pillar 3 Thematic Steering Group** has identified **four labelled projects** that have been planned and should begin to be implemented soon.

- ASOCSoP: transnational contingency plan in event of accidents at sea (i.e. oil spill)
- ICZM & MSP: sustainable development of coastal and maritime zones
- 3MPS: monitoring and management of marine protected species
- **PET HAB ECO: protection and enhancement of natural habitats and terrestrial ecosystems**

For the next **programming period 2021-27, the Pillar 3 Thematic Steering Group** has proposed three Flagships; these projects build on the EUSAIR Action Plan and on the activities implemented in the past programming frame and if the embedding process is successful, they may focus on:

- development and implementation of OIL SPILL contingency plan;
- **protection and enhancement of natural terrestrial habitats and ecosystems;**
- promotion of sustainable growth by implementing ICZM and MSP to contribute to CRF on the Barcelona convention and the monitoring and management of marine protected areas.

Pillar 3 objectives and activities have a high level of coherence with EU acquis and favour its adoption in the WB countries participating in the EUSAIR.

There are many synergies that can be observed: EPPA (EU Environment Partnership Programme for Accession), a programme financed and promoted by DG Environment, that supports the WB in developing a better understanding of the implementation of EU nature and biodiversity policies, as well as EU Biodiversity Strategy 2020, EU Strategy on Green Infrastructure and Habitat Directive directly contributed to some EUSAIR activities in 2020.

The EUSAIR may define criteria for long-term sustainability of projects that contribute to the adoption of EU directives. Moreover, the EUSAIR could promote stronger involvement of local communities and better coordination with other donors and relevant stakeholders (universities, NGOs, think tanks, etc.).

List of project mainly from EU cooperation programs and other EU nature programs connected with the thematic of PET HAB ECO:

Data has been collected from facility points contacts and online database (KEEP.EU[8], LIFE[9], Horizon Europe[10], CORDIS[11]).Facility points was involved in preparation of projects' database.

ACRONYM	PROGRAM	LINK
ADRILINK Adriatic Landscape Interpretation Network	ADRION - SECOND CALL FOR PROPOSALS - PRIORITY AXIS 2 2020-02-01 – 2022-07-31 EUR 2,409,446.70	https://adrilink.adrioninterreg.eu/
ADRIONET Adriatic-Ionian Network of Authentic Villages	ADRION - SECOND CALL FOR PROPOSALS - PRIORITY AXIS 2 2020-02-01 – 2022-07-31 EUR 1,287,950.00	https://adrionet.adrioninterreg.eu/
DINALPCONNECT Transboundary ecological connectivity of Alps and Dinaric Mountains	ADRION - SECOND CALL FOR PROPOSALS - PRIORITY AXIS 2 2020-03-01 – 2022-08-31 EUR 1,620,972.00	https://dinalpconnect.adrioninterreg.eu/
IMPRECO Common strategies and best practices to IMprove the transnational PRotection of ECOsystem integrity and services	ADRION - FIRST CALL FOR PROPOSALS- PRIORITY AXIS 2 2018-01-01 – 2020-12-31 EUR 1,254,180.50	https://impreco.adrioninterreg.eu/
PRONACUL Promotion of natural and cultural heritage to develop sustainable tourism in protected areas	ADRION - SECOND CALL FOR PROPOSALS - PRIORITY AXIS 2 2020-04-01 – 2022-09-30 EUR 1,770,348.98	https://pronacul.adrioninterreg.eu/
Carnivora Dinarica »Čezmejno sodelovanje in ekosistemske storitve za dolgoročno ohranjanje populacij velikih zveri v severnih Dinaridih«	Interreg V-A Slovenija-Hrvaška 2014-2020 The co-financing of the project is guaranteed under the program Interreg V-A Slovenia-Croatia. The project worth € 2,347,340 2018- 2021.	https://www.dinapivka.si/en/project/project-carnivora-dinarica/
NATURE&WILDLIFE "Doživetja narave in opazovanja divjih živali"	Interreg V-A Slovenija-Hrvaška 2014-2020 EUR 983 000, 00 2018-2021	https://keep.eu/projects/21160/Experiences-of-nature-and-w-EN/

[8] https://keep.eu/
[9] https://cinea.ec.europa.eu/programmes/life_en
[10] https://research-and-innovation.ec.europa.eu/projects/project-databases_en
[11] https://cordis.europa.eu/projects/en

DINARIS	2000 - 2006 Slovenia - Hungary - Croatia (SI-HU-HR) Total budget: EUR 179 515.00	https://keep.eu/projects/11166/DINARIS-EL/
NAT2CARE Spodbujanje skupnosti za ohranjanje in obnavljanje čezmejnih območij Natura 2000	Interreg V-A Slovenija-Italia 2014-2020 01.10.17 - 30.06.20 1.282.395,50€	http://new.ita-slo.eu/en/nat2care
Cross-border sustainable management of wildlife resources	Interreg 2000 - 2006 Italy - Slovenia (IT-SI) 2002-2008 Total budget: EUR 1 035 000.00	https://keep.eu/projects/10429/Cross-border-sustainable-ma-EN/
ConnectGREEN Restoring and managing ecological corridors in mountains as the green infrastructure in the Danube basin	2014 - 2020 INTERREG VB Danube 2018-06-01 / 2021-10-31 Total budget: EUR 2 603 415.83	https://keep.eu/projects/19505/Restoring-and-managing-ecol-EN/ http://www.interreg-danube.eu/
OBWIC Open Borders for Wildlife in the Carpathians	2014 - 2020 Hungary - Slovakia - Romania - Ukraine ENI CBC 2019-10-01 / 2022-03-31 Total budget: EUR 1 550 871.83	https://www.wwf.ro/ https://keep.eu/projects/23029/Open-Borders-for-Wildlife-i-EN/
3Lynx	Interreg Central Europe 7. 2017 - 30. 9. 2020 EUR 2.320.000,00	https://www.interreg-central.eu/Content.Node/3Lynx.html#Why_lynx,_why_we?
ECONNECT Restoring the web of life.	Interreg Alpine Space September 2008 - August 2011 3.198.240,00€	http://www.econnectproject.eu/cms/
ALPBIONET2030 Integrative Alpine wildlife and habitat management for the next generation	Interreg Alpine Space 2.637.285 EUR 01/11/2016-31/12/2019	https://www.alpine-space.org/projects/alpbionet2030/en/home
LIFE DINALP BEAR Population level management and conservation of brown bears in northern Dinaric Mountains and the Alps	LIFE13 NAT/SI/000550 01/07/2014 – 30/06/2019 5,987,478 €	https://dinalpbear.eu/en/
LIFE ARCTOS Brown Bear Conservation: coordinated actions for the Alpine and Apennines range	LIFE+ Nature Programme	https://pdc.mite.gov.it/en/area/temi/nature-and-biodiversity/arctos-project
LIFE WOLFALPS EU Coordinated actions to improve wolf-human coexistence at the alpine population level	LIFE18 NAT/IT/000972 01/09/2019 – 30/09/2024 11,939,693 €	https://www.lifewolfalps.eu/en/about-the-project/
LIFE Lynx	LIFE16 NAT/SI/000634 01/07/2017 – 31/03/2024	https://www.lifelynx.eu/about-the-project/

	6,829,377.00 €	
LIFE+ SloWolf Conservation and surveillance of the conservation status of the wolf (Canis lupus) population in Slovenia – SloWolf	LIFE+ Nature Programme 2010-2013	https://www.volkovi.si/?page_id=1070
LIFE Bear-Smart Corridors Enhancing the viability of Brown Bears in Central Italy and Greece through the development of coexistence corridors	LIFE20 NAT/NL/001107 01/10/2021 - 30/09/2026 Total Budget: 5,855,772 €	https://webgate.ec.europa.eu/life/publicWebsite/project/details/5785
LIFEforBgNATURA NATURA 2000 IN BULGARIA – NEW HORIZONS National awareness raising campaign on NATURA 2000 using flagship species	LIFE17 GIE/BG/000371 01/09/2018 - 31/08/2023 Total Budget: 1,510,401 €	https://webgate.ec.europa.eu/life/publicWebsite/project/details/4840 https://greenbalkans.org/
Steps for LIFE Long Distance Non Motorized routes such as Green Infrastructures	LIFE20 NAT/ES/000309 01/01/2022 - 31/12/2026 Total Budget: 3,472,215 €	https://webgate.ec.europa.eu/life/publicWebsite/project/details/5729
LIFE ARCPROM Improving human-bear coexistence in 4 National Parks of South Europe	LIFE18 NAT/GR/000768 01/10/2019 - 30/09/2024 Total Budget: 2,786,497 €	https://webgate.ec.europa.eu/life/publicWebsite/project/details/5150
LIFE SAFE-CROSSING Preventing Animal-Vehicle Collisions – Demonstration of Best Practices targeting priority species in SE Europe	LIFE17 NAT/IT/000464 01/09/2018 - 31/08/2023 Total Budget: 4,224,070 €	https://webgate.ec.europa.eu/life/publicWebsite/project/details/4979 https://life.safe-crossing.eu/
LYNXONTHEMOVE Modelling and computer simulations of post-release movements of European Lynx species to improve decision-making and success of conservation translocations	Grant agreement ID: 101068428 Marie Skłodowska-Curie Actions (MSCA) 2022-2024	https://cordis.europa.eu/project/id/101068428

BIOGEAST Biodiversity of East-European and Siberian large mammals on the level of genetic variation of populations	Grant agreement ID: 247652 FP7-PEOPLE 2011-2016 Total Budget: € 163 800	https://cordis.europa.eu/project/id/247652
COMBINE2PROTECT Common plans for biodiversity conservation and sustainable targets for the development of a bilateral network of protected areas	INTERREG IPA CBC Greek – Rep N Macedonia 2018-2021 1.269.000,10 €	https://southeast.mk/en/portfolio/combine2protect/

Project development milestones:

- *Presentation of the TGS 3 project concept development - at Governing Board and Pillar Coordination meeting (19-21.2.2019)*
- *Presentation of project concept idea at the media event at the end of the European media project RTV Slovenia - SI national television, with the title: "Macro Regions Here and Now" - "Good Practices for the Macro Regions« (13-14.3.2019)*
- *Presentation of the project idea as TSG 3 at the COHENET CONFERENCE26.3.2019:*
- *4th EUSAIR Forum, Budva, MSP as topic of the plenary session – presentation of topics that are important for the project concept idea. (6-7.5.2019)*
- *TSG 3 workshop: How to progress from TSG 3 priorities towards EUSAIR macro-regional projects, in Izola, Slovenia (19-20.9.2019)*
- *Presentation of the project concept at the Adriatic- Ionian Initiative Roundtable on "Development of joint management plans for cross border habitats and ecosystems with particular reference to the large carnivores" in Belgrade (17.12.2019).*

Presentation of PET HAB ECO framework project at relevant events for the project development (e.g. conferences, workshops with potential beneficiaries):

The contractor has participated to two conferences/workshops with potential beneficiaries where PET HAB ECO proposal has been presented:

- *DINALPCONNECT Conference on Ecological Connectivity, 6 – 7 June 2022 – Velenje, Slovenia and online (hybrid event): PET HAB ECO proposal has been presented during the poster section and the abstract »Protection and enhancement of natural terrestrial habitats and ecosystems to improve the resilience of large carnivores' populations at transnational level" is published in the book of abstracts.*
  Conference web page: http://dacconference.si/
  Conference program: http://dacconference.si/schedule/
  Conference book of abstracts: http://dacconference.si/wp-content/uploads/2022/06/zbornik_dinalp_A4_22_screen_jun.pdf

- *EUSAIR Conference "Promoting Eco-Connectivity in the Adriatic and Ionian macro-region'', organised as a side event within the Green Montenegro International Film Festival (GMIFF), on 5 August 2022 in Žabljak, Montenegro (oral presentation).*
- *Online meetings have been organized with researchers during the preparation of the proposal. The completed proposal has been sent by email to relevant experts and the reference facility point for the review. Received comments from experts and facility point have been integrated in the proposal before last submission.*

Organisation of Workshops with relevant stakeholders and potential beneficiaries:

The Workshop with relevant stakeholders was been organized in accordance with the contracting authority during the Mediterranean Coast and Macro-Regional Strategies Week 2022 19 - 23. September 2022 - Izola, Slovenia.
Workshop agenda on 22 September 2022 included:

- *Presentation of the flagship proposal PET HAB ECO – Protection and enhancement of natural terrestrial habitats and ecosystems performed by Duško Ćirović, University of Belgrade, Faculty of Biology, Serbia,*
- *Discussion with participants regarding the PET HAB ECO proposal.*
- *Workshop: Towards the implementation of PET HAB ECO project WORKSHOP – guided by external support to EUSAIR Facility Point office of Izola Scope of the workshop:*

Conclusions and final remarks from the Workshop have been listed below:

- *Clarification of the aim of the monitoring and collecting data.*
- *Integration the project in Interreg Euro-MED community.*
- *Collecting data about past project also thought national contact points.*

All final remarks and recommendations have been included in the proposal before the final submission.

Identification of possible open calls:

In accordance with the contracting authority, **Interreg EURO MED and ADRION open calls** has been identified for a possible application of **PET HAB ECO framework proposal based projects**.

Interreg Euro-MED European Territorial Cooperation Programme 2021/2027[12] aims to make the Mediterranean region smarter and greener and improve the governance between its stakeholders. It provides funds for projects developed and managed by public administrations, universities, private and civil society organisations. On the north shore of the Mediterranean Sea, the Interreg Euro-MED Programme covers a vast territory stretching from the Portuguese regions on the Atlantic coast to Cyprus at the eastern edge of the Mediterranean passing through the Balkans. The Interreg Euro-MED Programme 21/27 covers 69 regions, among which 65 regions (NUTS 2) of 10 EU countries (Bulgaria, Cyprus, Croatia, France, Greece, Italy, Malta, Portugal, Slovenia and Spain) plus 4 IPA candidate countries (Albania, Bosnia and Herzegovina, Montenegro and North Macedonia). The eligible geographic area extends around 25% of the area of the European Union and represents more than 140 million people (all partner countries included). The territory has extremely diverse natural, physical, and geographic

[12] https://interreg-euro-med.eu/wp-content/uploads/documents/published/en/programme-documents/programme-documents/interreg_euro-med_programme_approved_en.pdf

characteristics. It enjoys a maritime coastline of more than 15 000 kilometres and fertile arable plains, which were the cradle of Mediterranean agriculture, with its vine growing and olive and citrus fruit plantations. It also has high mountain ranges such as the Alps, the Balkans, the Pindos and the Pyrenees. Another characteristic of the Programme area is the important presence of islands, including two member states (Cyprus and Malta) and river basins like the Ebro (Spain), Rhône (France), Po (Italy) and Danube (Bulgaria). The Mediterranean region is also rich in terms of terrestrial biodiversity with 25,000 species of plants, 290 species of trees and shrubs of which nearly 70% are endemic, and 220 species of mammals. As for the Mediterranean Sea, it harbours a tremendous diversity of marine organisms, many of which are endemic to the region. It is estimated that the Mediterranean contains 8–9% of all the world's marine creatures. The main goal of Interreg Euro-MED Programme 21/27 consists in contributing to the transition towards a climate-neutral and resilient society: fighting against global changes impact on Mediterranean resources, while ensuring a sustainable growth and the well-being of its citizens. By pursuing this goal, the Programme intends to reinforce the role of the environment as a catalyst for the improvement of the quality of human life and sustainable growth. The Programme has opted for a strategic approach around 4 operational missions that contribute to reach the overall goal. In particular, Interreg Euro-MED MISSION 2: PROTECTING, RESTORING AND VALORISING THE NATURAL ENVIRONMENT AND HERITAGE aimed to preservation and restoration of ecosystems and biodiversity as essential for human life. Nature contributes to a healthier and resilient society. The preservation of ecosystems allows to mitigate natural disaster, diseases, boost resilience and regulate climate, thus reducing risks to human societies. The main direct driver of biodiversity loss is the change in land and sea use that impacts terrestrial and freshwater ecosystems. Other main two drivers that contribute to the degradation of natural ecosystems are the over-exploitation of natural resources and climate change. This mission has as a main aim to meet the environmental objectives planned by EU and included in the EU Green Deal but also well detailed in the EU Communication on Sustainable Blue Economy and in the EU Biodiversity Strategy for 2030, the Barcelona Convention and the Convention on Biological Diversity (CBD) Along with the other two missions, it intends to further contribute to the promotion of an environmentally healthier and economically more viable model for society by means of the protection, restoration and valorisation of both the natural and cultural heritage. Mission 2 is therefore in accordance with PET HAB ECO overall goals and identified policies.

Calendar of EURO MED open calls in the period 2022-2027:

Calls	Typology of call	Priorities	Indicative budget	Opening on	Closing on
1st call: Governance Projects	Open	ISO 1	36 M€	24 February 2022	1 June 2022
2nd call: Thematic Projects	Open	PO1/PO 2	86 M€	27 June 2022	27 October 2022
3rd call: Governance Projects	Open	ISO 1	17 M€	29 September 2022	3 November 2022

4th call: Thematic Projects (Strategic Territorial Projects only)	Open	PO1/PO 2	28 M€	1st Semester 2024	1st Semester 2024
5th call: Thematic Projects	Open	PO1/PO 2	64 M€	2nd Semester 2024	2nd Semester 2024
6th call: Thematic Projects (Test projects)	Restricted	PO1/PO 2	27 M€	2nd Semester 2025	2nd Semester 2025
7th call: Thematic Projects (Transfer projects)	Restricted	PO1/PO 2	17 M€	1st Semester 2026	1st Semester 2026
8th call: Thematic Projects (Transfer projects)	Restricted	PO1/PO 2	13 M€	2nd Semester 2027	2nd Semester 2027

* The above calendar may be revised and is subject to the approval of the Monitoring Committee.

The **Interreg IPA ADRION Programme (2021-2027)**[13] has been approved on 30th November 2022. The Adriatic-Ionian area covered by the (Interreg VI-B) IPA Adriatic-Ionian programme (hereinafter: IPA ADRION) involves four European Union Member States - Croatia, Greece, Italy (Friuli Venezia Giulia, Veneto, Lombardy, the two autonomous provinces of Trento and Bolzano, Emilia-Romagna, Marche, Umbria, Abruzzo, Molise, Puglia, Basilicata, Calabria and Sicilia) and Slovenia, five IPA III beneficiaries - Albania, Bosnia and Herzegovina Montenegro, North Macedonia, and Serbia, and a third country, San Marino (hereinafter: participating countries). The programme area is inhabited by over 70 million people. In 2014 the Adriatic-Ionian partner countries adopted a common strategy, the EU Strategy for the Adriatic-Ionian Region (EUSAIR), recently extended to North Macedonia and San Marino; as a consequence of that, the IPA ADRION perimeter has been aligned accordingly. The environmental variety that includes a mix of continental, Alpine and Mediterranean habitats offers a unique biodiversity in Europe. This is also paralleled by the presence of a rich historical and cultural heritage, as confirmed by the large number of UNESCO sites, thus the legacy of material and immaterial or intangible cultural heritage. The Adriatic-Ionian area is threatened by the progressive degradation of its natural habitats due to human economic activities, the impacts of climate change and the scarce coordination with safeguard and preservation initiatives to face shared challenges. In particular, the rapidly developing mass and seasonal tourism industry contributes to generate negative consequences, mostly in relation to the overexploitation of natural resources, the endangerment of important ecological areas, as well as the pressure on cultural and natural heritage, existing infrastructure networks and services. Throughout the years, the area has showed a dynamic and interconnected economy, cooperating

[13] https://www.adrioninterreg.eu/wp-content/uploads/2022/07/sfc2021-PRG-2021TC16IPTN001-1.0-2.pdf

and trading among themselves thanks to existing long-lasting complementarities and synergies. Moreover, the Adriatic and Ionian Seas have often represented one of the main drivers for commercial relations and growth by being a vector for trade and cultural exchange.

FRAMEWORK OF INTERREG IPA ADRION 2021-2017:

ADRION Policy and Specific Objectives:

- **A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity (PO 1)**
  - ✓ Developing and enhancing research and innovation capacities and the uptake of advanced technologies
  - ✓ Developing skills for smart specialisation, industrial transition and entrepreneurship
- **A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, risk prevention and management, and sustainable urban mobility (PO 2)**
  - ✓ Promoting climate change adaptation and disaster risk prevention, and resilience, taking into account eco-system based approaches
  - ✓ Promoting the transition to a circular and resource efficient economy
  - ✓ Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution
  - ✓ Promoting sustainable multimodal urban mobility, as part of transition to a net zero carbon economy
- **A more connected Europe by enhancing mobility (PO 3)**
  - ✓ Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility
- **Better cooperation governance**

Specific objective RSO 2.7 (Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution) is in accordance with **PET HAB ECO overall goals and identified policies**.

Specific objective RSO 2.7 description: *"The biodiversity in the Adriatic-Ionian area is undoubtedly one of its greatest economic resources with much potential: participating countries count on its related generated GDP. Nonetheless, biodiversity is seriously at risk, to the point of no-return, due to extensive agriculture practices threatening the safeguard of traditional production, and seasonal mass tourism, further exacerbated by the consequences of climate change. According to the EU biodiversity strategy, the moral, economic and environmental imperatives have not yet been asserted clearly enough to prevent the state of crisis nature is facing today: the five main drivers of biodiversity loss: changes in land and sea use, overexploitation, climate change, pollution, and invasive alien species – are killing the ecosystems and rapidly making the natural world disappear. Soil degradation is a cause of*

alarm, as it is an essential ecosystem related to food production, energy, raw materials, carbon sequestration, water purification, and nutrient regulation. The protection and preservation of nature requires innovative solutions to enhance the safeguard of terrestrial and marine wildlife: for ex. regarding the former, large carnivores (on top of the food chain), pollinating insects (whose disappearance threatens natural trophic chains and food supply), and migratory birds (whose temporary stop-over in the Adriatic-Ionian area must be supported also outside the Adriatic-Ionian Natura2000 sites and the natural protected areas in IPA III beneficiaries and third countries). Measures such as the setting up of ecological corridors to prevent genetic isolation, allowing the migration of species, maintaining and enhancing healthy ecosystems besides the promotion of more investments in green and blue infrastructure would certainly help. Similarly, marine environments are subject to the overexploitation of key species like common sole, deep-water shrimp and red mullet; the rising of sea temperatures and the presence of alien species exert pressure on demersal and small pelagic species. Marine pollution, in particular plastic, marine microplastic and litter, affects not only the environment, but also the economy (tourist and food reputation of the area, local communities who depend on these sectors for their livelihoods), and, more in general, people's health by entering in the food chain (WWF). Uncontrolled conventional tourism poses potential threats to several natural elements, whose consequences affect not only the ecosystems (e.g.: soil erosion, air pollution, reduction of water resources, increase of solid waste and littering, sewage release into the sea), but also landscapes and natural habitats."

Proposed indicative actions (non-exhaustive list) of RSO 2.7:

- *Define and implement policy frameworks, strategies and related implementation to protect and enhance natural terrestrial and sea habitats, including protected areas and areas under Habitat and Birds Directives*
- ***Test solutions to protect and restore flora and fauna** (with particular attention to algae/poseidonia oceanica, **large carnivores**, pollinating insects, migrators, fishes), also envisaging the use of blue and green infrastructure.*
- *Identify and transfer good practices and innovative solutions addressing the presence of alien marine species and the preservation of native flora and fauna in terrestrial environments.*
- *Collect compelling information and use it to develop advocacy material to strengthen synergies and increase preparedness among local/regional/national policy makers and administrators to set in place actions aimed at improving policy frameworks, governance and management schemes of existing or underway marine/natural protected areas.*
- *Define of action plans to reinforce the implementation of existing/new Integrated Coastal Zone Management, Maritime Spatial Planning and the MSFD (EU Marine Strategy Framework Directive) as well as the implementation of the UN Barcelona Convention, in particular with regard to the management and monitoring of marine protected areas.*
- *Exchange of good practices and testing of solutions for sustainable tourism through participatory approaches and multi-level governance.*

- *Define and implement legally binding agreements with key actors to reduce plastic discharge into the sea.*
- *Identify and test joint action to ensure sustainable food and traditional agricultural products (e.g.: old seeds safeguard, traditional animal breeding etc.) to support the zero-km food chain, food safety and quality.*
- *Contribute to the generation of positive impacts on the Adriatic-Ionian population's health through the identification of good practices and the implementation of pilot actions aimed at reducing air, water and soil pollution.*
- *Define joint actions to enhance soil and water preservation by ensuring data collection and their public availability (e.g.: feeding EU networks like Data Network - EMODnet, agriculture data space).*
- *In the framework of Maritime Spatial Planning, develop and implement joint strategies on Adriatic and Ionian seas to safeguard biodiversity also taking into account the conflicting sea exploitation: tourism, commercial and recreational shipping, aquaculture plants, settlements of offshore wind parks, oil and gas extraction etc.*

Expected results of RSO 2.7:

Through the support of strategies, action plans and testing solutions, IPA ADRION will contribute to set the frame for shared transnational and macro-regional actions by repositioning protection and preservation of nature in its central role. Granted outcomes will also act as leverage for potential further actions at cross-border and national/regional/local level.

INTERREG IPA ADRION 2021-2017 calls calendar for the period 2022-2027 will be published on https://www.adrioninterreg.eu/. At the moment there are no open Calls.

4 The framework project

The framework project is expected to engage more than 10 participant partners (PP) from the member countries of EUSAIR including EU Member States and non-EU countries. In the case of the cross-border projects, 4-5 partners from 2-3 countries are expected. Expected duration for the framework project is 30 months. The project should involve the following typology of partners with responsibility PET HAB ECO: national, regional and local authorities, private and public research institutions, environmental non-governmental organizations (NGOs), enterprises including SMEs, HE institution.

The project is described in the following pages according to the expected contents of the ADRION program application form. Some of the contents requested in the application are omitted, due to the lack of information at present (e.g. information regarding the partners of the project).

Project summary

PROTECTION AND ENHANCEMENT OF NATURAL TERRESTRIAL HABITATS AND ECOSYSTEMS [1]

The flagship PET HAB ECO will try to establish protection and enhancement of natural terrestrial habitats and ecosystems, with particular attention to the ecological connectivity of blue and green corridors/infrastructure. Connecting all EUSAIR countries protected areas including Natura 2000 areas and other networks with tourism will have strong impact on the AI region with their joint managements and research.

The flagship overall objective is to improve the resilience of large carnivores' populations at transnational level in a territory characterized by human dominated or fragmented ecosystems in the face of environmental threats and risks, also caused by climate change impacts. The activities to be undertaken are primarily related to conservation and restoration of large carnivore populations, transboundary large carnivore management synchronization, public awareness activities to bring these unique species to the public's attention, restoration of ecosystems in which they play a key role and protect the delicate habitats. Target species are ecosystems' keystone species; hence other biodiversity components will also benefit from their conservation. Main expected results are (i) creation of a database of large carnivores' populations and their habitats, (ii) jointly developed guidelines and regional action plan for management, monitoring and protection of large carnivores which will lead to improved conservation status of populations and habitats.

The flagship aims to implement activities for establishing and developing Green corridors, which are essential in the AI region for improving quality of life and protecting large carnivores' natural terrestrial habitats and ecosystems for a more harmonised coexistence with humans.

4.1 Project relevance

4.1.1 Territorial challenge

Several countries of the macro-region are home to shared eco-regions[14] stretching across borders. These eco-regions include the Illyrian deciduous forests, and the Dinaric Mountains and the Pannonian mixed forests. The Region also contains a number of unique ecosystems, including karstic regions and tectonic lakes. The area has a relative high degree of forest coverage (although percentages vary among various sources due to different methodologies used), which is however under threat. The preservation of these is essential to Europe's natural heritage and requires joint action from the countries concerned. Agriculture is an important landscape determining factor, thus affecting biodiversity and attractiveness of the area.

Furthermore, AIR is characterised by a great variety of terrestrial and aquatic habitats and species. The diverse topography and the climatic variation have led to a remarkable evolutionary radiation. More than 25.000 species are to be found, the half of which is considered to be endemic, making the area a "Global Biodiversity Hotspot".

The Council of Europe's 1979 Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)[15], a binding international legal instrument in the field of nature conservation, and the European Union (EU) 1992 Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive)[16] posed bases for the conservation of large carnivores in the AIR as Balkan lynx (*Lynx lynx balcanicus*), brown bear (*Ursus arctos*) and wolf (*Canis lupus*). The *Vision for the Bern Convention for the period to 2030 "Healthy nature for healthy people"*[17] and the accompanying *Strategic Plan for the Convention for the period to 2030*[18] sets out the more detailed objectives that support this vision:

- Goal 1: The area, **connectivity, integrity and resilience** of natural and semi-natural ecosystems is increased, including through protected areas and other effective area-based conservation measures covering at least 30% of the land and of the sea areas.
- Goal 2: The **conservation status of threatened species is improved**, the abundance of native species has increased, and human-induced extinctions have been halted.

[14] According to the definition of eco-regions used by WWF, these are land or water areas that contain a geographically distinct assemblage of natural communities which (1) share a large majority of their species and ecological dynamics, (2) have similar environmental conditions, and (3) interact ecologically in ways that are critical for their long-term persistence.

[15] Convention on the Conservation of European Wildlife and Natural Habitats (adopted 19 September 1979; entered into force 1 November 1983) ETS 104.

[16] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1979] OJ L206/7.

[17] https://rm.coe.int/tpvs14e-2021-draft-vision/1680a43ffa

[18] https://rm.coe.int/inf50e-2021-draft-strategic-plan/1680a4402b

- Goal 3: The contributions of wild flora and fauna and their natural habitats to a safe, clean, healthy and sustainable environment are **valued**, **maintained and enhanced**.
- **Goal 4: Sufficient resources** are available and are used efficiently to achieve all goals and targets in the Plan.

Furthermore, in 2012 the Directorate General for the Environment of the European Commission (DG ENV) launched an initiative for the conservation and sustainable management of large carnivore species, based on dialogue with, and involvement of, relevant stakeholders, with a view to ensuring their commitment to the long-term conservation of large carnivores in coexistence with humans in Europe [19]. The key goal of the renewed effort by the Commission is to engage all stakeholders in finding solutions that are beneficial for large carnivore conservation whilst ensuring coexistence with human populations. The work needs to be taken forward, with demonstrating actions and active and intense communication.

The EMERALD and subsequent NATURA networks are an important first step in the effort to comply to EU and international obligations related to the protection of biological diversity, genetic resources, species, and ecosystems.

EUSAIR Action Plan highlighted the enhancement of NATURA 2000 and Emerald networks in the Region as key target.

However, their level of implementation is not satisfying lacking effective management capacities. Additionally, human impact due to pollution, land uses, leisure activities etc. is growing. Macro-regional cooperation in AIR needs to focus on the protection and preservation of terrestrial ecosystems, in particular transnational habitats and landscape elements of central importance for large carnivores. **AIR is a very diverse territory in terms of geographical, environmental and socio-economic factors and there are no solutions that work in all contexts. It is therefore necessary to identify the range of potential solutions and then pick the combination of measures which work best in different local contexts.**

Climate change is expected to affect much of the AIR more severely than elsewhere in the EU, especially natural habitats and biodiversity. The risks of climate change to biodiversity can be reduced by bolstering the general resilience of ecosystems, thereby increasing their ability to adapt to its effects. Joint action in shared eco-regions (mainly forest areas) to better withstand and contain catastrophes (e.g. forest fires) can also be the focus of such cooperation.

The Intergovernmental Panel on Climate Change (IPCC) has recently published its latest report on the impacts, adaptation and vulnerabilities related to climate change[20] where is highlighted that climate change induced by humanity is already impacting nature and people more intensely, more frequently and over a wider geographical area than previously thought. Furthermore, the

[19] https://ec.europa.eu/environment/nature/conservation/species/carnivores/index_en.htm

[20] IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.

degradation and destruction of ecosystems harms our ability to adapt to climate change. Climate change has altered marine, terrestrial and freshwater ecosystems all around the world. Biological responses including changes in physiology, growth, abundances, geographic placement and shifting seasonal timing are often not sufficient to cope with recent climate change. Local species losses, increases in disease, mass mortality events of plants and animals are already caused by climate change, as well resulting in the first climate driven extinctions, ecosystem restructuring, increases in areas burned by wildfire, and declines in key ecosystem services.

4.2 Project approach

Large carnivores (bears, wolves, lynxes) are among the most challenging group of species to reintegrate back into the European landscape. After centuries of persecution, they are now recovering across many areas of Europe due to favourable legislation and conservation efforts, although still some small populations remain critically endangered. Accordingly, a wide range of conflicts have reappeared and intensified, including the economically costly depredation on livestock, pets, damages on bee haves, crops and orchards. Hunters perceive carnivores as competitors for shared prey species and in some events, predation can sustainably influence traditional game harvests. There are also a wide range of other social clashes where carnivores become symbols for conflicts associated with urban-rural and traditional-modern interfaces. In some exceptional cases, large carnivores (mainly bears) can pose risk to human safety, and fear of both bears and wolves is often expressed by rural residents. These conflicts can escalate to very high levels and can dominate political discourses in some countries[21].

In many cases reintegrating large carnivores requires a number of adjustments to the practices of many sectors, including agriculture, tourism, forestry, hunting, spatial planning, transport sector as well as dealing with the general concerns of many rural residents. There is a real need for the regional authorities to make the right adjustments, using measures that have been proven to work. Many measures may be highly controversial and/or expensive, so it is crucial that their adoption can be justified and that as much experience can be transferred between areas to minimize the need "to reinvent the wheel" in different areas. Knowledge and good management practices transfer will be in particular relevant into the direction from EU Partner States to Non-EU Partner States, but also in the opposite direction.

From across Europe there is a wide range of experience from many different circumstances and situations. This experience ranges from knowledge of traditional animal husbandry and hunting practices, to the latest in contemporary and innovative research, climate changes mitigation and adaptation measures, and in large part stems from projects applied locally and co-funded by the

[21] Boitani, L., et al. (2015). Key actions for Large Carnivore populations in Europe. Institute of Applied Ecology (Rome, Italy). Report to DG Environment, European Commission, Bruxelles. Contract no. 07.0307/2013/654446/SER/B3 (online)
https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf...

European Commission under the LIFE, Interreg and ADRION programmes. WB Non-EU Partner States will benefit from the capitalization of these project results and experiences, knowledge transfers, harmonization of policy frameworks and monitoring protocols. However, two-way flow on information (e.g. EU providing contemporary research and new monitoring methodologies, the other side traditional knowledge on the coexistence, prevention of damage, which was lost in the West along with large carnivores) will be encouraged by co-creation of common LC management strategies, action plans and networks.

PET HAB ECO will try to establish protection and enhancement of natural terrestrial habitats and ecosystems important for LC population conservation, with particular attention to the ecological connectivity of blue and green corridors/infrastructure, to improve the resilience of large carnivores' populations at transnational level. The long-term strategic aim of PET HAB ECO is also the enhancement and complement of transnational networks and working groups for increasing capacity and coordination in the fields of biodiversity protection e.g. in connection to the NATURA 2000 and EMERALD networks, development of a common monitoring and assessment reference framework. Prevent habitat fragmentation and ensure ecological connectivity are going to be ensured by identification of a) patches of suitable habitats including core areas and stepping stones for large carnivores, within and between protected areas, Natura 2000 and Emerald networks b) key ecological corridors including wildlife/movement/migration corridors between them, and c) critical areas in terms of barrier permeability.

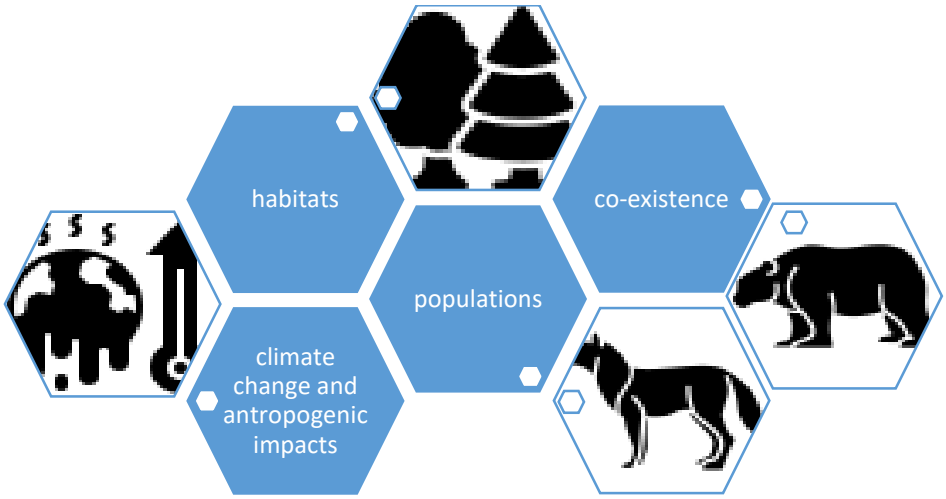
Because the framework project area is highly diverse in terms of (1) habitat conditions, (2) social environment, (3) quality of data on target species, (4) stage of development of LC conservation research and legislation and its implementation, a mosaic of different local approaches should be highlighted and combined into an integrated and common vision. The most important current threats are changes among species and populations in the area. Key threats include: habitat loss due to infrastructure development, disturbance, low acceptance by some segments of the rural population, low capacity of management facilities or poor governance structures, intrinsic bioecological factors (such as low population size), accidental mortality, illegal persecution[15].

Furthermore, large carnivores and large herbivores are particularly vulnerable to the effects of fences, walls, and other barriers that proliferate along international borders around the world. In addition to impacting humans, these barriers can have unintended but important consequences for wildlife, including limiting migration and other movements, fragmenting populations, and causing direct mortality, such as entanglement [22].

In addition, many large carnivores face a wide range (and combination) of challenging scenarios as a direct or indirect result of climate change. These include habitat reduction and destruction, range shifts, both upslope and poleward, reduced availability of key resources as water becomes

[22] Trouwborst, A., Fleurke, F. and Dubrulle, J. (2016), Border Fences and their Impacts on Large Carnivores, Large Herbivores and Biodiversity: An International Wildlife Law Perspective. RECIEL, 25: 291-306. https://doi.org/10.1111/reel.12169

scarcer and prey populations suffer extreme weather, disease, or other climate-related impacts, and increased human-wildlife conflict as large carnivores progressively range beyond protected areas or as climate change makes their ranges more suitable for livestock. The scientific literature recommends a range of adaptation measures to help wildlife adapt to climate change[23]. For example, one of the recent studies stated that brown bears in temperate forested habitats mostly forage on plants and it may be expected that climate change will affect the viability of the endangered populations of southern Europe. Simulations done during the study suggest that the geographic range of these plants might be altered under future climate warming, with most bear resources reducing their range. As a consequence, this brown bear population is expected to decline drastically in the next 50 years. Range shifts of brown bear are also expected to displace individuals from mountainous areas towards more humanized ones, where we can expect an increase in conflicts and bear mortality rates. Additional negative effects might include: (a) a tendency to a more carnivorous diet, which would increase conflicts with cattle farmers; (b) limited fat storage before hibernation due to the reduction of oak forests; (c) increased intraspecific competition with other acorn consumers, that is, wild ungulates and free-ranging livestock; and (d) larger displacements between seasons to find main trophic resources. The magnitude of the changes projected by models emphasizes that conservation practices focused only on bears may not be appropriate and thus we need more dynamic conservation planning aimed at reducing the impact of climate change in forested landscapes. [24] [25]



[23] Trouwborst, A.and Blackmore, A. (2020) Hot Dogs, Hungry Bears, and Wolves Running Out of Mountain—International Wildlife Law and the Effects of Climate Change on Large Carnivores, Journal of International Wildlife Law & Policy, 23:3, 212-238, DOI:10.1080/13880292.2020.1852671

[24] Martínez Cano, I., Taboada, F.G., Naves, J., Fernández-Gil, A., Wiegand, T. (2016). Decline and recovery of a large carnivore: environmental change and long-term trends in an endangered brown bear population, Proc. R. Soc., http://doi.org/10.1098/rspb.2016.1832

[25] Penteriani, V., Zarzo-Arias, A., Novo-Fernández, A., Bombieri, G., López-Sánchez, C.A. (2019). Responses of an endangered brown bear population to climate change based on predictable food resource and shelter alterations. Global Change Biology. Mar;25(3):1133-1151. DOI: 10.1111/gcb.14564. PMID: 30609226.

PET HAB ECO promotes recognition of the variability of these threats and seeks to deal with them through a mosaic of integrated solutions based on an ecosystem approach. In the implementation phase, specific threats are targeted.

The co-existence between LC and humans will continuously provide new challenges, since long-term process of LC reintegration into the landscape is a key aspect of ecosystem regeneration and resilience. EU Platform on Coexistence between People & Large Carnivores[26] is an example of network providing information on good practice on coexistence with large carnivore, focused on exchange of information on the different practices occurring across the EU so that we can learn from one another. In the same spirit, PET HAB ECO will throughout the AI region promote cooperation, co-creation and knowledge exchanging in an open-ended, constructive and mutually respectful way on LC reintegration and protection, GI connectivity and co-existence between LC and humans. PET HAB ECO approach will be based on state-of-the-art and good practices analyses, bottom-up and top-down initiatives will be cross check and integrated in the implementation phase of the framework project.

A key aspect of PET HAB ECO is in particular the ecosystem approach to these flagship species, since carnivores have great ecological value that has been often neglected throughout the 20th Century carnivore management strategies. Carnivores are crucial in regulating and maintaining ecosystems. Furthermore, the system of top-down ecosystem regulation supports the paradigm that large carnivores impact stability and resilience of the entire ecosystem[27]. Therefore, LC conservation is a relevant aspect that should be considered when interventions are planned for the enhancement of ecosystem services provision or improve the quality, accessibility and quantity of green infrastructure. Large carnivores in particular are often keystone species, meaning that they play a disproportionately greater role in the ecological stability of their ecosystem than you would expect based on their numbers. Through hunting, carnivores maintain herbivore populations at a healthy level, preventing an overabundance of herbivores and thereby protecting vegetation from being too heavily grazed or browsed. That in turn protects other plant and animal species that depend on a healthy vegetation assemblage for food or shelter. This implies strong interactions among the three general trophic levels: producers (plants), herbivores, and carnivores. Carnivores play an important role in regulating interactions, and predation can cause indirect impacts that ripple downward through a system affecting flora and fauna that seem ecologically distant from the carnivore.

Moreover, the large carnivores, like bears, wolfs and lynx, need vast areas with limited human impacts to sustain their natural populations. They are very sensitive to disturbance and habitats fragmentation. Being on the top of food chain, they are also sensitive to available prey and the size of their hunting areas. Therefore, large carnivores are often considered “umbrella species”, whose conservation results in many other species being safeguarded at the ecosystem or landscape level.

[26] https://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

[27] Miller, B.J., Dugelby, B.L., Foreman, D., Rio, C.M., Noss, R.F., Phillips, M.K., Soulé, M., Terborgh, J., & Willcox, L. (2001). The Importance of Large Carnivores to Healthy Ecosystems.

Recent study[28] performed a gap analyses on 27 European species of carnivores and ungulates, measuring the level of protection according to three different types of distribution data: geographical ranges, habitat suitability models and habitat suitability models that incorporate the potential spatial structuring in populations within PAs. It highlights the insufficiency of the current protected area system to conserve viable populations of large carnivores in Europe. A species with mean population density of 1–2 individuals/100 Km^2, as common in wolverines, lynx, wolves and bears, would require a total area of 200,000–400,000 km^2 to conserve 4000 individuals, corresponding to 29–58% of the total area currently covered by all PAs and Natura 2000 sites in Europe. A system of PAs can effectively protect these species only if the whole landscape matrix is managed as an integral component part of the overall system. Large carnivore conservation, beyond site-level protection, requires large-scale connectivity, wide habitat cover with abundant prey populations and tolerable levels of conflict with human activities.

PET HAB ECO integrate ecological and socio-cultural aspects of large carnivore conservation into AIR polices and strategies for green infrastructure development, sustainable territory management and spatial planning. The concerns of stakeholders such as hunters, livestock farmers, owners of eco-farms and providers of touristic services in rural areas, local communities and authorities as well as environmentalists, PA managers and researchers will be addressed in the strategy of the LC population and habitat recovery. The aim is the improvement of the collaboration and relationships amongst relevant stakeholders for large-carnivore conservation and management in AIR, by integrating them into the process of planning and implementing actions/activities.

With the integration of environmental and socio-cultural aspects for conservation of large carnivores, PET HABE ECO highlights and value the role and importance of stakeholders' participation and their active and emotional involvement, sustainable tourism and agricultural practices to support biodiversity conservation, ecosystem services, and ecosystem management. The ecosystem approach in management of large carnivores' areas holistically consider ecological function or large carnivores' populations, connecting them with ecosystem services that represent benefits and values for communities.

PET HAB ECO aims to explore how to make relevant stakeholders for large-carnivore conservation and management in AIR to work together and improve large carnivores' populations, habitats protection, restoration with green infrastructure development, and enhancement of ecosystem services for the alleviation of wildlife-humans' conflicts and societal tension. Because of the variability and complexity of social-ecological systems, threats and approaches in AIR, an integrative mosaic of solutions based on identified good practices are foreseen as possible framework project outcomes. Enhancement of the quality of the ecological and social habitat are going to be achieved using collaborative approaches. Capacity building activities are mainly oriented to experts in spatial planning, tourism, agriculture, rural development, decision makers and local authorities to increase public acceptance and

[28] Santini, L., Di Marco, M., Boitani, L., Maiorano, L. and Rondinini, C. (2014), Incorporating spatial population structure in gap analysis reveals inequitable assessments of species protection. Diversity Distrib., 20: 698-707. https://doi.org/10.1111/ddi.12198

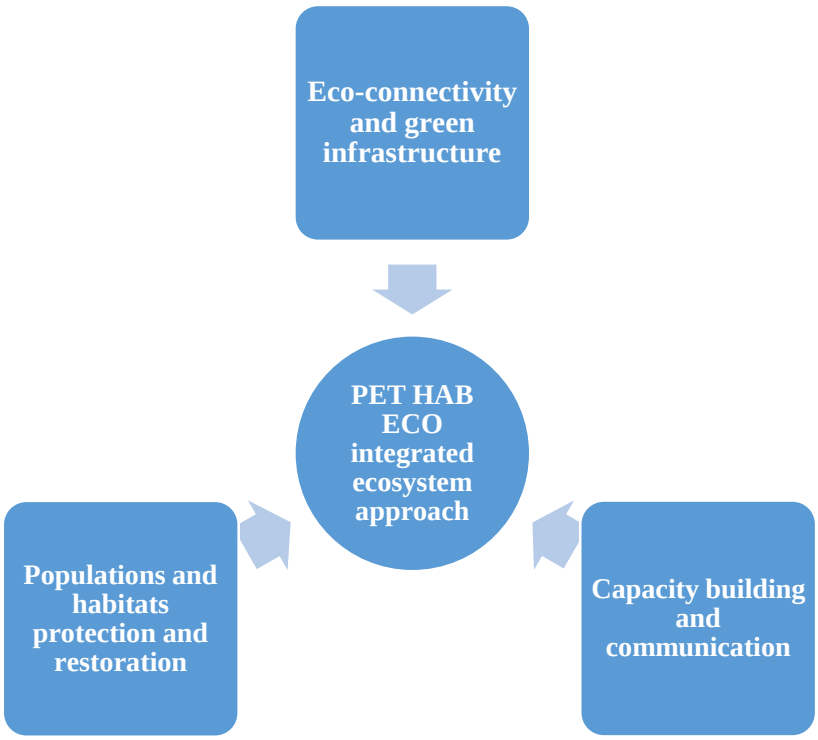
awareness regarding the important ecological function of large carnivores in the ecosystems including in providing ecosystem services. With this approach, transnational cooperation will also contribute to develop strategic planning aspects and regional action plans. Improved ecological connectivity with green corridors and infrastructure will be the main contribution at regional level for protection and restoration of ecosystems inhabited by large carnivores' populations, including reducing fragmentations and decrease the impact of humans on large carnivores' population numbers, densities, mortality and behaviour.

In order to encourage the adoption of best practices that promote coexistence and with large carnivores and their conservation, a number of projects associated with large carnivores has been analysed during PET HAB ECO development (see listed project on Chapter 3).

In addition, PET HAB ECO will establish links and synergies with EU and other initiatives AIR. For example, the EU Large Carnivore Platform[29] is collecting case studies documenting how to promote coexistence between humans and large carnivores. These case studies highlight lessons learned in one place that can be applied in other situations or member states. The selection includes more than 60 cases with a brief description of each case study with links to more information and contact details and includes the following categories: Advice/Awareness Raising, Practical Support, Understanding, Innovative Funding, Monitoring. PET HAB ECO supports the capitalization of EU projects and best practices, including top-down and bottom-up approaches with high transferability. Solutions arising from the interests of the local community will be favorited.

PET HAB ECO developers is aware that there is not a one-size-fits-all approach to large carnivore management. This is why management has to be tailored to the local circumstances.

[29] https://ec.europa.eu/environment/nature/conservation/species/carnivores/promoting_best_practices.htm


Eco-connectivity and green infrastructure
PET HAB ECO integrated ecosystem approach
Populations and habitats protection and restoration
Capacity building and communication

4.2.1 Transnational cooperation reason

Addressing cross-border and transboundary cooperation within the scope of PET HAB ECO represents at the same time the overall objective of the project and its essential mean of implementation.

LC vulnerability present a solid basis for establishing the cross-border cooperation in LC populations and habitats protection. Large carnivores have very large area requirements, with individuals using from 100 to 1000 km^2 (even more) each for their territories. As a result, they occur at very low densities. A consequence of this is that their populations tend to spread over very large areas. On a continent like Europe this means that populations spread across many administrative borders, both within and between countries. Effective conservation therefore requires that the responsible authorities in different areas and/or countries coordinate their management actions.

Therefore, PET HAB ECO objectives can only be tackled through synergies and common initiatives that take into account its territorial dimension. The main goal of PET HAB ECO is to establish a network of partnerships in the AIR, which will contribute towards promotion and long-term conservation of natural values of the area. Transnational cooperation allows benefiting from best practices already made, pulls competences to adapt and further elaborate these approaches. Indeed, it allows to better understand large transnational potential challenges and opportunities. PET HAB ECO therefore foresees a number of joint capacity building and communication, monitoring and research, participatory management activities that will benefit from jointly development, implementation and staffing.

Most important opportunities offered by transnational cooperation under PET HAB ECO include:

- sharing of coherent research data, harmonized monitoring protocols, data acquiring methodology and data transparency;
- straighten cooperation, capacities of individual and institution;
- development of cross-border or transboundary GI and eco-corridors;
- development guidelines for common approaches LC participatory management and harmonization of national laws.

Cooperation activities can be implemented through:

- networking among same type of stakeholders and related activities;
- establishment of working groups and web platforms;
- development of tools and methodologies for monitoring, sharing and storing, validating data about LC populations and habitats;
- signed cooperation agreement for large carnivore management;
- better capitalization of results and deliverables of cooperation projects.

Independently on the specific cooperation action considered, involving all EUSAIR countries in transboundary cooperation for an efficient alignment and improved coherence of LC management is crucial. Real engagement and commitment of countries are considered necessary pre-conditions for an efficient cooperation.

Despite a rich and diversified collection of cooperation experiences developed in the AIR through the years, there is an evident need to better mainstream and capitalize useful and reliable project results

4.2.2 Cooperation criteria

Joint Development	X	The project was prepared thought an extensive consultation among the EUSAIR participating countries, under the TSG-3's activities and with the support from the EUSAIR Facility Point. Project approach, implementation logic, expected results, activities, main topics and pilot cases have been suggested and validated by representatives of participating countries in the TSG-3. The activities foreseen by the project are considered of outmost importance for implementation of PET HAB ECO in the AIR, in order to achieve the objectives of long-term environmental sustainability of human activities targeted under EUSAIR.
Joint Implementation	X	The project foresees close cooperation between all the participating countries belonging to EUSAIR. All project activities require intense exchange of data, information and tools. Important effort is dedicated to exchange indicatives: workshops at regional level, with plenary and sub-regional sessions; technical workshops, exchange meetings and interviews, training sessions on tools. The work on the pilot projects will involve not only the project partners but also the main stakeholders of the respective areas.
Joint Staffing	X	The project foresees the implementation of proposed flagship framework project activities with joint staffing. In the case of cross-border projects, joint staffing will include LP and PPs: they will define staff members to be involved in project implementation, including Lead Partner project responsible and communication manager. Each partner will appoint one project manager and one project financial manager along with "thematic" staff involved in the project implementation. The core joint staff is represented by SC and WP joint teams working together for both financial and monitoring aspects.
Joint Financing	X	The project foresees the implementation of proposed flagship framework project activities with joint financing, based on ADRION and INTERREG programs. In the case of cross-border projects, LP will be financially responsible of the total budget stipulated by the partnership agreement signed between LP and all PP. The budget of each PP reflects its responsibilities in the project. The LP coordinates each partner’s financial responsible, providing them support and guidance in accountancy and reporting.

4.3 Project focus

4.3.1 Project objectives, expected results and main outputs

*The PET HAB ECO flagship **overall objective** is to improve the resilience of large carnivores' populations at transnational level in a territory characterized by human dominated or fragmented ecosystems in the face of environmental threats and risks also caused by climate change impacts. The activities to be undertaken are primarily related to conservation and restoration of large carnivore populations, transboundary large carnivore management synchronization, public awareness activities to bring these unique species to the public's attention and restoration of ecosystems in which they play a key role and protect the important habitats. Target species are ecosystems' keystone species; hence other biodiversity components will also benefit from their conservation.*

*Main **expected results** are (i) creation of a database of large carnivores' populations and their habitats, by standardized and harmonized monitoring procedures of large carnivores (ii) jointly developed regional guidelines and action plan for management, monitoring and protection of large carnivores, preventing habitat fragmentation and ensuring ecological connectivity which will lead to improved conservation status of populations and habitats, (iii) human – large carnivore conflicts properly addressed and substantially minimized in a timely manner (communities and institutional capacity building implemented, exchange and implementation of know-how, knowledge, best practices transfer is improved).*

***Main specific goals and outputs** are:*

A) Enlarged and improved ecological corridors networks for LC to prevent habitat fragmentation and ensure ecological connectivity

(Tentative list of the sub-goals and outputs with details explaining and connecting them to specific WP activities)

- Networks of eco-corridors for large carnivores (e.g.: analysing and gathering information on gaps from all relevant stakeholder regarding large carnivores' distribution and already existing green corridors networks, mapping ecological networks for large carnivores in AIR) are enlarged and improved;
- Innovative methodologies to improve the efficiency of the eco-corridors in AIR (propose specific tools and guidelines on ecological connectivity and green infrastructural intervention in AIR, propose tools and practices to better reflect and integrate ecological networks into spatial planning) are implemented;
- Forests habitats as most important habitats for large carnivore and their connectivity in mountain regions are enlarged.

B) Improved jointly developed innovative tools, shared common database and networks for large carnivores' populations and habitats monitoring, available research

information on large carnivore populations, habitats, climate change and anthropogenic impacts on LC populations.

(Tentative list of the sub-goals and outputs with details explaining and connecting them to specific WP activities)

- Transnational monitoring frameworks and database platform for the interoperability of existing monitoring databases and promotion of data availability are enhanced and complemented;
- Accuracy of data collection is improved by using agreed and harmonised monitoring protocols across AIR, as well transparency on how data is acquired and interpreted is increased, uncertainties about the current state and trend of large carnivores' populations is resolved;
- Research and evaluation activities through the development of a common monitoring and assessment reference framework, and the deployment of advanced tools for mapping, identification and protecting of habitats, management and conservation of large carnivore populations are implemented;
- New knowledge is acquired of LC behaviour, their habitats population ecology, conservation and management etc;
- New knowledge is acquired of climate change impact on LC populations and habitats. (e.g. assessment of climate change effects on LC and their habitats in AIR)

C) Increased knowledge transfers and straightened competencies/skills of the stakeholders achieved by tailored capacity building and communication activities.

(Tentative list of the sub-goals and outputs with details explaining and connecting them to specific WP activities)

- Public awareness especially among the younger population and local inhabitants who share ecosystems landscapes with large carnivores is increased;
- Research and evaluation activities for the development of a common curricula content, educational results assessment reference framework for large carnivores' education are established;
- New networks of schools that are actively involved in large carnivores' education are implemented;
- Social tensions are mitigated by increasing general public acceptance and awareness regarding the ecosystem services connected with large carnivores' function inside ecosystems;
- New collaborative relationships are co-created and institutional capacities straightened, including competences, knowledge and awareness (in particular government, wildlife/hunting administrations, experts in spatial planning, institution of local and regional development, tourism and agriculture, environmental NGO, and PA managers);
- Acceptance of large carnivores among the general public is maintained/increased through awareness rising and educational activities and communication campaign;

- Regular communication and exchange between the relevant stakeholders are established.

D) Development of regional guidelines, action plan and cooperation agreement for integrative, ecosystem approach in large carnivore transboundary management.

(Tentative list of the sub-goals and outputs with details explaining and connecting them to specific WP activities)

- Cross-sectoral cooperation aimed to address complex issues related to large carnivore conservation are straightened;
- Integral AIR action plan and cooperation agreement for large carnivore management with ensured ecological connectivity is jointly developed;
- Observatory functions for integration and harmonization of management approaches in AIR are enhanced by established steering committees and joint implementation of pilot actions of LC transboundary management and harmonization of national laws;
- Communication activities (e.g. working group and a web platform) for conflict management (at all levels: international, national, local) promoting a new management practices with applying prevention and compensation measures and the implementing measures for mitigation of negative aspects of large carnivores' presence (i.e. fear, harm to livestock and dogs) are implemented;
- Illegal killings or poisoning of large carnivores are considered as a serious violation of law and awareness concerning the penalties and legal consequences for killing illegally and poisoning throughout the society is strengthened (e.g. established of communication and exchange among the relevant law-enforcement agencies from AIR);
- Working group for the development of transnational terrestrial protected areas and habitats devoted to large carnivores' protection, conservation and recovery of local populations and habitats, and integration thereof in the ecotourism product of the AIR are established;
- Effects of climate change on large carnivore population and their habitats are known, recognized and reduced, recommendations and adaptation measures are developed based on assessment of climate change effects on LC and their habitats in AIR.

4.3.2 Target groups

Target group/s	**Further specification of the target group/s**
General public and /or local communities	Project communication activities will be focused on bringing this target group closer to the scope of PET HAB ECO and project public awareness activities to bring issues connected with large carnivore to the public's attention. Particular attention will be given to the engagement of the youth in PET HAB ECO in order to make the new generations acquainted with the need for - and the advantages of - participation and

	engagement in management and conservation for a better coexistence with large carnivores. Information, communication, training and educational activities are envisaged, as well as participatory activities (addressed to local communities and NGOs) in the framework of implementation actions at pilot areas level.
Enterprises, including SME.	The project will create many opportunities for enterprises and in particular SMEs (e.g. technology innovations for monitoring and research activities will create new opportunities for SMEs in technological sector), as well new opportunities for innovative products and services developing in SMEs of agricultural, infrastructure, touristic sectors (including creative industry).
National, regional, local public authorities;	National public authorities with responsibilities in PET HAB ECO, in particular responsible and/or concretely involved on environmental and spatial planning (e.g. conservation and restoration of large carnivore populations and habitats, eco-connectivity, green infrastructure), agriculture, touristic sector and education. The project aims are to provide tailored tools, data and knowledge on PET HAB ECO approaches, methods and practices to straighten stakeholders' individual and institutional capacities. Specifically, the project aims to provide this target group with operationalized tools (e.g. guidelines, action plan and cooperation agreement for integrative, ecosystem approach in large carnivore transboundary management)
Public and private research institutes, Higher education institutions and research	Research institutions will be involved as project partners and target group. The project aims to provide new opportunities for innovative and inclusive research, collaboration between researchers from different AIR public and private research institutes and HEIs.
Infrastructure and (public) service provider	Natural Heritage & Green Infrastructure management organisations
Schools, education/training centres	Local schools at primary and secondary level and providers of not formal education opportunities are going to be involved in education and awareness-raising activities of PET HAB ECO, the aim is to straighten public awareness especially among the younger population and local inhabitants who share ecosystems landscapes with large carnivores. New networks of schools that are actively involved in large carnivores' education are going to be implemented;
Interest groups including NGOs and environmental/citizen association	NGOs and environmental/citizen association with particular interest on the topic of large carnivores' population protection will be involved as target group in citizen science activities and on participatory processes of LC management and conservation.

Professionals from different sectors (environmental, agricultural, touristic, infrastructure and spatial planning)	The project aims to create opportunities for engagement of representatives from the public and private sectors in the activities focused on implementation of transnational cooperation actions. Engagement of the sectors is particularly envisaged in the framework of implementation actions at pilot areas level where consultation with professional from different sectors will help framing a planning scenarios for sustainable use of the space and natural resources. The opportunities for stakeholder engagement created under the project will help in maturing experience of transnational, cross-sector dialogue.

4.3.3 Durability and transferability of main outputs

The project will have a long-term impact as its durability and sustainability will be achieved through the practical use of competences/skills acquired during the project actions and achieved results which will be available and in function after the project is finished. The whole project concept leads to sustainable results as it represents a major investment in knowledge, understanding, trainings and awareness-rising activities of several target groups (researchers, youth, general public, local, regional and/or national authorities, professional from different sectors) and other potential stakeholders connected through the transnational cooperation network. The project results will allow them to use the acquired knowledge/skills/competences in their future work. The transnational cooperation network will serve as a basis for further collaboration and development in the field of spatial planning, ecological connectivity, nature conservation and integration of ecological aspects in cross-sectoral developmental strategies and policies. In ensuring the long-term impact it is important to emphasize the involvement of political actors/national and transnational authorities who will significantly contribute to the development of integral ecosystem approach of LC conservation on the level of state/regional policies and strategies. Furthermore, the members of the consortium should have the necessary decision-making competences to promote implementations of short-term and long-term measures proposed by the framework project. Consequently, the overall long-term effects will also be seen in greater ecological and social-economic integration of AIR developmental strategies in particular for LC conservation.

4.3.4 Transferability of project outputs and results

On national and transnational level, we expect the transferability will be assured by networking of relevant stakeholders, production of awareness-raising materials that can be used after the project expires. The project materials will be available to the public on the project website and established IC platforms (“Transnational monitoring frameworks and database platform”) also after the end of the project duration. Additionally, any publications will be made available on the basis of principle of “open access”. The developed tool-box's (e.g. tools and guidelines for green infrastructural intervention) benefits and its transferability are communicated to achieve a long-term change. To that aim, key actors in LC protection and eco-connectivity are

addressed, and the mainstreaming of successfully demonstrated approaches is promoted (see communication activities). Storytelling video and learning tools focused on coexistence between LC and humans aiming to set a supporting environment, presentations at targeted public events, and communication through print and online media, are anticipated tools that support high transferability of results. Here, communication shall support the uptake of an ecosystem approaches and integrative strategies in LC management. Both actors (mainly decision-makers) within and beyond partner areas are addressed. The transnational best practices exchange does not only address the project staff but also a wide range of actors represented in stakeholder alliances/networks across all partner regions. Integral AIR action plan and cooperation agreement for large carnivore management with ensured eco connectivity (integral and ecosystem approach) are going to be elaborated for decision-makers and could be transferred also outside the ADRION area. Finally, the research working stream will serve as a basis for development of additional problem-oriented state policies.

4.4 Project context

4.4.1 Project contribution to wider strategies and policies

The Interreg V-B Adriatic-Ionian 2014-2020 (hereinafter ADRION), set up in the framework of the European Territorial Cooperation (ETC). The ADRION Programme exemplifies the broad policy framework channelling the development efforts on macro-regional and national levels. It is aligned with EU Strategy for the Adriatic-Ionian Region – EUSAIR and with EU 2020.

The EU Strategy for the Adriatic-Ionian Region - EUSAIR described in two documents:

- The Communication from the European Commission to the other EU institutions, (COM (2014) 357 final of 17.06.2014);
- The Action Plan, concerning the European Union Strategy for the Adriatic and Ionian Region which complements the Communication (SWD (2014) 190 final of 17.06.2014).

The general objective of the EUSAIR[30] is to promote sustainable economic and social

prosperity in the region by:

- creating growth and jobs;
- improving the region's attractiveness, competitiveness and connectivity;
- preserving the environment; and
- ensuring healthy and balanced marine and coastal ecosystems.

[30] EC, (2022), ADDENDUM TO THE COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning the European Union Strategy for the Adriatic and Ionian Region, Brussels, 14.2.2022 COM(2022) 44 final.

The link of the ADRION Programme to the EU2020 strategy goals is ensured by the definition of the Thematic Objectives (TO) and the requirement for thematic concentration. The TOs are further broken down into Investment Priorities (IP) and Specific Objectives (SO). Priority axes (PA) are set out to combine IPs covering one or more TOs (in cases of a thematically coherent context).

PET HAB ECO is mainly connected to **Priority Axis 2: Sustainable region**

TO 6: Preserving and protecting the environment and promoting resource efficiency by:

IP 6c: Conserving, protecting, promoting and developing natural and cultural heritage;

SO 2.1: Promote the sustainable valorisation and preservation of natural and cultural assets as growth assets in the Adriatic-Ionian area;

IP 6d: Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure;

SO 2.2: Enhance the capacity in transnationally tackling environmental vulnerability, fragmentation and the safeguarding of ecosystem services in the Adriatic-Ionian area.

The ADRION Programme is covered by a dedicated EU macro-regional Strategy, the EUSAIR and is partially overlapping with the EU Strategy for the Danube Region (EUSDR)[31], which main goals are to better connect the region, protect the environment, build prosperity and strengthen institutional capacity and security, and the EU Strategy for the Alpine Region (EUSALP) [32], which aims to ensure that this Region remains one of the most attractive areas in Europe, taking better advantage of its assets and seizing its opportunities for sustainable and innovative development in a European context. Both strategies covered also environmental goals, including biodiversity protection. Due to its geographical coverage, the ADRION Programme can potentially play an important role in exploiting synergies among the aforementioned macro-regions (and especially the EUSDR due to the similarities in the composition of the Partner States and the opportunity to draw from lessons learnt), actively contributing to territorial integration beyond the macro-regional level.

Sustainable management of terrestrial ecosystems, in particular forests and related species, are included in the UN Sustainable Development Goals (**Goal 15: "Life on land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"**). In particular next targets are addressed: 15.5 "Take urgent and significant action to reduce the

[31] EC, 2010, COM(2010) 715 final, European Union Strategy for Danube Region (online) https://danube-region.eu/download/communication_from_the_commission_2010/?wpdmdl=625&refresh=5d5fe189964b61566564745

[32] EC, 2015, COM(2015) 366 final, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning a European Union Strategy for the Alpine Region (online) https://www.alpine-region.eu/sites/default/files/uploads/page/24/attachments/eusalpcommunicationtionen28072015.pdf

degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species", 15.6 "Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed" 15.9 "By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts", 15.A "Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems". All activities of the project are ultimately contributing to these targets, by promoting concrete cooperation actions towards environmentally sustainable planning and management LC habitats in AIR.

UN Sustainable Development Goal 15 is linked as well to the Convention on Biological Diversity (CBD) [33] opened for signature in 1992 at the Earth Summit in Rio de Janeiro, and entering into force in December 1993. The CBD is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. With 196 Parties, the CBD has near universal participation among countries. The CBD seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous peoples and local communities, youth, women, NGOs, sub-national actors and the business community.

Furthermore, it is linked to United Nations Environment Programme (UNEP) [34], in particular Nature action, that believes in the power of integrated ecosystem management, which aims to sustain ecosystems to meet both ecological and human needs. This approach is responsive to new information and changing requirements, and it integrates social, environmental and economic perspectives. Integrated ecosystem management aims to sustain ecosystems to meet both ecological and human needs. Ecosystem management is responsive to changing needs and new information. It promotes a shared vision of desired outcomes by integrating social, environmental and economic perspectives into managing our ecological foundation.

PET HAB ECO integrated ecosystem approach is in line with the mentioned policies and international strategies.

4.4.2 Project contribution to EUSAIR

PET HAB ECO is rooted within the scope of EUSAIR Pillar 3 Environmental sustainability Topic 2 - Transnational terrestrial habitats and biodiversity. In the presentation of this topic[35]

[33] https://www.cbd.int/

[34] https://www.unep.org/explore-topics/ecosystems-and-biodiversity

[35] EC, 2020, SWD(2020) 57 final. COMMISSION STAFF WORKING DOCUMENT Action Plan Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning the

is highlighted that macro-regional cooperation needs to focus on the protection and preservation of terrestrial ecosystems, in particular transnational habitats and landscape elements of central importance for large carnivores and migratory bird species. Indeed, PET HAB ECO targets these goals. Furthermore, it is stated that climate change is expected to affect much of the Adriatic- Ionian Region more severely than elsewhere in the EU, especially natural habitats and biodiversity. The risks of climate change to biodiversity can be reduced by bolstering the general resilience of ecosystems, thereby increasing their ability to adapt to its effects. Joint action in shared eco-regions (mainly forest areas) to better withstand and contain catastrophes (e.g. forest fires) can also be the focus of such cooperation. PET HAB ECO foreseen results will enhance terrestrial ecosystem and key species resilience increasing their ability to adapt to climate changes.

The entire project has been prepared specifically to meet some of the EUSAIR main objectives, as indicated in the EUSAIR Action Plan. In fact, EUSAIR Action Plan proposed some Indicative Actions for AIR Transnational terrestrial habitats and biodiversity. Particularly referred to PET HAB ECO is Action 2: "Joint population level management plans for large carnivores and awareness-raising activities, e.g. developing GIS database of large carnivore habitats to underpin transnational planning, monitoring and management of large carnivore populations and their habitats and identifying needs for developing green infrastructure. Alleviating habitat fragmentation, and supporting awareness-raising activities, targeting the rural population, so as to increase awareness of benefits to be reaped from healthy carnivore populations, notably for species preservation and for marketing areas for eco-tourism. Indicative actors: Nature protection authorities, research institutes, NGOs, local communities."

Furthermore, *Guidelines for the Implementation of the Green Agenda for the Western Balkans*[36] included in the Communication on an Economic and Investment Plan for the Western Balkans adopted by the European Commission. It further details the five pillars of the Green Agenda: (1) climate action, including decarbonisation, energy and mobility, (2) circular economy, addressing in particular waste, recycling, sustainable production and efficient use of resources, (3) biodiversity, aiming to protect and restore the natural wealth of the region, (4) fighting pollution of air, water and soil and (5) sustainable food systems and rural areas. Regarding pillar (3) it is stated that the Western Balkans should spare no effort to protect the biodiversity and the ecosystem services including through alignment with EU legislation. The main challenges at the regional and national level are related to the lack of political commitment to improve implementation of biodiversity policy, lack of financial resources and the impact of economic activities, such as agriculture, forestry, fisheries and, to a lesser extent, transport, tourism and energy infrastructure developments. This is due in part to the structure of current production systems and in part to lack of awareness, misunderstanding of and lack of guidance related to

European Union Strategy for the Adriatic and Ionian Region (online). https://ec.europa.eu/regional_policy/sources/cooperate/adriat_ionian/pdf/eusair_swd_2020_en.pdf

[36] EC, 2020, SWD (2020) 223 final, COMMISSION STAFF WORKING DOCUMENT, Guidelines for the Implementation of the Green Agenda for the Western Balkans Accompanying the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions An Economic and Investment Plan for the Western Balkans.(online) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020SC0223

the added value of services generated by biodiversity for these sectors (e.g. pollination) and of key nature legislation requirements (infrastructure development) or to development pressures. While a comprehensive policy framework exists, implementation on the ground in the region is lagging behind. In addition, the success of any national biodiversity strategy depends to a large degree on the effective mainstreaming of nature and biodiversity into other policies (agriculture, forestry, regional development, energy, transport, fisheries, etc.). In this context, Western Balkans partners are encouraged to align their policies to the EU Biodiversity Strategy for 2030 and to support the EU position at the upcoming international negotiations on the global post-2020 biodiversity framework.

4.4.3 Synergies

The project's integrated ecosystem approach will impact local, national and (macro-)regional level and would support the policy priorities concerning the pillars of EUSAIR and its cross-cutting issues. It supports a stronger connection between social, cultural, economic and environmental aspects, enhancing capacity building and communication, adaptation to climate change, research and innovation.

The project is linked also with following initiatives:

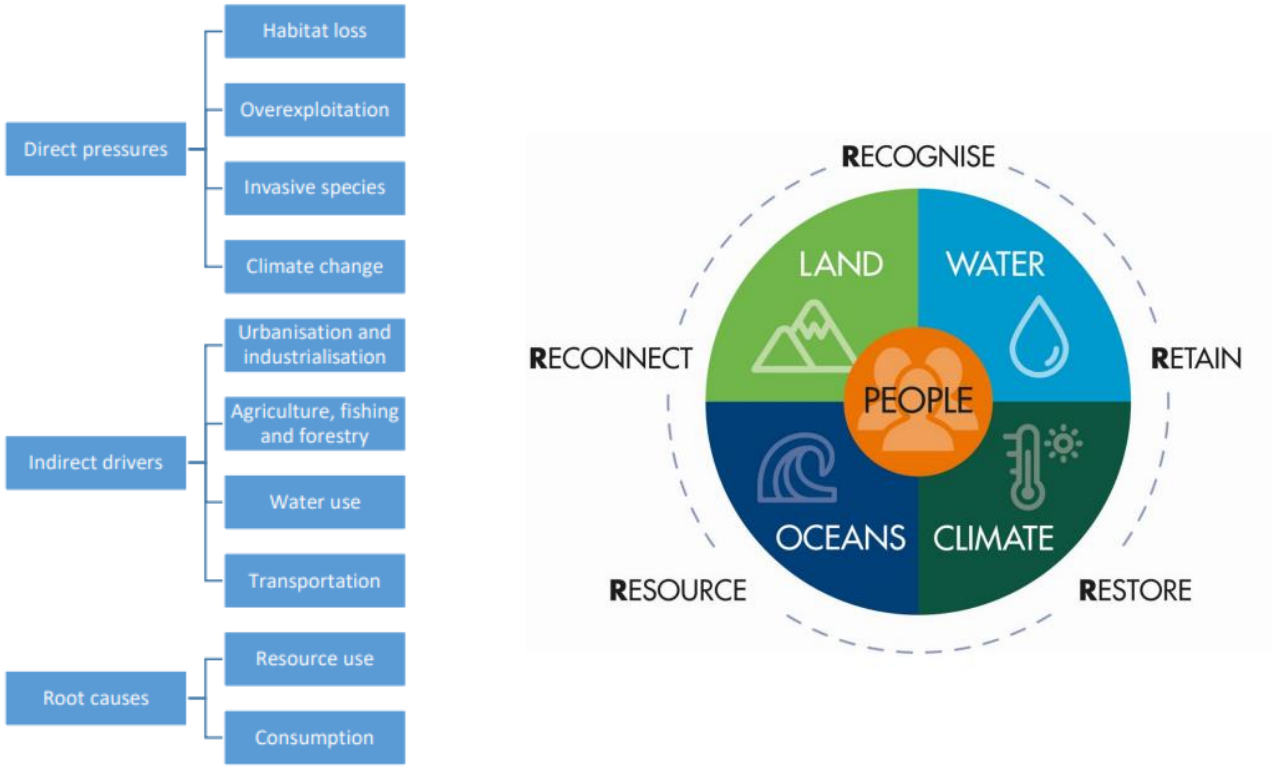
- initiatives of UNEP Nature action[37] to protect and restore ecosystems and the goods and services they provide. The UNEP Europe Office's main goal is to provide guidance to national governments at various levels, and to take part in the dialogue on environmental issues between governmental authorities, civil society, the private sector and other stakeholders. Closer cooperation between the main actors in the region, implement projects and provide scientific and legal expertise on challenges facing Europe's environment are encouraged. Awareness-raising initiatives and campaigns, giving Europeans the chance to act towards a greener region while improving the quality of their lives are also undertaken. They also lead an Issue-Based Coalition (IBC) on Environment and Climate Change. IBCs see UN agencies coordinate their support to governments towards the Sustainable Development Goals. The Geneva Environment Network (GEN) plays a crucial role in UNEP work. GEN is a partnership of more than 75 organizations, including UN offices and programmes, NGOs, academic institutions and local authorities located in Geneva and active in the fields of environment and sustainable development. Since 1999, the GEN Secretariat – led by UN Environment and supported by the Swiss Federal Office for the Environment – has actively promoted increased cooperation and networking among its members by organising and hosting numerous dialogues and other events. The network is a resource for any sector wanting to learn about the environment, green its economy and develop sustainably.

[37] https://www.unep.org/explore-topics/ecosystems-and-biodiversity

- FAO forestry, in particular action that promote Sustainable wildlife management [38](SWM) within protected areas and across all habitats as a key element in achieving sustained nutrition and income for rural populations and indigenous people, and achieving its goal of zero hunger. As well as safeguarding human and environmental health SWM contributes to the reduction of rural poverty and the improvement of livelihoods. Through the Wildlife and Protected Areas Management Programme, FAO is actively involved in supporting Member countries to: develop innovative mechanisms to reduce unsustainable hunting practices, promote the sustainable use and management of wild meat, provide technical assistance and strengthen capacities to deal with human wildlife conflicts, enhance cross-border collaboration and strengthen the governance of protected areas, design and implement relevant field projects and initiatives.
- UN-REDD [39] - the flagship UN knowledge and advisory partnership on forests and climate to reduce forest emissions and enhance forest carbon stocks. It is the largest international provider of REDD+ assistance, supporting its 65 partner countries to protect their forests and achieve their climate and sustainable development goals.
- IUCN, International Union for Conservation of Nature, in particular The Nature 2030 IUCN Programme[40] that ensures alignment with United Nations 2030 Agenda for Sustainable Development as well as the post-2020 global biodiversity framework. The Programme delivers concrete and tangible positive impacts to People, Land, Water, Oceans and Climate using the following five pathways to transformative change: Recognise, Retain, Restore, Resource, Reconnect. It includes: (i) the application of available technology and data, including innovative uses; (ii) the power and outreach of communication, education and public awareness; and (iii) the leverage of investment and sustainable financing.

[38] https://www.fao.org/forestry/wildlife/en/
[39] https://www.un-redd.org/

[40] IUCN, 2021, Nature 2030 : one nature, one future : a programme for the Union 2021-2024 (online) https://portals.iucn.org/library/sites/library/files/documents/WCC-7th-001-En.pdf



Priority drivers and pressures on ecosystem services addressed by the IUCN Programme 2021–2024 (left) and IUCN's Nature 2030 Programme Framework (right) (source: IUCN)

- Large Carnivore Initiative for Europe (LCIE) - is a Thematic Specialist Group within the Species Survival Commission of the IUCN International Union for Nature Conservation[41]. Since its creation in 1995 LCIE has worked towards the achievement of a vision *"To maintain and restore, in coexistence with people, viable populations of large carnivores as an integral part of ecosystems and landscapes across Europe*". Series of policy support statements have been made with the support of LCIE over the last 10 years, e.g. the principles for population level management[42] that were developed in 2008.

Furthermore, PET HAB ECO creates synergies with ongoing LIFE projects in AIR or larger EU area, for example:

- LIFE Bear-Smart Corridors (LIFE20 NAT/NL/001107, 01/10/2021 - 30/09/2026) project is expected to improve the conservation status of the brown bear in Italy (subspecies: *Ursus arctos marsicanus*) and Greece (*Ursus arctos*) in six previously identified bear expansion corridors, by developing 18 Bear Smart Communities. By gaining the support of local communities and key stakeholders, the conservation actions

[41] See www.lcie.org for more details.

[42] Linnell, J., Salvatori, V. & Boitani, L. (2008) Guidelines for population level management plans for large carnivores in Europe. A Large Carnivore Initiative for Europe report prepared for the European Commission (contract 070501/2005/424162/MAR/B2).

will be implemented in both core and corridor areas for bears, with the main objective to develop measures aiming to improve human-bear coexistence. This will allow bears to migrate into and across critical corridors to substantially increase bear range and population.

- LIFE WOLFALPS EU (LIFE18 NAT/IT/000972, 01/09/2019 – 30/09/2024) improving wolf-human coexistence through a participatory approach is the challenge and the main goal of the project, to guarantee the long-term conservation of the transboundary wolf population.
- LIFE Lynx (LIFE16 NAT/SI/000634, 01/07/2017 – 31/03/2024) project's primary objective is rescuing the Dinaric-SE Alpine lynx population from extinction and to preserve it in the long term. Currently, the population is small, isolated, and extremely inbred. It urgently needs reinforcement by introducing additional, healthy animals from another population. The project will reinforce the Dinaric-SE Alpine population with lynx from the viable source population in the Carpathians, while maintaining high public support. Project partners will collaborate across all EU countries sharing this population to develop and implement a systematic approach to ensure long-term viability of the reinforced population.
- LIFEforBgNATURA (LIFE17 GIE/BG/000371, 01/09/2018 - 31/08/2023) that will raise public awareness about the Natura 2000 network by focusing on the conservation of flagship species, including wolves, bears, vultures, eagles and sturgeons. This will entail getting citizens, responsible authorities and key stakeholders actively involved in conserving target species and habitats within Natura 2000 sites, and winning media coverage for those actions. The project will also provide an understanding of the role of NGOs as partners of mass media and state institutions in explaining the concept and value of Natura 2000. The long-term goal is to improve the conservation status of Bulgaria's flagship species.
- Steps for LIFE (LIFE20 NAT/ES/000309, 01/01/2022 - 31/12/2026) project objective is to transform cultural and tourism infrastructures (LDNMW) into multifunctional green infrastructures (GIs), integrating conservation and improvement of biodiversity, optimising ecological connectivity, providing ecosystem services and raising awareness of tourists. This is consistent with the general design principles of GIs, understood as a network of ecologically connected natural and semi-natural sites, and able to become ecological corridors that are part of the Trans-European Nature Network (EU Biodiversity Strategy for 2030). With this, it is intended to link the objectives of biodiversity conservation, culture, human health and recreation in natural environments through a multifunctional GI (ecological, cultural and tourism) functioning as an ecological corridor providing a profitable return on investment.
- LIFE ARCPROM (LIFE18 NAT/GR/000768, 01/10/2019 - 30/09/2024) project will improve brown bear (*Ursus arctos*) conservation status in Italy and Greece in terms of population levels and trends by achieving sustainable human-bear co-existence status through minimisation of bear-human interference and subsequent conflicts detrimental to the species.
- LIFE SAFE-CROSSING (LIFE17 NAT/IT/000464, 01/09/2018 - 31/08/2023) is dealing with issue of large carnivores threatened by road infrastructure across Europe,

due to direct mortality caused by collisions with vehicles and the barrier effect restricting the movement of populations. The main objective of the project is to demonstrate best practices that can be used to reduce the negative impacts of road infrastructure on large carnivores across Europe.

4.4.4 Knowledge

PET HAB ECO can rely on a long track-record of projects and experiences providing a basis for transnational cooperation on ecological connectivity and LC protection.

DINALPCONNECT (ADRION program) project intervention objective is to strengthen transnational and sectoral cooperation to improve ecological connectivity (EC) throughout Dinaric Mountains, connecting them with the Alps enabling long term protection of biodiversity in view of current and future climatic changes. Both mountain ranges are exceptionally rich in biodiversity which is threatened by fragmentation and habitat loss. EC enables processes like gene flow, migration and dispersal of living organisms thus counteracting negative effects of habitat fragmentation and climate change. Substantial part of Balkan Peninsula is affected by difficult political and economic circumstances leading to transboundary barriers which pose challenges for EC. At the macro-regional level, project partners will collect spatial data to analyse current EC and identify EC hot-spots (corridors or stepping stones) and barriers. Combining analytical results with expert knowledge exchanged during an international scientific conference and other events, the project will deliver a Strategy for ecological connectivity throughout Dinaric Mountains connecting them with the Alps, which will be adopted by policy makers.

Carnivora Dinarica (cooperation program Interreg V-A Slovenia- Croatia 2014-2020) project aimed to improve the preservation of large carnivores: lynx, wolf, and bears, and make better conditions for people to coexist with them. The coexistence of humans and large carnivores in the northern Dinarides goes back to a far past, it is a heritage that is still to be built. The project improved transboundary management of LC through: (i) establishment of inter-institutional cooperation, (ii) harmonization of wolf and lynx populations research, (iii) joint analysis of habitat connectivity. Furthermore, the relationship between people and LC, including education, prevention measures has been improved by: agricultural good practices, electrical fences to prevent damage, guard dogs, an active signalization for roads, a shelter for abandoned lynx cubs, bear-safe waste bins, measures for directing visits, establishment of an awareness-raising centre for large carnivores in Pivka.

NATURE&WILDLIFE (cooperation program Interreg V-A Slovenia- Croatia 2014-2020) project focused on the observation of bears and other wildlife, which represent a unique natural heritage in this part of Europe (Northern Dinarides), with the main common goal of the project being the active preservation of the natural heritage of the project area through sustainable tourism.

3Lynx (cooperation program Interreg Central Europe) helped to improve lynx conservation capacities of responsible stakeholders through experience, data and tool sharing and by implementing a harmonised lynx monitoring at population level. The project also strived to actively involve key stakeholders, namely hunters and foresters, into lynx conservation issues.

ECONNECT (cooperation Interreg Alpine Space) strived towards an ecological continuum across the Alps. Besides protected areas as core zones, the project highlighted that it is essential to focus on linking these areas in order to achieve connectivity between alpine ecosystems. To achieve an ecological continuum across the Alps, the ECONNECT project considered not just the purely naturalistic aspects (such as, for example, sustainable land use) but also the economic and social dimensions which are just as important in promoting ecological networks. ECONNECT is based on a holistic approach for the development of ecological networks, integrating administrative, multinational and scientific institutions. It is foreseen to provide an Alpine-wide overview on the areas important to ecological connectivity by referring to quantitative and qualitative information on selected sites (core areas) and the level of interconnectivity between them (corridors). Natural, social and economic barriers to the establishment of connectivity have also be identified and proposals have been made on how to overcome them. Since the idea of ecological connectivity also refers to non-protected areas, attention should be paid both to how policies may affect their establishment and how the ecological networks may in turn affect spatial/infrastructure development and economic activities.

ALPBIONET2030 (cooperation program Interreg Alpine Space) project overall objective has been to consolidate and enhance transnational cooperation in the field of nature conservation while providing a harmonized concept of preserving natural habitats and common planning tools to realize a high level of ecological connectivity for biodiversity conservation. Ecological connectivity is the basis of Alpine and global habitat and species protection. However, with the fact of different regions having different tools to measure and improve biodiversity, it becomes a main issue to realize an integrative concept for the protection of ecosystems and biodiversity within the Alps, beautiful and unique European landscape rich in valuable habitats and structures, but endangered by over-exploitation and development. ALPBIONET2030 aimed to implement: (1) A coherent and complementary Alps-wide system of Strategic Alpine Connectivity Areas (SACA), reflecting the valuable and potential areas for ecological connectivity, defined at large scale and implemented at the level of Ecological Connectivity Pilot Regions (in cooperation with the Alpine Convention), (2) An integrated wildlife management for the Alps and an increased level of defragmentation in sectoral policies (hunting, forestry, agriculture, tourism, spatial development, etc.).

LIFE DINALP BEAR (LIFE13 NAT/SI/000550) aimed to: (1) Population-level monitoring, management and conservation of brown bears in northern Dinaric Mountains and south-eastern Alps, (2) Decrease of human-bear conflicts and promotion of coexistence, (3) Promotion of natural expansion of Brown bear from Dinaric Mountains into the Alps. Conflicts between humans and brown bear (*Ursus arctos*) populations in Europe remain an ongoing threat to the conservation status of bears and steps must be taken to improve coexistence. LIFE DINALP BEAR focused on measures that tackle challenges as a lack of understanding of bears' socio-

economic and environmental value, inflated estimations of the risk of bear attacks leading to a lower tolerance of bears; and high traffic-related mortality, associated with the increasing fragmentation of its habitat as a result of growing traffic infrastructure and urbanisation.

4.4.5 Project management risk

Unsatisfactory performance of project partners. Project partners could not perform properly, therefore compromising project results, deliverables and long-term outcomes. Roles are responsibilities are clearly specified from the proposal stage. They will be reviewed, specified and further agreed at the project Kick-off meeting, together with a refined Gantt of the project. Monitoring of advancements and consistency of deliverables will be carried out by the management structure and reported to the Steering Committee. In case of problems, the SC could propose/enforce corrective actions and decide the redistribution of tasks and of the associated budget.

Serious disputes between partners. Disputes between partners may happen. The project will implement a proactive approach to minimise the probability of disputes by ensuring regular and clear communication between consortium members. WP leaders will follow an attitude of openness and trust, wherever possible. Where pre-dispute areas are suspected, offline discussions will be initiated.

Underestimation of the effort needed for the implementation of some activities. Project activities and expected effort have been carefully planned and cross-checked. Project advancement and expenses will be carefully monitored during implementation and eventually simplification and prioritization of activities and tasks will be put in place.

Low potential for transferring best practices. Potential risks may arise in transfer ability of best practices into different national/local contexts. The identified best practices that emerged in the field will be gathered, analysed and evaluated and at the same time the background of different local and national environments will be analysed as well. One of the important activities will also be the evaluation and identification of all the factors which are contributing to the success of best practices. This will enable higher potential for transferring best practices to other natural and connected socio-cultural contexts (in the participating states and elsewhere). The analysis will be based on the key findings of the State of the Art analysis and qualitative research in every participating state and will be designed in a way taking into account each natural and connected socio-cultural context.

Insufficient/unequal participation of relevant stakeholders in pilot action activities. One of the possible difficulties is non-participation of relevant stakeholders, especially representatives regional and sub-regional authorities due to several activities already in course or because they might not be interested in participation in the project activities. In the planned pilot activities, we want to include the widest possible range of relevant stakeholders, particularly from the local/regional/national environments where the need for such activities is more evident. In order to limit possible lack of willingness to participate in the foreseen project activities among the relevant stakeholders, some extra effort will be put into communication

activities to project presentation and explanation of the aims and importance of the project to different target groups that will help in the implementation of the project.

Insufficient/unequal participation of relevant stakeholders in activities for the design of the integral AIR action plan and transnational cooperation network. The non-participation of relevant stakeholders in the transnational cooperation network is another risk. The network needs the contribution from different stakeholders from AIR and sectors as environment and spatial planning, agriculture, tourism, infrastructure. However, due to saturation of different activities, programmes and similar, stakeholders at first might not recognise the potential of the transnational cooperation network. As for the willingness to participate in the pilot actions also for the participation in the creation of the transnational cooperation network special attention will be put in explaining the importance and benefits of being part of the network.

4.5 Horizontal principles

Horizontal principles and Pre-assessment on environmental topics	**Description of the contribution**	**Type of contribution**
Sustainable development (environment)	PET HAB ECO is essential for a sustainable management of LC habitats, coexistence with humans and sustainable development of the rural areas. Transnational cooperation is needed to achieve coherent planning and management of green infrastructures (GI) and eco-connectivity that will improve resilience to climate change of key species and habitats. Integrative ecosystem management will assure an effective environment protection and the safeguarding of ecosystems and their services.	***Positive****/negative/neutral*
Equal opportunity and non-discrimination	Special attention will be paid to guarantee equal opportunities and non-discrimination principles in all project activities. During project meetings, workshops and public events, accessibility for the disabled participants will be guaranteed. The project will promote the inclusion of young people, elderly & welcome multicultural & multi-ethnic exchange.	***Positive****/negative/neutral*
Equality between men and women	The project will apply the principle of gender equality. Choosing the members of the working groups/teams, in engaging stakeholders, in the selection of external experts, in the invitation of speakers/ moderators in conferences and workshops, in the selection of target groups, gender shall never represent a criterion for selection/exclusion.	***Positive****/negative/neutral*

Biodiversity, flora and fauna	PET HAB ECO integrative ecosystem approach will benefit not only LC conservation but also will be linked to improvement of conservation status of other species, e.g. wild ungulate populations, vegetation, forest ecosystems. Positive impact is foreseen for biodiversity conservation in AIR, including AIR fauna and flora.	***Positive****/negative/neutral*
Adaptation to climate change	PET HAB ECO will focus on measures and joint actions able to contribute to climate change adaptation and mitigation. This will be considered both at regional and sub-regional level, but also when considering key species and habitats natural adaptation processes. Spatial planning scenarios to improve eco-connectivity will be also considering their different potential contribution to CC adaptation and mitigation. In particular, PET HAB ECO will support ecosystem-based-adaptation measures that will benefit humans and ecosystems.	***Positive****/negative/neutral*
Soil	Forests and forest soils play a broad, complex and interactive role within the environment and are connected to LC conservation. Soil is an important component of forest and woodland ecosystems as it helps regulate important ecosystem processes, such as nutrient uptake, decomposition, and water availability. PET HAB ECO interventions, as guidelines, tools and management plans for conservation of LC habitats, will benefit forest and intrinsically linked soil, with huge impacts on each other and on the wider environment. Sustainable management of forests ecosystems will in particular improve control of soil erosion and soil conservation.	***Positive****/negative/neutral*
Energy efficiency		*Positive/negative/****neutral***
Land take	Land use by urban and related infrastructures has the highest impacts on the environment due to disturbances resulting from transport, noise, resource use, waste dumping and pollution. It represents a sever threat for LC conservation. Land take issued will be addressed by PET HAB ECO and positive impact is foreseen on mitigation of land take impacts.	***Positive****/negative/neutral*
Water	Surface water resources are important components of landscapes and LC habitats, supplying large populations of wildlife with drinking water critical for thermoregulation and digestion. PET	***Positive****/negative/neutral*

	HAB ECO integrative ecosystem approach will address the issue connected with surface water quality as key factor that impact on LC conservation. Positive impact is foreseen for water quality improvements in AIR.	
Population and human health	The project will promote knowledge and understanding of LC conservation relevance for sustainable development of the territory as engagement and participative tools in GI spatial planning, among young people, key stakeholders, civil society and the large public. Raising awareness on these tools will facilitate their implementation for a good ecosystem state and a healthier environment.	***Positive****/negative/neutral*
Air and climatic factors	Ecosystems influence the local climate and air quality. Vegetation provide shade whilst forests influence rainfall and water availability both locally and regionally. Trees or other plants also play an important role in regulating air quality by removing pollutants from the atmosphere. Forest ecosystems are key habitats for LC therefore PET HAB ECO aims to protect them and improve eco-connectivity. PET HAB ECO integrative ecosystem management practices promote natural forest structures, natural regeneration and forest stand development through mimicking natural processes and small-scale disturbances. Wildlife management, being part of forest management, aim to preserve habitats and favourable conservation status of many species. Large carnivores are in wildlife management seen as umbrella species.	***Positive****/negative/neutral*
Transport demands		*Positive/negative/****neutral***
Material assets		*Positive/negative/****neutral***
Use of renewable and non-renewable resources	Renewable and non-renewable natural resource management in a key issue of PET HAB ECO. In the AIR this kind of management strongly demand for transnational cooperation. Sharing data and common tools will create the base to take up shared measures for sustainable exploitation of common natural resources on land.	***Positive****/negative/neutral*
Cult. herit., incl. archit. and archaeological	Management strategies to reduce human-LC conflict are most effective when accepted by local communities. Studies have suggested that the acceptance depends on emotions toward LC, the cultural importance of LC, and livestock depredation, and that it may vary depending on the types of strategies and	***Positive****/negative/neutral*

	carnivores involved. Therefore, the emotions and cultural importance that local communities associate with carnivores should be evaluated when seeking to gain acceptance of management strategies and account for differences between species. PET HAB ECO promote human-LC coexistence studies that should consider the socio-psychology of local communities and the detection of shifts in cultural, emotional, and ecological factors over time.	
Landscape	Landscape character is the result of the action and interaction of natural and/or human factors. Land cover and human population changes appear to have major influence on the habitat suitability pattern for large carnivores in Europe. Land use changes is linked to changes in wild ungulate populations, availability of denning and refuge areas and level of human persecution. Therefore, sustainable landscape management and eco-connectivity is a relevant issue that will be addressed by PET HAB ECO. Positive impact is foreseen on straighten integrative landscape role in local, national and regional strategic spatial planning.	***Positive****/negative/neutral*

4.6 Project activities

4.6.1 WPM - Work Package: Management

This WP involves the overall coordination, administrative and financial management of the project, as well as steering and monitoring. The aim is to have a well-managed project reaching its objectives without any major irregularities and conflicts among the partners, with smooth reporting to the programme.

M 1.1 Project start-up activities

The starting point of this phase is the design and signature of the Subsidy Contract, providing, together with the Partnership Agreement (determining the roles and responsibilities of each partner) the legal basis for the project implementation. An internal (kick-off) meeting will be organized, where Partners will agree on a detailed implementation plan including allocation of tasks, detailed budget, Gantt diagram (draft and final) in accordance with the Programme's requirements. The other core element of the start-up phase is establishing professional project-level and partner-level coordination and financial management structures (Lead Partner Management Team - LPMT; Project Partner Management Team - PPMT; Technical Working Groups - TWG) which, by drawing up internal rules of procedures, will efficiently coordinate the project, and support partner level management. These procedures will be also presented and agreed at the kick-off meeting. The LPMT, PPMT and TWG will be set up during months 2-3 of the project.

M 1.2 Day-to-day management and coordination

Day-to-day project management will be regulated by the Project Management and Financial Handbook. Management at project level will be facilitated by the professional LPMT and an ICT tool. It will be used by all PPs, bringing management tasks to a common virtual platform. Six project meetings, regular contact through the internet, telephone and online conferencing will ensure smooth day to day implementation and monitoring of progress. An internal reporting system and efficient internal communication procedures will guarantee that all irregularities are spotted/mitigated on time. The submission of the half yearly progress reports (consisting of activity and financial report) will be organised to meet programme requirements and will be coordinated by the LPMT based on partner inputs (partner reports). The LPMT will be responsible for the administrative closure of the project.

M 1.3 Financial management

Day-to-day financial management will be carried out according to the Project Management and Financial Handbook. Sound financial management ensures that the costs incurred by PPs can be reimbursed and PPs are able to carry on with implementation of tasks. Thus an internal financial reporting system will be set up to ensure efficient financial management. The LP's Project Financial Manager (PFM), supported by experienced external professionals, will be in charge of overall (and LP-level) financial management. This activity includes ensuring proper financial documentation & monitoring of expenditures, collection of necessary documentation from and transfer of funds to PPs, cash flow management.

M 1.5 Steering and monitoring

Steering and monitoring will be primarily the task of the Steering Committee (SC), the project's strategic decision making body. The Rules of Procedures for the SC will be prepared, based on the Partnership Agreement, by the LPMT. LPMT will communicate the progress of project implementation towards the SC in 2 monitoring reports. The composition of the SC will be finalized at the internal kick-off meeting. The SC will meet regularly to evaluate project progress and to take necessary strategic decisions). At their final meeting, the SC will endorse the final project output documents, and the final monitoring report of LPMT. Finally, an Advisory Board will be created (AB) with experts from the AIR. The AB will provide comments and support to improve the project activities but also facilitate the transferability of the results.

4.6.2 WPC - Work Package: Communication and capacity building

The objective of WPC is to raise awareness on the need for integrative and ecosystem approach in management of large carnivores' population and habitats. Capacity building activities are mainly oriented to experts in spatial planning, tourism, agriculture, rural development, decision makers and local authorities to increase public acceptance and awareness regarding the important ecological function of large carnivores in the ecosystems including in providing ecosystem services. With this approach, transnational cooperation will also contribute to

develop strategic planning aspects and regional action plans. The final aim of this WP is also to enhance not only the environmental but also the social-cultural dimension of PET HAB ECO in AIR and to spread knowledge about the opportunities and advantages offered by them. All activities will have as their common denominator the dissemination of information in order to achieve multiple environmental and social benefits. Concrete benefits of PET HAB ECO for young generations and local communities will be highlighted (e.g. job creation, better quality of the environment, etc.).

C 1.1 Communication and Capacity Building Strategy, Action Plan and Post project communication Strategy

Objectives of WPC will be pursued by creating a Communication and Capacity Building Strategy, Action Plan and Post project communication Strategy that will involve all partners. The definition of a communication network between the project partners will ensure coordination in communication activities throughout the AIR. As part of WPC various activities will be carried out, addressed specifically to different target groups: young people, local communities, NGOs, the large public, practitioners and professionals. Strategies and action plans will be prepared describing in detail the communication activities to be undertaken and identifying responsible partners and timing for implementation. They will specify the contents and formats of the communication materials to be prepared, locations, dates and contents of the events and the project communication identify (e.g. project logo, features for social media profiles, etc.).

PET HAB ECO communication and capacity building activities will be focused on improve communication and mitigate human- LC conflicts. The social acceptability of carnivore policy hinges on their ability to address the existing plurality of cultures, values, and knowledge systems. In situations where opinions are polarized, trust is low, carnivore conservation or local livelihoods are negatively affected, and where traditional top-down approaches are not sufficient, there is a need to create a space for dialogue between stakeholders, where the underlying sources of conflict can be discussed and unpacked. PET HAB ECO will address challenges of involving as larger as possible group of interested parties, seeing as mistrust between stakeholders and toward management authorities and participatory processes in general may be the result of a long history of negative interactions and experiences.

C 1.2 Project promotional materials, publications and press conferences and events, project official Web page and social media

Promotional material and publications addressing specific target groups will be designed in the ways that better explain challenges and opportunities offered by PET HAB ECO. The WP leader CM will create and maintain at least 4 social media channels (e.g. YouTube, Facebook, Instagram, Twitter) to publish and disseminate project outcomes.

C 1.3 "LC learning in schools" AIR network (primary and secondary level schools)

Targeted events addressed to young people will be organized in primary and secondary level schools to involve teachers and students in education and awareness-raising activities. Focussed

communication materials will be prepared to be used during the events to promote LC learning in schools and networking.

C 1.4 LC e-learning tools, course syllabus and certification scheme (adult education and HEIs)

LC online learning tools, course syllabus and certification scheme will be developed to address needs of adult education and HEIs and to provide guidance, examples and good practices for the design and delivery of e-learning solutions, based on the work undertaken by PET HAB ECO. Basic concepts and information on the PET HAB ECO processes and resources involved in e-learning development, which may be of interest for mainstreaming, will be provided.

C1.5 "LC coexistence with humans" LC and ecological connectivity" - storytelling videos

Storytelling videos will be focused on two key aspect of PET HAB ECO ecological connectivity and LC coexistence with humans.

C 1.6 Strategy to improve institutional capacities and cross-sectoral cooperation, including tailored networking, education and awareness rising activities;

Project partners will analyse stakeholders needs for the development of the Strategy to improve institutional capacities and cross-sectoral cooperation, including tailored networking, education and awareness rising activities. The strategy will be prepared in English with summaries in the languages of the AIR.

C 1.7 Scientific publications, expert's meetings and workshops to discuss environmental and socio-cultural aspects and challenges of coexistence between LC and humans

Two cross-border, international scientific publications, expert's meetings and workshops at AIR scale will be organized, addressed to academics, planners, community leaders and decision-makers. These events will represent key moments of communication on the common challenges and need for transnational cooperation.

C 1.8 Social media campaign and other communication tools for decreasing "emotional impacts", and improve co-existence between people and LC

To all the target groups identified above and to the general public other communication activities will be addressed social media campaign (Twitter, Instagram, Facebook, Linkedin). and other communication tools for decreasing "emotional impacts", and improve co-existence between people and LC.

C 1.9 Communication activities (establishment of working group and a web platform) for conflict management

The most common approach to addressing conflicts between people and large carnivores in the past decades has focused on mitigating the economic damages they cause to farmers. Damage compensation programs are aimed at redistributing the income losses to farmers across society, but they tend to ignore the underlying causes of conflict, thereby impacting their long-term

efficacy and sustainability. More recently, approaches aimed at understanding the different perceptions, values, and cultural representations of wildlife across different individuals and stakeholder groups have involved a paradigm shift in conflict management, moving the emphasis beyond conflicts between people and wildlife toward conflicts between people. Within such approaches, conflict over large-carnivore presence and management is seen as being driven by underlying tensions between different cultures, values, and knowledge systems and by the power relationships that structure these tensions. Establishment of a working group and web platform for conflict management aims to improve the communication activities across different individuals and stakeholder groups to tackle the complexity of the humans–large-carnivores' system.

4.6.3 WPT1: Eco-corridors and green infrastructure network

WPT1 activities: The main challenges of LC conservation stem from the most fundamental characteristic of LC – as top predators these species need a lot of space. Home range sizes of individual large carnivores in Europe tend to vary between 100 and 1000 km^2 (even more) – depending on habitat characteristics and environmental productivity. This implies that they never reach very high densities – typically ranging from 0.1 to 3 per 100 km^2. In addition to these characteristics of resident, adult individuals, juvenile large carnivores often range widely during their dispersal phase, with some individuals moving over hundreds of kilometres. A consequence of this is that populations of these species do not fit into protected areas – in fact very few AIR protected areas are able to embrace the home ranges of more than a few individuals of any large carnivore species. This implies that their conservation depends on their presence in both protected areas and in the matrix of multi-use habitats that surround these protected areas, and in fact constitute most of the AIR landscape. However, their presence in these multi-use landscapes leads to a number of conflicts with human interests. PET HAB ECO aims to enlarge and improve a network of eco-corridors for large carnivores, tools and guidelines for GI intervention and recommendation for forest habitats enlargements. Indeed, the appropriate scale at which LC should be managed and reconsider. A population of large carnivores extends of hundreds, thousands and often tens of thousands of square kilometres. Such a huge area is always fragmented by many types of administrative borders, including those of protected areas, municipalities, counties, states, and super-national entities. It is vital that conservation planning for large carnivores occurs in a coordinated and cooperative manner between all the administrative units that share LC populations. Based on PET HAB ECO pilot intervention, innovative methodologies to improve the efficiency of the eco-corridors in AIR will be implemented. Forests habitats as most important habitats for large carnivore and their connectivity in mountain regions will be enlarged.

T 1.1 AIR network of eco-corridors for large carnivores

LC are often particularly sensitive to landscape fragmentation. Ecological corridors may help to connect local populations, ensuring gene flow and retaining viable meta-populations. Project partners will set up AIR network of eco-corridors for large carnivores. This goal will involve analysing and gathering information on gaps from all relevant stakeholder regarding large carnivores' distribution and already existing green corridors networks, mapping ecological networks for large carnivores in AIR.

T 1.2 Tools and guidelines for GI intervention necessary to LC conservation

Green Infrastructure (GI) stands to improve quality of life in many ways, through its environmental, social and economic credentials, based on the multifunctional use of natural capital. Project partners will analyse main green corridors and core GI areas that should be preserved and managed to safeguard the region's biodiversity and natural value that are important for LC conservation. Based on this, project partners will develop tools and guidelines for GI intervention necessary to LC conservation. This will include specific tools and guidelines on ecological connectivity and green infrastructural intervention in AIR. Proposed tools and practices will also improve the integration of ecological networks into spatial planning.

T 1.3 Recommendation for forests habitats enlargement as most important habitats for large carnivore and their connectivity in mountain regions.

Alteration, fragmentation and loss of habitat all contribute to biodiversity loss. Due to anthropogenic alteration of stand composition and landscape pattern of forest landscapes e.g. managed for industrial wood production, remnant patches of forests and woodlands could not form a functional green infrastructure for sustainable biodiversity conservation. Furthermore, deforestation significantly impacts large carnivores that depend on large tracts of interconnected forest habitat and that are sensitive to human activities. Understanding the relationship between habitat use and spatial distribution of such species across human modified landscapes is critical when planning effective conservation strategies. Project partners will analyse threats connected with deforestation and fragmentation and set up recommendations for forest habitats enlargement and defragmentation and/or connectivity in particular in mountain regions.

4.6.4 WPT2: Monitoring tools and common database

WPT2 activities: The aim WPT2 activities of monitoring and collecting data is acquiring reliable data on large carnivore populations which is crucial for effective conservation and management. Scientific evidence shows that LC can play a key role in maintaining ecosystem health and resilience. Large carnivore management policy needs to be informed by contributions from multiple research disciplines including the natural and social sciences and the humanities. The most urgent need is for science based, robust, but sustainable forms of census and monitoring of the status of large carnivore populations.

Monitoring of large carnivore populations is a crucial activity. It is needed to guarantee their survival, to adapt management practices to changing situations, and for EU countries to fulfil obligations to the Habitats Directive. Monitoring is a process where the results are continuously compared with the desired goal. Before designing a monitoring programme, the objective has to be defined. Second the accuracy and precision required in order to assess the reaching of the monitoring goal must be known. Both the question to be answered and the accuracy needed will finally determine the monitoring methods to be used. Furthermore, it is a very demanding

process because of the large scales over which it must be conducted, often stretching across international borders, and because of the low densities and elusive behaviour of large carnivores. These species occur under a diversity of situations across AIR and their monitoring hence represents a variety of challenges. Many different aspects of a population's status can be monitored, and that different methods are needed for each. The most usual parameters are e.g. distribution, population trend, population size, health and population structure, habitat parameters, threats. All parameters are important, and it is likely that a monitoring programme will include several different approaches and combinations of methods. Monitoring methods should be coordinated and standardised across the entire area of a population, or preferably the meta-population, to allow holistic assessment of the conservation status of the unit. This often requires coordination of monitoring efforts across international borders.

Several independent institutions from AIR should be involved in a monitoring programme, it is important to agree not only on the methods used and the analyses of data, but also on interpretation and reporting. Data from large carnivore monitoring are often used to take management and conservation decisions, and it is therefore important to produce consistent and incontestable results. This includes professional training of all staff involved, from the person collecting data in the field to the statistician responsible for the analyses. It is crucial that field data is validated by trained and critical observers. Raw observational data should also be stored in a manner such that irrespective of the manner in which it is analysed the underlying data can be easily accessed for reassessment. It is crucial to store raw, validated, data free from interpretation in addition to the processed results. It is highly desirable that such databases should be as centralised as possible. Modern computer systems easily allow multiple users at dispersed locations to enter data into a central database. Regarding clinical and genetic research, it is not only important to store pathological or genetic information in databases, but to retain collections of original samples for future analyses.

PET HAB ECO will address challenges connected with LC monitoring in AIR. Transnational monitoring frameworks and database platforms for the interoperability of existing monitoring databases and promotion of data availability are enhanced and complemented. Accuracy of data collection will be improved by using agreed and harmonised monitoring protocols across AIR, as well transparency on how data is acquired and interpreted will be increased, uncertainties about the current state and trend of large carnivores' populations will be resolved.

Research and evaluation activities through the development of a common monitoring and assessment reference framework, and the deployment of advanced tools for mapping, identification and protecting of habitats and management and conservation of large carnivore populations will be implemented. From this process, new knowledge will be acquired of LC behaviour, their habitats population ecology, conservation, adaptation to climate change and management. Multiple forms of knowledge should be utilized where possible, with a strong need to integrate a wide public in data gathering exercises. Existing and established monitoring systems which use civil society groups, such as hunters, should be encouraged whenever they provide useful data.

T 2.1 Digital database platform for the interoperability of existing monitoring databases, assuring data availability

Digital database platform for the interoperability of existing monitoring databases will be set up. This will assure improvement in data availability.

T 2.2 Advanced tools for mapping, diagnosing, protecting and managing large carnivores' populations and habitats

Methodology needs to become more standardized, reliable, consistent and transparent, and should permit population level assessments. Large carnivore conservation goals should be quantified (at population level), set on the basis of sound population data, and credibly monitored. Project partner will develop advanced tools for mapping, diagnosing, protecting and managing large carnivores' populations and habitats.

T 2.3 Recommendations regarding harmonized monitoring protocols, data acquiring methodology and data transparency

The elaboration of a common and reliable monitoring system has been identified during project preparatory phases as the most important among the necessary measures for LC conservation based on scientific knowledge. Among the research priorities the development of robust, reliable and repeatable monitoring methods is considered as the most essential aspect that pose bases for elaboration of comparable management plans. Recommendation regarding harmonized monitoring protocols, data acquiring methodology and data transparency will be a key step to achieve this goal.

T 2.4 Tools and protocols for LC populations and habitats climate change impacts assessment

The impacts of climate change call for attention and investigations to gain more knowledge on the possible impacts of climate change on the LC demography, reproductive success and distribution, and on the development of future monitoring methods. Project partner will develop tools and protocols for LC populations and habitats climate change impacts assessment.

T 2.5 Transboundary network of volunteers for LC collecting data support and citizen science projects

Transboundary network of volunteers for LC collecting data support and citizen science projects will be set up. Citizen science frameworks will be useful at uniting lay and experience based knowledge forms with formal scientific knowledge. However, it is crucial that data quality is high, and that data should be verifiable.

T 2.6 Common LC monitoring and assessment reference framework in AIR

Increased cooperation between researchers and other actors in large carnivore conservation is needed. Improved routines for data sharing are an urgent requirement. Common LC monitoring and assessment reference framework in AIR will help to achieve this goal.

4.6.5 WPT3: Regional guidelines and action plan for large carnivores' management

WP T3 activities: Social conflicts around large carnivores are increasing in Europe, often associated to the species expansion into human-modified and agricultural landscapes. Large carnivores can be seen as an added value by some but as a source of difficulties by others, depending on different values, attitudes, livelihoods, and everyday activities. Therefore, the effective involvement of the different interest groups is important to identify and shape tailored solutions that can potentially be implemented, complementing top-down approaches that might, on their own, result in lack of implementation. To improve dialogue in conflictual situations PET HAB ECO will promote a **participatory process for set up guidelines and action plane for LC management in AIR**.

Participatory processes are being increasingly used in wildlife management, as they are expected to increase the level of compliance with management decisions by fostering a sense of ownership among the parties involved in the decision process. Participation is also expected to improve the design of conservation interventions, making them better adapted to local needs, priorities, and conditions. Even in situations where large-carnivore impacts were seen as unsatisfactorily managed for many years, people were still willing and eager to be involved in alternative discussion processes hoping this would lead to concrete solutions. The process will be focused on the importance of building trust and supporting dialogue for knowledge co-production and mitigation of conflicts between stakeholders and that controversial environmental issues have the potential to trigger a meaningful dialogue about broader societal issues. The direct involvement and support of competent authorities, as well as the upscaling of this process at larger administrative and social scales, remain important challenges that PET HAB ECO will address. The WPT3 is strongly linked to WPC and WPT1 and WPT2. WPC capacity building activities are embedded in all WPT and in particular are at the bases for the participatory process that will lead to AIR action plan, agreement, guidelines and other deliverables.

PET HAB ECO aims to achieve integrated AIR action programme cooperation agreement for large carnivore management with ensured ecological connectivity. Observatory functions for integration and harmonization of management approaches in AIR will be enhanced by established steering committees and joint implementation of pilot actions of LC transboundary management and harmonization of national laws. Illegal killings or poisoning of large carnivores should be considered as a serious violation of law and awareness concerning the penalties and legal consequences for killing illegally and poisoning throughout the society should be strengthened.

T 3.1 Integral AIR action plan and cooperation agreement for large carnivore management with ensured eco connectivity (integrated ecosystem approach)

Human occupation and utilization of forested wildlife habitat in AIR has caused changes in abundance and distribution of vegetation, wild prey and, consequently, on large carnivores. The level of habitat disturbance has ranged from complete deforestation that allowed for long-term

agriculture and permanent human settlement, to sustainable vegetation modification that resulted in negligible human-related development. In many areas, expanding human populations and their concomitant utilization of wildlife habitat have resulted in decreased animal and plant food availability for carnivores; in combination with direct human-caused mortality, most large-carnivore populations have decreased as a result. Project partners will set up an integral AIR action plan and a cooperation agreement for large carnivore management with ensured eco-connectivity. To assure the integrated ecosystem approach, environment, social, cultural, ethic and economic criteria will be considered.

T 3.2 Guidelines for LC transboundary management and harmonization of national laws (including policy and law framework avoiding illegal killings or poisoning of large carnivores)

Social and ecological factors driving illegal killing, poisoning or poaching of large carnivores at sites where it potentially occurs will be analysed. A conceptual social-ecological system framework that ties together many of the factors influencing large carnivore illegal killing, poisoning or poaching will be developed. Guidelines for LC transboundary management and harmonization of national laws including policy and law framework avoiding illegal killings or poisoning of large carnivores will be developed.

T 3.3 Establishment of working group for the development of transnational terrestrial protected areas and habitats devoted to large carnivores' protection, conservation and recovery, and integration thereof in the ecotourism product of the AIR

Project partners will establish a working group devoted to the terrestrial protected areas' development that would be in particular dedicated to LC protection. Priority areas for the conservation of LC will be identified, while accounting for species-specific requirements for connectivity and expected agricultural and urban expansion. Ecotourism operators will be encouraged to form partnerships with protected area managers and local people, with the intention of contributing to the long term protection of LC populations and habitats in the hope of improving mutual understanding and straighten sustainable tourism.

T 3.4 Guidelines for policy makers regarding mitigation of climate change impact on LC population and their habitats

Effects of climate change on large carnivore population and their habitats will be analysed. Guidelines for policy makers/local authorities will be set up to highlight, recognize and mitigate climate change impacts with proposed ecosystem based adaptation measures.

T 3.5 Guidelines for Spatial planners on LC population and habitats conservation and adaptation measures framework in the spatial planning in the EUSAIR

The natural and cultural heritage is permanently threatened in a diverse number of ways. Even though strict protection measures are sometimes justified, it is often more sensible to integrate protection and management of the endangered areas into spatial development strategies for larger areas. Sustainable spatial development can play an important role in the conservation and sustainable use of biodiversity at local and regional level. Guideline for spatial planners on LC

conservation, including climate change and other anthropogenic threats could benefit spatial development in AIR.

4.7 Preliminary budget breakdown

The following preliminary budge breakdown is foreseen for the project.

WP1 - Project management	€ 300.000,00
WPC - Work Package: Communication and capacity building	€ 800.000,00
WPT 1: Eco-corridors and green infrastructure network	€ 1.200.000,00
WP T2: Monitoring tools and common database	€ 1.200.000,00
WP T3: Regional guidelines and action plan for large carnivores' management	€ 1.200.000,00
TOTAL	€ 4.700.000,00

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