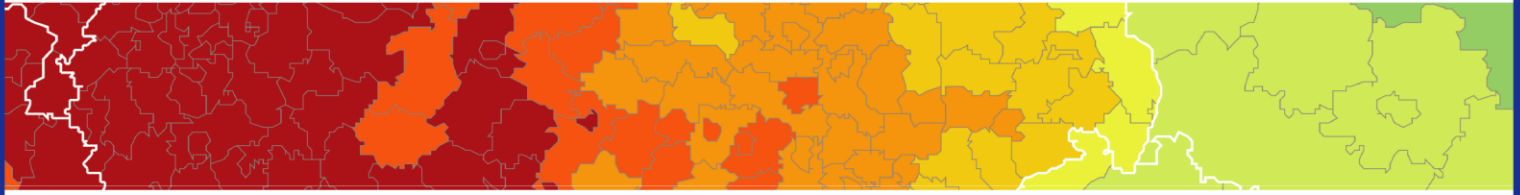


Inspire policy making by territorial evidence



# LinkPAs - Linking networks of protected areas to territorial development

Targeted Analysis

**Scientific Report**

Version 27/06/2018

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## Abbreviations

|         |   |
|---------|---|
| AC      | Alpin Convention  |
| ALCOTRA | Alpes Latines COopération TRAnsfrontalière                                  |
| ALPARC  | Alpine Network of Protected Areas   |
| APE     | Appennine Convention  |
| BAT     | Best Available Techniques   |
| BISE    | Biodiversity Information System for Europe                                  |
| BPAN    | Barents Euro-Artic Region   |
| CDDA    | European Inventory of Nationally Designated Areas                           |
| CNPA    | Carpathians Network of Protected Areas                                      |
| CS      | Cultural Services   |
| CSR     | Corporate Social Responsibility   |
| EC      | European Commission   |
| ECB     | European Central Bank   |
| ECST    | European Chart of Sustainable Tourism                                       |
| EEA     | European Environment Agency   |
| EFSI    | European Funds for Strategic Investments                                    |
| EGN     | European Geopark Network  |
| EGTC    | European Grouping on Territorial Cooperation                                |
| EIB     | European Investment Bank  |
| ENC     | Endogenous Natural Capital  |
| ESIF    | European Structural and Investment Funds                                    |
| ESPON   | European Territorial Observatory Network                                    |
| ESS     | Ecosystem Services  |
| EU      | European Union  |
| EUSALP  | European Strategy for The Alpine Region                                     |
| EUSDR   | EU Strategy for the Danube Region   |
| GDP     | Gross Domestic Product  |
| GI      | Green Infrastructures   |
| WHL     | World Heritage List   |
| IPPC    | Integrated Pollution Prevention and Control                                 |
| IUCN    | International Union for Conservation of Nature and Natural Resources        |
| LAG     | Local Action Group  |
| MAB     | Man and Biosphere Programme   |
| MAIA    | Marine Protected areas in Atlantic Areas                                    |
| MPAs    | Mountain Protected Areas  |
| N2000   | Natura 2000   |
| NACE    | Statistical Classification of Economic Activities in the European Community |
| NEN     | National Ecological Network   |
| NGOs    | Non-Government Organisations  |
| NDAs    | Nationally designated areas   |
| NPA     | Network Protected Areas   |

|        |  |
|--------|--|
| NRM    | Natural Resources Management                             |
| OSPAR  | Network of Marine Protected Areas                        |
| PA/PAs | Protected Area/Areas                                     |
| PAM    |  |
| PEBLDS | Pan-European Biological and Landscape Diversity Strategy |
| PEEN   | Pan-European Ecological Network                          |
| PES    | Payment for Ecosystem Services                           |
| PNR    | Network Protected Micro Reserve                          |
| PPS    | Purchasing Power Standards                               |
| R&D    | Research & Development                                   |
| SAPA   | System of Italian Alpine Protected Areas                 |
| SMEs   | Small and Medium Enterprise(s)                           |
| SIC    | Siti di Interesse Comunitario                            |
| SIS    | Strategic Impact Sector                                  |
| SMEs   | Small and Medium Enterprises                             |
| SPO    | Strategic Policy Objective                               |
| TEEB   | The Economics of Ecosystems and Biodiversity             |
| UNEP   | United Nation Environmental Programme                    |
| WBCSD  | World Business Council for Sustainable Development       |
| WDPA   | World database of Protected Areas                        |

## Foreword

The overall objective of the project “Linking networks of Protected Areas to territorial development” - LinkPAs project - is to explore the role of existing Networks of Protected Areas (NPAs) to define and implement sustainable territorial development strategies and policies. This study was launched by ESPON upon the stakeholders’ request and it seeks to identify emerging trends in governance practices within complex socio-ecological systems (i.e. mountain regions) that are likely to shape a novel approach to natural resource management. Drawing on the activities carried out by existing NPAs, this project seeks to provide significant evidence of the impact that NPAs have on growth at different territorial levels of development. Consequently, the project offers recommendations to ensure the successful capitalisation of the natural resources management; it is furthermore suggested that these recommendations should be integrated to the framework of general and sectoral strategies.

LinkPAs investigates four Protected Areas (PAs) that have joined different NPAs according to their specific territorial characteristics (e.g. PAs typologies, biodiversity, cultural heritage, etc.), institutional structure (e.g. legal status), geographical specificity and diversity (e.g. mountain with low accessibility, the population, poor services of general interest) and geographical location (within the scope of application of an international treaty).

In order to raise awareness regarding PAs and NPAs among prospective stakeholders, the University of Rome Tor Vergata (project leader) has created a consortium comprising five partners and started a close cooperation with the Stakeholders Steering Committee (Abruzzo Region, the EGTC European Park Alpi Marittime-Mercantour, the ALPARC territory, the Municipality of Razlog)<sup>1</sup>. As prescribed in the Terms of Reference (ToR), this Final Scientific Report (FR) provides a description of the conceptual and methodological framework used to carry out this project. It also outlines an overview of existing models of NPA and their governance and regulations within territorial development as well as within the current European policy on Green Infrastructures. In this framework a possible management approach has been proposed for NPAs in order to integrate them within sectoral and development strategies. Special focus on the potential role of local actors (particularly SME) in this process has been indeed developed. According to Targeted Analysis objectives large part of the discussion has devoted to case studies analysis. The report concludes by discussing a set of policy recommendations targeted to stakeholder’s territories.

---

<sup>1</sup> The project partners met the Steering Committee four times: Kick-off meeting in Luxembourg on 28<sup>th</sup> June 2017, 2<sup>nd</sup> SC that was held through conference call on 2<sup>nd</sup> October 2017; 3<sup>rd</sup> SC on 16<sup>th</sup> of January 2018 and 4<sup>th</sup> SCon 4<sup>th</sup> of May.

# 1 LinkPAs approach and main goals

In Europe, mountain areas have social, economic and environmental capital of significance for the entire continent (EEA Report 6/2010: Europe's ecological backbone: recognizing the true value of mountains). Since the late 19th century, this importance has been recognised through national legislations; since the 1970s, it has been confirmed through dedicated regional structures for cooperation and since the 1990s regional legal instruments for the Alps (1991) and Carpathians (2003) have further remarked such a value. The European Union (EU) first recognised the specific characteristics of mountain areas in 1975 by designating the so called Less Favoured Areas (LFAs). During the last decade, both the EU Cohesion Policy and the Treaty of Lisbon have focused specifically on mountains. Some European countries as Italy have dedicated special national strategies to these inner areas (see ESPON 2020 Prophecy project).

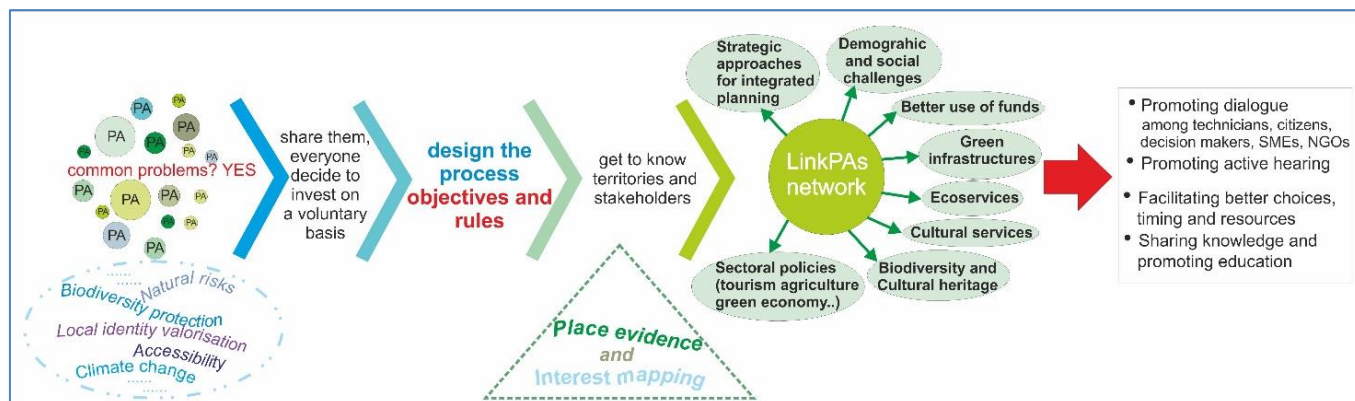
To date, the European Union has been promoting policies based on the conservation and protection of mountain landscape (European Landscape Convention of the Council of Europe – ELC), attracting the public authorities' attention regarding sustainable development, green economy, climate change mitigation, ecoservices, green infrastructures, etc. The high levels of biodiversity found in Europe's mountains have led the EU and national governments to designate a large part of their areas as 'Natura 2000 sites', respectively under the Habitats and Birds Directives and national/regional legislations. These sites cover 14% of the mountain areas of the EU (European Environment Agency, 2010) including different typologies at transnational, national, regional and local level.

Mountain Regions are essential to sustainable development and, over the last few years, various instruments have been developed to integrate protected areas via spatial planning methods and approaches. In accordance to international legally binding agreements and under international law (Alpine Convention 1991, Carpathian Convention 2003) and cooperative programmes (Central Europe, Urbact II, MED and LIFE), it has been possible to implement actions governing protected areas (mainly mountain ones), which have also been supported by European network activities as in ALPARC, EUROPARC, European Net of the Sustainable Tourism Chart, etc. The Council of Europe favours these networks, often in close collaboration with established EU observatories (e.g. on landscape, tourism, biotopes, etc.). Taking part in EU projects – which have been designed according to shared objectives and reflections to promote common actions/guidelines – has increasingly facilitated the creation and consolidation of networks focusing on protected areas and their related issues.

The experiences within the PAs context can lead to the creation of an appropriate methodological framework that is able to tackle issues such as “linking network” (when conceived in general terms and relating specifically to protected areas), “mountainity”, “endowments” for socio-economic sustainable development (i.e. agriculture, tourism, green production and services, landscape organisation, reaction to climate change, re-population, digital connection, etc.). The LinkPAs methodology (Fig. 1) draws mainly on Economic

Geography and Spatial Planning, which provide a sound framework for the understanding of the more recent evolution processes and trends:

Fig. 1: LinkPAs project methodology



Source: LinkPAs project elaboration, 2017

The scientific approach used in the LinkPAs project is:

1. analysing those (formal and informal) NPAs that have been actively involved in shaping the EU mountain political arena (at high NPAs level) and any related stakeholders (at meso- and micro-NPAs levels);
2. examining the types of EU mountain protected areas at national/regional/sub-regional level and within the stakeholders' territory; detecting and classifying PAs that take part in any existing type of NPAs, on the basis of their specific territorial characteristics, institutional structure (e.g. legal status) and geographical location;
3. analysing the main political issues and strategies reported by each ESPON countries, Regions and NPAs under scrutiny, with particular regards to demography, employment, and GDP;
4. investigating governance models within the EU mountain protected areas and the stakeholders' territory, examining nature protection activities under different model of governance, and highlighting their effects on PAs management (particularly, if considering that most legislations aiming to protect nature are issued at national or regional level whereas most activities take place at the local level);
5. drawing up of list of relevant policies applicable to these mountain protected areas (tackling climate change, employment, digital transition, migration, agriculture, tourism, marginalisation, management of natural resources, seismic risk, land use, etc.)
6. carrying out a sound comparison of all involves stakeholder territories (as per points 3 and 4 above);
7. mapping analytic phenomena and results relating to the stakeholder territories;
8. drawing up general and specific policy recommendations to help local and regional administrations to attract SMEs, private investors, etc.; particular attention will be paid to EU instruments such as CAP, the LIFE programme, etc. in accordance with the EU Biodiversity Strategy and climate change mitigation;

## 2 Existing NPA models and governance: opportunities and challenges

### 2.1 Definition of NPAs, their objectives and main characteristics

Countries and Regions have different ways of identifying and designating protected areas (PAs). PAs are legally established (Map. 1) in order to achieve different management objectives strictly linked to nature and biodiversity conservation. Box 1 summarises the main concepts and definitions agreed by all LinkPAs Partners.

*Box 1: Concepts and definitions agreed by all LinkPAs partners*

**Protected area (PA):** IUCN defined a PA as a “clearly defined geographical space, recognised, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature, with associated ecosystem services and cultural values”. In this sense, if well managed, protected areas are able to contribute to improving the quality of life of local communities, thus becoming an example of respect for the surrounding contexts. According to IUCN (2013), PAs are classified as *Strict Nature Reserve; Wilderness Area; National Park; Natural Monument; Habitat/Species Management; Protected Landscape/Seascape; Protected Area with Sustainable Use of Natural Resources*.

**Network of protected areas (NPA):** system of PAs comprising two or more PAs that share common goals. An NPA can be seen as a governance instrument to ease the coordinated management of protected areas, which require joint actions for their conservation and valorisation

**Mountainous protected areas (MPA):** these are PAs localised in mountain regions, as defined by specific national regulations. They have social, economic and environmental capital which is of importance to the entire continent (EEA Report 6/2010: Europe’s ecological backbone: recognizing the true value of mountains). MPAs are essential to sustainable development and, over the last few years, various instruments have been developed to integrate these protected areas via spatial planning methods and approaches.

**Ecological network:** this is “a coherent system of natural and/or semi-natural landscape elements that is configured and managed with the objective of maintaining or restoring ecological functions as a means to conserve biodiversity while also providing appropriate opportunities for the sustainable use of natural resources.” (Bennet 2004, p. 6)

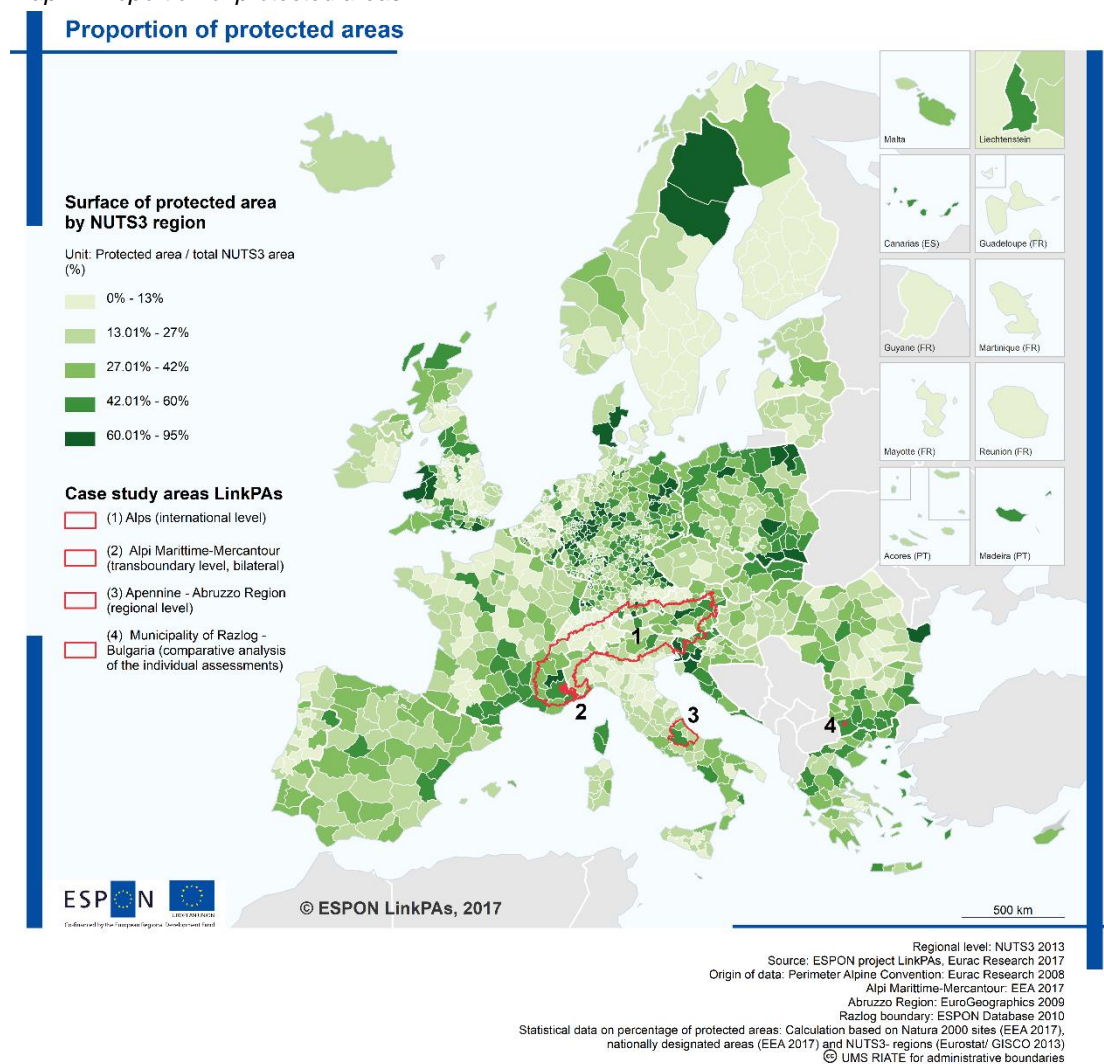
**Ecosystem services:** according to the *Millennium Ecosystems Assessment* (2005a), they consist of:

- Provisioning services: the products people obtain from ecosystems, such as food and crops; livestock; capture fisheries; aquaculture; wild foods, fibres (timber; cotton; hemp; silk; wood fuel), fresh water, genetic resources; (bioprospecting: natural and biochemical medicines).
- Regulating services: the benefits people obtain from the regulation of ecosystem processes, including regulation of: air quality, climate, (global, regional, local) water, erosion; human diseases, water purification and waste treatment; pest; pollination, natural hazard.
- Cultural services: the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences: tourism, recreation, scenery/landscape; community identity/integrity; spiritual value; education/science.
- Support services: those services that are necessary to maintain all other ecosystem services, such as primary production, production of oxygen, and soil formation (soil quality).

Following the evolution of different approaches to biodiversity conservation and sustainable development, protected-area management is currently framed within an ecological network approach (IUCN, 2003). Therefore, PAs are increasingly being designated and managed as systems, rejecting the traditional view that regards protected areas as ‘islands of nature’, fenced off from the dangerous outside world. The objectives of biological and cultural diversity are integrated by social and economic aims, e.g. the provision of ecosystem services for

settlements and human well-being. The recent new Action Plan of the EU Commission (Action Plan for Nature, People and the Economy, EC 2017), devoted to reaching the EU 2020 goals on biodiversity, identifies the following as its priority: “ensuring better coherence of biodiversity conservation with broader socio-economic objectives”. In order to achieve this aim, in many cases Networks of PAs (NPAs) emerged as a governance instrument in the framework of territorial sustainable development.

Map 2: Proportion of protected areas



Source: LinkPAs project elaboration, 2018

## 2.2 EU overview on PAs and biodiversity conservation

A number of international initiatives to protect key habitats have created further designations such as Biosphere Reserves, World Heritage Sites, Wetlands of International Importance (Ramsar sites) or Key Biodiversity Areas. In Europe, PAs have been designated by institutions at levels from the sub-national to the global and with different purposes. The designation might have the aim to conserve biodiversity at the levels of ecosystems, habitats and species, or have a greater focus on the maintenance of specific landscapes or sustainable development.



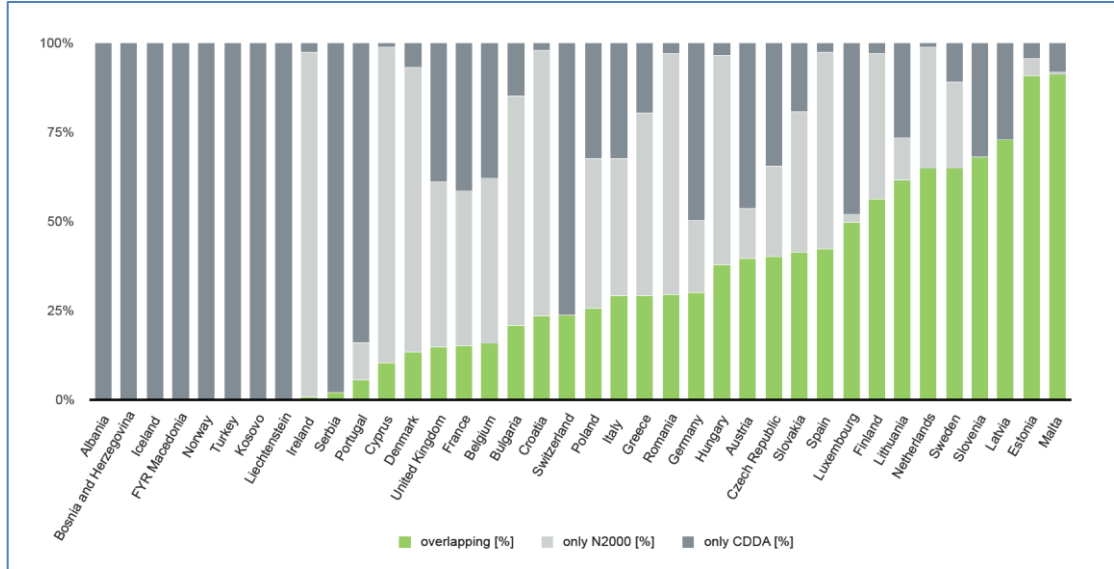
In order to identify a common language, IUCN defines a PA as a “clearly defined geographical space, recognised, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature, with associated ecosystem services and cultural values”. IUCN identifies also six categories of PAs based on their main or primary management objective, for defining, recording and communicating about PAs. The six categories are: Ia) Strict nature reserve; Ib) Wilderness area; II) National park; III) Natural monument or feature; IV) Habitat/species management area; V) Protected landscape or seascape; VI) Protected areas with sustainable use of natural resources.

Mountain PAs are designated for the protection of a wide natural and cultural resources, they have social, economic and environmental capital which is of importance to the entire continent. Mountains support about one quarter of world's terrestrial biodiversity and include nearly half of the world's biodiversity 'hotspots'. Of the 20 plant species that supply 80% of the world's food, six originated in mountains. According to the CBD, they cover about 27% of the world's land surface and provide the freshwater needs of more than half of humanity.

Along with mountain PAs, Natura2000 sites under Habitat Directive ensure continued provision of ecosystem services. Data from the European Environment Agency (EEA, 2010a) show that the 43 % of the total area designated as Natura 2000 sites is in mountain areas, compared to 29 % for the EU as a whole. These sites cover 14 % of the mountain area of the EU. In total 15 % of Europe's total mountain area lies within sites that countries have designated for conservation (Fig.2, Fig.3).

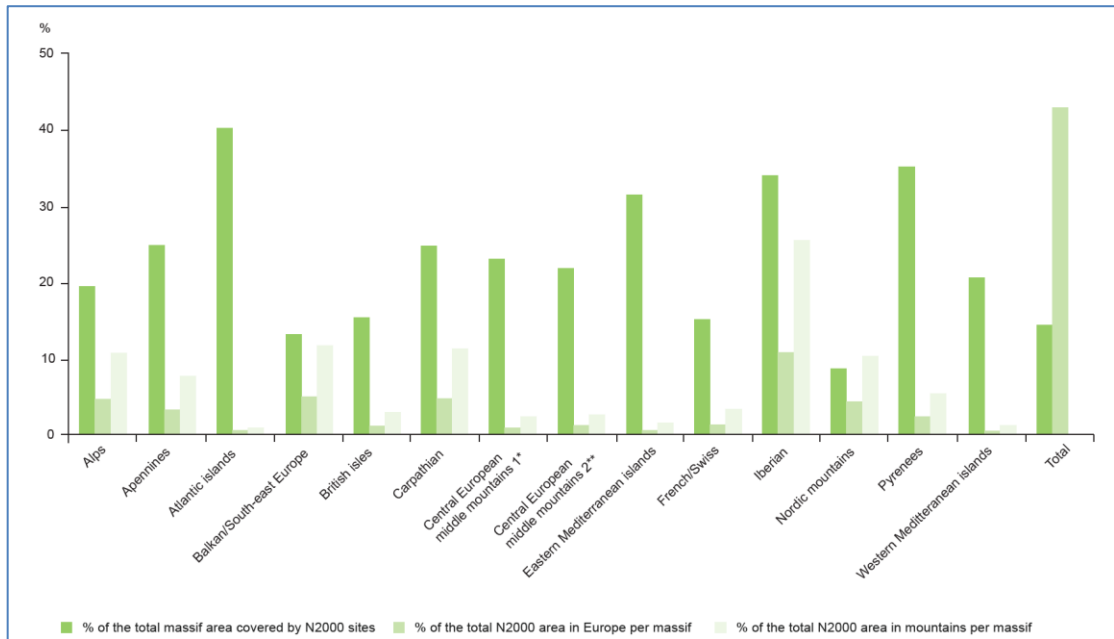
Moreover, Europe's mountains provide a wide range of ecosystem services, that are highly multifunctional and vary greatly at all spatial scales. Ecosystem services of mountains are in particular: 1) Provisioning services, e.g. freshwater, fresh air, timber, food, renewable energy supply; 2) Regulating services, e.g. climate, water, air, erosion and natural hazard regulation, carbon sequestration; 3) Cultural services, e.g. recreation/tourism, aesthetic values, cultural and spiritual heritage; 4) Supporting services, e.g. ecosystem functions, including energy and material flow, such as primary production, water and nutrient cycling, soil accumulation, and provision of habitats. (source: Millennium Ecosystems Assessment, 2005; EEA, 2010b).

Fig. 2: Share of terrestrial area designated in Europe under N2000 and CDDA (all IUCN categories)



Source: EEA, 2017

Fig. 3: Distribution of the Natura2000 sites over the European mountain massifs



Source: EEA, 2011

### 2.3 From PAs to NPAs

In recent years, a more inclusive approach to protected area management has emerged. Protected areas are mostly made up of heterogeneous interacting elements and their future existence strictly relates to the maintenance/consolidation of the relationships among these various components, which are the real assets in terms of nature and landscape of protected areas.

The IUCN 5th World Parks Congress (2003) managed to gather interesting results that, in accordance with the framework provided by the CBD Program of Work on Protected Areas, helped underpinning a “new paradigm” for protected areas. The main aspects taken into account in putting forward this paradigm were better engaging with local communities in and around protected areas and shifting towards planning strategies for protected areas involving and catering for the local communities (rather than going against them, as it happened sometimes in the past).

The new “paradigm” for protected areas has captured this new trend (Table 1).

In this light, two different approaches to the creation of networks of protected area (NPAs) can be identified.

One approach is mainly based on the interactions (within a specific PA and between PAs) of natural and cultural components; its main objectives are:

- i. improving the bio-connectivity (within a specific PA) of biocoenosis and different living environments that survive and strengthen only to the extent that they can keep continuity and overcome anthropic disruptions. The interaction between protected areas is essential to ensure ecological connectivity. The concept of Ecological Network has been formulated as a response to fragmentation processes (Bonnin et al. 2007) which today represent a serious threat for biological diversity and ecological processes (Lindenmayer and Fisher 2006).
- ii. improving the accessibility of networks of protected areas and other open spaces (e.g. natural environments and urban natural areas) used for public and recreational activities by users willing to develop their landscaping potential. Turning open spaces within urban boundaries into green interconnected areas and disclosing rural areas around expanding urban centres can also help the transition towards urban sustainability. This may also improve the quality of life of urban residents, their physical and mental health, which in turn can decrease mortality rates and increase employment by attracting investments. Improved local environmental quality and increased real estate value can also be seen as positive outcomes (World Resources Institute, 2005).

Table 1: A new paradigm for protected areas

| Topic             | As it was: protected areas were...  | As it is becoming: protected areas are...  |
|-------------------|---|--|
| <b>Objectives</b> | <ul style="list-style-type: none"> <li>▪ Set aside for conservation</li> <li>▪ Established mainly for spectacular wildlife and scenic protection</li> <li>▪ Managed mainly for visitors and tourists</li> <li>▪ Valued as wilderness</li> <li>▪ About protection</li> </ul> | <ul style="list-style-type: none"> <li>▪ Run also with social and economic objectives</li> <li>▪ Often set up for scientific, economic and cultural reasons</li> <li>▪ Managed with local people more in mind</li> </ul> |

|                              |  |   |
|------------------------------|--|---|
|                              |  | <ul style="list-style-type: none"> <li>▪ Valued for the cultural importance of so called “wilderness”</li> <li>▪ Also about restoration and rehabilitation</li> </ul>   |
| <b>Governance</b>            | Run by central government  | Run by many partners and involve an array of stakeholders   |
| <b>Local people</b>          | <ul style="list-style-type: none"> <li>▪ Planned and managed against people</li> <li>▪ Managed without regard to local opinions</li> </ul> | <ul style="list-style-type: none"> <li>▪ Run with, for, and in some cases by local people</li> <li>▪ Managed to meet the needs of local people</li> </ul>   |
| <b>Wider context</b>         | <ul style="list-style-type: none"> <li>▪ Developed separately</li> <li>▪ Managed as ‘islands’</li> </ul>                                   | <ul style="list-style-type: none"> <li>▪ Planned as part of national, regional and international systems</li> <li>▪ Development as ‘networks’ (strictly protected areas, buffered and linked by green corridors)</li> </ul> |
| <b>Perceptions</b>           | <ul style="list-style-type: none"> <li>▪ Viewed primarily as a national asset</li> <li>▪ Viewed only as a national concern</li> </ul>      | <ul style="list-style-type: none"> <li>▪ Viewed also as a community asset</li> <li>▪ Viewed also as an international concern</li> </ul>   |
| <b>Management techniques</b> | <ul style="list-style-type: none"> <li>▪ Managed reactively within a short timescale</li> <li>▪ Managed in technocratic way</li> </ul>     | <ul style="list-style-type: none"> <li>▪ Managed adaptively in a long-term perspective</li> <li>▪ Managed with political considerations</li> </ul>  |
| <b>Finance</b>               | Paid for by taxpayer   | Paid for many sources   |
| <b>Management skills</b>     | <ul style="list-style-type: none"> <li>▪ Managed by scientists and natural resources experts</li> <li>▪ Expert led</li> </ul>              | <ul style="list-style-type: none"> <li>▪ Managed by multi-skilled individuals</li> <li>▪ Drawing on local knowledge</li> </ul>  |

Source: WPCA-IUCN, 2003

Another approach concentrates on the socio-economic interaction between protected areas and territorial contexts; its main objectives are:

- i. developing fruitful interactions between protected areas and cities, highlighting the growing interest of citizens for natural or semi-natural areas in and around cities. This is especially important for those policies addressing parks and protected areas, which aim to avoid or reduce insularisation and improve their economic and social impact (“Benefits beyond boundaries”, as recommended during the Durban meeting, IUCN, 2005, in reference to the “new paradigms” framework). Protected areas and the surrounding territorial contexts on which protected areas have an impact on will greatly benefit from this approach. This interrelation is also reflected by the increasing number of people moving from the city to protected areas and natural spaces outside urban boundaries.

- ii. maintaining, or shifting towards new interactions between protected areas and local communities, by developing and innovating relationships between semi-natural environments (uses) and traditional or new communities (new migratory phenomena, neo-rural inhabitants, new ascetics, etc.). In this sense, IUCN highlights the need to extend protection actions and benefits over the boundaries of protected areas in order to involve the local communities in valorisation strategies, regardless their administrative reference. The opportunity to initiate non-controversial planning, management and co-operative planning with local communities is the real breakthrough in park management approaches and protected area networks that has occurred in recent years. As a matter of fact, local communities play a central role and their presence in and around protected areas guarantees the quality of ecosystems, economic development and widespread care of the territory.

The first approach described above generated a NPA typology mainly related to conservation, environmental protection, landscape development and transition toward sustainability; the second approach has enabled NPAs to maintain the identity values of protected areas, often linked to resident communities. Recognizing the existence of tangible and non-tangible networks and their interconnections makes it possible to accurately assess and enhance the possible effects of NPAs on territorial development and related interaction.

Following the evolution of different approaches to biodiversity conservation and sustainable development, protected-area management is currently framed within an ecological network approach (Thomas L., Middleton J., IUCN 2003). Ecological network can be defined as “a coherent system of natural and/or semi-natural landscape elements that is configured and managed with the objective of maintaining or restoring ecological functions as a means to conserve biodiversity while also providing appropriate opportunities for the sustainable use of natural resources.” (Bennet, 2004)

Therefore, protected areas are increasingly being designated and managed as systems, rejecting the traditional view that conceives protected areas as ‘islands of nature’, fenced off from the dangerous outside world. The objectives of biological and cultural diversity are integrated with social and economic aims, e.g. the provision of ecosystem services for settlements and human well-being. PAs should not exist as unique islands; rather, they need to be planned and managed as an integral part of a broader context. Consequently, the territory can be considered as a “network of networks” able to provide vital connections (IUCN 2005, Gambino 2012):

- *in space*, between facts variously located in the territory,
- in time, between facts that have occurred at various times in the history of the territory, and
- *in society*, between different subjects and social groups.

This “reticular paradigm” (Sargolini et al., 2006) must necessarily have a strongly multidimensional character and all its relationships in some way influence the connectivity of

the systems. In fact, the ways in which the different protected areas relate, not only refer to the different levels of governance (European, transnational, national, subnational, local, etc.), but also deal with aspects that characterize the different interactions among protected areas, as well as between protected areas and their contexts.

The application of this approach that suggests “looking beyond the boundaries of protected areas” has increased steadily in recent decades, due to the growing awareness that protected areas enclosed within their borders risk asphyxia, ecological and socio-economic death. Moreover, this outward-looking attitude would increasingly strengthen the role of protected areas as testing areas for a proper territorial management, and thus serving as examples to their surrounding area. Having this role, protected areas could significantly affect spatial planning and territorial development of much wider contexts than those limited by their boundaries.

The application of the “reticular paradigm” to PAs planning, which also entails the landscape approach introduced by the European Landscape Convention (ELP, 2000), has highlighted the multidimensional interactions between protected areas towards the NAPs creation and protected areas within given contexts. Drawing on previous experiences, it is possible to note that, where NPAs exist, they can effectively influence the sustainable behaviours of the surrounding areas and the connectivity of the overall territorial system. “Looking beyond the boundaries of protected areas” makes NAPs dynamic, reduces risks of asphyxia, ecological and socio-economic death, and confirms their pivotal role in receiving European innovative inputs aiming at climate change mitigation and green economy.

Moreover, the recent new Action Plan of the EU Commission (Action Plan for Nature, People and the Economy, EC 2017), devoted to reaching the EU 2020 goals on biodiversity, expressively recalls the need to go beyond a conservation approach underlying the PAs role in “ensuring better coherence of biodiversity conservation with broader socio-economic objectives”.

## **2.4 Overview of existing NPAs at the EU level and ESPON territory**

The identification of the existing NPAs starts from the data analysis of the typology of PAs included in the **World Database on Protected Areas (WDPA)** which is the more comprehensive dataset at global scale for PAs in their wider definition.

The World Database on Protected Areas (WDPA, <https://www.protectedplanet.net/>) is a joint project between the United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN), managed by UNEP World Conservation Monitoring Centre (UNEP-WCMC). The dataset described the global distribution of terrestrial and marine protected areas as well as sites that do not meet the standard definition of a protected area but do achieve conservation in the long-term, generically referred to as other effective area-based conservation measures (OECMs).

Comparing the PAs listed per each EU state and the EU ESPON countries (EU28 + Norway, Island, Switzerland and Liechtenstein) an extremely heterogeneous picture emerges; this can in turn offer some preliminary and significant elements for NPAs investigation.

The WDPA proposed classification/categorization sets three different levels of designation for PAs that are in turn likely to shape NPAs. The dataset contains PAs designated under international and regional conventions and agreements, as well as those established at national level:

- **International:** Sites designated or proposed by a country under an international framework or agreement
- **Regional:** Sites designated or proposed by a country under a regional (supra national) framework or agreement
- **National:** Sites designated or proposed at national or sub-national level

1) **International designations** include sites under the UNESCO's Man and the Biosphere Programme (MAB), the World Heritage Convention (United Nations Educational, Scientific and Cultural Organization, UNESCO), and the Ramsar Convention. All these PAs are not easy to subsume under the IUCN categories, as the WDPA defines that specific IUCN category that includes MAB and WHS sites as "Not Applicable", and Ramsar sites as "Not Reported". Moreover, according to the WHS designation criteria, both social and cultural aspects play an important role in defining a given category; consequently, a WHS network can comprise numerous sites with no relevant ecological components, including the Ramsar network since the designation to Ramsar sites holds only a meaning of a recognition of their value and importance, while they are managed according with national rules. For this reason, these two networks cannot be included in this analysis. Nonetheless, sites included in the WHS and Ramsar network might be part of other voluntary NPAs, along with other types of PAs; notwithstanding this, the creation of a NPA on voluntary basis will be addressed later on here. As for designation at international level, the MAB Programme has been considered as a type of NPA since it can be seen as a possible model to which PAs can look to so as to act together within a given network.

2) **Regional agreements** include sites under the Natura 2000 network (European level), as well as Marine Protected Areas designated under regional conventions such as the Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR) and many others. Among these agreements, the following NPAs have been considered:

- the **Nature 2000 network**, which includes Site of Community Importance (SCI) and Special Area of Conservation (SAC) designated under Habitats Directive (92/43/CEE) and the Special Protection Area (SPA) designated under Birds Directive (09/147/CE);
- the **Emerald network**, which includes Areas of Special Conservation Interest designated according to the agreements laid down in the Bern Convention "Convention on the Conservation of European Wildlife and Natural Habitats".

- the **HELCOM Marine Protected Areas network**. HELCOM (Baltic Marine Environment Protection Commission - Helsinki Commission) is the governing body of the “Convention on the Protection of the Marine Environment of the Baltic Sea”. The designation of Baltic Sea protected areas aiming at protecting marine and coastal habitats and species in the Baltic Sea is a key action for the implementation of the Helsinki Convention;
- the **OSPAR Marine Protected Areas network**, which is one of the instruments proposed by the OSPAR Commissions for the implementation of the “Convention for the Protection of the Marine Environment of the North-East Atlantic”. It aims to protect and conserve species, habitats, ecosystems or ecological processes of the marine environment;
- the **Specially Protected Areas of Mediterranean Importance (SPAMI) network**. It is a NPAs established in the framework of the “Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean”. It aims to protect coastal and marine ecosystems and Mediterranean species.

The following considerations refer to the Natura and Emerald networks of designated PAs and the related legal network they shape:

- both Natura2000 and Emerald networks share similar objectives in terms of conservation of habitats and species, even though the Directive 92/43/CEE (art. 2 comma 3) establishes that “*Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics*”;
- data and cartographies from the WDPA database show that the Natura 2000 network plays an important role in defining and implementing the European Biodiversity Strategy along with the Emerald Network for non-EU countries (e.g. Emerald sites have been designated in Norway, Switzerland, but they are currently missing in Iceland and Liechtenstein);
- many PAs under the Natura2000 and Emerald network overlap with regional NPAs. For example, in the SPAMI network, almost all PAs seem to be N2000 sites; this is due to the fact that all international and regional NPAs are built around the common objective of habitats and species conservation;
- according to the WDPA, these two main networks (Emerald and Natura2000) guarantee biodiversity conservation. These NPAs can count on regional NPAs whose PAs have been designated on the basis of specific territorial objectives and features. Regional NPAs do not limit themselves to the designation of regional PAs; they also provide governance support and coordination for PAs management within a regional network.

3) **National designations** include, among the PAs already mentioned, national parks and nature reserves. This level of designation is based on national rules set by each country, featuring a great variety of models for NPAs and a PAs typology, which depends on their objectives and governance. PAs under national designation reflect different IUCN categories,



and national NPAs include wider objectives that go beyond conservation issues, consider several economic aspects and support the integration of conservation policies and sustainable development.

PAs under national networks are mostly managed by their own management bodies, which can act independently. They are able to build and take part in voluntary NPAs, along with PAs coming from NPAs at international, regional or national networks, with the aim of enhancing their ability to conserve natural resources, enhance management efficiency and impact on territorial sustainable development.

National designated PAs can be analysed in more detail by looking at each national system for the management of biodiversity within the EU territory. Each country issues its own legislation on PAs, identifying an authority that defines their designation and typologies, as well as measures addressing the conservation of habitats and species and the creation of ecological networks.

To conduct this type of study, the more suitable reference point could no longer be the WDPA database. We needed to refer instead to the **European inventory of Nationally Designated Areas - CDDA** (CDDA v15, available at <https://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-12>), which is the official source of information regarding PAs across European countries, which are also uploaded onto the World Database of Protected Areas (WDPA). This dataset *“contains data on individual nationally designated sites and designations in EEA member and collaborating countries. The Common Database on Designated Areas (CDDA) is more commonly known as Nationally designated areas. It is the official source of protected area information from European countries to the World Database of Protected Areas (WDPA)”*.

The survey has been conducted using the information included in the database under the field named as *“addresses of the administrative authority responsible for the designation”* (CDDA\_v15\_tabledefinition).

In general, it is possible to observe that Nationally Designated Areas (NDA) and the PAs designated according to international and regional agreements show a good deal of overlapping, from a spatial and functional point of view.

A wider part of the Natura 2000 sites, as well as sites within regional NPAs, are included in Nationally designated areas that retain a management role for those sites. This results in an integration between the actions taken at international and national level with the national ones; however, at the same time, this makes it more difficult to identify the effects that each NPAs may have on the biodiversity conservation and to territorial sustainable development. The overall picture that emerges from the analysis of institutional NPAs is that there are national systems of PAs, designated by the individual governments and having more or less extensive competence and autonomy, depending on the different regulations and NPAs structuring. They all focus particularly on biodiversity protection. Therefore, NPAs based on supra national agreements and mainly devoted to habitats and species conservation overlap and integrate with NPAs designated at national level.

Table 2 collects and summaries information taken from the CDDA database. Annex 2 and Annex 3 contain all the information regarding each country analysed this far.

*Table 2: Four Legislative set-ups for PAs in ESPON countries (EU28 + Iceland, Liechtenstein, Norway, Switzerland).*

| Type  | Description  | Countries   |
|---|--|---|
| 1. Only one national network depending on a single agency                   | In the Member States with a centralized governance for PAs, only one national network of PAs is established at the national level by a general law; in some cases, the national authority identifies PAs in agreement with the subnational/regional authority. In some cases (e.g. Germany), there is a shared process for the identification of PAs involving local authorities.  | Czech Republic; Germany; Hungary; Ireland; Latvia; Lithuania; Luxembourg; Netherlands; Poland; Romania; Slovakia; Slovenia; Iceland; Liechtenstein; Norway; Switzerland |
| 2. More than one national networks depending on different sectoral agencies | Many national networks are established by sectoral authorities, e.g. the authority for forests or other sector policies. The PAs framework comprises more than one network relying on different institutional bodies at the national level. Generally, one PA pursues general objectives and the others seek to achieve specific objectives (e.g. forest mng., hunting).   | Bulgaria; Cyprus; Denmark; Malta  |
| 3. One or more national networks and subnational networks                   | In the Member States with competence on PAs shared between national and subnational authorities, a more complex situation emerges, since both national and regional laws can establish national, regional and local NPAs. The PAs framework comprises one or more national institutional networks together with other networks established at subnational levels. Formally, the networks are independent of one another. | Croatia; Estonia; Finland; France; Greece; Italy; Portugal; Spain; Sweden   |
| 4. Only regional (county) networks  | No linked to any national institutional body or national or federal law. The PAs framework is determined at the subnational level and only regional (county) networks can be found.  | Austria; Belgium; United Kingdom  |

*Source: LinkPAs project elaboration, 2018 on CDDA database.*

On the basis of this CDDA data, Table 2 offers an overview of the different situations detected across Europe; it contains a description of different scenarios, including the countries where they are found. Four main types of institutional scenarios have been observed: 1) There is only one national network depending on a single agency; 2) There are more than one national networks depending on different agencies;

3) There are one or more national and subnational networks; 4) There are only subnational networks.

As already mentioned, there are NPAs established according to international and regional conventions and agreements and at national level that lead to new designation-based regulations for PAs. In addition, there are NPAs that facilitate the coordination and cooperation of PAs within their regional territories and administrations. PAs nationally designated are able

to establish voluntary NPAs aiming at enhancing information exchange, and the implementation of experiences and/or managing activities addressing the existing sites. This can be done because these PAs share similar aims, geographical features, ecological resources. This type of NPA aims at enhancing the PAs effective management, harmonizing the existing tools within specific territorial contexts, fostering cooperation among PAs, involving other institutional bodies and stakeholders, and building new partnerships.

In order to identify models of governance, the NPAs listed in the Table 2 has been selected because:

- designed at international level (according to the MAB Programme)
- designated at regional level (according to Natura2000, Emerald, OSPAR, HELCOM, SPAMIs)
- they are voluntary networks; these NPAs have been identified according to the existing literature (cf. EEA, 2010) and well-known experiences; they include NPAs within stakeholder territories (e.g. ALPARC and EGTC Alpi Marittime Mercantour)

Table 3 provides an overview of NPAs at international and EU level, and within the stakeholder territories. Each of these NPAs is described according to the following criteria: Legal framework, Territorial level (International, Transnational, National, Subnational), Geographical/Administrative area; Bodies/authorities involved; Management aspects, Typology sectoral/multisectoral; Objectives; Activities.

Table 3<sup>2</sup>: Overview of NPAs at EU level\* and in the stakeholders' territory \*\*

(\*NPAs involving EU countries and non-EU countries are listed as international; \*\*There are no examples from the Abruzzo Region and Razlog Municipality since the cooperation among some PAs is not formalized, and the existing NPAs refer to institutional networks - see Table1).

Legend. Territorial level: I = International; EU = European; T = Transnational; TB = Transboundary; N = National; SN = Sub-national

| N. | Network         | Territorial level | Legal Framework  | Geographical/Administrative area  | Bodies/authorities involved  | Management aspects  | sectoral/multisectoral | Objectives   | Activities   |
|----|-----------------|-------------------|--|---|--|---|------------------------|--|--|
| 1  | Emerald Network | I                 | International legally binding instrument in the field of Nature Conservation. Lunched by the Council of Europe, it was established in 1989 with the adoption of Recommendation No.16 of the Standing Committee to the Bern Convention. | 45 Member States of the Council of Europe and 5 not-member States (Ratifying States and Observers of the Bern Convention) | Areas of Special Conservation Interest (ASCIs), biogeographically assessed to verify their ability to achieve the main objectives of the Network | The governing body is the Standing Committee. A Group of Experts on Protected Areas and Ecological Networks supports the activities and monitors the implementation of the recommendations. ASCIs are managed by the appropriate authorities at national level once designated. | S                      | Conservation of species and habitats listed in Resolution No.4 (1996) and Resolution No.6 (1998) of the Standing Committee to the Bern Convention - Contribution to the Pan European Ecological Network (PEEN) | <ul style="list-style-type: none"> <li>- Providing guidelines on the criteria for sites nomination</li> <li>- Providing indications on the implementation of management, monitoring and reporting measures</li> <li>- Developing the Emerald sites database</li> </ul> |

<sup>2</sup> Table 3 includes NPAs selected on the basis of the method described above. NPAs n.11, NPAs under the UNESCO's Man and the Biosphere Programme (MAB) refer to a general MAB that can be seen as a possible model to which PAs and Natura2000 sites can look to in order to act together and establish coordinated managing processes. Table 2 files information regarding existing MABs, covering all the differences that emerge when MAB are implemented into a specific territory, be it sub-national or transboundary.

| N. | Network                                      | Territorial level | Legal Framework   | Geographical/Administrative area | Bodies/authorities involved   | Management aspects   | sectoral/multisectoral | Objectives   | Activities   |
|----|--|-------------------|---|----------------------------------|---|--|------------------------|--|--|
| 2  | Natura 2000                                  | EU                | International legally binding instrument in the field of Nature Conservation. It was established in 1992 in accordance with the Habitat and Birds Directives (1992)       | All 28 EU Member Countries       | Over 26,000 protected sites: Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated under the related Directives, including Marine Protected Areas (MPAs). They cover over 18% of the EU land area and almost 6% of its marine territory.  | The EC Natura 2000 Biogeographical Process (2012) provides stakeholders and managers of the Natura 2000 network with cooperation platform (to share seminars, workshops and cooperation activities). It is managed and monitored by Expert Groups and Steering Committees. | S                      | Conservation of species and habitats under the Habitat and Birds Directive. Contribution to the Pan European Ecological Network (PEEN)                                   | <ul style="list-style-type: none"> <li>- Providing documents containing guidelines on the management of Natura 2000 sites</li> <li>- Encouraging exchange of experiences and best practices on the management of Natura 2000 sites (e.g. site management in relevant sectors as Farming, Forestry, Rivers, wildlife, invasive and alien species, ecosystem services, etc.)</li> <li>- Scoping study and case studies collection linking Natura 2000 and cultural heritage (examples of successful integrated management)</li> <li>- Developing the N2000 database</li> </ul> |
| 3  | ALPARC - Alpine Network of Protected Areas   | T                 | Association under French law established in 2013. During the same year, ALPARC signed a Memorandum of Cooperation with the Permanent Secretariat of the Alpine Convention | Alpine Convention border         | Associated PAs and PAs within the perimeter of the Alpine Convention. It includes more than 1,000 large alpine PAs that cover about 25% of the Alpine Convention area: 400 protected areas (some are subsumed under the most important categories) plus about 600 are part of the "special protection" listing (landscape protection, quiet areas, sites classes, etc.) | Managed by a Council comprising managers of the Alpine PAs and represented by a President. The General Assembly is where all members participate, and the Board acts as one executive body. The Coordination unit manages the implementation of joint projects.            | M                      | Implementing Art. 11 and 12 of the "Nature protection and landscape conservation" Protocol of the Alpine Convention aiming to establish a pan-alpine ecological network  | <ul style="list-style-type: none"> <li>- Developing research and projects on biodiversity and ecological connectivity, regional development and enhancing life quality</li> <li>- Fostering mountain cooperation and partnerships among protected areas</li> <li>- Educational activities; raising awareness on biodiversity and ecological networks</li> </ul>  |
| 4  | CNPA - Carpathian Network of Protected Areas | T                 | Established in 2006 by the Kiev Conference of the Contracting Parties of the Carpathian Convention  | Carpathian Convention border     | 36 national parks; 51 nature parks and protected landscape areas; 19 biosphere reserves; and around 200 other protected areas   | The CNPA Coordination Unit is responsible for coordinating activities and prepare reports and recommendations to be submitted to the Carpathian Convention   | M                      | Implementing the Carpathian Convention and fostering cooperation between PAs in the Carpathians and other mountain ranges for sustainable development in the Carpathians | <ul style="list-style-type: none"> <li>- Fostering closer cooperation among Carpathian protected areas, including monitoring large carnivores, forest management, developing sustainable tourism and habitat conservation</li> <li>- Making recommendations and enhancing capacity building within protected areas</li> <li>- Exchange of experience, skills, knowledge and data among network members, including through the CNPA working groups</li> </ul>   |

| N. | Network  | Territorial level | Legal Framework  | Geographical/Administrative area  | Bodies/authorities involved  | Management aspects   | sectoral/multisectoral | Objectives  | Activities  |
|----|--|-------------------|--|---|--|--|------------------------|---|---|
| 5  | OSPAR - Network of Marine Protected Areas                              | I                 | Established in 2003 by the OSPAR Ministerial Meeting adopting the Recommendation 2003/3 on a network of marine protected areas           | OSPAR Convention border   | It includes 423 MPAs that cover about 6% of the OSPAR Maritime Area  | The Contracting Parties of the OSPAR Convention are the bodies in charge for the implementation of the MPAs Network. Guidance and background documents have been developed in order to facilitate implementing processes.                        | S                      | Implementing the OSPAR Convention, especially contributing to protect, conserve and restore species and habitats, and establishing an ecologically coherent network of MPAs in the North-East Atlantic  | <ul style="list-style-type: none"> <li>- Assessing the ecological coherence and management of MPAs based on OSPAR principles for an ecologically coherent network of MPAs</li> <li>- Developing a OSPAR database</li> <li>- Developing periodic Status report for MAPs, increasing the OSPAR MPA database, developing tools for MPAs</li> </ul> |
| 6  | HELCOM Marine Protected Areas network                                  | I                 | Established in 1994, in accordance with the HELCOM Recommendation 15/5 "System of coastal and marine Baltic Sea protected areas (BSPAs)" | The area of the Baltic Marine Environment Protection Commission - Helsinki Commission                               | It includes 176 MPAs in the Baltic Sea. They cover a total of 54,367 km <sup>2</sup> , of which 90% (49,107 km <sup>2</sup> ) is a marine area | Working Group on the State of the Environment and Nature Conservation (State and Conservation); it has monitoring and assessment functions and targets issues relating to nature conservation and biodiversity protection within HELCOM          | S                      | Protection of valuable marine and coastal habitats in the Baltic Sea. This is done by designating sites with particular nature values as protected areas, and managing human activities within those areas. Each site has its own management plan | <ul style="list-style-type: none"> <li>- Providing guidelines on the criteria for sites nomination</li> <li>- Providing indications on implementation of management, monitoring and reporting measures</li> <li>- Developing the HELCOM MPA database</li> </ul>   |
| 7  | SPAMIs network - Specially Protected Areas of Mediterranean Importance | I                 | Established in 1995 with the adoption of the SPA/BD Protocol by the Conference of Plenipotentiaries of the Barcelona Convention          | 21 Mediterranean, riparian countries that are the Contracting Parties to the Barcelona Convention and its Protocols | SPAMIs List includes 35 sites  | The Regional Activity Centre for Specially Protected Areas (RAC/SPA) is responsible for the transmission of the proposed sites to the Secretariat, which informs the meeting of the Parties, which decides to include the area in the SPAMI List | S                      | Conservation of natural areas, as well as the protection of threatened species and their habitats   | <ul style="list-style-type: none"> <li>- Providing criteria for choosing protected marine and coastal areas that could be included in the SPAMIs List</li> <li>- Providing criteria about the procedure and the stages to be followed with the view of including an area in the List</li> <li>- Developing the SPAMIs database</li> </ul>       |

| N. | Network                                       | Territorial level | Legal Framework  | Geographical/Administrative area   | Bodies/authorities involved   | Management aspects  | sectoral/multisectoral | Objectives  | Activities  |
|----|---|-------------------|--|--|---|---|------------------------|---|---|
| 8  | DANUBEPA RKS Network                          | T                 | Established in 2007 by signing the Declaration of Tulcea. A related Association was founded in 2014.               | 9 Countries crossed by the Danube river (Romania, Serbia, Hungary, Croatia, Slovakia, Austria, Bulgaria, Germany, Moldova) | Managing bodies of 16 PAs, represented by different partner institutions (public authorities, public enterprises, NGOs) | According to the Associations' Statutes, the Management Board is the elected body managing the operational work of the organisation; it has to be elected every three years by the General Assembly.  | S                      | Enhancing nature conservation within the Danube River Protected Areas; enhancing their management so as to promote sustainable development  | <ul style="list-style-type: none"> <li>- Developing pilot projects; implementing common plans locally and across the Danube River</li> <li>- Improving nature protection and strengthening cooperation</li> <li>- Making more efficient use of national and local resources and enhancing capacity building in the management of protected areas</li> </ul> |
| 9  | Barents Protected Area Network - BPAN         | I                 | Established in 2010, BPAN is an initiative of the Barents Euro-Arctic Council (BEAC) Working Group of Environment. | Barents Euro-Arctic Council (BEAC) border. It comprises four countries (Finland, Norway, Russia and Sweden).               | PAs within the perimeter of Countries of the Barents Euro-Arctic Council. They cover about 13% of the Barents Region.   | The BPAN has been implemented by the nature conservation authorities, scientific institutes and NGOs in Finland, Sweden, Norway and Northwest Russia.   | S                      | Enhancing the conservation of biodiversity and adaptation and mitigation of climate change in the Barents Region. It also supports natural ecosystems and maintains ecosystem services. | <ul style="list-style-type: none"> <li>- Developing recommendations for strengthening the Protected Area Network in the Barents Region</li> <li>- Developing regional pilot projects on threatened high conservation value areas</li> <li>- Communication and awareness raising</li> </ul>  |
| 10 | MAIA - Marine protected areas in Atlantic arc | I                 | Established in 2010 by France, Spain, Portugal and the UK  | It covers three of the five Regions defined by the OSPAR Convention; and the areas of three Regional Advisory Councils     | It includes about 1000 marine protected areas in Atlantic arc   | Partly resulting from exchanges held within OSPAR, MAIA works in close connection with the executive secretariat, namely within the framework of activities of the Intersessional Correspondence Group on Marine Protected Areas (ICG_MPA). | S                      | Enhancing the implementation of the OSPAR recommendations and guidelines relating to MPAs in the Atlantic arc.  | <ul style="list-style-type: none"> <li>- Promoting the sharing of experience and approaches</li> <li>- Compiling and analysing data relating to MPA management</li> <li>- Involving the stakeholders in MPA designation and management processes</li> <li>- Establishing indicators for MPAs and monitoring strategies.</li> </ul>                          |

| N. | Network   | Territorial level | Legal Framework   | Geographical/Administrative area                      | Bodies/authorities involved  | Management aspects  | sectoral/multisectoral | Objectives   | Activities   |
|----|---|-------------------|---|---|--|---|------------------------|--|--|
| 11 | NPAs under the UNESCO's Man and the Biosphere Programme (MAB) | TB/SN             | NPAs established in 1971 under the UNESCO's Man and the Biosphere Programme (MAB) | It depends on NPAs                                    | Biosphere reserves sharing terrestrial and coastal/marine ecosystems, or a combination   | Management and coordination are defined by local authorities within the area  | S                      | MAB is an Intergovernmental Scientific Programme that aims to establish a scientific basis for the improvement of relationships between people and their surrounding environments. | <ul style="list-style-type: none"> <li>- Developing methods for the sustainable management of natural resources and establishing a new relation between people and the environment</li> <li>- Developing methods to support local employment initiatives</li> <li>- Monitoring biodiversity</li> </ul>   |
| 12 | Alpi Marittime - Mercantour                                   | T                 | European Group for Territorial Cooperation established in 2013                    | Transboundary area of the Alpi Marittime - Mercantour | Alpi Marittime Natural Park (Italy) and Mercantour National Park (France)  | The director and deputy director for the EGTC are also the directors of the two founding member parks. EGCT compiles an Action Plan every 5 years   | M                      | Fostering and promoting cooperation among transboundary PAs. Enhancing the coordination and management of the transboundary area   | <p>Project management in the following areas:</p> <ul style="list-style-type: none"> <li>- Monitoring and protection of biodiversity</li> <li>- Restoration and enhancement of natural and cultural landscapes</li> <li>- Environmental education and bilingualism</li> <li>- Sustainable mobility</li> <li>- Agriculture and sustainable tourism</li> </ul>   |
| 13 | EUROPARC Federation   | EU                | Federation of European PAs under German law established in 1973                   | 37 Countries  | Managing bodies of thousands PAs (national and regional parks, nature and biosphere reserves, marine and landscape protected areas, together with a large number of Natura 2000 sites), regional and provincial authorities, associations, institutions. | The Federation is organised in 8 regional and national sections. Thematic Commissions have also been established (6 so far, including Agriculture and Protected Areas, Natura 2000, etc.) | M                      | Improving the management of PAs across Europe thanks to international cooperation  | <ul style="list-style-type: none"> <li>- Strengthening cooperation and fostering experience exchange among PAs and responsible authorities across Europe</li> <li>- Developing guidelines, reports and tools fostering the effectiveness of management of PAs</li> <li>- Developing initiatives in the fields of sustainable tourism in PAs and Natura 2000 sites (e.g. the European Chart of Sustainable Tourism - ECST)</li> </ul> |



| N. | Network  | Territorial level | Legal Framework  | Geographical/Administrative area                        | Bodies/authorities involved   | Management aspects   | sectoral/multisectoral | Objectives  | Activities   |
|----|--|-------------------|--|---|---|--|------------------------|---|--|
| 14 | MedPAN - Network of Mediterranean Marine Protected Areas | T                 | Association under French law established in 2008   | 19 Mediterranean Countries                              | Managing bodies for MPAs, International, national and regional administrations, associations and NGOs. It includes 100 Marine Protected Areas from 19 Mediterranean countries.  | The main governing bodies are the General Assembly, Board of Directors, Secretariat, Scientific Committee and Advisory Committee   | M                      | Fostering cooperation among MPAs and giving them support to manage activities. Promoting and implementing cooperation programmes and strategies, improving NPAs effectiveness | <ul style="list-style-type: none"> <li>- Encouraging protected areas to participate in European and local projects</li> <li>- Reporting on the status of MPAs in the Mediterranean</li> <li>- Developing MAPAMED, the database of Mediterranean Marine Protected Areas, in collaboration with RAC/SPA</li> <li>- Facilitating experience exchange among managers (e.g. workshops, exchange visits, trainings)</li> </ul>   |
| 15 | SAPA Network - System of Italian Alpine Protected Areas  | SN                | Memorandum of Understanding signed in 2013   | Italian Alpine area under the Alpine Convention (Italy) | Managing bodies of 52 PAs (national, natural and regional parks and reserves), and 467 Natura 2000 sites, national, regional and local authorities, associations, research centres, public and private institutions (e.g. Federparchi, ISPRA, Eurac research) | The Network is managed by a Board of members. This coordination board is linked to the Italian Delegation in the Alpine Convention (IMELS). It compiles Action plans defining the NPAs main activities | M                      | Contributing to implementing Alpine Convention Protocols relating to PAs within the Italian Alpine area. Fostering international cooperation among mountain PAs               | <ul style="list-style-type: none"> <li>- Implementing the Protocols of the Alpine Convention in the Italian Alpine Region</li> <li>- Promoting studies, actions, data collection and data sharing within the Italian Alps</li> <li>- Strengthening cooperation among Italian alpine protected areas, fostering their participation in international networks</li> </ul>  |
| 16 | European Geoparks Network - EGN                          | EU                | Established in 2000 by the European Geoparks charter. Since 2005 and after signing the Madonie declaration, EGN was recognized as an official member of UNESCO – Global Geoparks Network in Europe | EU 28   | UNESCO Geoparks located across Europe (Institutional Members). It can also include Individual, Honorary and Cooperating Members (e.g. International Organizations, institutions or individuals)   | The EGN comprises a Coordination Committee, an Advisory Committee, an Operational Secretariat and other Working groups. This network organises Conference and Meetings on a regular basis.             | S                      | Protection of geological heritage and promotion of sustainable development across their territories   | <ul style="list-style-type: none"> <li>- Promoting geotourism as a driver for economic development and job creation</li> <li>- Contributing to the informal and formal education of visitors of all ages by sharing existing scientific, historical and cultural knowledge, skills and values</li> <li>- Promoting the development of geology</li> <li>- Combining the protection and promotion of the geological heritage with sustainable local development</li> </ul> |

Source: LinkPAs project elaboration, 2018

## 2.5 Analysing models of governance for NPAs

The models of governance for NPAs can be characterised by: different levels of relationships between PAs; the presence of an institutional framework for NPAs activities and the ability to involve institutional bodies as well as other actors, be they public or private and reflecting different interests; the specificity of the activities in terms of themes and scope. In this sense, NPAs refer to a general model of multi-level governance able to involve a large number of interdependent actors such as NGOs, the private sector, scientific networks and international institutions.

Table 4: Analysing models of governance for NPAs: Categories and related criteria

| Categories  | Criteria  | Explanation  |
|---|---|--|
| Relationship between PAs within a network                           | Existence of a shared action plan or programme identifying priorities and actions to be taken by/under NPA            | The PAs adopt a shared document which includes common objectives to be achieved under the NPA  |
|   | Existence of a continuous coordination of the PAs activities  | The PAs regularly participate to meetings for discussing the implementation of the NPA action plan and/or sharing results, information, knowledge, activities, etc.  |
| Relationship between NPAs and the related institutional framework   | Existence of a formal strategic/institutional agreement as a basis for the NPA  | NPA set up in compliance to an agreement being institutionally or formally recognised (e.g. international treaty). The agreement can formally refer to the NPA (the agreement recalls or regulates the NPA) or not (the NPA refers to and/or implements the agreement) |
|   | Existence of cooperation with other NPAs  | The NPA establishes agreements/memoranda of cooperation with other NPAs (e.g. Alpine-Carpathian partnerships)  |
|   | Funds (from any source) earmarked to the NPAs management or activities  | The NPA is supported by financial instruments (e.g. member fees, funds from European projects, national/regional/private funds)  |
|   | The NPA formally participates in institutional decision-making processes at the EU/Transnational/National/Local level | The NPA acts as member, advisory body, observer in some institutional boards (e.g. macro-regional strategy, regional committee, etc.) contributing to decision making processes  |
|   | The NPA holds decision-making capacity on behalf of the PAs   | The NPA are formally delegated by the PAs to take decisions on behalf of the PAs on specific decision levels and/or topics   |
| Relationship between PAs and the other actors involved              | The NPA involves the PAs as well as institutions  | The NPA establishes the participation of managing bodies of the PAs as well as other institutional authorities (institutions: Municipalities, Provinces, Regions, Ministries, etc.)  |
|   | The NPA involves the PAs as well as other stakeholders  | The NPA establishes the participation of managing bodies of PAs as well as other stakeholders (stakeholders: associations, the private sector, NGOs, etc.)   |
| Specificity of NPA aims and activities in terms of themes and scope | The NPA applies to a specific geographical area   | The NPA has a clear, focused geographical scope in relation to the area it applies (e.g. Alpine region, Regional boundaries, etc.)   |
|   | The NPA focuses on topics shared by the member PAs  | A specific theme or set of issues determine the actions the NPA has to take, according to the member PAs needs or wishes (e.g. focus on specific type of PA and/or specific objectives)  |

Source: LinkPAs project elaboration, 2018

In order to identify models of governance for NPAs, LinkPAs has established four categories related to governance aspects as follows:

- i) the relationship between PAs within a network,
- ii) the relationship between NPAs and the related institutional framework,
- iii) the relationship between PAs and the other actors involved;

iv) the specificity of NPA aims and activities in terms of themes and scope.

These allow an in-depth analysis of the existing NPAs' performance in terms of governance. Under each category, specific criteria have been used to study how the existing NPAs are run (cf. Table 4, Table 5n).

Table 5.1: Criterium 1 applied per each NPAs (N. A. = Not Applicable)

| Criterium 1. Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA |  |
|---|--|
| EMERALD   | N. A.  |
| NATURA2000  | N. A.  |
| ALPARC  | PAs were approved through the General Assembly the Action Plan (in force Action Plan 2016-2021)  |
| CNPA  | Work Plan and Medium-Term Strategy for CNPA are developed by the CNPA Steering Committee and submitted to the CoP of the Carpathians Convention  |
| OSPAR   | During the OSPAR Ministerial Meeting in 2010, OSPAR CPs agreed on the adequate management of the OSPAR network of MPAs by 2016. A roadmap was agreed in order to deliver an assessment of the OSPAR MPAs network by 2016. Guidance and background documents were developed in order to facilitate the processes of identification, development and management of MPAs in the OSPAR Maritime Area.  |
| HELCOM  | N. A.<br>HELCOM MPAs activities were included in the HELCOM Baltic Sea Action Plan (BSAP). This is an ambitious programme aiming to restore the good ecological status of the Baltic marine environment by 2021. The Plan, adopted by all the coastal states and the EU in 2007, provides a concrete basis for HELCOM operations. It combines the latest scientific knowledge and innovative management approaches into strategic policy implementation and stimulates goal-oriented multilateral cooperation around the Baltic Sea region.  |
| SPAMIs  | N. A.  |
| DANUBEPARKS   | Action plan on specific actions (e.g. Action Plan for the conservation of the White-tailed Sea Eagle, 2011; Action Plan on Tourism and Recreation, 2012)   |
| BPAN  | The BPAN (2011-2014) is a project of the Working Group on Environment (under the subgroup Nature Protection) of Barents Euro-Arctic Council - BEAC. The WG implements a two-year working programme and it is currently completing its implementation phase (2015-2017).  |
| MAIA  | Action Plan 2010 – 2012 still in force   |
| MAB BIOSPHERE RESERVE   | The MAB National Committee ensures the definition and implementation of each country's activities. Each biosphere reserve defines a management plan and also a research programme, which provides the basis of participatory decision-making and management in the biosphere reserve, as requested by the MAB Programme Strategy (ongoing 2015-2025) and its Action Plan (ongoing 2016-2025)<br><u>Examples:</u><br>- MAB Mancha Húmeda (Spain) developed a Strategic Guide Lines for the Management of the Biosphere Reserve and a Special Plan for Alto Guadiana.<br>- MAB Alpi Ledrensi e Judicaria, dalle Dolomiti al Garda (Italy) developed a three-year Action plan including the activities to be carried out, related financial needs and the partners' responsibilities.           |
| EGTC  | Five-year Action plan  |
| EUROPARC  | Strategy 2015-2021, based on the extensive consultation with its members   |
| MedPAN  | - One-year Programme of activities; developed by its members and partners, and in collaboration with governmental and non-governmental organizations at local, national, regional and international level; approved by the Advisory Committee; (previously based on a three-year programme)<br>- Five-year Strategy carried out by the MedPAN network (2013-2017); it was developed in partnership with the members and partners of the network, the governing bodies of the MedPAN organisations including the Board of Directors, the Scientific Committee and the Advisory Committee, as well as donors; the strategy was approved by the General Assembly;<br>- Five-year Scientific Strategy developed by the Scientific Committee (2013-2017; first strategy ever developed by MedPAN) |
| SAPA  | Biennial Action plan on thematic issues identified as priority by its members  |
| EGN   | N. A.<br>The EGN Charter remains the basic document which inspires the operation and development of the European Geoparks Network. The EGT follows the document on EGN Rules of operation, including 20 articles defining the reporting activities of the Geoparks (Six-month Progress Report and Annual Report)   |

Source: LinkPAs project elaboration, 2018

Table 5.2: Criterium 2 applied per each NPAs (N. A. = Not Applicable)

| Criterium 2. Existence of a continuous coordination of the PAs activities |   |
|---|---|
| EMERALD   | N. A.   |
| NATURA2000  | N. A.   |
| ALPARC  | The General Assembly holds a general meeting once per year  |
| CNPA  | The Steering Committee meets at least twice a year  |
| OSPAR   | The Contracting Parties gather at Commission meetings annually. The OSPAR Secretariat organizes progress meetings concerning the activities of the OSPAR MPAs network.  |
| HELCOM  | The HELCOM Baltic Sea Action Plan (BSAP) is regularly updated during ministerial meetings   |
| SPAMIs  | Contracting parties meet to address proposals of protected marine and coastal areas that in turn could be included in the SPAMI List  |
| DANUBEPARKS   | The General Assembly holds a general meeting once per year  |
| BPAN  | The Nature Protection Subgroup of BEAC's Working Group on the Environment organizes a biennial Habitat Contact Forum – an international contact forum for habitat conservation – which gathers authorities, scientists and civil society representatives.   |
| MAIA  | N. A.<br>Technical workshops are held once or twice a year during the project period. Some public events took place after the end of the project.   |
| MAB BIOSPHERE RESERVE   | The MAB BIOSPHERE RESERVE is always run by management bodies that coordinate MAB activities<br><u>Examples:</u><br>Vosges du nord–Pfälzerwald Biosphere Reserve. The Reserve is managed by a Coordinating Committee, which comprises: representatives from the two former national Biosphere reserves, the cooperative union for the Northern Vosges Regional Natural Park (SYCOPARC) on the French side, and the Naturpark Pfälzerwald (Palatinate Forest Nature Park) on the German side, representatives from their partners and most notable sponsors |
| EGTC  | The Assembly meets once a year. The Assembly may include thematic commissions composed by the members of the Assembly and other bodies and experts.   |
| EUROPARC  | The members meet annually at a conference and general assembly  |
| MedPAN  | The General Assembly takes place once a year  |
| SAPA  | The Board of members meets twice a year under the Coordination of the Italian Ministry for the Environment - Italian delegation to the Alpine Convention  |
| EGN   | The Coordination Committee meets regularly, at least twice a year. (The CC comprises the two officially nominated representatives of each Geopark, individual European members and the representative of UNESCO, IUGS and IUCN (UNESCO, IUGS and IUCN do not have voting rights.)   |

Source: LinkPAs project elaboration, 2018

Table 5.3: Criterium 3 applied per each NPAs (N. A. = Not Applicable)

| Criterium 3. Existence of a strategic/institutional agreement serving as political framework for the NPA |  |
|--|--|
| EMERALD  | It works under the Bern Convention of the Council of Europe, which the WDPA indicated as the reference institutional framework   |
| NATURA2000   | It works under the Council Directive 92/43/EEC (Habitat Directive) of the European Commission, which the WDPA indicated as the reference institutional framework   |
| ALPARC   | It signed a Memorandum of cooperation with the Secretariat of the Alpine Convention in 2013  |
| CNPA   | Established by the Carpathians Convention and the Secretariat of the CNPA, it serves as coordination unit  |
| OSPAR  | Established by the OSPAR Commission  |
| HELCOM   | Established by the Contracting Parties of the Helsinki Convention  |
| SPAMIs   | Established by the Conference of Plenipotentiaries of the Barcelona Convention   |
| DANUBEPARKS  | N. A.<br>It refers to the implementation of the EUSDR macro-regional strategy  |
| BPAN   | Established by the Barents Euro-Arctic Council (BEAC) which is the forum for intergovernmental cooperation on issues concerning the Barents region.  |
| MAIA   | It works in close cooperation with the executive secretariat of OSPAR Convention. It ensures that its work is in line with the Convention; it conveys the OSPAR recommendations and guidelines relating to MPAs to the MPA managers. The executive secretariat pays particular attention to the work done within the MAIA framework to compile and analyse data related to MPA management. |
| MAB BIOSPHERE RESERVE  | N. A.  |
| EGTC   | N. A.  |

|          |  |
|----------|--|
| EUROPARC | N. A.<br>It seeks to align to the European and international policies. In particular, supports the N2000 network and the realisation of the EU 7EAP.   |
| MedPAN   | N. A.<br>It contributes to achieving the specific objectives set by CBD and the implementation of the Barcelona Convention, the conservation plan of ACCOBAMS, and related European policies (Habitats Directive, Biodiversity Action Plan, Marine Directive, Common Fisheries Policy, Maritime Policy, etc.). |
| SAPA     | It contributes to implementing Alpine Convention Protocols related to the PAs within the Italian Alpine area.  |
| EGN      | N. A.  |

Source: LinkPAs project elaboration, 2018

Table 5.4: Criterium 4 applied per each NPAs (N. A. = Not Applicable)

| Criterium 4. Existence of cooperation between other NPAs |  |
|--|--|
| EMERALD  | N. A.  |
| NATURA2000   | N. A.  |
| ALPARC   | ALPARC – DANUBEPARKS – CNPA Memorandum of Understanding signed in 2016 and the 2017-2021 ALPS-DANUBE-CARPATHIANS Action Plan |
| CNPA   | ALPARC – DANUBEPARKS – CNPA Memorandum of Understanding signed in 2016 and the 2017-2021 ALPS-DANUBE-CARPATHIANS Action Plan |
| OSPAR  | Joint HELCOM/OSPAR Work Programme on Marine Protected Areas (Bremen 2003)  |
| HELCOM   | Joint HELCOM/OSPAR Work Programme on Marine Protected Areas (Bremen 2003)  |
| SPAMIs   | N. A.  |
| DANUBEPARKS  | ALPARC – DANUBEPARKS – CNPA Memorandum of Understanding signed in 2016 and the 2017-2021 ALPS-DANUBE-CARPATHIANS Action Plan |
| BPAN   | N. A.  |
| MAIA   | N. A.  |
| MAB BIOSPHERE RESERVE                                    | N. A.  |
| EGTC   | N. A.  |
| EUROPARC   | N. A.  |
| MedPAN   | N. A.  |
| SAPA   | Cooperation with other international NPAs (e.g. ALPARC, CNPA) during international events, as well as SAPA member meetings   |
| EGN  | N. A.  |

Source: LinkPAs project elaboration, 2018

Table 5.5: Criterium 5 applied per each NPAs (N. A. = Not Applicable)

| Criterium 5. Funds (from any source) earmarked for the NPAs management or activities |   |
|--|---|
| EMERALD  | N. A.   |
| NATURA2000   | EXTERNAL: the main responsibility for financing Natura 2000 lies with the Member States. Article 8 of the Habitats Directive explicitly links the delivery of necessary conservation measures for Natura 2000 to EU co-financing. Natura 2000 network is co-financed by EU with the existing financial instrument. The most important instrument for Natura2000 are: The Structural Funds, The Cohesion Fund, The Fund for Rural Development, The European Fishery Fund, The Financial Instrument for the Environment (LIFE+) and The 7 <sup>th</sup> Research Framework Programme. |
| ALPARC   | INTERNAL: contribution by members and PAs<br>EXTERNAL: contribution by countries and EU projects  |
| CNPA   | EXTERNAL: participation in EU projects  |
| OSPAR  | N. A.<br>The Contracting Parties of the OSPAR Convention are in charge for the implementation of the MPAs Network.  |
| HELCOM   | N. A.   |
| SPAMIs   | N. A.   |
| DANUBEPARKS  | EXTERNAL: co-financed by the ECT – South East Europe Programme (2009-2014)  |
| BPAN   | EXTERNAL: financed as part of the activities of the Working Group on the Environment. The project is an initiative of the Barents Euro-Arctic Council Working Group on the Environment.   |

|                       |   |
|-----------------------|---|
| MAIA                  | EXTERNAL: Established in the framework of Interreg IV B Atlantic Area ERDF programme (2010-2012) with 65% ERDF co-funding and 35% co-funding by the 9 project partners  |
| MAB BIOSPHERE RESERVE | EXTERNAL: MAB is funded through the regular budget provided by the UNESCO; it mobilizes funds- in-trust granted by Member States, bilateral and multilateral sources, and extra-budgetary funds provided by countries, the private sector and private institutions. MAB-related activities are nationally financed. The Programme can grant seed funding to assist countries in developing projects and/or to secure appropriate partnership contributions. |
| EGTC                  | EXTERNAL: activities financed by the INTERREG ALCOTRA European program  |
| EUROPARC              | INTERNAL: membership fees<br>EXTERNAL: EU projects such LIFE programmes; funders: Alfred Toepfer Stiftung F.V.S. (DE), Deutsche Bundesstiftung Umwelt – DBU (DE); German Federal Agency for Nature Protection (BfN).  |
| MedPAN                | EXTERNAL: the MedPAN organization has dedicated funds; it is supported by several organizations (e.g. WWF Mediterranean, EC/Programme Med, etc.)  |
| SAPA                  | EXTERNAL: The Italian Ministry for the Environment and EU projects  |
| EGN                   | INTERNAL: Annual Promotional Fee (paid by each Institutional and Cooperating Member)  |

Source: LinkPAs project elaboration, 2018

Table 5.6: Criterium 6 applied per each NPAs (N. A. = Not Applicable)

| Criterium 6. The NPA formal participation in institutional decision-making processes at the EU/Transnational/National/Local level |   |
|---|---|
| EMERALD   | N. A.   |
| NATURA2000  | N. A.   |
| ALPARC  | The Coordination Unit participates as Observer to the CoP of the Alpine Convention  |
| CNPA  | The Steering Committee refers to the CoP of the Carpathian Convention   |
| OSPAR   | N. A.<br>The OSPAR Commission contributes to the global discussions on marine conservation, held for example during the UN General Assembly, the CBD and the IUCN, providing regional approaches to protecting the marine environment and managing natural resources. |
| HELCOM  | N. A.   |
| SPAMIs  | N. A.   |
| DANUBEPARKS   | N. A.   |
| BPAN  | N. A.   |
| MAIA  | N. A.   |
| MAB BIOSPHERE RESERVE   | The MAB network can participate in decision-making processes  |
| EGTC  | The EGTC network can participate in decision-making processes   |
| EUROPARC  | N. A.   |
| MedPAN  | N. A.   |
| SAPA  | N. A.   |
| EGN   | N. A.   |

Source: LinkPAs project elaboration, 2018

Table 5.7: Criterium 7 applied per each NPAs (N. A. = Not Applicable)

| Criterium 7. NPA holds decision-making capacity on behalf of PAs |       |
|--|-------|
| EMERALD  | N. A. |
| NATURA2000   | N. A. |
| ALPARC   | N. A. |
| CNPA   | N. A. |
| OSPAR  | N. A. |
| HELCOM   | N. A. |
| SPAMIs   | N. A. |
| DANUBEPARKS  | N. A. |
| BPAN   | N. A. |
| MAIA   | N. A. |

|                       |  |
|-----------------------|--|
| MAB BIOSPHERE RESERVE | The network can participate to the implementation of territorial processes, CETS activities, and applications for funding.<br><u>Examples:</u><br>- The MAB Appennino Tosco-Emiliano contributes to the implementation of CETS Phase II. The activities co-financed by the MAB and Rete di riserve "Alpi Ledrensi" have already started. In addition, other projects to obtain other funding (e.g. regional sources as POR FESR, private foundations, etc.) have been initiated.   |
| EGTC                  | The network submitted a joint application to be included in the UNESCO World Heritage List. Alongside Parc National du Mercantour and Parco Naturale Alpi Marittime, the other partners comprise Parco Alpi Liguri, Parco du Marguareis, Province of Imperia and the protected space of the Hanbury Botanical Garden.<br>The network has also defined a common touristic strategy for the joint implementation of the European charter for sustainable tourism in protected areas. |
| EUROPARC              | N. A.  |
| MedPAN                | N. A.  |
| SAPA                  | N. A.  |
| EGN                   | N. A.  |

Source: LinkPAs project elaboration, 2018

Table 5.8: Criterium 8 applied per each NPAs (N. A. = Not Applicable)

| Criterium 8. The NPA involves PAs as well as other bodies: institutional authorities |  |
|--|--|
| EMERALD  | N. A.  |
| NATURA2000   | N. A.  |
| ALPARC   | N. A.<br>National or regional institutional authorities involved as partner/observer within ALPARC projects  |
| CNPA   | N. A.<br>National or authorities involved as national reference points for the CNPA  |
| OSPAR  | N. A.<br>The Contracting Parties to the OSPAR Convention are the Ministers responsible for the marine environment in the signatory states of the Convention, along with representatives from Luxembourg, Switzerland and the European Communities.   |
| HELCOM   | N. A.<br>The contracting parties of the Convention ensure that the national authorities participate in the HELCOM MPAs designation and monitoring processes  |
| SPAMIs   | N. A.<br>national authorities are involved in the designation process of SPAMIs (e.g. the Focal Point appointed by the country's authorities)  |
| DANUBEPARKS  | N. A.<br>National and regional authorities participated as observers in the DANUBEPARKS project  |
| BPAN   | N. A.<br>Nature conservation national and regional authorities participated in the implementation of the BPAN project  |
| MAIA<br>MAB BIOSPHERE RESERVE  | National and regional authorities<br>Specific agreements with national and local public should be established. International organizations can also give support.<br><u>Examples:</u><br>- MAB Mura-Drava-Danube (Croatia- Hungary): The administrative authorities are the Ministry of Culture (Croatia) and the Danube-Drava National Park Directorate (Hungary)<br>- MAB Appennino Tosco-Emiliano (Italy) is managed by Coordinator of the Assembly (Parco Nazionale dell'Appennino Tosco Emiliano) and the Management board (comprising 13 different local stakeholders such as regional authorities, communities, parks, GAL, etc.)<br>- MAB Alpi Ledrensi e Judicaria (Italy) involves consortia, associations, eco-museum, etc. |
| EGTC   | N. A.<br>Regional, provincial and local authorities (Municipalities) from both countries are involved in the activities aiming at the implementation of the EGTC   |
| EUROPARC   | National agencies, Regional and provincial authorities   |
| MedPAN   | International, national and regional administrations   |
| SAPA   | National, regional and local authorities   |
| EGN  | N. A.  |

Source: LinkPAs project elaboration, 2018

Table 5.9: Criterium 9 applied per each NPAs (N. A. = Not Applicable)

| Criterium 9. NPA involves PAs as well as other bodies: other stakeholders |   |
|---|---|
| EMERALD   | N. A.   |
| NATURA2000  | N. A.   |
| ALPARC  | N. A.   |
| CNPA  | N. A.   |
| OSPAR   | N. A.<br>Involving other stakeholders, such as relevant international organisations in order to facilitate the development of management measures for the PAs.  |
| HELCOM  | N. A.   |
| SPAMIs  | N. A.   |
| DANUBEPARKS   | N. A.   |
| BPAN  | N. A.<br>Scientific institutes and NGOs participated in the implementation of the BPAN project  |
| MAIA  | Sectorial associations, National representative bodies, Universities, National research institutes, NGOs  |
| MAB BIOSPHERE RESERVE   | Partnerships with universities/research bodies to carry out research projects can be established. Local communities and enterprises are involved in sustainable development promotion.  |
| EGTC  | N. A.<br>Other stakeholders are involved in the EGTC activities   |
| EUROPARC  | Associations, institutions, NGOs, individuals   |
| MedPAN  | Associations and NGOs that participate in the General Assembly: RAC/SPA, WWF Mediterranean, WWF France, IUCN Med, Conservatoire du Littoral, National Agencies in charge of MPAs, ACCOBAMS, GFCM, etc.<br>Six Memoranda of Understanding were signed with other organizations (IUCN World Commission on PAs, Slow Food International, etc.)   |
| SAPA  | Associations, research centres, public and private institutions (e.g. Federparchi, ISPRA, Eurac research)   |
| EGN   | Among its members, EGN includes:<br>Cooperating Members: Representatives of International Organizations UNESCO, IUGS and IUCN (they are part of the Coordination Committee but have no voting rights);<br>Individual members: Specialists in sustainable development and enhancement and promotion of geological heritage (they are part of the Advisory Committee);<br>Honorary Members: individuals who have rendered exceptional services to the international Global Geopark community or the GGN in a European country |

Source: LinkPAs project elaboration, 2018

Table 5.10: Criterium 9 applied per each NPAs (N. A. = Not Applicable)

| Criterium 10. NPA applies to a geographical specific area |   |
|---|---|
| EMERALD   | N. A.   |
| NATURA2000  | N. A.   |
| ALPARC  | PAs within the perimeter of the Alpine Convention   |
| CNPA  | PAs within the perimeter of the Carpathian Convention   |
| OSPAR   | The MPAs within the OSPAR Maritime Area   |
| HELCOM  | The MPAs of the Baltic Marine Environment Protection Commission - Helsinki Commission                             |
| SPAMIs  | The Mediterranean countries that are the Contracting Parties to the Barcelona Convention                          |
| DANUBEPARKS   | The PAs along Danube river  |
| BPAN  | The PAs within the Countries of the Barents Euro-Arctic Council   |
| MAIA  | The MPAs in the Atlantic arc  |
| MAB BIOSPHERE RESERVE                                     | Biosphere reserves representing their biogeographic Region and significant in terms of biodiversity conservation. |
| EGTC  | The transboundary area of the Alpi Marittime - Mercantour   |
| EUROPARC  | N. A.   |
| MedPAN  | The MPAs within Mediterranean countries   |
| SAPA  | PAs within the perimeter of the Alpine Convention   |
| EGN   | N. A.   |

Source: LinkPAs project elaboration, 2018



Table 5.11 Criterium 11 applied per each NPAs (N. A. = Not Applicable)

| Criteria 11. NPA focuses on shared topics |  |
|---|--|
| EMERALD                                   | N. A.  |
| NATURA2000                                | N. A.  |
| ALPARC                                    | N. A.  |
| CNPA                                      | N. A.  |
| OSPAR                                     | N. A.  |
| HELCOM                                    | N. A.  |
| SPAMIs                                    | N. A.  |
| DANUBEPARKS                               | N. A.  |
| BPAN                                      | N. A.  |
| MAIA                                      | N. A.  |
| MAB BIOSPHERE RESERVE                     | N. A.  |
| EGTC                                      | N. A.  |
| EUROPARC                                  | Improving the management of the European PAs through international cooperation   |
| MedPAN                                    | N. A.  |
| SAPA                                      | N. A.  |
| EGN                                       | Protection of geological heritage and the promotion of sustainable development of their European territories. Thematic networks are based on the geological characteristics of each Geopark. |

Source: LinkPAs project elaboration, 2018

Table 6: Analysis of models of governance for NPAs: Performance of selected NPAs as listed in Table 3

| Criteria   | NPAs    |            |        |      |       |        |        |            |      |      |     |      |          |        |      |     |
|--|---------|------------|--------|------|-------|--------|--------|------------|------|------|-----|------|----------|--------|------|-----|
|  | EMERALD | NATURA2000 | ALPARC | CNPA | OSPAR | HELCOM | SPAMIs | DANUBEPARK | BPAN | MAIA | MAB | EGTC | EUROPARC | MedPAN | SAPA | EGN |
| Existence of a shared action plan or programme identifying priorities and actions to be taken by/under NPA |         |            | x      | x    | x     |        |        | x          | x    | x    | x   | x    | x        | x      | x    |     |
| Existence of continuous coordination of PA activities  |         |            | x      | x    | x     | x      | x      | x          | x    |      | x   | x    | x        | x      | x    | x   |
| Existence of a strategic/institutional agreement as political framework for NPA                            | x       | x          | x      | x    | x     | x      | x      |            | x    | x    |     |      |          |        | x    |     |
| Existence of cooperation with other NPAs   |         |            | x      | x    | x     | x      | x      | x          |      |      |     |      |          |        | x    |     |
| Funds (from any source) earmarked for NPA management or activities   |         |            |        |      |       |        |        |            |      |      |     |      |          |        |      |     |
| internal/membership  |         |            | x      |      |       |        |        |            |      |      |     |      | x        |        |      | x   |
| external   |         | x          | x      | x    |       |        |        | x          | x    | x    | x   | x    | x        | x      | x    |     |
| The NPA formal participation in institutional decision-making processes                                    |         |            | x      | x    |       |        |        |            |      |      | x   | x    |          |        |      |     |
| The NPA has decision-making capacity on behalf of PAs  |         |            |        |      |       |        |        |            |      |      | x   | x    |          |        |      |     |
| The NPA involves PAs as well as other bodies   |         |            |        |      |       |        |        |            |      |      |     |      |          |        |      |     |
| institutional authorities  |         |            |        |      |       |        |        |            |      |      | x   | x    |          | x      | x    | x   |
| other stakeholders   |         |            |        |      |       |        |        |            |      |      | x   | x    |          | x      | x    | x   |
| The NPA applies to a geographical specific area  |         |            | x      | x    | x     | x      | x      | x          | x    | x    | x   | x    |          | x      | x    |     |
| The NPA focuses on shared topics   |         |            |        |      |       |        |        |            |      |      |     |      | x        |        |      | x   |

Source: LinkPAs project elaboration, 2018

The four models of governance that have emerged from the analysis of the set of NPAs are described below.

**Model 1** includes NPAs that act as instruments in implementing common policies in compliance with international agreements. It allows for the involvement of competent bodies in the field of protected areas as well as institutions responsible for the implementation of broader sustainable development policies. The actions are carried out directly by the NPA or else jointly by the NPA and its PAs. As shown by the data analysis (cf. activities in Table 3), the policy sectors that are often significant on a global scale are biodiversity conservation, the ecological network and adaptation to climate change.

**Model 2** includes NPAs that voluntarily choose to cooperate in order to address shared and concrete ecological and/or environmental issues. NPAs develop joint actions aimed at reaching their goals within an institutional framework, which is often fragmented, however, in terms of territorial and political competences. The actions are carried out by the PAs, according to their administrative responsibilities, within their institutional and territorial scope. Such networks help PAs to describe their specific needs to other competent authorities and also aim to facilitate the integration of PA management into wider territorial policies. The policy sectors involved are typically the conservation of biodiversity and the promotion of activities for the maintenance and sustainable management of natural resources of PAs in agriculture, forest and water management. Model 2 follows a bottom-up approach, as opposed to Model 1.

**Model 3** includes networks typically characterised by a limited geographical scope, with the ability to affect territorial development policies. Their member PAs show a high degree of institutionalisation of mutual relations, and normally share programs and/or projects. NPAs have effective decision-making bodies and often use innovative legal and cooperation instruments (e.g. MAB, Alpi Marittime-Mercantour EGCT). The policy sectors involved depend on specific cooperation themes (cf. activities in Table 3).

**Model 4** includes NPAs aimed primarily at increasing the management efficiency of individual PAs by sharing experiences and knowledge, tools, and initiatives, regardless of the territory in which they are found and the specificities of each PA. Each PA can draw on the benefits it receives from the network to achieve its own objectives (e.g. EUROPARC, MedPAN). The actions of these networks seem less able to affect territorial policies, since their aim is to share practices.

## **2.6 Opportunities and Challenges of NPA models**

Drawing on the identified models of governance for NPAs, it is now possible to examine the opportunities these networks offer to the PAs and related territories involved, as well as the challenges they pose. The analysis of these NPA models can provide potentially interested stakeholders with ideas regarding how to enhance and create new NPAs; it can also help them choose which model is more suitable in relation to a specific area and the existing objectives or institutions involved.

Table 7 considers governance features, opportunities and challenges, along with some examples for each model.

Table 7: NPA models: governance features, opportunities and challenges

| NPA models  | Criteria combination (cluster)   | Opportunities   | Challenges  |
|---|--|---|---|
| <p><b>MODEL 1</b> - NPAs established in the framework of agreements or conventions with a wider perspective</p> <p><i>Example:</i><br/>ALPARC<br/>CNPA<br/>OSPAR<br/>HELCOM<br/>SPAMIs<br/>BPAN</p> | <p>Existence of a strategic/ institutional agreement as political framework for the NPA. Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA. The NPA: applies to a geographically specific area; participates in institutional decision-making processes at the EU/Transnational/National/ Local level; involves PAs and territorial authorities. Existence of specific funds – external, public or private, EU, national or regional - supporting NPA activities.</p> | <p>The existence of an institutional agreement within which the network is established enhances its ability to contribute to the pinpointing of territorial strategies for the related geographical area; The NPA: is able to enforce policies for the protection of biodiversity in and outside the PA area and foster the strengthening of ecological networks; it promotes the exchange of experiences between PAs, which increases the effectiveness of PA actions; it promotes connections between PAs to strengthen partnerships – applicable to some of PAs within the network - on common themes and projects. NPA can mobilize additional resources for PAs.</p>   | <p>Enhancing the involvement of local populations in the policy processes of the individual PAs. Depending on the extension of the area involved, this may or may not be advisable; Improving the possibility of influencing directly the activation of economic processes on a local scale while maintaining its links to broader strategies; Encouraging partnerships among PAs to implement pilot projects; developing innovative tools and agreements</p> |
| <p><b>MODEL 2</b> - NPAs based on a shared programme to face common challenges from an ecological and/or environmental point of view</p> <p><i>Example:</i><br/>DANUBEPARKS<br/>MAIA<br/>SAPA</p>   | <p>Absence of a strategic/institutional agreement as political framework for the NPA Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA The NPA applies to a geographically specific area The NPA might involve PAs as well as territorial authorities.</p>  | <p>The NPA promotes the exchange of experiences between PAs, which increases the effectiveness of PA actions; The NPA can strengthen partnerships among PAs, sharing common environmental challenges; The NPA is based on programmes and not on institutional agreements; this means that the NPA is a more flexible instrument of governance in terms of its establishment and management.</p>   | <p>Improving the involvement of other institutional actors to activate biodiversity conservation policies outside PAs and better integrate them within territorial policies; Increasing the opportunities for PAs to develop joint activities that increase their ability to influence local decision-making processes and launch economic processes, including the possibility of attracting additional funds.</p>   |
| <p><b>MODEL 3</b> - Territorial networks: NPAs for the management of specific physiographic units</p> <p><i>Example:</i><br/>EGTC Alpi<br/>Marittimo/Mercantour<br/>MAB Biosphere Reserve</p>       | <p>Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA The NPA applies to a geographically specific area The NPA has decision-making power in substitution of or on behalf of PAs Existence of a continuous coordination of PA activities</p>   | <p>The NPA is in a specific geographical, ecological, landscape area; this fosters the development of common strategies and projects for biodiversity management that are generally more effective than those that can be implemented by single PAs; Possibility of making use of well-known tools for the management of specific areas (e.g. ECTC, MAB.); The NPA can involve local populations, since it stresses the importance of the identity of such a specific area; Facing common issues with a shared programme allows for a more efficient utilization of available resources; The stable collaboration between PAs enhances their ability in proposing and/or taking part in projects and therefore the possibility of access to additional funds.</p> | <p>Strengthening the role of the NPA in developing wider territorial policies Strengthening the NPA's role as a model for other similar territories; Improving the ability to involve the private sector and stimulate innovation as a basis to foster SMEs' activities</p>   |

|   |  |   |   |
|---|--|---|---|
| <p><b>MODEL 4 - NPAs</b> as platforms addressing different topics and aiming at exchanging experiences</p> <p><i>Example:</i><br/>EUROPARK<br/>MedPAN<br/>European Geoparks Network</p> | <p>The NPA involves PAs and other territorial authorities and stakeholders</p> <p>The NPA focuses on shared topics</p> <p>The NPA might apply to a geographically specific area</p> <p>The NPA might have some internal funds (membership fees, if applicable)</p> | <p>The NPA facilitates the exchange of experiences and information between PAs, and knowledge on management aspects. The NPA can improve knowledge and raise awareness of a given territory or theme; it involves heterogeneous bodies such as stakeholders, experts, managing bodies of the PAs, institutional bodies, NGOs; it identifies and disseminates common guidelines and tools that can be applied by each PA to their own contexts (e.g. the European Chart of Sustainable Tourism - ECST set up by EUROPARC).</p> | <p>Enhancing the participation of PA management bodies and other bodies (institutional, private, stakeholders, experts) since part of the added value of this NPA is the heterogeneity of the actors involved; Increasing the ability to disseminate the experiences already developed and the results achieved by some PAs within the NPA; Tackling a greater number of issues addressed by the NPA by taking into account both the priorities emerging from the international policies and the specific needs of the individual PAs</p> |
|---|--|---|---|

Source: LinkPAs Project Targeted Analysis, 2018

The analysis of the NPA models under scrutiny, along with their related opportunities and challenges, has revealed that:

- All models facilitate the exchange of experiences, fostering cooperation among PAs and sometimes among NPAs as well; in turn, this helps to improve the ways biodiversity is managed as well as the running of individual PAs.
- Some NPA models (Model 1, Model 3) entail an institutionalization phase for the NPA, which facilitates the access to regular funds for the network and its management. More often than not, these networks are not allocated specific funding, but they strive to obtain funding through their participation in European projects, although this means that the direct recipients of the funds are the individual PAs rather than the NPA itself.
- Beside their specific features, some NPAs also share similarities with other existing models. For example, the SAPA network – The system of Italian Alpine Protected Areas – has been subsumed under Model 2 above; however, it also displays some characteristics that are found in Model 4, specifically the network’s ability to involve local PAs, administrations at different institutional levels (i.e. regions, provinces, ministries) and other stakeholders such as associations, foundations, and academic institutions.

Some NPAs listed in Table 3 (e.g. the Emerald network and Natura 2000) cannot be categorised according to *any* existing models. This is due to the fact that, although they have been formally established (by means of regulations or political policies), these NPAs do not actually plan any common activities for the PAs involved. Membership is granted to PAs on the condition that they comply with specific criteria.

Finally, the identified governance models do not seem to strictly abide by the legislative set-up identified in Table 2. This means that PAs are free to take part in or act within the NPA to which they belong (See Ch. 3 below).

### 3 The role of NPAs in territorial development in European regions in the context of GI policy

In order to investigate the role of NPAs in territorial development, one of the considerations to bear in mind is that the NPAs are made by areas. These areas are the basic element in the planning rationale since they are the target of specific regulations as well as the elements pertaining to the envisaged spatial structure. On the other hand, NPAs can also be considered as collective actors in terms of planning as they are the territorial organization serving as managing authority of the individual local PAs. Consequently, NPAs can be seen as passive or active players in territorial development.

NPA management and sector development strategies are generally integrated through planning instruments (according to national/regional legislation), which enable an NPA to adopt shared mitigation measures and policies so as to facilitate, in particular, climate change adaptation. These strategies are also able to help bio-diversity conservation across Europe since they respect the specific characteristics of each area and its local identity. As part of its post-2010 biodiversity policy, the European Commission has been developing a strategy for an EU-wide Green Infrastructure (GI). The underlying idea of this initiative is the recognition of the environment as an infrastructural resource capable of delivering a wide range of ecosystem services.

By means of its GI strategy, the European Commission aims to provide a framework for integrating GI into sectoral policies, including nature conservation. The GI conceptual model refers to a functional approach built on a coherent system of areal components<sup>3</sup>, where PAs (under different categories of preservation, cf. Ch. 1) are included as core elements. In addition to the aspect pertaining to the conservation dimension (which provides a particular ecological connectivity<sup>4</sup>), this approach makes it possible to identify appropriate opportunities for the exploitation of natural resources, by means of activities such as agriculture, forestry, fishing, human settlement, recreation etc. If these activities are planned and managed in a sensitive manner and on an appropriate geographical scale, they can ensure the sustainable use of natural resources.

The realization of GI in the cited EU-wide Green Infrastructure (GI) strategy is the backbone of the existing networks: Emerald network; the EU's Natura 2000 network, the Council of Europe's Pan European Ecological Network (PEEN, under Pan-European Biological and Landscape

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<sup>3</sup> **core areas**, where the conservation of biodiversity is of primary importance, even if the area is not legally protected; **corridors**, which serve to maintain vital ecological or environmental connections by providing physical (though not necessarily linear) links between the core areas; **buffer zones**, which protect the network from potentially damaging external influences; they are essentially transitional areas characterized by compatible land uses; **sustainable-use areas**, where sufficient opportunities are provided within the landscape matrix for both the exploitation of natural resources and the maintenance of ecosystem functions (Bennet, 2004).

<sup>4</sup> "Connectivity comprises two components: structural and functional connectivity. It describes how landscapes are shaped, allowing species to move. Structural connectivity, equal to habitat continuity, is measured by analysing landscape structure, independent of any attributes of organisms. [...] Functional connectivity is the response of the organism to the landscape elements other than its habitats (i.e. the non-habitat matrix). This definition is often used in the context of landscape ecology. A high degree of connectivity is linked to low fragmentation (WG GIIR 2014, p.2).

Diversity Strategy - PEBLDS)<sup>5</sup>. To date, these are all the European protected areas that have been established nationally and regionally.

Since NPAs at different levels are part of GI<sup>6</sup>, they can either passively or actively support it. It depends on the status that each NPA has within the broad policy-setting and planning system at national (country) and regional (states, regions) level.

The NPAs can be recognised only as ecological networks (i.e. a complex of areas that are ecologically coherent), which are managed by a single authority; alternatively, they can be autonomous networks of PAs that are managed individually (cf. Ch. 1 on the institutional set-up).

A broad evaluation of the role of NPAs in defining and implementing territorial development strategies must therefore focus on the role that NPAs have been assigned within each context. The LinkPAs project has allowed for a country-by-country analysis that has sought to reveal which type of legal status each of the NPAs under scrutiny has been assigned within the institutional setup for development policy. The analysis has concentrated on the database provided by the Biodiversity Information System for Europe<sup>7</sup> For the purpose of this study the information regarding NPAs has been organised according to different criteria<sup>8</sup> (Table 10 at the end of this chapter):

- Presence of an Ecological network established by law (National Ecological network)
- National biodiversity
- Institutional set-up for protected areas
- Role of the Nature 2000 NETWORK
- Other established networks
- Regional cases
- Transnational cases
- Inclusion into mainstream development policy with presence/absence in Sectors: Nature; Spatial planning; Urban policy; Agriculture; Forestry; Tourism and leisure;

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<sup>5</sup> At the pan-European level, protected areas are to be integrated into the Pan-European Ecological Network. The full and effective implementation of existing international instruments is of vital importance in building the Pan-European Ecological Network since these instruments facilitate the conservation of many of the most valuable sites in Europe. These international instruments include the Bern Convention, the European Union Habitats and Birds Directives, the Ramsar Convention, the Bonn Convention, the World Heritage Convention and the Fourth Protocol of the Barcelona Convention. The Conference of the European Ministers of the Environment, held in Sofia on 25th October 1995, approved an initiative that aimed to establish a Pan-European Ecological Network within 20 years.

<sup>6</sup> As the object of European policy, Green Infrastructures development can exploit financing sources mainly deriving from the Operational programmes under the existing Structural and Cohesion Funds for the 2014 – 2020 period (Operational Programme Environment 2014 – 2020, Rural Development Programme 2014 – 2020, Operational Programme Human Recourses Development, Operational Programme Innovations and Competitiveness 2014-2020), LIFE Programme 2014 – 2020, Financial Mechanism of the European Economic Area and Horizon 2020 Programme, so NPAs are involved in many strategic programmes, along with single projects.

<sup>7</sup> <https://biodiversity.europa.eu/>

<sup>8</sup> Tables of synthesis for each country are provided at the end of this chapter. Sources of information are mainly BISE as well the European Commission (2017). The EU Environmental Implementation Review - Country reports available at <http://ec.europa.eu/environment/eir>. Full references have been provided in a specific list of documents reported in BISE (<https://biodiversity.europa.eu/>) in the reference section of this Report.

Transport infrastructure; Energy; Water/flood management and disaster risk reduction;  
Marine and coastal policy; Climate change

An essential preliminary distinction has been found between those countries that include Ecological networks and Green Infrastructure (PEEN and GI initiative) as part of their legislation, and those that do not.

Several EU Member States have committed to implementing their own national ecological networks (NENs), including Bulgaria, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Lithuania, the Netherlands Portugal, Slovakia. This suggests that established national or regional NPAs are the main points of reference in developing integrated territorial plans that seek to tackle both general development and sectoral issues. The reason for this is that the NPAs are the system of core areas of ecological networks, which support the development choices for the whole region.

Another main difference that the analysis has revealed is that some countries have a planning system that integrates biodiversity concerns in all its instruments (e.g. Estonia); conversely, other countries adopt different planning tools for environmental and development issues (e.g. Greece).

In a number of other cases (21 countries<sup>9</sup>), a National Strategy on Biodiversity that always refers to the NPAs as core areas for developing national, regional and local plans emerges. However, this depends on the degree of integration with the existing spatial planning.

Therefore, if a spatial planning policy explicitly includes the development of green-blue network systems between and within rural and urban areas (e.g. Germany), the role of the NPAs in relation to territorial development may be significant. However, the effectiveness of the NPA's role depends on both the efficiency of the planning system and institutional actors working as the whole.

The role of the NPAs is also influenced by the existence of a specific governance tool for NPAs within the policy context at different levels. For instance, the NPAs play a primary role when they are officially recognised as actors that cooperate in proposing and adopting sectoral policy choices that can enhance the sustainable territorial strategy. Transboundary NPAs are often found to have this role, be they established thanks to trans-border projects or formally founded via specific Conventions.

There are also networks of stakeholders or observers comprising formal/informal regional and local representatives that seek to identify opportunities, priorities and territorial challenges (see Box 2); these NPAs also verify whether the EU targets set for the PAs are achieved.

Among the networks considered in this study, the members of DANUBEPARKS (Network of Protected Areas along the Danube), for example, cooperate transnationally, without a legal entity that can represent the interests of the whole network in terms of fund raising, lobbying, coordination nor the network itself at the European level. They work in different fields “where

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<sup>9</sup> Austria Belgium, Croatia Czech Rep., Finland France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Sweden, United Kingdom

solutions depend on a transnationally coherent strategy”<sup>10</sup>. They proposed having their own role within the newly adopted EU Strategy for the Danube Region (EUSDR) so as to coordinate and boost the development of the Danube Region. “The Danubeparks “strategic document”<sup>11</sup> considers the implementation of the EUSDR the leading EU challenge in this European macroeconomic Region and asserts its ‘Strategic position’ by also stressing that the network is the mediator and facilitator for all the PAs and regional authorities involved in developing a macro-regional strategy.

*Box 2: Example of transnational networks: Green Belt of Fennoscandia initiative*

Green Belt of Fennoscandia (GBF). This initiative is a network of existing and planned protected areas near the borders of three countries: Finland, Russia and Norway. The aim of the cooperation is to develop the Green Belt into a widely acknowledged transboundary model area and increase awareness on the area and its values within the participating countries and internationally. The Green Belt of Fennoscandia is the northern part of the European Green Belt. In Finland, the Green Belt is developed and promoted by a large network of national and regional stakeholders as well as the National Working Group appointed by the Ministry of the Environment.

*Source: BISE- Finland, 2018*

As for the potential role of the NPAs in spatial planning, two main cases have emerged from the analysis.

In one case, the spatial planning focuses on the connectivity and accessibility of the natural and cultural components, thus improving:

- I. the bio-connectivity of biocoenosis and different living environments, in order to reduce fragmentation in landscape continuity (e.g. by means of ecological corridors, greenways, buffer zones);
- II. the accessibility of networks of protected areas and other open spaces (e.g. natural environments and urban natural areas), which are accessed for recreational activities and have a special importance in terms of landscape planning.

In the other case, the spatial planning concentrates on the socio-economic interaction between established protected areas and the territorial contexts. Its main objectives are:

- a) developing fruitful interactions between protected areas and settlements, highlighting the inhabitants’ growing interest in natural or semi-natural areas in and around cities, including specific ecosystem services. This is especially important for the policies concerning parks and protected areas, in order to avoid or reduce isolation and demonstrate their economic and social impact;

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<sup>10</sup> [www.danubeparks.org](http://www.danubeparks.org): River Morphology and Revitalization; Floodplain Management and Habitat Network; Conservation of Danube Flagship Species; Monitoring and Natura 2000; Nature Tourism.

<sup>11</sup>Baumgartner and Blumer 2012



b) maintaining or improving the interaction(s) between protected areas and the local communities by developing and enhancing the relationships between semi-natural environments (uses) and traditional or new communities (i.e. new migratory phenomena, neo-rural inhabitants, etc.). To this end, IUCN highlights the need to extend protective measures and benefits beyond the boundaries of protected areas in order to involve local populations in valorisation strategies. The decision to initiate non-controversial planning, management and co-operative planning with local communities highlights the breakthrough in park management approaches and protected area networks in recent years. As a matter of fact, local communities play a central role and their presence in and around PAs guarantees the quality of ecosystems, economic development and widespread care of the territory.

In the former case, the NPAs work mainly to ensure conservation, environmental protection, and landscape development and facilitate the transition towards sustainability; in the latter case, NPAs can help to preserve the identity of protected areas, often linked to resident communities. Both approaches can be found in the case studies considered here (cf. Ch. 1).

As for **mountain regions**, the role of the NPAs in territorial development appears particularly strategic (Box 3), considering that: 1) in Europe, most mountain Regions extend beyond national borders and cooperation between neighbouring countries is crucial for these regions' sustainable development; 2) mountain areas (with large forest coverage in the European context) have a central role in providing most ecosystem services from a quantitative and qualitative standpoint<sup>12</sup>, and for this reason protected areas play a strategic role in promoting a more balanced development model.

*Box 3 Example of transnational networks: The Alps-Carpathians Corridor*

Cross-border spatial planning and habitat management measures in the Alps-Carpathians passage aimed at creating and preserving a coherent 120-km wide ecological corridor from the Alps to the Carpathians. The mountain ranges of the Alps and the Carpathians, which straddle the border of Austria and Slovakia, are the largest sources of biodiversity in Central Europe. The Alps-Carpathians Corridor between these mountains has traditionally been considered as a major migration route for wildlife crossing the Danube but was disrupted by economic development. The project brought together various institutions, NGOs, universities, highway companies and regional and federal authorities from Austria and Slovakia to create a common cross-border platform to ease the migration and genetic exchange of wild animals. The project also aimed to increase the recreational attractiveness of the Region and improve the environmental awareness of the population (European Commission, 2007).

*Source BISE, Slovakia, 2018*

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<sup>12</sup> Mountain areas provide: i) provisioning services: food, fibre, fresh water; ii) regulatory services: erosion control, climate regulation; iii) cultural services: recreation and ecotourism, aesthetic values and spiritual values (Millennium Ecosystems Assessment, 2005b)

Among the 'mountain' networks the LinkPAs project has examined, ALPARC (the Alpine Network of Protected Areas) includes all the different types of protected areas set out in the Alpine Convention. ALPARC works closely with the Permanent Secretariat of the Alpine Convention to implement all those activities aimed at the conservation of protected species. Its main task was laid down in Article 12 ("Nature conservation and landscape management"), but ALPARC is also active in the sustainable development of the Regions that include protected areas; it also promotes information and environmental education. This NPA plays a significant role within the Alpine Convention, developing detailed programmes and offering a sound vision and strategy for the areas involved. Furthermore, it works actively to put forward 'political demands' regarding the role of protected areas in the Alpine macro-regional development (cf. Ch. 3). As the NPA itself explains: "The significance of networking between protected areas and with concerned local and regional stakeholders must thus be acknowledged on all political levels and the protected area administrations must extend their activities beyond the protected area borders in an intermediary and networking manner and shall also receive the necessary political support to do so" (ALPARC, Political demands. p. 2)

ALPARC strives to develop an Alpine-wide understanding of how integrated regional development – with protected areas and their assets at its centre – should work. The actions this far developed show ALPARC's multilevel approach to influencing territorial development within its area. ALPARC Action Plan 2016-2021 lists the following priorities:

- Cooperation with the Alpine Convention and Alpine macro-region
- Regional development (Pilot regions): ALPARC will support the sustainable regional development plans of the Alpine Regions hosting protected areas and promote active exchanges among these regions. The collaboration among the Pilot Regions is crucial and will be enhanced by promoting networking strategies.
- Local territorial involvement: Networking programme for territorial coordinators to lease with national and international partners. This process offers municipalities and territorial bodies within the Alps a decentralized platform that provides information and communication tools that promote innovative approaches to sustainable territorial management (e.g. cooperation project with Municipalities Networks "Alpine Alliances" – AIDA). Considering the multifaceted relationship of the Alpine Convention governance and the ongoing Alpine macro-regional Strategy, the role of ALPARC appears to be strategic, since it works as a mediator with local authorities to implement territorial development strategy.

As for the Carpathian Network of Protected Areas (CNPA), the Carpathian Convention previously acknowledged its existence; therefore, CNPA did not need to refer to the nature protection protocol, as is the case for ALPARC and the Alpine Convention. This implies that CNPA plays a more important role in relation to the implementation of the Convention's main aim, which is to develop: "comprehensive policy and cooperation for the protection and sustainable development of the Carpathians with a view to inter alia improving quality of life, strengthening local economies and communities, and conservation of natural values and cultural heritage and major concern for Spatial planning" (Art 5). Therefore, the Parties to the

Convention shall aim at coordinating spatial planning in bordering areas, developing transboundary and/or regional spatial planning policies and programmes, and enhancing and supporting co-operation between relevant regional and local institutions.

As for EGTC Alpi Marittime – Le Mercantour, the creation of a specific governance tool for territorial cooperation, in order to protect and enhance the transboundary territory “seen as a whole from a geological and landscape point of view”, has resulted in the establishment of a global strategy for the homogenisation of conservation politics for the sustainable development of both parks and their related territories. Alpi Marittime and Le Mercantour share a particular mountain landscape that is also close to the sea; this unique blend of flora and fauna is part of both the Arctic-Alpine and the Afro-Mediterranean domains, but they have different approaches, and this is likely to influence potential territorial development strategy. Creating the NPA according to the EGTC model has led Le Mercantour Park to develop a greater interest in territorial development; this has also led Alpi Marittime Park to focus on achieving stringent objectives in conservation politics (while also maintaining its missions, as established by the Italian law).

Table 8: Summary of effects of selected NPAs on regional development and territorial planning

| <b>Effects on regional development</b>  |               |                                  |                       |               |
|---|---------------|----------------------------------|-----------------------|---------------|
| + = indicated directly<br>(+) indicated indirectly<br>- = not indicated         | <b>ALPARC</b> | <b>Alpi Marittime Mercantour</b> | <b>Abruzzo Region</b> | <b>Razlog</b> |
| <b>Economic effects</b>   |               |                                  |                       |               |
| Economic value added  | (+)           | +                                | +                     | +             |
| Creation of infrastructure  | -             | +                                | (+)                   | -             |
| Visitor expenses  | -             | +                                | +                     | +             |
| Local income  | (+)           | (+)                              | +                     | +             |
| New jobs (job creation)   | -             | -                                | (+)                   | (+)           |
| Tax revenue   | (+)           | -                                | (+)                   | -             |
| Keeping people in region  | (+)           | +                                | +                     | +             |
| Cross-sector cooperation  | (+)           | (+)                              | +                     | -             |
| Other economic impacts (external funding)                                       | +             | +                                | +                     | +             |
| Impacts on other regions, countries   | +             | +                                | -                     | -             |
| <b>Involvement of NPAs in territorial development processes</b>                 |               |                                  |                       |               |
| Influence on planning processes of the PA areas within regional development     | (+)           | +                                | +                     | (+)           |
| Mechanisms to be applied to regional strategy development and regional planning | +             | +                                | (+)                   | -             |

Source: LinkPAs Project Targeted Analysis, 2018 on the matrix of Jungmeier et al. 2006

The situation in the stakeholders' mountain territories has been thoroughly analysed by investigating the formal documents that established the networks under scrutiny. In addition, regional strategic and planning documents, as well as regulatory legislation, especially as far as the Abruzzo Region is concerned, have been taken into consideration<sup>13</sup>. The effects on regional development and the importance of NPAs in territorial development processes have

<sup>13</sup> The complete list of documents is provided in the Annex 1.

been qualitatively assessed<sup>14</sup> in relation to the presence/absence of positive links with the issues considered (Table 8).

### 3.1 Determination of sector policies that NPAs impact on

A preliminary account of the sector policies impacted by NPAs can be provided examining the sector policies identified and connected to the GI policy; they have been inserted in related mainstream policies of European countries in the aforementioned analysis of the Biodiversity Information System for Europe. These policy areas include: Nature/Biodiversity; Spatial planning; Urban policy; Agriculture; Forestry; Tourism and leisure; Transport infrastructure; Energy; Water/flood management and disaster risk reduction; Marine and coastal policy and Climate change. Considering that the NPAs are the backbone of European and national ecological networks, the NPAs play a major role in the agriculture, forestry, soil conservation and water sectors, underscoring those functions that have increased tree cover on land, which can prevent erosion and flooding, as well as the protection of water supplies.

According to EU current policy on the green economy<sup>15</sup>, the development of green infrastructure, green business and green tourism in the Natura 2000 network has been identified as a priority under a number of National action plans for the programming period 2014-2020<sup>16</sup>. Within the framework of environmental and biodiversity policy, some productive sectors (such as forestry and agriculture) have begun a process of “active conservation” outside and within established PAs. Thanks to businesses acting within PAs (particularly SMEs), this process has led to the adoption of sustainability-oriented voluntary standards at international and EU level<sup>17</sup>. This means that now, within these PAs, it is possible to reconcile goods production and biodiversity conservation, thus helping to move towards a more integrated development mode (Prezioso et al. 2016).

These sectors already play pivotal roles in planning and financing EU climate change and biodiversity policies; they are strongly connected to the NPAs’ initiatives.

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<sup>14</sup> Economic value added: Does a potential economic value added related to the NPAs in the area exist?; Creation of infrastructure: Did the NPA lead to a helpful, necessary infrastructure?; Visitor expenses: Did the NPA intend to increase /succeed in increasing visitors’ spending?; Local income: Did the NPA contribute to long-term effects on local income?; New working places: Can the number of existing jobs be increased by the NPA?; Tax revenue: Do the NPA activities contribute to increase tax revenue?; Keeping people in the region: Do the NPA activities contribute to keeping people in the region?; Does the NPA contribute to diminishing “brain drain” and commuting? Does it help to make the region more attractive to “newcomers”?; Cross-sector co-operation: Are there cross-sector co-operations? Are there multiplier effects to other economic sectors within the region?; Other economic impacts: Is there any other economic impact for the region? In what way is the NPA activity innovative and in what terms?; Impacts on other regions: Is there an economic impact on other regions or countries? Did the NPA transfer its experience to other sectors and regions?

<sup>15</sup> EC (2015), Closing the loop - an EU action plan for the circular economy

<sup>16</sup> The ERDF Regulation (EU No 1303/2013) in Article 5, paragraph 6, point e) identifies GI as one of the investment priorities under the environment protection objectives.

<sup>17</sup> Such as the Environmental Quality Certification (under ISO Standards 14:000 and 64:000 series; Eco-Labels; EMAS Audit scheme, etc.)

Table 9: Sector policies impacted by NPAs

| Sector policies<br>NPAs impact on               | Policy Objectives  | Case studies |                                  |                |                          |
|---|--|--------------|----------------------------------|----------------|--------------------------|
|   |  | ALPARC       | Alpi<br>Marittime-<br>Mercantour | Abruzzo Region | Rila<br>National<br>Park |
| <b>Enhanced efficiency of natural resources</b> | Maintenance of soil fertility  |              |                                  |                | X                        |
|   | Ensuring biological control  |              |                                  |                | X                        |
|   | Increasing pollination   |              |                                  |                | X                        |
|   | Storing freshwater resources   |              |                                  | X              | X                        |
| <b>Climate change mitigation and adaptation</b> | Improving resilience to deal with climate impact                                     |              |                                  | X              |                          |
|   | Reduction in GHGs  |              |                                  |                |                          |
|   | Improving temperature control  |              |                                  |                | X                        |
|   | Improving storm damage control   |              |                                  |                | X                        |
| <b>Biodiversity</b>                             | Sustaining and improving biodiversity  | X            | X                                | X              | X                        |
| <b>Disaster prevention</b>                      | Ensuring erosion control   |              |                                  |                |                          |
|   | Reducing the risk of forest fires  |              |                                  | X              |                          |
|   | Reducing flood hazards   |              |                                  |                |                          |
| <b>Water-related agriculture</b>                | Regulating water flows   |              |                                  |                | X                        |
|   | Increasing water purification  |              |                                  |                | X                        |
|   | Improving water provisioning   |              |                                  |                | X                        |
| <b>Land and soil management</b>                 | Reducing soil erosion  |              |                                  | X              | X                        |
|   | Maintaining/enhancing soil organic matter  |              |                                  |                | X                        |
|   | Increasing soil fertility and productivity   |              |                                  |                |                          |
|   | Mitigating land take, fragmentation and soil sealing                                 |              |                                  |                |                          |
|   | Improving land quality and making land more attractive                               |              |                                  |                |                          |
|   | Enhancing property values  |              |                                  |                |                          |
| <b>Conservation</b>                             | Promoting existence value of habitat, species and genetic diversity                  | X            | X                                | X              | X                        |
|   | Conserving habitat, species & genetic diversity for future generations               | X            | X                                | X              | X                        |
| <b>Agriculture and forestry</b>                 | Promoting multifunctional resilient agriculture and forestry                         |              | X                                | X              | X                        |
|   | Enhancing pollination  |              |                                  |                | X                        |
|   | Enhancing pest control   |              |                                  |                | X                        |
| <b>Low-carbon transport and energy</b>          | Improving energy supply & safety, promoting biomasses and renewable energy           |              |                                  | X              | X                        |
|   | Delivering better integrated, less fragmented transport solutions                    |              | X                                |                |                          |
|   | Offering innovative energy solutions   | X            |                                  |                | X                        |
| <b>Investment and employment</b>                | Conveying a better image of NPAs   | X            |                                  | X              | X                        |
|   | Increasing investments   | X            |                                  |                |                          |
|   | Increasing employment  | X            |                                  |                |                          |
|   | Increasing labour productivity   | X            |                                  |                |                          |
| <b>Health and well-being</b>                    | Improving air quality and noise regulations  |              |                                  |                | X                        |
|   | Improving accessibility to exercise areas and amenities                              | X            |                                  | X              |                          |
|   | Improving health and social conditions   | X            |                                  |                |                          |
| <b>Tourism and recreation</b>                   | Making destinations more attractive  | X            | X                                | X              | X                        |
|   | Increasing range and capacity of recreational opportunities                          | X            | X                                | X              | X                        |
| <b>Transport</b>                                | Encouraging sustainable travel (multimodal links & integration of transport systems) | X            | X                                | X              |                          |
| <b>Education</b>                                | Creating teaching resources and 'natural laboratories'                               | X            | X                                | X              | X                        |
| <b>Ecoservices accounting</b>                   | Resilience   | X            |                                  | X              | X                        |

Source: (SWD (2013) 155 final, modified by ESPON LinkPAs, 2018

Considering the GI policy areas as listed above, and drawing on the work of the Commission on key benefits for Green Infrastructure (COM2013) 149<sup>18</sup>, which identified detailed policy objectives, the LinkPAs project has compiled a list of the potential policy sectors impacted by the NPAs (Table 8).

The relationships between the NPAs and the territorial system serve as the basis for determining which sectoral issues the NPAs might have effects on. They can also define those sector policies that have links with the management of the PAs involved.

LinkPAs has analysed the main policy documents referring to the regional and local contexts of the case studies under scrutiny (Table 9); LinkPAs has also interacted with the local stakeholders involved (Annex 4)

Table 9 includes the results of a survey on the strategic policy documents regarding each Stakeholder territory. This has made it possible to establish which sector policies are impacted by the NPAs in relation to each case study area. The policy sectors on which the NPAs seem to have a significant impact, within the stakeholder regions, are: Biodiversity; Conservation; Tourism and recreation; and Education.

In addition, close links can be found in relation to Agriculture and Forestry in order to promote multifunctional resilient agriculture and forestry; NPAs are also linked to Investment and employment when it comes to promoting a better image of NPAs themselves; NPAs contribute to enhancing transport by encouraging sustainable travelling (e.g. multimodal links and integration of transport systems). Lastly, NPAs are connected to the Ecoservices accounting in order to improve the resilience of the PA in close relation with its surrounding territories.

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<sup>18</sup> Commission Staff Working Document - Technical information on Green Infrastructure (GI) (SWD 2013) 155 Accompanying the document (COM2013)149

Table 10: National synthesis on NPA in GI policy. Quoted sources are provided in the specific section of References. In policy sector cells, “x” meanings that policy refers to GI.

| Austria   |   |  |   |                            |  |  |        |  |                           |                |
|---|---|--|---|----------------------------|--|--|--------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy  | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks | Regional case  | Transnational case   |        |  |                           |                |
| <b>NO</b>   | Austrian Biodiversity Strategy 2020+(BMLFUW, 2014)<br>Includes actions to e.g. strengthen biotope connectivity, consideration of functional connectivity and the habitat network when establishing compensating areas, increase of grasslands in urban areas, the provision of features that promote biodiversity in newly established green areas, and the preservation of un-fragmented areas and migration corridors. Most activities are executed at the local or federal province level. | In Austria, the nine states (Bundesländer) have legislative and executive powers with regard to spatial planning, nature protection and transport. Bundesländer are also responsible for the administration, implementation and enforcement of certain federal laws at the lower levels of government. | Each of the nine Länder has a different legal basis for implementing the EU Nature directives. Federal Ministry is the reference for international NPAs and supports Lander in management of National Parks and natural reserves. | ALPARC, Green Belt         | Knowledge base: Environment Agency Austria, such as a national wide mapping of ecosystems based on the EUNIS classification (105 classes from level 2 to 4) with a spatial resolution of 10 x 10 metres. Mapping and assessment of a set of ecosystem services on a regional level was conducted within the project MUFLAN for two case studies in Römerland Carnuntum and Oststeirisches Kernland (BISE, 2015). | Alpine Carpathian Corridor (Within the ETC-project Alps-Carpathians Corridor, the traditional ecological corridor from the Alps to the Carpathians has been modelled. Based on the findings, an Action Plan for the re-establishment of this wildlife corridor has been developed and initial measures have been implemented.). The project brought together various institutions, NGOs, universities, as well as highway companies and regional and federal authorities from Austria and Slovakia to create a common cross-border platform; |        |  |                           |                |
| <b>Inclusion in mainstream policy:</b> The Biodiversity Strategy states specific targets to integrate biodiversity and ecosystem services in spatial planning with measures such as incorporating ecological infrastructure, enhancing functional connectivity and the habitat network when establishing compensation areas, preserving un-fragmented areas and migration corridors (BMLFUW, 2014). |   |  |   |                            |  |  |        |  |                           |                |
| Nature  | Spatial planning  | Urban policy   | Agriculture   | Forestry                   | Tourism and leisure  | Transport infrastructure   | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| x   | x   | x  |   | x                          |  | 0  |        |  |                           |                |

| Belgium  |   |              |             |   |                     |                          |  |   |  |                     |
|--|---|--------------|-------------|---|---------------------|--------------------------|--|---|--|---------------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  |              |             | Institutional set-up for protected areas  |                     |                          | Role of the Nature 2000 NETWORK  | Other established networks  | Regional cases   | Transnational cases |
| NO   | <p>The <b>National Biodiversity Strategy (2013-2020)</b> is a framework document that mainly builds on the existing plans, giving political orientation in order to improve the implementation of biodiversity commitments, strengthen coherence, fill gaps and integrate biodiversity concerns into the national and international levels (European Commission, 2017). The operational objectives of the updated National Biodiversity Strategy include protecting and restoring biodiversity and associated ecosystem services through protected areas, green infrastructure, and no net loss, as well as mapping ecosystems and their services in Belgium and assessing their values</p> |              |             | <p>Protected areas centrally management by the Ministries of three Regions Flandres, Wallonie, Bruxelles Capital. Flemish Region: Agency for Nature and Forest (ANB) has the competence for the legal framework related to the protection, conservation measures, communication and cooperation concerning nature, forests and green spaces. It promotes sustainable forest management and strengthens nature, forest and green facilities. It manages the green areas of the Flemish Region. Walloon Region: the Directorate-General for Agriculture, Natural Resources and the Environment (DGARNE) of the Ministry of the Walloon Region is in charge of the conservation of nature, the environment (in particular waste), management and protection of the soil, as well as the exploitation of natural resources like water and forests in the Walloon Region. Within the DGARNE, the Department of Nature and Forests is responsible for the ecological management of the natural environment, including the Walloon forests. Brussels-Capital Region: The environmental competencies lie with the Brussels Institute for Management of the Environment (BIME), a para-regional institution that serves as the environmental administration of the Region: the Division Green Spaces, manages the public green spaces (parks, forests, semi-natural areas and nature reserves), develops the blue and green network, and is responsible for the regions' biodiversity (inventory, monitoring, strategy, management, etc.).</p> |                     |                          | <p>Only one national park; Natura 2000 sites designed and managed at Region level. All Sites of Community Importance (SCIs) have been designated as Special Areas of Conservation (SACs) within the three Regions.</p> | <p>The Belgium Ecosystem Services (BEES) Community (<a href="http://www.beescommunity.be/en/">http://www.beescommunity.be/en/</a>) is a network that interfaces between different societal actors. The BEES community is open to all potentially interested organisations from a range of stakeholder groups (policy, business, science, consultancy, civil society, etc.).</p> | <p>Wallon Region: Réseau Wallonie Nature (Wallonia Nature Network) voluntary basis; Bruxelles Capital: 'maillage vert et bleu' since the years 2000. It aims at connecting Natura 2000 sites, forest, nature reserves, parks, ponds to create green and blue corridors and allow wildlife species.</p> |                     |
| <b>Inclusion in mainstream policy:</b> the GI concept is included in spatial planning in different ways in all the three regions |   |              |             |   |                     |                          |  |   |  |                     |
| Nature   | Spatial planning  | Urban policy | Agriculture | Forestry  | Tourism and leisure | Transport infrastructure | Energy   | Water/flood management and disaster risk reduction  | Marine and coastal policy  | Climate change      |
| x  | x   |              | x           | x   |                     |                          |  | x   |  |                     |



| Bulgaria  |  |              |             |  |   |  |                |   |                           |                |
|---|--|--------------|-------------|--|---|--|----------------|---|---------------------------|----------------|
| Eco logical network established by law (National Ecological network)  | National biodiversity strategy   |              |             | Instituti onal set-up for protecte d areas | Role of the Nature 2000 NETWORK   | Other established networks   | Regional cases | Transnational cases   |                           |                |
| YES   | The National Ecological Network concept was set up with the adoption of the Biological Diversity Act (BDA) 2002 in response to the requirements for establishing the Natura 2000 network in Bulgaria. However, it exceeds the scope of Natura 2000 as it includes all those areas identified as protected according to the 6 IUCN categories, including those of more local biodiversity significance. The National Ecological Network (incl. Protected Areas and Natura 2000 sites) covers around 37 % of the country's territory, thus ensuring effective in situ conservation of biodiversity; however, the management plans of many of the protected areas and Natura 2000 sites have to be elaborated or updated (Republic of Bulgaria Ministry of Environment and Water, n.d.) |              |             |  | Priorities included in the National Prioritised Action Framework for NATURA 2000 (NPAF): The development of green infrastructure, green business and green tourism in the Natura 2000 network in Bulgaria have been identified as a priority under the Bulgarian NPAF for the programming period 2014-2020: "Priority 3: Sustainable use of ecosystem services for optimum public benefits, and other factors for socioeconomic development of regions" and "Priority 2: Sustainable management of protected areas of the NATURA 2000 network. Implementation of proper conservation activities | Green Belt; Transboundary Ramsar Sites protected wetlands under the Ramsar Convention: six sites (part of the Lower Danube Green Corridor) joint coordinated management of six sites by Romania and Bulgaria |                | Lower Danube Green Corridor: floodplain restoration for flood protection (Bulgaria, Romania, Ukraine and Moldova, 2014) In 2000, the governments of Bulgaria, Romania, Ukraine and Moldova signed the Lower Danube Green Corridor Agreement to establish a green corridor along the entire length of the Lower Danube River (~1,000 km). The aim of the project was to reduce the risks of major flooding in areas with human settlements, restore and protect Green Infrastructure along the river is protected and restored, e.g., through natural wetlands, and reconnecting the river to its natural flooding areas. The expected earnings through ecosystem services (e.g., fisheries, tourism) are EUR 85.6 million per year. Each ha of restored floodplain is estimated to provide EUR 500 per year in ecosystem services, helping to diversify the livelihoods of local people (Trinomics et al., 2016). |                           |                |
| <b>Inclusion in mainstream policy:</b> According to the BDA, in order to ensure the links among the special areas of conservation (Natura 2000 sites), the spatial-development plans, regional plans for the development of wooded areas, forestry plans and programmes and the national and regional programmes elaborated according to the procedure established by other acts shall include measures and activities for the conservation of landscape features that, by virtue of their linear and continuous structure or their function as stepping stones, are essential for the migration, dispersal and genetic exchange of plant and animal populations and species. |  |              |             |  |   |  |                |   |                           |                |
| Nature  | Spatial planning   | Urban policy | Agriculture | Forestry                                   | Tourism and leisure   | Transport infrastructure   | Energy         | Water/flood management and disaster risk reduction  | Marine and coastal policy | Climate change |
| x   | x  |              |             | x  | x   |  |                |   |                           |                |

| Croatia  |  |              |             |   |                     |  |                            |  |                           |                |
|--|--|--------------|-------------|---|---------------------|--|----------------------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy   |              |             | Institutional set-up for protected areas  |                     | Role of Nature the 2000 NETWORK  | Other established networks | Regional cases                                     | Transnational cases       |                |
| YES  | National Biodiversity and Action Plan for Nature Protection (NBSAP) (OG 143/08) (Ministry of Environmental and Nature Protection) is the fundamental document for nature protection, laying down long-term objectives and guidelines for the conservation of biological and landscape diversity and protected natural values, and methods for implementation thereof, in accordance with the overall economic, social and cultural development of the Republic of Croatia. |              |             | Ministry of Culture is the competent authority for nature protection, performing primarily administrative tasks in nature protection. The Nature Protection Directorate is the responsible unit of the Ministry. The Directorate consists of four departments: Biodiversity and Landscape Diversity Department, Department for Protection of Natural Values, Department for Legislation and Inspection, and Department for Strategic Planning and EU. The State Institute for Nature Protection is responsible for expertise work in nature protection. Protected areas management: State-level public institutions for management of national and nature parks; regional or local level public institutions for management of all other categories of protected areas. |                     | The Croatian ecological network as a part of the Pan-European Ecological Network (PEEN) and Natura 2000 network has been recognized as a useful tool in stopping biodiversity loss by the designation of species and suitable sites for habitats and ensuring connectivity between them. This protection concept has been incorporated into national legislation through the Nature Protection Act, which envisioned a national ecological network to be enacted through Government Decree. The preparation of the ecological network started in 2000 through the Emerald network pilot project, which was financed by the Council of Europe and the PEEN network project. | Green Belt                 |  |                           |                |
| <b>Inclusion in mainstream policy:</b> According to the Nature Protection Act (NPA), all physical planning documents and sectorial management plans for the exploitation of natural resources must incorporate nature protection requirements. |  |              |             |   |                     |  |                            |  |                           |                |
| Nature   | Spatial planning   | Urban policy | Agriculture | Forestry  | Tourism and leisure | Transport infrastructure   | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| X  | X  | x            | X           | X   | x                   | X  | x                          | X  | X                         |                |

| Cyprus  |  |              |             |  |                                 |   |        |  |  |                |
|---|--|--------------|-------------|--|---------------------------------|---|--------|--|--|----------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy   |              |             | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK | Other established networks  |        | Regional cases                                     | Transnational cases  |                |
| NO  | 5th National Report to the United Nations Convention on Biological Diversity; National Action Plans on Climate Change, Desertification and Biodiversity. |              |             | The Department of the Environment of the Ministry of the Environment Agriculture and Natural Resources is the main body implementing environmental policies. |                                 | Green Infrastructure Network (GreenInfraNet) - a partnership of 11 Regions across Europe (Cyprus member was The Nicosia Development Agency - ANEL) The GreenInfraNet project was a response to the challenge of biodiversity conservation in Europe and to the loss of valuable ecosystems and their services. The main objective of the project was to strengthen the development and implementation of green infrastructure in EU Regions in order to conserve biodiversity and ecosystem services in close cooperation with other policy measures related to, for example, agriculture, urban development, transport, recreation and climate change adaptation. Bulgaria   Cyprus   Hungary   Ireland   Italy   Latvia   Malta   Netherlands   Spain |        |  | <b>The Cyprus Buffer Zone as a Socio-Ecological Landscape:</b> The natural environment of the Buffer Zone remained largely 'untouched' for forty years, following the division of the island across ethnic lines in 1974. Since then UNFICYP, which formally manages the Buffer Zone, has worked in collaboration with Greek-Cypriot and Turkish-Cypriot authorities to support civilian uses and environmental protection. This site shows how limited human activity in the Buffer Zone by default preserved natural landscapes as well as endangered flora and fauna. Furthermore, the involvement of stakeholders in the administration of this area supported the development of co-management practices and institutions (IPSI, 2014). |                |
| <b>Inclusion in mainstream policy:</b> Cyprus formulated National Action Plans on Climate Change, Desertification and Biodiversity. All three plans include measures for the conservation and restoration of habitat functions and structures in order to reverse biodiversity loss, adapt to climate change, fight desertification and integrate biodiversity into other sectors, policies and strategies. |  |              |             |  |                                 |   |        |  |  |                |
| Nature  | Spatial planning   | Urban policy | Agriculture | Forestry   | Tourism and leisure             | Transport infrastructure  | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy  | Climate change |
| x   |  | x            |             | x  |                                 |   |        |  | x  |                |

| Czech Republic  |  |              |             |          |  |                          |   |  |                           |  |
|---|--|--------------|-------------|----------|--|--------------------------|---|--|---------------------------|--|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy   |              |             |          | Institutional set-up for protected areas   |                          | Role of the Nature 2000 NETWORK   | Other established networks                         | Regional cases            | Transnational cases  |
| YES   | <p>The <b>National Biodiversity Strategy of the Czech Republic</b> (2016) defines priorities for conservation and sustainable use of biodiversity and reflects international commitments as well as national measures that span across sectors. However, in practice it is not used at policy level and in implementation across sectors, and there is no coordinating body. Ministry of the Environment, the Czech Republic (2016), National Biodiversity Strategy of the Czech Republic – 2016-2025<br/> <a href="https://www.cbd.int/doc/world/cz/cz-nbsap-v2-en.pdf">https://www.cbd.int/doc/world/cz/cz-nbsap-v2-en.pdf</a></p> |              |             |          | <p>The responsibility for environmental laws and policies lies with the Ministry of Environment or Regional Authorities (e.g. environmental departments of regional authorities): they have the responsibility and creates the basic framework for the conservation of ecosystems through the instruments of a general and specific nature and landscape protection. Implementation is on Nature Conservation Agency of the Czech Republic</p> |                          | <p>Territorial System of Ecological Stability of the Landscape (TSES); it is included in the Nature and Landscape Protection Act and is one of the main tools for landscape protection. Its main purpose is to support ecological stability in the landscape by conservation or restoration of ecosystems and their connectivity (protection of important landscape components, large-and small-scale specially protected areas or the protection of Natura 2000 sites.</p> | Green belt   |                           | <p>The Nature Conservation Agency of the Czech Republic is participating in the ongoing international project Transgreen: Integrated Transport and Green Infrastructure Planning in the Danube-Carpathian Region for the Benefit of People and Nature (2017-2019). The Ministry of the Environment of the Czech Republic is an associated strategic partner. The main aim of the project is to propose standards for planning mitigation measures (structures) for safe animal species crossings in relation to transport infrastructure</p> |
| <p><b>Inclusion in mainstream policy:</b> The territorial system of ecological stability (TSES) is an obligatory requirement of the urban planning process and has to be incorporated into plans at all levels (local, regional, supra-regional).</p> |  |              |             |          |  |                          |   |  |                           |  |
| Nature  | Spatial planning   | Urban policy | Agriculture | Forestry | Tourism and leisure  | Transport infrastructure | Energy  | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change   |
| x   | x  |              | x           | x        |  |                          |   | x  |                           |  |

| Denmark   |                                |  |   |          |                     |                          |        |  |                           |                     |
|---|--------------------------------|--|---|----------|---------------------|--------------------------|--------|--|---------------------------|---------------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   |          |                     |                          |        | Other established networks   | Regional cases            | Transnational cases |
| YES (Green Map)   |                                | The Ministry of the Environment establishes national parks and stipulates rules and regulations related to national parks; the municipalities and the Danish Nature Protection Association also have all the rights to initiate proposals for the designation of nature protection at specific sites. These protected sites cover 6-7 % of the Danish national territory and constitute an important element of both national and local ecological networks. The Nature Protection Act (2016) includes regulations regarding protection of certain habitat types and permitting processes for structural developments in the landscape. Currently, almost 10% of terrestrial Denmark is designated as protected areas under the Nature Protection Act. | <p>In Denmark there are more than 20 different protection schemes. Internationally, the most important regulation is the Natura 2000 network. The national protection schemes can be divided into three types of network. There is clearly an overlap and correspondence between these networks.</p> <p>1. National scale: The Natura 2000 network that includes the designated areas (254 SACs, 113 SPAs and 27 Ramsar sites). The network is divided into core areas – the designated sites – and stepping stones and corridors between them. The stepping stones and corridors are integrated into the planning procedures. There is some degree of overlap with the networks mentioned below.</p> <p>2. Regional scale: The regional planning has traditionally defined core areas and connection lines and corridors. The 14 counties “regional plans” mentioned earlier define nature core areas and connection lines in detail and form the basis for regional planning. The 14 plans are coordinated and connected across the county borders. This system is unchanged and continues to secure a basis in relation to the new planning system.</p> <p>3. Municipal and local planning. Within each municipality a more detailed network is defined taking into account the two mentioned larger scale networks. In this way, core areas and connection lines on the local scale are defined within each municipality. All planning initiatives in relation to construction work, infrastructure, raw material extraction, tourism etc. need to consider and respect the integrity of this local network. (Source: SPEN project)</p> |          |                     |                          |        | Green Map of Denmark (“Grønt Danmarks kort”) was introduced in the Danish Spatial Planning Act in 2015 with the aim to, for instance, ensure that the most valuable Danish nature is sufficiently interconnected to allow species to spread and thrive. The act includes an obligation for the municipalities to designate and formulate guidelines for the administration of valuable nature areas and ecological corridors and networks as well as the Green Map of Denmark. The Green Map is to provide the strategic framework for Danish nature policy by ensuring that existing and new measures and new natural areas are located where they will have the largest effect. The Map is also intended to function as a concrete map of existing natural areas in order to support land use planning processes and the location of new GI. National and international nature protection measures in Denmark constitute the backbone of the Green Map and future national-level conservation measures will be introduced on the basis of the Green Map. |                           |                     |
| <b>Inclusion in mainstream policy:</b> The network proposed a number of ideas that were included in spatial planning system |                                |  |   |          |                     |                          |        |  |                           |                     |
| Nature  | Spatial planning               | Urban policy   | Agriculture   | Forestry | Tourism and leisure | Transport infrastructure | Energy | Water/flood management and disaster risk reduction   | Marine and coastal policy | Climate change      |
|   | x                              | x  | x   | x        | x                   | x                        | x      | x  | x                         |                     |

| Estonia  |                                |   |             |          |                     |                          |  |  |                           |                     |
|--|--------------------------------|---|-------------|----------|---------------------|--------------------------|--|--|---------------------------|---------------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy | Institutional set-up for protected areas  |             |          |                     |                          | Role of the Nature 2000 NETWORK  | Other established networks                         | Regional cases            | Transnational cases |
| YES  |                                | <p>The basic legislation is the Planning Act that defines the green network and its elements. <b>The concept of ecological networks in Estonia is principally embedded in the spatial planning system.</b> However, it is implemented through other sectors such as <b>nature conservation, forestry, water management and others.</b> At county level, the green network is one sub-theme of county thematic planning. By the end of 2007 each of the 15 counties of Estonia had to have prepared a map of ecological networks on a scale of 1: 50 000. In its classical form this represents an 'ecostabilizing' concept - a multifunctional approach to ecological networks which is based on a strong land-use planning tradition, with wilderness and areas of conservation value as core areas - interlinked by natural and semi-natural landscapes. The hierarchy of the spatial planning system is mainly organized around basic administrative units of Estonia (country – national plan &gt; counties – county plans &gt; municipalities – comprehensive plans). The green network is, to various degrees, addressed at all three levels of planning. In general, the Ministry of the Environment and the State Nature Conservation Management Centre and their lower administrative units operate in accordance with relevant nature conservation and environmental legislation. Therefore, the actions of both institutions deal only indirectly with the ecological network concept. However, in general the ecological network concept is not part of the relevant environmental legislation (e.g. Nature Conservation Act); the only clear reference to ecological networks in terms of the green network is given in general national policy documents, such as the Estonian National Environmental Strategy 2030 and its action plan. Thus, the green network in terms of core areas falls indirectly, via legally protected areas, mainly under the attention of the Ministry. Estonia was the first country to develop the ecological network concept and to elaborate the model into a comprehensive plan and implementation programme. In 1983, this proposal was finalised as a plan to establish a national 'Network of Ecologically Compensating Areas' (National Sustainable Development Plan, 2030+). The principle of the ecosystem approach has been introduced in all major national programmes, strategies and development plans, but there is no methodology for how it should be implemented in practice. The planning is based directly on the law, or indirectly on the restrictions set for nature protection (5th national report to the CBD, Estonia).</p> |             |          |                     |                          | <p>The European Commission regards the funding of Estonian Natura 2000 sites from different EU funds as especially successful. This has been separately highlighted as good practice that other member states should learn from (European Commission, 2017). Estonia has provided one of the most complete Prioritised Action Frameworks (PAF) which has been used successfully to ensure funding to Natura 2000 sites from different EU funds. Thematic spatial plans have been established for all counties and have also been brought into the general spatial plans at the municipal level in almost all municipalities (as the county thematic plans are much more generalized than the land cadastre, they need to be refined at the municipal level).</p> | Green belt   |                           |                     |
| <b>Inclusion in mainstream policy:</b> The ecological network is fully included in spatial planning system |                                |   |             |          |                     |                          |  |  |                           |                     |
| Nature   | Spatial planning               | Urban policy  | Agriculture | Forestry | Tourism and leisure | Transport infrastructure | Energy   | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change      |
| x  | x                              |   |             | x        |                     |                          |  | x  |                           |                     |

| Finland   |   |   |             |          |                     |  |  |   |  |                |
|---|---|---|-------------|----------|---------------------|--|--|---|--|----------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy  | Institutional set-up for protected areas  |             |          |                     | Role of the Nature 2000 NETWORK  | Other established networks   | Regional cases  | Transnational cases  |                |
| NO  | The <u>Finnish Biodiversity Strategy and Action Plan</u> for 2020. It considers: a study of what is meant by green and blue infrastructure (ecological network) under Finnish conditions. | The Ministry of the Environment guides and monitors nature conservation in Finland; prepares and monitors legislation to maintain biodiversity; prepares nature conservation programmes and establishes nature reserves under these programmes. Furthermore, it approves the management and use plans of major nature reserves. Metsähallitus / Natural Heritage Services (NHS) is a state-owned enterprise that manages Finland's national parks and nature reserves, wilderness areas, recreational areas and other protected areas. It is responsible for the management, use and public services of the areas and the nationwide protection and monitoring of many endangered species, natural habitats and cultural heritage. Consequently, NHS is the body responsible for managing the network of core areas for GI in Finland. Promoting nature conservation and biodiversity is one of the statutory objectives of Land Use and Building Act and the National Land Use Guidelines. Areas designated in a plan as parks, recreation or conservation areas, or areas of outstanding landscape value, or marked out for some other use appropriate for the purpose of national urban parks, may be designated to form a part of a national urban park. Areas designated as parks shall primarily be owned by the State, local authority or other public body. Other areas may be so designated with the owner's consent. There are eight established National Urban Parks (NUP) in Finland. |             |          |                     | The key instruments for the protection of biodiversity, including the Natura 2000 network and habitat protection, can be found in the Nature Conservation Act (1096/1996, latest amended in 2016). | Green Belt; Green Belt of Fennoscandia (GBF) is a network of existing and planned protected areas near the borders of three countries: Finland, Russia and Norway. The aim of the cooperation is to develop the Green Belt into a widely acknowledged transboundary model area and increase awareness on the area and its values in the participating countries as well internationally. The Green Belt of Fennoscandia is the northern part of the European Green Belt. In Finland the Green Belt is developed and promoted by large network of national and regional stakeholders as well as National Working Group appointed the Ministry of the Environment. | Boreal Peatland Life: Restoring the Natura 2000 network of Boreal Peatland Ecosystems (01/2010 -12/2014). This aimed to enhance the habitat quality of 54 Natura 2000 sites in the unique Finnish peatland network. Its results have also made a significant contribution to implementing the EU Biodiversity Strategy to 2020, especially the target of restoring at least 15% of degraded ecosystems; • NATNET - Increasing the ecological connections and coherence of the Natura 2000 network in South-west Lapland (01/2012 – 12/2017). This aims to increase ecological connectivity and establish a green infrastructure that will improve the vitality and coherence of the Natura 2000 network in south-western Lapland and raise the biodiversity of the forests in the project area. | • SustainBaltic project (2016 – 2018). This focuses on developing integrated coastal zone management (ICZM) Plans for sustaining coastal and marine human-ecological networks in the Baltic region. The project targets four ICZM case plans from Estonia and Finland, which are produced based on the current spatial data on ecological, land use and human activities. The novelty approach of SustainBaltic is on the close co-working in order to define the most crucial ICZM planning criteria to be utilised and implemented further in Central Baltic Programme area. |                |
| <b>Insertion in Mainstream policy:</b> Incorporating the formation of an ecological network into land use planning objectives in order to prevent the fragmentation of unified natural areas. |   |   |             |          |                     |  |  |   |  |                |
| Nature  | Spatial planning  | Urban policy  | Agriculture | Forestry | Tourism and leisure | Transport infrastructure   | Energy   | Water/flood management and disaster risk reduction  | Marine and coastal policy  | Climate change |
| X   | X   | X   | X           | x        |                     |  |  | X   | X  |                |

| France  |  |  |  |  |  |                          |        |  |                           |                |
|---|--|--|--|--|--|--------------------------|--------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy   | Institutional set-up for protected areas | Role of the Nature 2000 NETWORK  | Other established networks   | Regional cases   | Transnational cases      |        |  |                           |                |
| YES   | National Biodiversity Strategy 2011-2020 Ministère de l'Écologie, du Développement durable, des Transports et du Logement (2011). National Biodiversity Strategy 2011-2020. <a href="https://www.cbd.int/doc/world/fr/fr-nbsap-v2-en.pdf">https://www.cbd.int/doc/world/fr/fr-nbsap-v2-en.pdf</a> ; The new Biodiversity Law adopted in July 2016 includes measures such as the creation of the French National Agency for Biodiversity (AFB). | see case study                           | The French 'trame verte et bleue' (Green and Blue Network, GBN) is a spatial planning tool covering the entire national territory, with a core objective of stopping the decline of biodiversity by conserving and restoring ecological continuities to ensure provision of ecosystem services. Green and blue corridors are officially created by the 2010 Grenelle II law which requires the linking of sites previously identified for their importance for biodiversity conservation in order to overcome the current fragmentation of the French territory. For Natura 2000, France has also established many tools and materials helping to streamline the approach on the national territory such as dedicated sectorial assessment methodologies for habitats and species at site level, a national guidance document for establishing the Natura 2000 management plans, dedicated Natura 2000 training sessions and "technical exchange days" (a national equivalent to the Natura 2000 biogeographical process) (European Commission, 2017). | Regional Nature Parks (Parcs naturels régionaux- PNR) have been created throughout France to protect rural areas with valuable landscapes, natural areas and cultural heritage. Such parks rely on extensive sustainable development plans allowing the protection and promotion of their resources. To date, 51 Regional Nature Parks have been designated (Fédération des Parcs Naturels Régionaux de France, n.d.). | Creation and restoration of a green and blue network in Alsace: From 2003, the Alsace Region implemented a programme for creating and restoring a network of green and blue spaces in the region, with the overarching aim of ensuring connectivity for species. Detailed mapping studies defined the nuclei, or core areas of the network, consisting of areas of high nature value, many of which were designated as Natura 2000 sites. The Region offered financial support for municipalities, NGOs and farmers who decided to create natural reserves, rehabilitate green spaces, plant hedgerows, rehabilitate brown field sites and for the creation of ecologically valuable green belts around villages | see annex 1 chapter 1    |        |  |                           |                |
| <b>Inclusion in mainstream policy:</b> Incorporating the formation of an ecological network into land use planning objectives in order to prevent the fragmentation of unified natural areas. |  |  |  |  |  |                          |        |  |                           |                |
| Nature  | Spatial planning   | Urban policy                             | Agriculture  | Forestry   | Tourism and leisure  | Transport infrastructure | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| X   | X  | X  | X  | x  |  |                          |        | X  | X                         |                |



| Germany  |  |  |   |   |  |  |        |  |                           |                |
|--|--|--|---|---|--|--|--------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy   | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks  | Regional cases   | Transnational cases  |        |  |                           |                |
| YES  | The National Biodiversity Strategy (Nationale Strategie zur biologischen Vielfalt, 2007) is the basis for the protection and restoration of biodiversity and the integration of biodiversity and ecosystems into other sectors, such as agriculture, building and infrastructure (BMUB, 2007). The intention is to fully exploit the synergy effects between biodiversity conservation, climate action and adaptation to climate change. The National Green Infrastructure Concept (Bundeskonzzept Grüne Infrastruktur (BKGI), 2017) is a spatially defined integrated concept, which helps to incorporate existing nature conservation and landscape management concepts and models into national planning processes, such as floodplain development, national road planning, defragmentation and expansion of ecological networks. | Legislative competences are shared between the federal level ("Bund") and the level of the 16 Länder in Germany. The 2006 reform of the Constitution transferred more policies to the federal level. Most environmental policies (waste disposal, air protection, water and nature protection) are "concurrent [shared] competences", where the Länder have the right to adopt their own provisions. According to Article 83 of the German basic law (Grundgesetz), this is the case when implementing the federal laws, such as the Federal Nature Conservation Act. The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) is responsible for many relevant policies. The Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN) is the scientific authority with respect to national and international nature conservation. The ministries for Environment of the 16 Länder are coordinated within the Conference of Environment Ministers (Umweltministerkonferenz). | According to the Federal Nature Conservation Act (Bundesnaturschutzgesetz, latest update 2009) regulating the development of a national ecological network (Biotopverbund), the ecological network has the purpose of improving the coherence of the "Natura 2000" network. The ecological network shall consist of core areas, connecting areas and connecting elements. Surface waters, including their peripheral zones, shoreline zones and riparian meadows can serve as connecting links over large areas. At the regional level, and especially in landscapes shaped by agriculture, the linear and punctate elements needed to link biotopes, especially hedges and field borders and "stepping-stone" biotopes, should be conserved and created (BfN, 2014). | Green Belt: • Germany contains a part of the European Green Belt, with its section running along the former border between East and West Germany. The idea for a Green Belt was born in Germany in 2002 and today the Belt runs through 24 countries. The German Green Belt became part of the national natural heritage and has become a valuable biotope network (BfN, 2013). - Germany's National Natural Heritage scheme: According to the coalition agreements adopted in 2005, 2009 and 2013, about 155,000 ha of federal land with a high value for nature conservation are transferred to Länder, agencies, nature conservation organisations or foundations to be conserved in perpetuity. More than 70 % of the area of the first two transferred tranches includes former military training grounds (BMUB, 2017a). - The National Green Infrastructure Concept (Bundeskonzzept Grüne Infrastruktur (BKGI), 2017) | The State of NRW is developing Green Infrastructure in the Ruhr-area. The multifunctionality of nature and its value is recognized and therefore needs to get priority over grey infrastructure. The basis for the implementation of GI are 5 fields of action: 1) the urban landscape with the Emscher landscape park at the centre, 2) the water in the city with the transformation of the Emscher system as a backbone, 3) green city development with nature-based solutions in cities and neighbourhoods, 4) zero-emission transportation with the regional biking road network, 5) climate mitigation in combination with increased energy efficiency (Regionalverband Ruhr, 2016). | The experimental and development project "Network Green Borders – nature without borders between Nordrhein-Westfalen and the Netherlands" (2012-2015) was implemented under the authority of the implementation of GI are 5 fields of action: 1) the urban landscape with the Emscher landscape park at the centre, 2) the water in the city with the transformation of the Emscher system as a backbone, 3) green city development with nature-based solutions in cities and neighbourhoods, 4) zero-emission transportation with the regional biking road network, 5) climate mitigation in combination with increased energy efficiency (Regionalverband Ruhr, 2016). The goal of this project was to set an example for cross-border ecosystem networks at the German-Dutch border. In the border area of NRW and the Netherlands there is a lot of potential for the connection of ecosystems, which until now had not been realised, because of different legal and societal conditions. This project was supposed to test how a cross-border ecosystem network can be realized, despite these conditions. |        |  |                           |                |
| <b>Inclusion in mainstream policy:</b> The BKGI aims to integrate nature conservation and landscape management into national planning processes. Specific currently developing concepts will be gradually fed into the National GI Concept, such as landscapes of national importance for natural and cultural heritage, the national program Blues Band and the national action plan for conservation areas (BfN, 2017a). |  |  |   |   |  |  |        |  |                           |                |
| Nature   | Spatial planning   | Urban policy   | Agriculture   | Forestry  | Tourism and leisure  | Transport infrastructure   | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| x  | x  | x  | x   | x   |  | x  | x      | x  |                           |                |

| Greece   |   |              |             |  |                                 |                            |                |  |                           |                |
|--|---|--------------|-------------|--|---------------------------------|----------------------------|----------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  |              |             | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK | Other established networks | Regional cases | Transnational cases  |                           |                |
|  | <p>In 2014 Greece (Ministry of Environment, Energy and Climate Change) adopted its <b>National Biodiversity Strategy</b>, which refers to Green Infrastructure: “<i>The concept of ‘natural green infrastructure’ [...] changes our perception of ecosystems, because it highlights the services they provide, which might be replaced by manmade means, but with greater financial cost compared to the cost of protecting ecosystems. Essentially, it is a network of natural agricultural, freshwater and marine areas, including national parks, forests and other areas, which, as a network, regulate the water cycle, decrease the risks of flooding, improve air quality, etc.</i>” The strategy highlights the need for a national system of incentives to promote and preserve ecosystems and the functions they provide, with a particular emphasis on the mapping and preservation of natural floodplains and “maintaining biodiversity islands within the urban fabric”.</p> |              |             | <ul style="list-style-type: none"> <li>The Ministry of Environment &amp; Energy is responsible for environmental policy, the preparation of plans and programmes, and overseeing their implementation. The Ministry is also in charge of the transposition of EU environmental Directives into national law. At the decentralised level, the regional and municipal authorities exercise, within their areas, certain environmental competences and assure the practical application of various environmental measures (e.g. water quality, waste management, impact assessment).</li> </ul> |                                 |                            |                | <p>The <b>Prespa Park</b> is the first transboundary protected area in the Balkans, established through a joint declaration by the Prime Ministers of Greece, Albania and FYROM, following a proposal from the Society for the Protection of Prespa and WWF. In February 2017, the Greek parliament ratified the international ‘Agreement for the Protection and Sustainable Development of the Prespa Park Area’ by an overwhelming majority. The agreement was originally signed on 2<sup>nd</sup> February 2010 by the Ministers of Environment of the three littoral countries and the EU Commissioner for the Environment, but Greece did not ratify it for the seven years that ensued. Nonetheless, it has now done so and the agreement can enter into force and be implemented (WWF, 2017).</p> |                           |                |
| NO   |   |              |             |  |                                 |                            |                |  |                           |                |
| <b>Inclusion in mainstream policy:</b> No ideas proposed by the network were included in the spatial planning system |   |              |             |  |                                 |                            |                |  |                           |                |
| Nature   | Spatial planning  | Urban policy | Agriculture | Forestry   | Tourism and leisure             | Transport infrastructure   | Energy         | Water/flood management and disaster risk reduction   | Marine and coastal policy | Climate change |
|  |   |              |             |  |                                 |                            |                |  | x                         | x              |

| Hungary  |   |  |   |   |   |   |        |  |                           |                |
|--|---|--|---|---|---|---|--------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks  | Regional cases  | Transnational cases   |        |  |                           |                |
| YES  | <b>National Biodiversity Strategy for the period 2015-2020.</b> The Strategy (2014) intends to halt the loss of biological diversity and further decline of ecosystem services in Hungary by 2020 and to improve their status as much as possible. This aim can only be achieved if the aspects of biodiversity conservation are integrated into cross-sectoral policies, strategies and programmes and in their implementation. The National Biodiversity Strategy emphasises six policy areas: 1) protection of areas and species subject to nature conservation; 2) maintenance of landscape diversity; 3) green infrastructure and ecosystem services; 4) agriculture-related issues: sustainable forest and game management and protection of water resources; 5) combating invasive alien species /non-indigenous species; and 6) Hungary's role in the fulfilment of obligations arising from international biodiversity protection agreements | The primary responsibility for environmental issues and for the implementation of EU environmental legislation is delegated to the Ministry of Agriculture. Within the Ministry, the State Secretariat for Environmental Affairs, Agrarian Development and Hungaricums (specific national products) is the central governing body for environmental protection and nature conservation. • The National Nature Conservation Master Plan of 2015-2020 (as part of the National Environmental Programme) states the importance of biodiversity and ecosystem services and imposes a multisectorial approach to prevent further loss of biodiversity. Objective 5.2.1.1. is to maintain or extend the nationwide network of protected areas in order to provide the conditions for regional protection of Hungarian landscape features and natural values. National Park Directorates organise environmental education programmes. | The National Ecological Network includes the national importance of natural and semi-natural areas and among those link-creating ecological corridors belong to a single, coherent system, and which is part of the core areas, ecological corridors and buffer areas. The network includes different type of areas of nature conservation importance, like nature protected areas, Natura 2000 areas, high nature value areas (HNV). - | Green Belt ; - DANUBEPARKS; KEHOP (EEEOP) Priority axis 4: Nature protection and wildlife protection related developments_ National initiative: Investments aim to improve the infrastructure required for the direct management of protected and Natura 2000 sites, as well as the efficiency of the nature preservation guarding service. Good practices, presenting the Natura 2000 network locally will also be available. By restoring 15% of the Natura 2000 network, which forms the backbone of degraded ecosystems and the Hungarian green infrastructure, projects of this objective will have an important role in the preservation and development of ecosystem related services, which are a key aspect of sustainable economic growth and the quality of life of the residents, in the preservation of jobs relating to the utilisation of protected and Natura 2000 sites and the establishment of new jobs. | • LIFE Old-Drava - Transboundary cooperation for revitalization of riverine habitat complex in Drava Region within Natura 2000 sites (06/2014 – 05/2018) (LIFE13 NAT/HU/000388) - aims to contribute to the conservation and resilience of riparian habitats by improving the water regime, thereby preserving and enhancing biodiversity in and around an oxbow lake. (www.olddrava.com) | • Danube Transnational Programme: “Danubeparks connected - bridging the Danube protected areas towards a Danube habitat corridor” (2017-2019) (Hungarian-Croatian project): The specific objective of the project is to foster the restoration and management of ecological corridors. The project has initiated the DANUBE HABITAT CORRIDOR campaign to counteract fragmentation. It offers Danube-wide strategies and exemplary activities aiming to restore and maintain connectivity in habitat elements. From Hungary, the Danube-Drava National Park takes part in the project. |        |  |                           |                |
| <b>Inclusion in mainstream policy:</b> A set of national land-use planning Acts was under review in 2017. The review focused partly on the functional revision of the ecological network's zoning (core area, buffer zone, ecological corridor) and maintaining connectivity between these zones |   |  |   |   |   |   |        |  |                           |                |
| Nature   | Spatial planning  | Urban policy   | Agriculture   | Forestry  | Tourism and leisure   | Transport infrastructure  | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
|  | X   | X  | X   | X   | X   | X   | X      | X  |                           | X              |

| Ireland   |   |              |             |   |  |                          |        |  |                           |                     |
|---|---|--------------|-------------|---|--|--------------------------|--------|--|---------------------------|---------------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy  |              |             | Institutional set-up for protected areas  | Role of the Nature 2000 NETWORK  |                          |        | Other established networks                         | Regional cases            | Transnational cases |
| NO  | draft Biodiversity Action Plan for 2017-2024, Target 1.1 focusses on responsibility for the conservation of biodiversity and the sustainable use of its components and will be addressed through actions including 1.1.1: 'All public authorities and private sector move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in green-blue infrastructure'. Under the PAST 2011-16 National Biodiversity Plan, GI was discussed in the context of strengthening the coherence, connectivity and resilience of the protected area network; indicators were to include designations of Natural Heritage Areas and a Fragmentation Index. |              |             | Department for Environment, Community and Local Government is concerned with environment issues but for management of some type of areas (e.g peatlands) also Department of Arts, Heritage and the Gaeltacht is involved (National Peatland Strategy includes National Heritage Areas- NHAs) . Irish Environmental Protection Agency; Irish National Parks and Wildlife Service | Conservation of core GI in protected areas is lagging. Consequently, in the EU Environmental Implementation Review for Ireland (European Commission, 2017b), it was noted that Ireland still needs to complete its Natura 2000 designation process and protect raised and blanket bogs (European Commission, 2017a). |                          |        |  |                           |                     |
| <p><b>Inclusion in mainstream policy:</b> GI is linked with spatial planning: National Spatial Strategy 2002-2020 produced by the Department of the Environment and Local Government advocates the development of a 'Green Structure' through regional and county-level plans, but this is focussed on containing urban sprawl rather than conservation. Therefore, at national level, an overall strategy for GI is lacking at the moment; consequently, its implementation is currently enacted by the local governments via county and city development plans. At local authority level, each county council prepares its own Regional Planning Guidelines, which contain a Strategic Policy on GI and six strategic recommendations, including specific guidance for local councils (e.g. preparing county-based GI strategies for mapping and maintaining GI).</p> |   |              |             |   |  |                          |        |  |                           |                     |
| Nature  | Spatial planning  | Urban policy | Agriculture | Forestry  | Tourism and leisure  | Transport infrastructure | Energy | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change      |
| x   | X   | x            |             |   |  |                          |        |  |                           |                     |

| Italy  |  |   |             |          |   |   |   |  |                           |                |
|--|--|---|-------------|----------|---|---|---|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy   | Institutional set-up for protected areas  |             |          | Role of the Nature 2000 NETWORK   | Other established networks  | Regional cases  | Transnational cases                                |                           |                |
| NO   | National Biodiversity Strategy (2011-2020) - Ministry of Environment and State-Region Conference | The Ministry of the Environment is in charge of tackling environmental issues; it is also responsible for the Network of Nationally Designated Protected Areas. According to the principle of subsidiarity, the identification and management of the sites belonging to Natura 2000 Network have been entrusted to the Regions and Autonomous Provinces. Title V of the Italian Constitution assigned the exclusive legislative power for the "Protection of the environment and ecosystems" to the Government (Article 117, paragraph II, letter s of the Constitution), which transferred the specific management competence regarding various sectors to the Regions and other Local Bodies. The main principles of the CBD (Article 6 in particular) can be properly implemented only through loyal cooperation between the State, Regions and the Autonomous Provinces of Trento and Bolzano in relation to the specific powers conferred on them in various areas, and through the planning and management of activities dealing with key sectors affecting nature conservation. At regional level, Regional Networks of protected areas currently exist. |             |          | Decree 3.09.2002, issued by the MATTM, called "Guidelines for the management of the Natura 2000 Network sites" established technical and regulatory support for the development of appropriate conservation measures, including management plans for the Natura 2000 Network sites. | Green belt; ALPARC; SEPA<br>Several Regions have established <b>Regional Ecological Networks</b> (Ministry for the Environment, Land and Sea, 2014) as more or less prescriptive tools in land planning. Similarly, several Provinces and municipalities adopted the Land Ecological Network model to promote sustainable development at the different administrative levels (Blasi et al., 2008b). | The <b>regional ecological network (rete ecologica regionale - RER) of Lombardia</b> aims to protect biodiversity by creating an ecological network which safeguards pieces of land that were not included in the regional protected areas. The objective is to maintain and restore a connection between the flora and fauna where fragmentation occurs. The RER was approved in 2009 and defines primary elements which are the areas identified as a priority for biodiversity. The ecological network was designed by using the maps of 73 priority areas for biodiversity, complemented with the other elements constituting the networks, such as ecological corridors and road networks. |  |                           |                |
| <b>Inclusion in mainstream policy:</b> The GI concept is included in regional spatial planning legislations (in particular for urban areas), but it is not operational yet |  |   |             |          |   |   |   |  |                           |                |
| Nature   | Spatial planning   | Urban policy  | Agriculture | Forestry | Tourism and leisure   | Transport infrastructure  | Energy  | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| x  | x  | x   | x           |          | x   |   |   | x  |                           |                |

| Latvia   |                                 |  |   |                            |  |                          |        |   |                           |                |
|--|---------------------------------|--|---|----------------------------|--|--------------------------|--------|---|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks | Regional cases   |                          |        | Transnational cases   |                           |                |
| NO   | National Biodiversity Programme | The Ministry for Environmental Protection and Regional Development is responsible for the protection of environment and nature, maintenance and rational use of natural resources and land use. The State Environmental Service ensures implementation of the legislative framework in the area of environmental protection and natural resources. An Environmental Protection Fund - consisting of revenues from the main state budget stipulated by the Law on natural resource tax - is managed by a dedicated administration (the Environmental Protection Fund of Latvia Administration). The Environment State Bureau carries out environmental impact assessments of proposed activities and planning documents. The Nature Conservation Agency ensures implementation of unified nature protection policy in Latvia. | A Latvian ecological network was set up in 1998 in order to serve as a frame for a network of green structures to ensure the preservation of biological and landscape diversity, promotion of improvement of urban micro-climates and creation of the visual impression of "green" cities. This initiative remained as a project, however, and was never implemented. | Green belt                 | <ul style="list-style-type: none"> <li>LIFE Nature project - Protection and management of coastal habitats in Latvia (LIFE02 NAT/LV/008498): The Baltic Sea coast of Latvia is an area of outstanding biological diversity. The number of visitors to the coastal zone is steadily growing. To preserve vulnerable coastal habitats, while promoting the development of the local economy, efforts are made to maintain and restore endangered habitats, improve knowledge by mapping the priority natural habitats, manage human activities, and educate the public about the importance of protecting coastal habitats. The project aims at the integrated development of the Baltic Sea coast into a core area of high biodiversity value, which can act as a hub for Green Infrastructure and also provide recreational and tourism benefits. The project: (1) developed a basic framework for sustainable management of the coastal protection belt of the Baltic Sea in Latvia; (2) promoted a network of protected nature areas and micro reserves of the Baltic Sea coast; and (3) raised public awareness of the need for protecting habitats of Community importance.</li> </ul> |                          |        | <ul style="list-style-type: none"> <li>LIFE Project Viva Grass - Integrated planning tool to ensure viability of grasslands (LIFE13 ENV/LT/000189, 6/2014 – 11/2018): This project aims to prevent loss of High Nature Value grassland and increase effectiveness of semi-natural grassland management by developing an Integrated Planning tool. The tool is based on an ecosystem services approach and aims to strengthen linkages between social, economic, environmental and agricultural policies in grassland management. The project also demonstrates opportunities for multifunctional use of grassland ecosystem services as a basis for sustainable development of rural areas, by case studies in nine demo areas in Latvia, Estonia and Lithuania. The project will develop policy and legal recommendations for sustainable use of grasslands, establish ecosystem-based solutions for grasslands as demonstration projects, and monitor their socioeconomic and environmental impact. To ensure spread of good practices identified by the project, an active stakeholder network will be built up and capacity building programmes developed (Vivagrass, n.d.).</li> </ul> |                           |                |
| <b>Inclusion in mainstream policy:</b> Both Latvia's 2014-2020 National Development Plan and the Sustainable Development Strategy of Latvia until 2030 (2010) refer to natural capital as an objective and an asset for development; however, they do not explicitly mention GI. |                                 |  |   |                            |  |                          |        |   |                           |                |
| Nature   | Spatial planning                | Urban policy   | Agriculture   | Forestry                   | Tourism and leisure  | Transport infrastructure | Energy | Water/flood management and disaster risk reduction  | Marine and coastal policy | Climate change |
| x  |                                 |  |   | x                          |  |                          |        |   |                           |                |

| Lithuania   |                                |   |             |          |                     |  |                            |  |   |                |  |
|---|--------------------------------|---|-------------|----------|---------------------|--|----------------------------|--|---|----------------|--|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy | Institutional set-up for protected areas  |             |          |                     | Role of the Nature 2000 NETWORK  | Other established networks | Regional cases                                     | Transnational cases   |                |  |
| YES   |                                | The system of protected areas includes the areas of: conservational protection priority (strict reserves, reserves and objects of heritage); restorative protection priority (restorative plots, genetic plots); territories of ecological protection priority (zones of ecological protection), and complex protected areas (state parks, areas of biosphere monitoring). Protected areas are formally the land and/or water areas which have clearly defined boundaries, an acknowledged scientific, ecological, cultural and other value and for which a special protection and use regime (procedure) has been introduced by legal acts. At national level, the protection and management is regulated by the Law on Protected Areas. This Law and the Law on Environmental Protection, the Master Plan of the Territory of the Republic of Lithuania, and the master (complex) plans at all levels adopt <u>Nature frame</u> concept. General principles for formation of the nature frame areas, requirements for their protection, management, and usage are defined by the Regulations of the Nature Frame, approved by order of the Minister of Environment. The Action Plan on Conservation of Landscape and Biodiversity (Ministry of Environment) for the period 2015–2020 sets a strategic goal for Lithuania to halt biodiversity loss and degradation of ecosystems and their services and, where possible, to restore them. According to the Action Plan, by 2020, it is planned to provide more detailed regulation of the nature frame structure, the principles of its formation, to prioritize the activities to be developed in the nature frame areas, to update the methodology of the nature frame planning, to develop a series of municipal projects on improvement of landscape and ecological condition in the nature frame areas, to develop the knowledge base on the condition of ecosystems and their services. |             |          |                     | The <u>nature frame</u> is a coherent network of natural ecological compensation areas ensuring the ecological balance of landscape, natural links between protected areas, other areas or habitats of importance for environmental protection, as well as migration of fauna and flora between them. The nature frame is comprised of the geological watershed, geo-ecosystems' stabilisation centres and axes, migration corridors. The nature frame may include areas of European, national, regional and local importance. When defining the nature frame, the need to ensure the ecological integrity of the Natura 2000 network is considered. • The areas of the nature frame, defined in Lithuania, cover approximately 60 % of the total country area while the protected areas cover 17.63 % of the total country area (including Natura 2000 areas). In these protected areas, ecosystem restoration, and improvement of ecosystems' condition, is provided by preparing management plans for individual locations. |                            |  | • ECONAT - Development of Pilot Ecological Network through Nature Frame Areas in Southern Lithuania (09/2010 – 09/2014, total budget: € 766,260.00, coordinated by Lithuanian Fund for Nature) - A LIFE+ project for the establishment of a pilot ecological network in South Lithuania carried out activities for the protection of target species, the restoration of their habitats, the creation of an ecological network and education of local communities. |                |  |
| <p><b>Inclusion in mainstream policy:</b> The Spatial development system includes the ecological system concept in accordance with the 'Nature frame' •The National Environment Protection Strategy (2015) states that the formation of the natural frame and the ecological network should be defined in documents on integrated territorial planning at all levels; also, plans for the maintenance of separate areas of the nature frame and/or the ecological network should be drawn up and implemented. These plans should provide for specific measures to preserve the landscape structure, strengthen ecosystem functions and services, conserve species and natural habitats and improve conditions for their existence. According to Lithuania's Action Plan on Conservation of Landscape and Biodiversity for the period 2015–2020, not a single methodology that could guide the formation of the nature frame and ecological networks at regional and local levels has been adopted. Although the nature frame is formalised in municipal master plans, the solutions that ensure the maintenance of the ecological stability of landscape, protection of natural landscape, natural recreational resources and environmental regulation of landscape urbanisation, technological and agricultural development have not been implemented due to lack of experience and financial support.</p> |                                |   |             |          |                     |  |                            |  |   |                |  |
| Nature  | Spatial planning               | Urban policy  | Agriculture | Forestry | Tourism and leisure | Transport infrastructure   | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy   | Climate change |  |
| x   | x                              | x   | x           | x        | x                   |  |                            | x  | x   |                |  |

| Luxembourg   |  |              |             |   |                     |                          |  |  |                           |  |
|--|--|--------------|-------------|---|---------------------|--------------------------|--|--|---------------------------|--|
| Ecological network established by law (National Ecological network)                              | National biodiversity strategy   |              |             | Institutional set-up for protected areas  |                     |                          | Role of the Nature 2000 NETWORK  | Other established networks   | Regional cases            | Transnational cases  |
| NO   | <p>The National Nature Protection Plan (Plan national concernant la protection de la nature 2017-2021, PNP2) was updated in 2017. Priority measures target five sectors: agriculture, forestry, water management, urban planning and land use planning. The first part of the PNP2 is a <b>national biodiversity strategy</b> which is in line with the EU Biodiversity Strategy and therefore includes the aim of implementing Green Infrastructure and restoring ecosystems and their services, in particular wetlands, valuable structured semi-open landscapes, extensive grasslands, heathland and dry grasslands. Land use and fragmentation is to be significantly reduced by integrating biodiversity concepts into urban and regional planning and by promoting the concept of GI and its potential to deliver multiple services to urban areas and their inhabitants. GI is described at different scales and includes all the different building blocks. The multiple benefits of GI as well as its cost-effectiveness are emphasised</p> |              |             | <p>The Ministry of Sustainable Development and Infrastructure (Ministère du Développement durable et des Infrastructures) is responsible for policies related to transport, public works, environment and regional planning. The Law of 19 January 2004 on the protection of nature and natural resources (art 40) ruled that some parts of the territory can be designated as "protected zones of national interest", either as a natural reserve or as a protected landscape. Priority sites to be designated as "protected zones of national interest" have to be identified in the National Plan for Natural Protection. The Sectoral Masterplan for Landscapes (Plan directeur sectorial "Paysages") as laid down in recent Law of 22 March 20018 on spatial planning will seek to strike a balance between socio-economic development and conservation of natural resource. The implementation mechanisms include prescriptive approaches and recommendations. The Masterplan defines different categories of landscape, which are subject to different types of regulations: large landscape units; interurban green zones ; green belts; and zones for the preservation of ecological networks.</p> |                     |                          | <p>As Luxembourg is the most fragmented country in Europe, the National Nature Protection Plan PNP2 mentions that a network of GI should be created to improve the connectivity of Natura 2000 and other nature areas and ensure the delivery of ecosystem services. Luxembourg has designated 45,260 ha of Natura 2000 sites, which account for 17.7% of the country's territory (<a href="http://www.unio.lu/life-natura/life-natura/natura-luxembourg/">http://www.unio.lu/life-natura/life-natura/natura-luxembourg/</a>) There are 48 habitat protected areas and 12 bird sanctuaries</p> | <p>A network of sites designated as "protected zones of national interest"</p> |                           | <p>The German-Luxembourgish Nature Park was the first cross-border nature park created in Europe. Transnational cooperation of the natural parks in Eifel (DE) and LU has been subsequently developed.</p> |
| <b>Inclusion in mainstream policy:</b> The GI concept is included in main development strategies |  |              |             |   |                     |                          |  |  |                           |  |
| Nature   | Spatial planning   | Urban policy | Agriculture | Forestry  | Tourism and leisure | Transport infrastructure | Energy   | Water/flood management and disaster risk reduction                             | Marine and coastal policy | Climate change   |
| x  | x  |              | x           |   |                     |                          |  |  |                           |  |



| Malta   |  |              |             |          |  |                                 |                            |  |                           |                |  |
|---|--|--------------|-------------|----------|--|---------------------------------|----------------------------|--|---------------------------|----------------|--|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy   |              |             |          | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK | Other established networks | Regional cases   | Transnational cases       |                |  |
| NO  | National Biodiversity Strategy and Action Plan[1] (2012-2020) – aims to halt biodiversity loss by 2020 and explicitly addresses Green Infrastructure and connectivity. Besides maintaining biodiversity and natural areas, benefits from biodiversity and ecosystem services should be enhanced, e.g. by restoring degraded ecosystems and taking climate adaptation measures. Furthermore, the Strategy stresses the need to address the full range of biodiversity and ecosystem services (including the role in addressing other environmental challenges such as climate change) within all levels of policy-making and expresses the need for awareness of the linkages between biodiversity, economic prosperity and human welfare. Specific measures that are formulated are, for example: the uptake of community initiatives for urban GI, continued efforts on the National Ecological Network, using linear landscape features as ecological corridors between fragmented and protected areas, implementing GI to improve the coherence of the Natura2000 network while at the same time providing other functions (MEPA, 2012). MEPA (2012). Malta's National Biodiversity Strategy and Action Plan 2012-2020. <a href="http://era.org.mt/en/Documents/NBSAP%202012-2020.pdf">http://era.org.mt/en/Documents/NBSAP%202012-2020.pdf</a> |              |             |          | The Ministry for Sustainable Development, the Environment and Climate Change is responsible for environmental policies; PARKS, Afforestation and Countryside Restoration (PARKS) Department manages some projects. Protected areas are directly managed by different bodies as in the case of Heritage Parks Federation consisting of three NGOs managing Majjistral Nature and History Park |                                 |                            | Majjistral Nature and History Park – A Green Network [7], which is Malta's first natural national park, is managed by the Heritage Parks Federation consisting of three NGOs. This Park incorporates part of the coastal cliffs of the North West of Malta, which form part of the Natura 2000 network. The area is also known for a number of historical and archaeological sites. The Park is a member of the EUROPARC Federation, which aims to promote good practice in the management of protected areas. |                           |                |  |
| <b>Inclusion in mainstream policy:</b> The GI concept is included mainly in National Biodiversity Strategy but can potentially affect many policy sectors |  |              |             |          |  |                                 |                            |  |                           |                |  |
| Nature  | Spatial planning   | Urban policy | Agriculture | Forestry | Tourism and leisure  | Transport infrastructure        | Energy                     | Water/flood management and disaster risk reduction   | Marine and coastal policy | Climate change |  |
| <b>x</b>  | <b>x</b>   |              | <b>x</b>    | <b>x</b> |  |                                 |                            | <b>x</b>   | <b>x</b>                  | <b>x</b>       |  |

| The Netherlands  |  |              |             |          |  |   |                            |  |                           |                |
|--|--|--------------|-------------|----------|--|---|----------------------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy   |              |             |          | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks | Regional cases   | Transnational cases       |                |
| YES  | <p>The <b>National Nature Vision 2014</b> (<i>Natuurlijk verder – Rijksnatuurvisie 2014</i>) is a strategic document which is meant to guide nature policy towards national and international long term goals. It recognises that only assigning areas to the NNN is not enough to reach biodiversity targets, therefore 'nature combinations' need to be formed: a combination of nature with agriculture, private estates, recreation, water extraction, cities, business areas, water ways, etc. Especially for agriculture there is a big task to become more 'nature inclusive' (Ministerie van Economische Zaken, 2014). - The Netherlands formulated the basis of their Restoration Prioritisation Framework in 2014 (Naar een strategisch kader voor ecosysteemherstel ('RPF') in Nederland (2014)), as required by the EU Biodiversity Strategy, Target 2 (action 6a). The RPF is based on four layers: NNN, Natura 2000, large projects from the Nature Ambition Great Waters, and local and regional projects from selected programmes.</p> |              |             |          | <p>The Ministry of Economic Affairs is responsible for nature and biodiversity, while the Ministry of Infrastructure and Environment is responsible for environmental issues. On 1 January 2017, a new Nature law went into effect, which replaces three previous laws: the Nature conservation law, the Flora and fauna law and the Forestry law. Responsibility for nature restoration and management lies with the provinces, except for large waters and international policy. The provincial authorities are then responsible for the National Nature Network. There are 20 National parks (PA with cover more than 1000 ha).</p> | <p>The <b>National Nature Network</b> (NNN, Natuurnetwerk Nederland, previously Ecologische Hoofdstructuur) represents existing nature area and area that needs to be restored. The network is designed to link nature areas more effectively with each other and with surrounding rural area. The main goals of an ecological network in the Netherlands are to maintain Natura 2000 area and to safeguard survival of species protected under the Birds and Habitats Directives. NNN encompasses existing nature conservation areas (including the 20 national parks); areas where nature is being restored; agricultural land under nature-friendly management; all large waters (lakes, rivers, coastal zone of the North Sea and Wadden Sea), and all Natura 2000 areas (Rijksoverheid, n.d.). Ultimately, the NNN should be connected to nature areas in other European countries through a European network (Rijksoverheid, n.d.).</p> |                            | <p>All ecological data on the National Nature Network - based on field observations by professionals and by volunteers - are collected, stored, and collectively managed by an organisation - the National Database on Flora and Fauna – that is funded by the 12 provinces and the department for Nature and Biodiversity (Ministry of Economic Affairs). • Data on nature-management plans, on the habitat types in the provincial nature-management plans and on realization of the 80,000 extra hectares are gathered and administered by another organisation (BIJ12) that is funded and directed by the 12 provinces collectively.</p> |                           |                |
| <p><b>Inclusion in mainstream policy:</b> The NNN is protected by spatial planning regimes in province regulations and assigned as a national priority in the Structure Vision on Infrastructure and Planning. Also, some landscapes, defined as world heritage areas, are protected by national and province spatial planning regimes (SVIR, Structuurvisie Infrastructuur en Ruimte). New spatial developments that affect the NNN must be compensated or mitigated. New spatial developments should also take into account effects on the water system and the environment (Ministerie van Infrastructuur en Milieu, 2012).</p> |  |              |             |          |  |   |                            |  |                           |                |
| Nature   | Spatial planning   | Urban policy | Agriculture | Forestry | Tourism and leisure  | Transport infrastructure  | Energy                     | Water/flood management and disaster risk reduction   | Marine and coastal policy | Climate change |
| <b>x</b>   | <b>x</b>   | <b>x</b>     | <b>x</b>    |          |  | <b>x</b>  | <b>x</b>                   | <b>x</b>   | <b>x</b>                  |                |

| Poland  |  |  |   |                            |  |  |  |  |                           |                |
|---|--|--|---|----------------------------|--|--|--|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network) | National biodiversity strategy   | Institutional set-up for protected areas   | Role of the Nature 2000 NETWORK   | Other established networks | Regional cases   | Transnational cases  |  |  |                           |                |
| NO  | CBD NBSAP: The Programme of Conservation and Sustainable Use of Biodiversity and Action Plan for the 2015-2020 has seven specific objectives including: improving the level of knowledge and increasing the activity of society insofar as biodiversity actions are concerned; improving the nature protection system; preserving and restoring natural habitats and the populations of endangered species; maintaining and reconstructing ecosystem functions; increasing the integration of the operations of the economic sectors in biodiversity protection targets; limiting hazards resulting from climate changes and pressures from invasive species; and increasing Poland's participation in international fora. The Programme takes into consideration the natural resources of the whole country; however, most actions will be carried out in protected areas and through green infrastructure, including ecological corridors connecting the protected areas system. | <ul style="list-style-type: none"> <li>The Nature Conservation Act (2004) provides the following forms of protected areas: national parks, nature reserves, landscape parks, protected landscape areas, NATURA 2000 areas, documentation sites, ecological areas and landscape nature complexes. These areas comprise over 40% of the Polish territory.</li> </ul> | <p>Within the framework of the Prioritized Action Framework for Natura 2000 for EU Multiannual Financing Period 2014-2020 (PAF), the vast majority of activities are focused on Natura 2000, which is the backbone of green infrastructure.</p> <p>However, the document also proposes priority actions to ensure the benefits of Natura 2000's ecosystems</p> <ul style="list-style-type: none"> <li>whose impact will extend beyond the Natura 2000 network.</li> </ul> | Green belt                 | <ul style="list-style-type: none"> <li>The Silesian Park is a unique "green oasis" located in Chorzów, in the heart of the Upper Silesia agglomeration of several million people in the most industrialized Region of the country. Located on the border of Siemianowice Śląskie, Chorzów, and Katowice, the Silesian Park takes up 620 hectares, of which 250 ha are forest areas, and 100 ha constitute nurtured park areas. For more than 20 years the Fund has been implementing measures based on strengthening biodiversity and raising environmental awareness of the region's residents. Support is primarily intended for protecting and maintaining trees, rebuilding the collection of valuable species, among others, roses, revitalizing water reservoirs that make up an interconnected system within the Park. The Silesian Park Foundation is actively operating in the park, carrying out tasks involving environmental education, including workshops, events, and campaigns. The Regional Funds for Environmental Protection and Water Management s also co-financing the development of strategic documents for the province, i.e. air, environment, and noise protection programmes.</li> </ul> | <ul style="list-style-type: none"> <li>Bialowieza Forest - ecological network pilot project. ECNC together with Vereniging Natuurmonumenten (NM) finalised the transboundary European Ecological Network pilot project between Poland and Belarus for the world-famous Bialowieza Forest in 2005. The project aimed to further develop this internationally renowned area as one coherent natural and self-maintaining ecological core area of the European Ecological Network. It highlighted the role of forestry, hydrology, tourism and agriculture in enhancing the ecological coherence of the area, these being the themes that were prioritized by park managers of the Bialowieza Forest (63,142 ha) on both sides of the border. The project also focused on enhancing the social coherence within this cross-border forest (between Poland and Belarus), to foster harmony with the demands of the local communities, while respecting both natural and cultural values. The project contributed to the development of an integrated management plan for the Forest, and highlighted the prospects of the Bialowieza Forest to become a testing ground in Europe for sustainable development (ECNC, n.d.).</li> </ul> | <p><b>Inclusion in mainstream policy:</b> The National Spatial Development Concept (NSDC2030) strategy acknowledges the importance of sound spatial ecological relationships for nature protection. One of the main ongoing projects for implementing the NSDC2030 strategy is called "Protecting biodiversity through the implementation of land-based network of ecological corridors in Poland" (2014-2017). Before preparing land-use plans, also called "physiographic studies" which describe natural conditions, are to be prepared in accordance with strategic environmental assessment procedures. The same procedure is used for local spatial development plans and spatial development plans of voivodships. Poland's 'Programme of conservation and sustainable use of biodiversity along with Action Plan for the period 2015-2020' plan includes: "The preparation of national guidelines ensuring assignment to green infrastructure of the status of standard element of spatial planning and territorial development" and "The inclusion of green infrastructure in planning works at local level".</p> |  |                           |                |
| Nature  | Spatial planning   | Urban policy   | Agriculture   | Forestry                   | Tourism and leisure  | Transport infrastructure   | Energy   | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| X   | X  | X  | X   | X                          |  | X  |  | X  |                           |                |

| Portugal  |   |  |             |          |                     |  |                            |  |                           |                |
|---|---|--|-------------|----------|---------------------|--|----------------------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy  | Institutional set-up for protected areas   |             |          |                     | Role of the Nature 2000 NETWORK  | Other established networks | Regional cases                                     | Transnational cases       |                |
| YES   | <ul style="list-style-type: none"> <li>The National Strategy for Nature Conservation and Biodiversity (2001), active between 2001 and 2010, formulated three objectives: to conserve nature and biological diversity; to promote the sustainable use of natural resources and to contribute to the objectives of international processes (e.g. the Convention on Biological Diversity) (EEA, 2015). Its policies were further to be implemented by The Institute for Nature Conservation and Biodiversity.</li> </ul> | <ul style="list-style-type: none"> <li>The Institute for Nature Conservation and Biodiversity (ICNB, in Portuguese) includes in its mission, among others the sustainable management of wild animal and plant species; designation of land and marine protected areas, management of areas of national interest; integration of the objectives of nature conservation and sustainable use of natural resources into planning and sector policy (EEA, 2015).</li> <li>The Institute for Nature Conservation and Forests, (in Portuguese ICNF), is the responsible governmental body for nature and forest policies, the management of protected areas and the state forested areas in Portugal. With the re-organization of the Instituto da Conservação da Natureza e Biodiversidade (Institute for Nature Conservation and Biodiversity) in 2012, the ICNF was formed, under Decree-Law 135/2012 (29 June 2012). ICNF is a public institute, indirectly administrated by the Portuguese State, endowed with administrative and financial autonomy and its own assets. The ICNF's mission is to propose, monitor and ensure the implementation of policies in the fields of nature conservancy and forestry, to promote the conservation, sustainable use, appreciation, and enjoyment of the natural heritage. In addition, it promotes the sustainable development of forests and resource members, to allow increased competitiveness along the forestry-to-industry chain, but also to defend hunting resources and aquaculture along inland waterways (ICNF,2017).</li> </ul> |             |          |                     | Green Infrastructure is primarily known in Portugal under the term "Ecological Network" or "Ecological Structure". An inter-ministerial coordination mechanism is in charge of promoting the integration of conservation and sustainable use of biodiversity into the various sectoral policies (Council of Ministers Resolution N° 41/99 of 17 May), including considerations in ecological network planning. The National Ecological Reserve (REN) Act is based on a hierarchical system of territorial management, which operates at the national, regional and municipal level and plans to incorporate green and blue infrastructure elements. As one of the components of the fundamental network for the conservation of nature, the REN supports the integration of the connection between the core areas of nature conservation and biodiversity into the National Classified Areas. In the REN, various green infrastructure elements are planned, including protected areas, sustainable use areas and natural connectivity features. Land areas included under REN regulations must be identified in regional and local plans. Special committees, involving local authorities, central and regional public agencies, manage the application of this regulation and manage conflicts (IEEP et al. 2011). The current Fundamental Network for Nature Conservation (RFCN in Portuguese) consists of the core areas of nature conservation and biodiversity, an ecological reserve, an agriculture reserve, the Natura 2000 areas, other areas designated at international level and the areas of water in the public domain. |                            |  |                           |                |
| <p><b>Inclusion in mainstream policy:</b> Considering ecological systems in spatial and urban planning is a formally accepted principle since the REN was introduced (Decreto – Lei nº321/83 in 1983, Decreto – Lei nº 93/90 in 1990, latest update from 2008: Decreto – Lei nº 166/2008) (IEEP et al., 2011). The Portuguese land use planning policy is based on a hierarchical system of territorial management, which operates at three spatial levels: national, regional, and municipal. At city level, Master Development Plans guide land use planning and includes the Municipal Ecological Structure as a key instrument for city planning, aiming at coordinating better green planning and 'grey' planning, improving connectivity, resilience and functioning of urban nature (often including climate adaptation and social cohesion) (Green Surge, 2015a).</p> |   |  |             |          |                     |  |                            |  |                           |                |
| Nature  | Spatial planning  | Urban policy   | Agriculture | Forestry | Tourism and leisure | Transport infrastructure   | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| X   | X   | X  |             | X        |                     |  |                            |  | X                         |                |

| Romania  |   |  |             |          |                     |                          |  |  |                           |   |  |
|--|---|--|-------------|----------|---------------------|--------------------------|--|--|---------------------------|---|--|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  | Institutional set-up for protected areas   |             |          |                     |                          | Role of the Nature 2000 NETWORK  | Other established networks                         | Regional cases            | Transnational cases   |  |
| NO   | Romania's National Biodiversity Strategy and Action Plan (2014-2020) sets the general strategic framework for biodiversity and nature protection in the country, identifying strategic objectives and corresponding actions to be implemented by 2020. Green infrastructure is implicitly addressed, for example, under the strategic objective 'Assurance of coherence and efficient management of the national network of natural protected areas'. Foreseen actions include, e.g. analysing the coherence of the natural protected areas and ecological corridors; harmonising the management measures of cross-border protected areas with those of neighbouring countries; evaluating the way in which the current road transport network fragments natural habitats and habitats of wild species of conservation interest and propose solutions to reduce or eliminate fragmentation (such as ecoducts, fauna bridges). | The protected areas are centrally regulated and managed. There is difficult connection among spatial planning and management of protected areas, particularly Natura 2000 ones. Ministry of Regional Development and Public Administration. • Given that the Green Infrastructure approach in Romania is closely linked to protected areas, one of the main obstacles against its full uptake is the delayed elaboration and approval of management plans and rules due to the long and difficult approval process. Other obstacles include the need to reorganise and rationalise the decision-making process, the need to build the administrative capacity of the delegated ministry, the lack of resources for assessing the plans, the weak quality of some of the plans, and the fact that restrictive measures within the plans require compensating land owners. |             |          |                     |                          | The Territorial Development Strategy of Romania 2035 includes a measure on developing tourism networks with a view to harnessing the potential of unique Natura 2000 sites. It underscores the importance of Natura 2000 sites for Regions and mentions that they should be used, for example, to attract more visitors and develop eco-tourism activities. A related measure foresees the elaboration of management plans to regulate, among others, tourism activities within protected areas and in their vicinity, in order to stop landscape degradation. | Green belt   |                           | • The Lower Danube Green Corridor (LDGC) aims to coordinate national efforts and cross-border cooperation among the Lower Danube countries for the protection and restoration of wetlands and floodplain habitats. The governments of Romania, Bulgaria, Ukraine and Moldova committed in 2000 to establishing a large-scale ecological corridor of up to 1 million ha of existing and new protected areas and 223,608 ha of areas was proposed to be restored to natural floodplains (Trinomics et al., 2016). |  |
| <b>Inclusion in mainstream policy:</b> The Territorial Development Strategy of Romania 2035 refers to Green Infrastructure as a more efficient way of adapting to climate change and diminishing natural risks, compared to using grey infrastructures alone. Specific measures established in this strategy include the protection of natural habitats (by ensuring diversity of and interconnectivity between natural areas, particularly in the context of Natura 2000 management) and the development of green spaces in urban areas, as well as green belts in the surroundings of major cities. Not formally included in spatial planning. |   |  |             |          |                     |                          |  |  |                           |   |  |
| Nature   | Spatial planning  | Urban policy   | Agriculture | Forestry | Tourism and leisure | Transport infrastructure | Energy   | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change  |  |
| x  |   | x  | x           | x        | x                   | x                        |  |  |                           |   |  |

| Slovakia   |   |  |             |          |                     |   |                            |  |   |                |
|--|---|--|-------------|----------|---------------------|---|----------------------------|--|---|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  | Institutional set-up for protected areas   |             |          |                     | Role of the Nature 2000 NETWORK   | Other established networks | Regional cases                                     | Transnational cases   |                |
| YES  | The <b>National Biodiversity Strategy to 2020</b> set the goal of stopping the loss of biodiversity, ecosystems and the degradation of ecosystem services in the Slovak Republic by 2020 and formulated steps required to achieve biodiversity and ecosystem services targets, such as integrating the concept of GI into spatial planning and economic and social development at the regional level; establish a legal and financial mechanism to support the construction and maintenance of GI; and map, assess and value ecosystem services (Slovak Republic, 2014). Slovak Republic (2014). Updated National Biodiversity Strategy 2020. <a href="https://www.cbd.int/doc/world/sk/sk-nbsap-v3-en.pdf">https://www.cbd.int/doc/world/sk/sk-nbsap-v3-en.pdf</a> | The responsibility for environmental matters lies with the Ministry of Environment or Regional Authorities. Local authorities are typically responsible for sectorial policies. • Nature conservation in Slovakia is regulated by national (Act. No. 543/2002 on Nature and Landscape Protection, as amended) and EU legislation. National legislation defines a coherent European Network of Protected Areas, which consists of Special areas of Conservation and Special Protection Areas and also sets conditions for management and protection of these areas. Five levels of nature protection are distinguished: 1) the whole area of Slovakia (unless designated as an especially protected area)- this represents the least strict level of protection; 2) Protected Landscape Areas; 3) National Parks; 4–5) Protected Sites, Nature Reserves, Natural monuments and Protected Landscape Elements - these generally cover areas of less than 1000 ha (with many exceptions) and represent the strictest level of protection. They are often located within National Parks or Protected Landscape Areas, representing their core zones (CBD, 2014). The Territorial System of Ecological Stability in the Slovak Republic, approved in 1991, represents a type of ecological network and one of the approaches to building green infrastructure in Slovakia. According to Act No. 543/2002 on Nature and Landscape Protection, the Territorial System of Ecological Stability is a spatial structure of ecosystems related to each other that ensure a diversity of conditions and forms of life in the landscape. The main components of this system are 'bio-centres', 'bio-corridors' and 'interaction elements'. |             |          |                     | The Slovak Environment Agency has developed 22 Documents of Regional Territorial System of Ecological Stability within the project "Encouraging the protection of NATURA 2000 sites in integrating territorial system of ecological stability". The Slovak Environment Agency also produced a "Methodological guide for Regional Territorial System of Ecological Stability development". Natura 2000 is considered integrated into the national system of protected areas, which provides for conservation measures for Natura 2000 sites because of a high overlap between Natura 2000 and nationally protected areas. The same Act on Nature and Landscape Protection, governs both networks (Act 543/2002 Coll as amended) (European Commission, 2017). | Green belt                 |  | • Cross-border spatial planning and habitat management measures in the Alps-Carpathians passage aimed at creating and preserving a coherent 120-km wide ecological corridor from the Alps to the Carpathians. The mountain ranges of the Alps and the Carpathians, which straddle the border of Austria and Slovakia, are the largest sources of biodiversity in Central Europe. The Alps-Carpathians Corridor between these mountains has historically been a major migration route for wildlife crossing the Danube and has been disrupted by economic development. The project has brought together various institutions, NGOs, universities, as well as highway companies and regional and federal authorities from Austria and Slovakia to create a common cross-border platform facilitating the migration and genetic exchange of wild animal populations. The project also aimed to increase the recreational attractiveness of the Region and improve the environmental awareness of the population (European Commission, 2007). |                |
| <b>Inclusion in mainstream policy:</b> The Territorial System of Ecological Stability forms an obligatory basis for preparing Documents of Territorial Systems of Ecological Stability (at regional level) and planning and project documents pertaining to spatial organisation and land use (at all levels). It is a tool for the regulation of landscape development and a starting basis for other sectors, especially nature conservation, spatial development, agriculture and forestry. |   |  |             |          |                     |   |                            |  |   |                |
| Nature   | Spatial planning  | Urban policy   | Agriculture | Forestry | Tourism and leisure | Transport infrastructure  | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy   | Climate change |
| x  | x   |  | x           | x        |                     | x   |                            | x  |   |                |

| Slovenia   |                                |   |             |          |                     |  |                            |  |   |                |
|--|--------------------------------|---|-------------|----------|---------------------|--|----------------------------|--|---|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy | Institutional set-up for protected areas  |             |          |                     | Role of the Nature 2000 NETWORK  | Other established networks | Regional cases                                     | Transnational cases   |                |
| NO   |                                | The Environmental Protection Act (2006) regulates the system of environmental protection based on sustainable development principles. In the Natura 2000 Management programme for Slovenia for 2015-2020 priority Natura 2000 areas were defined where active measures of improvement and restoration need to be done in order to improve conservation status of target species and habitat types. • In addition to a coherent Natura 2000 network, there is a network of ecologically important areas (Decree on ecologically important areas 2004;2013) covering 50% of the country that are taken into account in spatial planning procedures. |             |          |                     | The proposal for the new National Environmental Action Programme 2017-2030 (NEAP) is being prepared by the Ministry of the Environment and Spatial Planning, which will include also the new National Nature Conservation Programme (NNCP).<br>• The green infrastructure objectives and measures with special emphasis on the Natura 2000 network and achieving the nature conservation objectives on state property (forests, agricultural land and waters) is intended to be included in the NEAP-NNCP. | Green belt                 |  | • Interreg project Alpine Space: Alpine Ecosystem Services – mapping, maintenance and management (AlpES) (transnational) (December 2015 - December 2018, ERDF grant: EUR 1.829.886, implemented by partners from Austria, France, Germany, Italy, Liechtenstein and Slovenia). The overall objective of the AlpES project is to introduce ecosystem services as a regional/transnational environmental governance framework and train and support the AlpES target groups in understanding, valuing and managing them. The Ministry for the Environment and Spatial Planning is an observer of the project. |                |
| <p><b>Inclusion in mainstream policy:</b> Spatial Development Strategy of Slovenia is a strategic spatial planning document (2004). It is the basic strategic spatial development document and an integrated planning document that implements the concept of sustainable spatial development; together with the Strategy for Economic Development of Slovenia, it represents the general document to guide development and it is the basis for the harmonization of sectoral policies. The national spatial development strategy consists of three connected spatial systems: settlement, infrastructure and landscape. • The new Spatial Development Strategy of Slovenia 2050 is currently being prepared. It will include significant national infrastructure, including green infrastructure, as a strategically planned multifunctional system of different spatial/landscape elements at national level, including guidelines for developing spatial plans at regional and local level.</p> |                                |   |             |          |                     |  |                            |  |   |                |
| Nature   | Spatial planning               | Urban policy  | Agriculture | Forestry | Tourism and leisure | Transport infrastructure   | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy   | Climate change |
| x  | x                              | x   | x           | x        | x                   |  |                            | x  | x   |                |

| Spain   |  |              |             |  |                     |                          |                                 |  |                           |                     |
|---|--|--------------|-------------|--|---------------------|--------------------------|---------------------------------|--|---------------------------|---------------------|
| Ecological network established by law (National Ecological network)   | National biodiversity strategy   |              |             | Institutional set-up for protected areas   |                     |                          | Role of the Nature 2000 NETWORK | Other established networks                         | Regional cases            | Transnational cases |
| NO  | National Plan for Adaptation to Climate Change, the project "Assessment of Impacts, Vulnerability and Adaptation of Biodiversity to Climate Change in Spain" has carried out an assessment of the potential effects of and vulnerability to climate change from the perspective of biodiversity across the Spanish peninsular throughout the 21st century, |              |             | Legally protected sites: - Sites protected by national legislation; - Natura 2000 network; - Public domain: rivers, coast, drover roads, etc - Public utility woodland. The Nature Conservation Act (NCA) of 1989 (Ley 4/89) stated that sites declared as national parks, nature parks or reserves must have their own Natural Resources Management Plan (NRMP). NRMPs are developed by the environmental administration, and cover the area of influence of protected areas, which includes the entire area of the affected Municipalities. They are legally binding and take precedence over all other spatial planning instruments. The Spanish Regions have full competencies in spatial planning, and each of them has passed laws on land planning. Until December 2007, nature conservation policies in Spain have been developed under the 1989 Nature Conservation Act, which contains no reference to ecological connectivity. In December 2007 a new national Nature Conservation Act was passed. It states the need to consider ecological networks. National Strategy on Green Infrastructure, Connectivity and Ecological Restoration: The Natural Heritage and Biodiversity Law (42/2007) was updated in 2015 (Law 33/2015) and requires the Spanish Ministry of Agriculture, Food and Environment, in collaboration with the autonomous communities of Spain and other ministries, to develop a national Green Infrastructure Strategy by 2018. It also requires the autonomous communities to develop their own Green Infrastructure Strategies by 2018 building on the national Strategy. |                     |                          |                                 |  |                           |                     |
| <b>Inclusion in mainstream policy:</b> In Spain, the link between GI and nature protected areas (incl. Natura 2000 sites) was established under Article 15.3 of Law 33/2015, which states that the Spanish Green Infrastructure Strategy will take into account, inter alia, protected areas, habitats risking extinction and endangered species, mountain areas, river courses, wetlands, livestock routes, ocean currents, submarine canyons, migration routes facilitating connectivity, and high value nature farming areas. In addition, it prioritises habitats for restoration, land under the nature conservation banks and instruments used by the competent authorities to implement the European Landscape Convention agreed upon in 2000 (Jefatura del Estado, 2015). |  |              |             |  |                     |                          |                                 |  |                           |                     |
| Nature  | Spatial planning   | Urban policy | Agriculture | Forestry   | Tourism and leisure | Transport infrastructure | Energy                          | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change      |
| X   |  |              | X           | X  |                     | X                        |                                 | X  | X                         |                     |



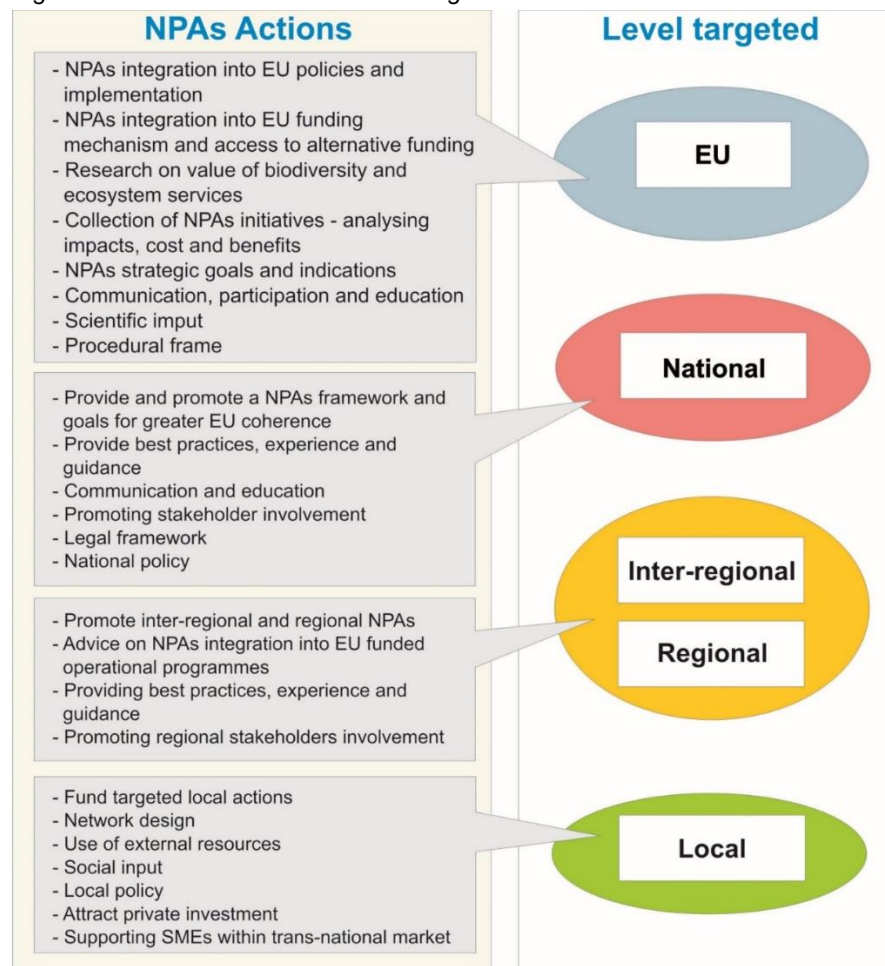
| Sweden   |   |   |             |          |                     |   |                            |  |                           |                |
|--|---|---|-------------|----------|---------------------|---|----------------------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy  | Institutional set-up for protected areas  |             |          |                     | Role of the Nature 2000 NETWORK   | Other established networks | Regional cases   | Transnational cases       |                |
| no   | An overall strategy for biodiversity and ecosystem services for the period up to 2020 ('A Swedish strategy for biodiversity and ecosystem services' (2013))[3]. The strategy included a number of proposed legislative changes with relevance to GI and detailed the need for developing regional action plans for GI across the country. | Environmental, climate and energy policy in Sweden is under the responsibility of the Ministry of the Environment and Energy, coordinated and implemented through different government agencies. Swedish Environmental Protection Agency (EPA) (Naturvårdsverket); the Swedish Agency for Marine and Water Management (SwAM) (Havs- och Vattenmyndigheten); the National Board of Housing, Building and Planning (Boverket), the Swedish Board of Agriculture (Jordbruksverket) and the Swedish Forest Agency (Skogsstyrelsen).<br>• The Swedish Environmental Code (1999) (Miljöbalken): The Swedish Environmental Code constitutes the backbone of Swedish environmental law, bringing together the bulk of regulations with environmental relevance. Some regulations stipulated in the Environmental Code regard protected areas, protection of "key biotopes", the shoreland protection and management regulations, as well as related planning and permitting procedures. |             |          |                     | On the basis of the 2013 Biodiversity Strategy, the 21 County Administrative Boards in Sweden were commissioned to establish regional action plans for GI by 2017. The Swedish counties (län) have a high degree of autonomy in regional Swedish decision-making and are responsible for coordinating the development of their respective Regions in relation to goals established at the national level. |                            | Regional GI action plans is primarily to: 1) provide frameworks for public land use planning; 2) provide the knowledge base (including maps of existing GI) for planning, management and the sustainable use of land, and 3) provide the foundation for planning and permitting processes.<br>• The Region of Stockholm has gradually introduced the concept of ecosystem services into planning at various levels, from being barely mentioned in the 2010 regional development plan for the Stockholm Region to being a central part of the most recent plan to 2050, for instance related to green structure, blue structure and countryside. The Region is also working with the MatrixGreen planning tool developed in collaboration between the Stockholm Resilience Centre and the Swedish University of Agricultural Sciences (SLU) to, for instance, assess connectivity between various habitats and biotopes in the region[12]. |                           |                |
| <b>Inclusion in mainstream policy:</b> The GI concept is integrated in spatial planning at regional level. |   |   |             |          |                     |   |                            |  |                           |                |
| Nature   | Spatial planning  | Urban policy  | Agriculture | Forestry | Tourism and leisure | Transport infrastructure  | Energy                     | Water/flood management and disaster risk reduction   | Marine and coastal policy | Climate change |
| x  | x   | x   | x           | x        | x                   | x   | x                          | x  | x                         |                |

| United Kingdom   |  |  |             |          |                     |  |                            |  |                           |                |
|--|--|--|-------------|----------|---------------------|--|----------------------------|--|---------------------------|----------------|
| Ecological network established by law (National Ecological network)  | National biodiversity strategy   | Institutional set-up for protected areas   |             |          |                     | Role of the Nature 2000 NETWORK  | Other established networks | Regional cases                                     | Transnational cases       |                |
| NO   | National Biodiversity Plans and Strategies are coordinated through the UK Post-2010 Biodiversity Framework (JNCC and Defra, 2012) which sets out how the countries will work together to meet the CBD Aichi targets and those of the EU Biodiversity Strategy. | <ul style="list-style-type: none"> <li>To support the incorporation of ecosystem services and natural capital into policy the UK undertook a detailed National Ecosystem Assessment (UK NEA), which was completed in 2012 (UK NEA, 2012). A follow-on project to address implementation needs was launched in 2014 to provide new information on tools to understand the wider value of ecosystem services.</li> </ul> |             |          |                     | The Central Scotland Green Network is a concept embedded within the Scottish National Planning Framework |                            |  |                           |                |
| <b>Inclusion in mainstream policy:</b> Different set-ups for planning systems are in force at national level (England, Wales, Scotland,Ireland); the GI concept affects the national planning system in different ways |  |  |             |          |                     |  |                            |  |                           |                |
| Nature   | Spatial planning   | Urban policy   | Agriculture | Forestry | Tourism and leisure | Transport infrastructure   | Energy                     | Water/flood management and disaster risk reduction | Marine and coastal policy | Climate change |
| x  | x  | x  | x           | x        | x                   | x  | x                          |  |                           |                |

## 4 Management Approach

The NPAs involve different NUTS levels, stakeholders and political/technical subjects at national, regional and local level. This means that there are different actions for the various levels (Fig.4).

Fig. 4: NPAs' actions in relation to the targeted level



Source: SWD (2013) 155 final modified by ESPON LinkPAs, 2018

Consequently, Table 11 reports the main strengths, weaknesses, opportunities and threats with regards their main features. These characteristics shape their actions in terms of territorial development (Table 11)

NPAs try to establish vertical and horizontal coordination with all these actors. This is done in order to involve an increasing number of stakeholders and thus exert more pressure on policy makers stressing more and more the role of natural capital.

NPAs have managed to establish a special bond with the local communities because they are able to involve citizens and stakeholders alike in their decision-making strategies, which aim to foster the local production of natural products.

Table 11: NPAs' SWOT Analysis Matrix

| SWOT ANALYSIS NPAs |   |  |
|--------------------|---|--|
|                    | POSITIVE  | NEGATIVE   |
| <b>INTERNAL</b>    | <b>Strengths</b> <ul style="list-style-type: none"> <li>- Promoting natural capital (be it natural, environmental or social);</li> <li>- Defining the best environmental conditions in anthropized areas;</li> <li>- Supporting sustainable and quality products;</li> <li>- Information sharing and Knowledge dissemination;</li> <li>- Greater bargaining power;</li> <li>- the lack of background knowledge of local stakeholders</li> <li>- political activism on the local and national governments' part in terms of effective implementation policies</li> </ul>   | <b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Lack of sufficient knowledge and appreciation of the territory and its culture;</li> <li>- Scarcely effective and targeted measures;</li> <li>- Lack of sufficient knowledge regarding development processes and territorial potential</li> <li>- negative attitude of local stakeholders</li> </ul>                  |
| <b>EXTERNAL</b>    | <b>Opportunities</b> <ul style="list-style-type: none"> <li>- Employment increase;</li> <li>- Applied research and innovation;</li> <li>- Promoting cultural events;</li> <li>- IT (social media, internet, website creation, etc.);</li> <li>- Opening to emerging markets (promoting and selling product online);</li> <li>- Promoting and protecting premium products;</li> <li>- Tourist promotion;</li> <li>- Promoting and raising awareness regarding on territorial values;</li> <li>- Bidding for EU funding opportunities (directly and indirectly)</li> <li>- well-informed policy-making</li> </ul> | <b>Threats</b> <ul style="list-style-type: none"> <li>- Loss of endangered species, sometimes due to unforeseen events;</li> <li>- Loss of peculiarities of a given habitat due to anthropic factors or deliberate damage;</li> <li>- Contamination risks due to the use of pollutants in the PA;</li> <li>- Negative impacts of products used in neighbouring areas.</li> </ul> |

Source: LinkPAs project elaboration on Barone and Cimellaro (2015) p.58

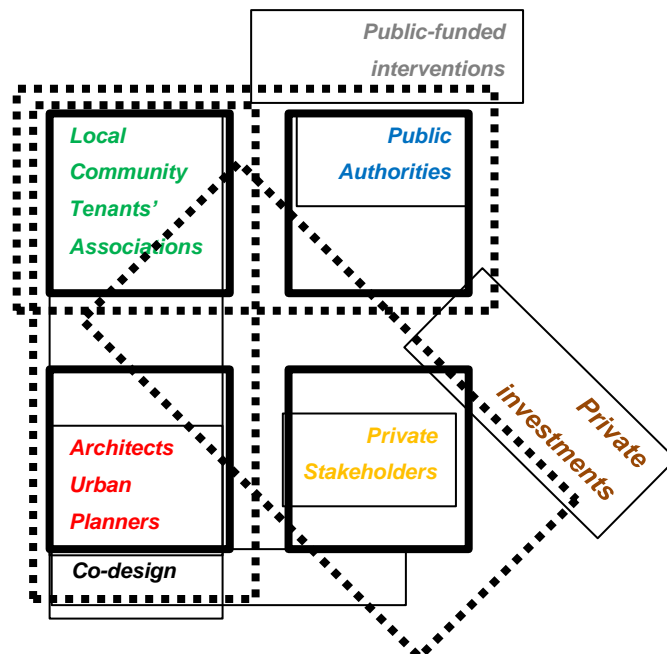
Moreover, they seek to improve the use of the existing resources, promote the total recycling, requalification of natural and production areas that are now degraded, innovation and so on.

The stakeholders involved and interested in NPA management are classified as (Fig. 5):

- **Actors with strong and direct interest (Primary stakeholders):** Public administrations and decision-makers of different sectors (conservation, forestry, agriculture, spatial development, infrastructure development, regional development), land owners, tourism enterprises, protected area managements, local/regional key NGOs dealing with land-related topics
- **Actors with strong and diffuse interest (Secondary stakeholders):** business association, SME, associations of organized citizens (citizenships, distinct committees, hunters, environmentalists, etc.) and academics;
- **Actors with latent and /or diffuse interest (other stakeholders):** non-organized citizens, school systems and or users and occasional or regular visitors of the areas

Figure 5 Proposes an example of actors involved in a NPA management design

Fig. 5: Actors potentially involved in NPAs' management I



Source: Prezioso, Elisei, D'Orazio, URBACT Re-BLOCK Project (2014)

#### 4.1 A possible ways of integrating the management of NPAs into sectoral development strategies

The four models of NPAs identified and their governance have different impacts on sectoral development strategies, due to both their specific characteristics and their activities. Drawing on the findings of the data analysis regarding the four case studies under inquiry, the sectors impacted by NPAs are: Biodiversity; Conservation; Tourism and recreation; and Education. Extremely close connections can also be found to: Agriculture and forestry, in order to promote the NPAs' multifunctional resilience; Investment and employment, so as to convey a better image of the NPAs; Transport, in order to encourage sustainable travel (e.g. multimodal links and integration of transport systems); and Ecoservices, in order to improve resilience. All these sectors are also linked to GI.

Since sectoral development strategies are designed at different levels by many actors, in order to integrate NPA management into sector development strategies, the LinkPAs project has proposed a series of criteria and categories (Tab. 4 and 5) according to 4 NPAs models. These models differ in terms of agreements, tools, aims but they display some common organisational patterns:

- a) all NPAs are directly linked to the PAs involved and consequently, in different ways, to the municipalities in the area;
- b) all NPAs have direct connections with central and regional administrative bodies;

- c) all NPAs pay particular attention to international and EU conservation policies, especially to GI;
- d) all NPAs focus on monitoring tools;
- e) all NPAs consider financial and communication aspects as important for involving local actors such as SMEs, citizens, NGOs, etc.

These aspects appear to be particularly relevant to integrating the management of NPAs in sectoral development strategies because they represent how, at different level, NPAs may become part of and influence sectoral strategies. An example in this sense is when NPAs are linked to the PAs that are directly connected with the territories within which they operate (their people, SME, local bodies, etc). Consequently, NPAs can interact with the territories via the existing PAs. Hence, NPAs become directly linked to the administrative bodies because they work as an “intermedium policy actor” and can be connected with regional and central bodies. By the same token, being intermedium policy actors allows NPAs to connect regional and central bodies with the local bodies where PAs operate.

The methods and approaches that can be used to integrate NPA management into sectoral development strategies depend on the legislative set-up and the governance model of the NPAs analysed. Four main types of institutional set-up scenarios have been observed (legislative set-up) (Tab. 2): 1) there is only one national network depending on a single agency; 2) there are more than one national networks depending on different agencies; 3) there are one or more national and subnational networks; 4) there are only a few subnational networks.

From a governance standpoint, the LinkPAs project has identified four standard governance models for NPAs (Ch. 1). What is interesting to note is that there is no direct correlation between the institutional set-up and governance model of NPAs. This means that the same governance model can be used in different institutional contexts, as the case of the Alpi Marittime/Mercantour NPA clearly shows. In this case, France and Italy use the same legislative set-up (Type 3: *One or more national and subnational networks are present*), which may influence the NPA governance model differently.

The most effective ways in which NPAs impact on sector policy (cf. Ch. 2) are directly connected to their governance model and the territorial system within which they can be found. The governance model of an NPA also includes a management model for PAs, which is determined by a given legislative set-up.

The approaches, policies and actions applicable to a sustainable and integrated management of natural resources, particularly in mountainous areas, require integrating the NPA management into sector development strategies. In particular, it is important:

- To establish a unified and harmonised planning strategy that sets forth a well-defined role for the NPAs within a given territory; this must be done well in advance of the setting up of an NPA. This planning approach must be formally laid down in a convention or agreed upon on a voluntary basis by the signing of an official agreement proposed by the government and/or

region that legally represents the territory in which the PAs are located. This strategic planning document should clearly define the role of the NPAs, which consequently become:

- ✓ Bodies of territorial cooperation aiming at: orienting policy; maintaining international and European relations; linking with EU cooperation programs; interacting with international, European, transnational, national and regional strategies; suggesting innovative paths for sustainable territorial development; and assessing PA actions qualitatively and quantitatively, along with ex-ante and ex-post assessment tools. The NPAs can actively interact with the government, regions, and municipalities in accordance with their institutional set-up and sectoral focus. They can coordinate PA actions; they can collaborate on and promote the development of development strategies within PA territory.
- ✓ Instruments that allow NPAs to receive, interpret and implement the directives linked to GIs on the basis of territorial diversity. The NPAs operate at the technical level and interact with the political actors, thus enhancing lobbying activities as well.
- That the NPAs promote, organise and manage activities in accordance with their territorial context. They can: carry out analyses of the sectors that have an impact on the PAs and related businesses; support the development of sustainable strategic plans to integrate PAs into territorial polycentric development, in accordance with the national/regional strategies; suggest programs that foster territorial cooperation among PAs; help PAs to access funds; enhance communication, exploitation and dissemination of the added value represented or produced by PAs; help to multiply PA relations with economic actors, particularly SMEs, in order to attract new investments as well; monitor and offer guidelines to drafting territorial planning activities and PA management. Lastly, NPAs can promote research and development, innovation and assessment within PAs.

These activities are consistent with current EU policy on the green economy, the development of green infrastructure, green business and green tourism, as in the case of the Natura 2000 network according to which PAs can also move towards a more integrated development model by looking to the financing of EU climate change and biodiversity policies. Respecting these policies implies applying them on a local scale in an adequate way, so as to achieve the general aims of biodiversity and nature conservation and generate employment (i.e. green job) in the policy sector which NPAs impact on. The relationship between the policy sectors which NPAs impact on and the economic opportunities in these sectors (employment, GDP, quality of life – climate change reduction, etc.) becomes essential to enacting development strategy via an NPA management model.

In order to compare the different contexts, the LinkPAs investigates, the LinkPAs Project has analysed the existing NPAs by looking at the following aspects (domains) of each NPAs: A preliminary and general analysis of protected area networks, their functions, roles and tasks has showed that protected areas networks (and particularly those investigated here) share some common traits. They can influence and shape territorial development by: (1) influencing regional or national policies; (2) exchanging knowledge and experiences; (3) obtaining funding to develop projects. Therefore, policies/strategies and available funding instruments are key requirements

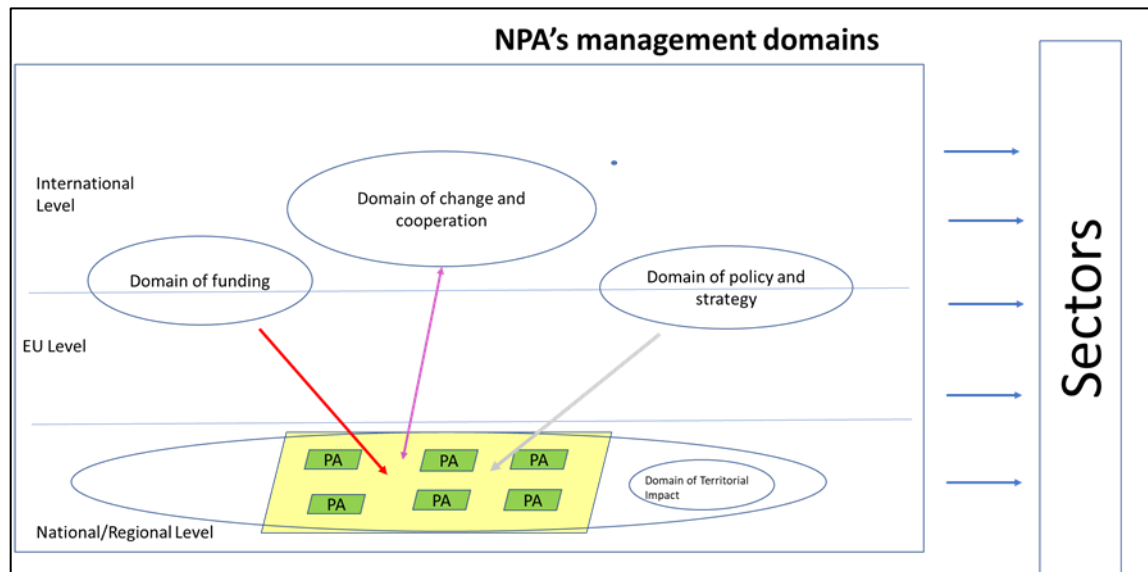
for NPAs to achieve territorial impacts. The domain of territorial impact has been selected to link policy and funding with results that can be concretely detected and assessed. Exchange and coordination are the only aspects that can have a direct and real impact on the territories, without being directly linked to funding instruments or concrete policies. They can thus be fully shaped and managed by NPAs, whereas concrete projects, changes in legislation, planning or administrative processes require links to either corresponding funding programmes or appropriate strategies and policies.

Thus, NPAs can have a territorial impact by:

- influencing the domain of policy through participation or lobbying (indirect impact on the ground);
- influencing the domain of funding instruments (e.g. by consulting on broad directions of funding programmes) (indirect impact);
- influencing the domain of territorial impact directly:
  - by implementing projects within and in line with existing funding programmes
  - by facilitating the exchange and coordination of activities and knowledge
  - by implementing existing strategies, regulations and plans

The analysis investigated how these pathways to territorial impact are at the moment in the different case study areas.

Fig.6: NPA's management domain



Source: LinkPAs project Targeted Analysis, 2018

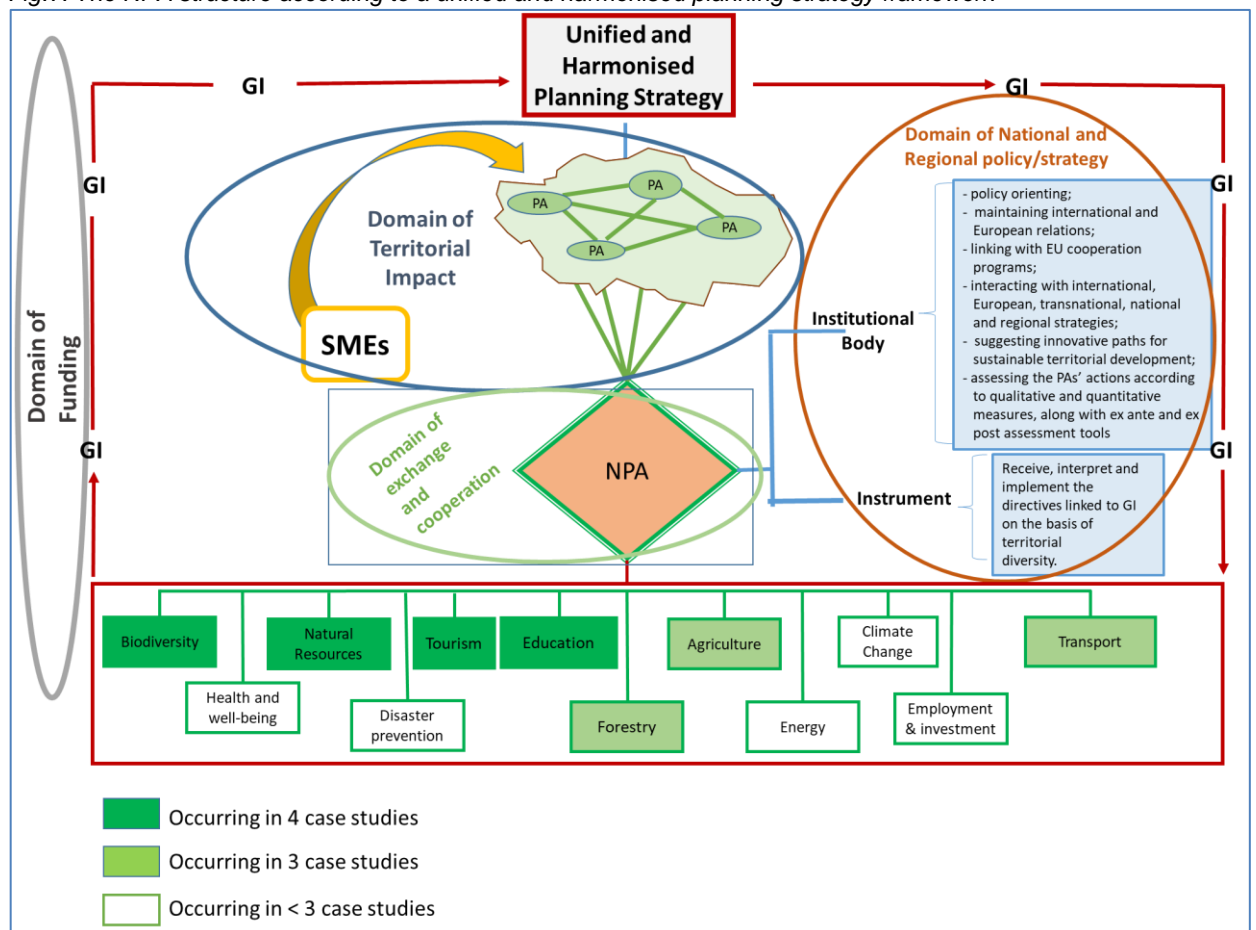
These domains are structured differently within the diverse set of LinkPAs case studies; each of them depends on a specific institutional set-up and the governance model adopted. The objectives of the GI strategy can be better achieved if the NPAs become fully involved in decision-making processes; however, this may be possible only if NPAs are recognised as institutional bodies that can work to implement government policies. As may be inferred, the NPAs under scrutiny are based on different governance models because they operate at different levels; therefore, the actors and related (economic, social and natural) resources used



are also different. That being so, it has nevertheless been possible to identify four main domains that all the NPAs analysed here share; by drawing upon these findings, a general management structure for NPAs, as shown in Fig. 6, may be proposed.

In order to incorporate the NPA management into development policies, the LinkPAs analysis suggests that NPAs become “implementing bodies” acting to connect the territories, the stakeholders involved (i.e. PAs and SMEs – relating to the territorial impact domain) and the policy sectors; NPAs thus become the place for cooperation and change. As the main management body for GI, NPAs can become an institutional body and an instrument for implementing the directives linked to GI on the basis of territorial diversity (relating to the national and regional policy strategy domain). The domain of funding has been established at the EU and international level so as to support regional and national actions. Figure 7 includes a generic NPA structure according to a unified and harmonised planning strategy framework, which also considers the sectors NPAs impact on.

Fig.7: The NPA structure according to a unified and harmonised planning strategy framework



Legend: For specific occurrence in case studies see Table 9.

Source: LinkPAs project Targeted Analysis, 2018

## 5 Data

### 5.1 Preliminary considerations on data

The term “data” here refers to information regarding the areas under scrutiny (case studies); this information is collected from many sources, which mainly have a descriptive function.

The term “indicators” refers to metrics aimed at assessing the territorial impacts of the implementation of public policies in the areas specifically analysed within this project. These indicators are selected among those typically linked to the concept of “green economy” and focus on the dimensions underlying the analyses performed during the LinkPAs project. Indicators are proposed so as to measure the performance of the “stakeholder regions” as well as to test their future application.

The data collected from EU sources and from the four “stakeholder regions” aimed at providing general territorial guidelines to help the regions hosting a case-study for a better governance.

In particular, data collection has sought to:

- describe the different protected areas networks under enquiry;
- focus on territorial variables (demography, economy, society, environment);
- specifically address the three fields of enquiry (i.e. dimensions) that in turn define three data categories (sub-dimensions): (a) *Natural Capital*; (b) *Ecoservices*; (c) *Cultural and recreational services*.

All datasets formed the NUTS3 database for the ESPON LinkPAs project. The whole database is designed to integrate different themes, diverse data sources and different file formats, thus addressing the problems related to different spatial delimitations, resolutions and scales. This is done in accordance with EU standards, which are based on the guidelines set up by ESPON. The European and international standards for spatial referencing and data storage are also considered.

In accordance with the planned objectives, the project partners have engaged in collecting data to explain the territorial evidence required by the stakeholders.

### 5.2 Sources

As first step a comprehensive list of existing data have entailed on the basis of the stakeholders’ needs, ToR objectives, literature review, contractor expertise and experience as regards to the LinkPAs themes. One important aspect of data inventory was to ensure that the data can be understood and interpreted correctly by any user. It required compiling clear data descriptions, annotations, contextual information and documentation (metadata). This action was essential as it enabled researchers to create data collection templates.

The typologies of data used to describe the networks selected as case studies (see Chap. 6) was collected from two main source categories:

- a. datasets: EU, national and local statistical data;
- b. documentary resources: planning documents; legal and administrative agreements and decrees regarding the networks under enquiry (stakeholders were actively involved; more details to follow).

## (6) Databases

Data have been collected primarily at NUTS3 level by taking into account territorial needs and level of inquiry. Therefore, the support of the LinkPAs lead and partner stakeholders has been essential during the first phase. Data sources used include both public and proprietary databases. Data collection at the level of Europe NUTS3 from official datasets has been integrated with data supplied by stakeholder regions, regional/local stakeholders within NPAs, and the other Project Partners (PPs). Prior ESPON-related projects (e.g. ReSSI) have demonstrated that local and regional stakeholders can effectively contribute to data gathering. Information on relevant data providers (e.g. associations, research agencies, government departments and platforms, public authorities, non-governmental organisations) have contextually collected aiming at assessing how data providers' existing information matches the objectives LinkPAs has set as well as to ease mutual contact during every stage of this project. A preliminary survey of data sources for this project has been conducted on a series of significant datasets showing remarkable consistency with the declared aims of this project, and in particular with:

- the assessment of Endogenous Natural Capital (ENC) to support regional economic cycles and their capacity to provide inputs for a green economy;
- the identification of ecosystem services (ESS) related to climate, air quality, water and natural hazards;
- the identification of Cultural Services (CS) and their impact on tourism, recreation, cultural heritage.

This survey has been based mainly on existing datasets and databases from ESPON, Eurostat (including regional statistics), the European Environment Agency (EEA), INSPIRE geoportal, UN databases (cf. in particular to Good practices, Millennium Indicators, Vital and Social Statistics), World Bank (regarding World Development Indicators, Actionable Governance Indicators, Climate Change and Enterprise Surveys), European Life+ projects (e.g. Life+ "Making Good Natura – Making Public Goods Provision The Core Business Of Natura 2000" with focus on Ecosystem Services), as well as other European transnational cooperation projects (e.g. the ongoing INTERREG Alpine Space "AlpES"), the Alpine Convention, and other national and local sources (e.g. Italian Strategy "Aree Interne"). Particular attention has been paid to the analysis of previous ESPON experiences (from ESPON 2006 and ESPON 2013 to the current working period). Databases and related projects that have recently been completed with the aim of identifying original data can be profitably used to perform all the analyses set by the LinkPAs partners:

- ReSSI (Regional Strategies for sustainable and inclusive territorial development – Regional interplay and EU dialogue) and its preliminary results;
- PROFECY (Inner Peripheries: national territories facing challenges of access to basic services of general interest) and its preliminary results;

- GEOSPECS (Geographic Specificities and Development Potentials in Europe) that covers EU27+4 countries (Norway, Iceland, Liechtenstein and Switzerland) with respect to socio-economic indicators to define geographic specificities;
- TeDi (Territorial Diversity in Europe) that deals with how PAs territories may contribute to the achievement of overarching European objectives, as listed in the Lisbon and Gothenburg Strategies;
- SeGI (Services of General Interest) whose data can facilitate the assessment of services of general interest and their respective development perspectives within a PA;
- GREECO (Regional Potential for a Greener Economy) whose results may help the LinkPAs project to highlight relevant aspects of a green economy in PAs and NPAs;
- TANGO (Territorial Approaches to New Governance) that focuses on the creation and implementation of effective models and mechanisms to ensure coordination between different public sectoral policies, as well as cooperation among different levels of public government;
- EDORA (European Development Opportunities in Rural Areas), which is relevant to LinkPAs as it investigates job creation and economic growth in rural areas;
- PURR (Potential of Rural Regions), which is devoted to the analysis of issues in rural areas;
- DEMIFER (Demographic and Migratory Flows Affecting European Regions and Cities), whose data will facilitate the assessment of the demographic situations of the areas examined by LinkPAs;
- ECR2 (Economic Crisis: Resilience of Regions), whose results can help to enhance resilience within individual PAs economies;
- SMART-IST (Smart Institutions for Territorial Development), which is based on indicators that allow to measure, compare and improve implementing processed connected to the territorial dimension, as suggested in the Structural Funds programmes;
- CLIMATE (Climate Change and Territorial Effects on Regions and Local Economies in Europe), which investigates to what extent PAs are exposed to climate change;
- LOCATE (Territories and low-carbon economy), whose results suggest that adaptation measures should help to decrease the harmful effects of climate change; it also puts forward opportunities all PAs can benefit from;

Existing datasets at NUTS3 level, deriving from ESPON projects, provided by EUROSTAT and OECD include:

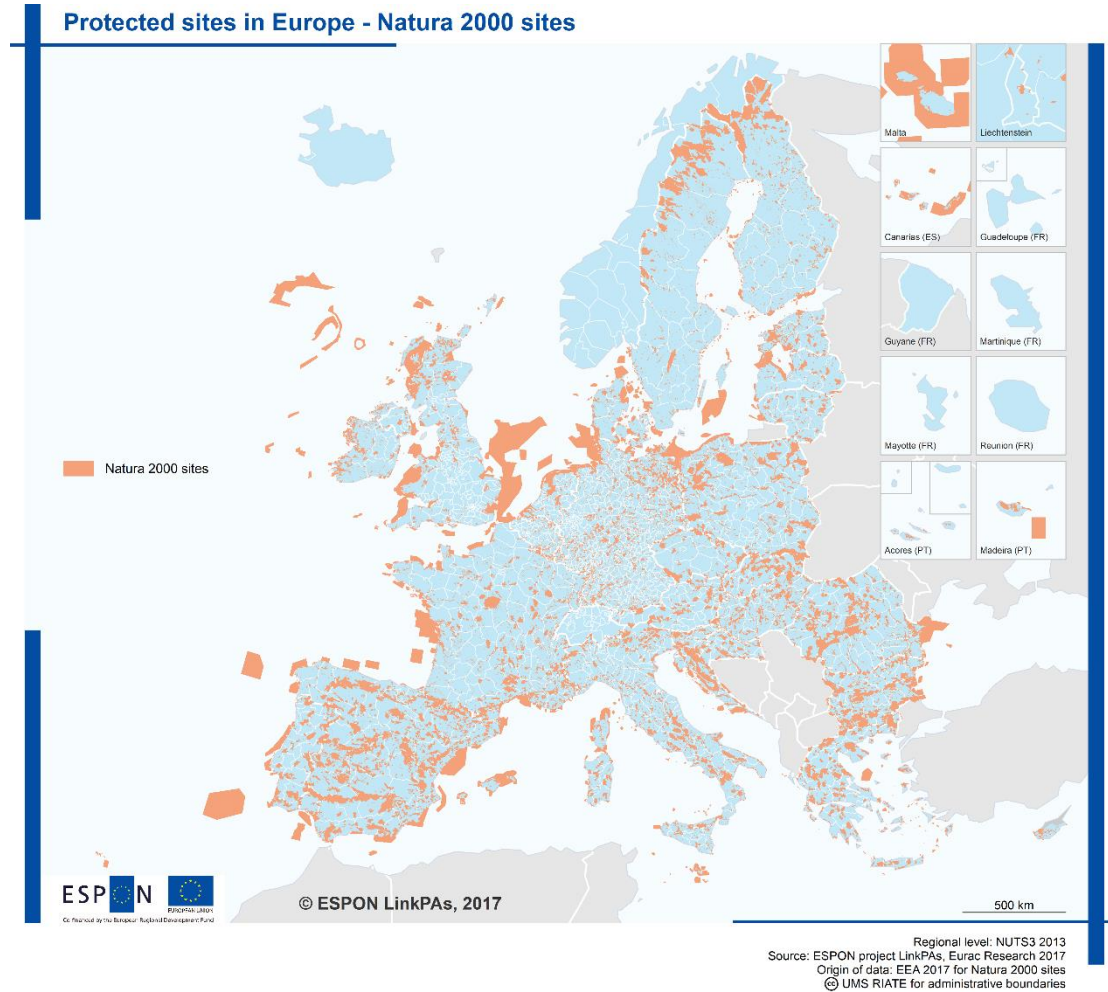
- data on geographic specificities and cross-border cooperation;
- data on PAs, including nationally designated areas (CDDA), Natura 2000 and Biosphere reserve;
- data on accessibility and transport;
- data on population and economy;

- data on health and education;
- data on land cover;
- data on culture and local productions;

The Statistical Classification of Economic Activities in the European Community (NACE) have been applied to related economic sectors. GIS overlay techniques were used to combine datasets and elaborate specific maps focused on project objectives.

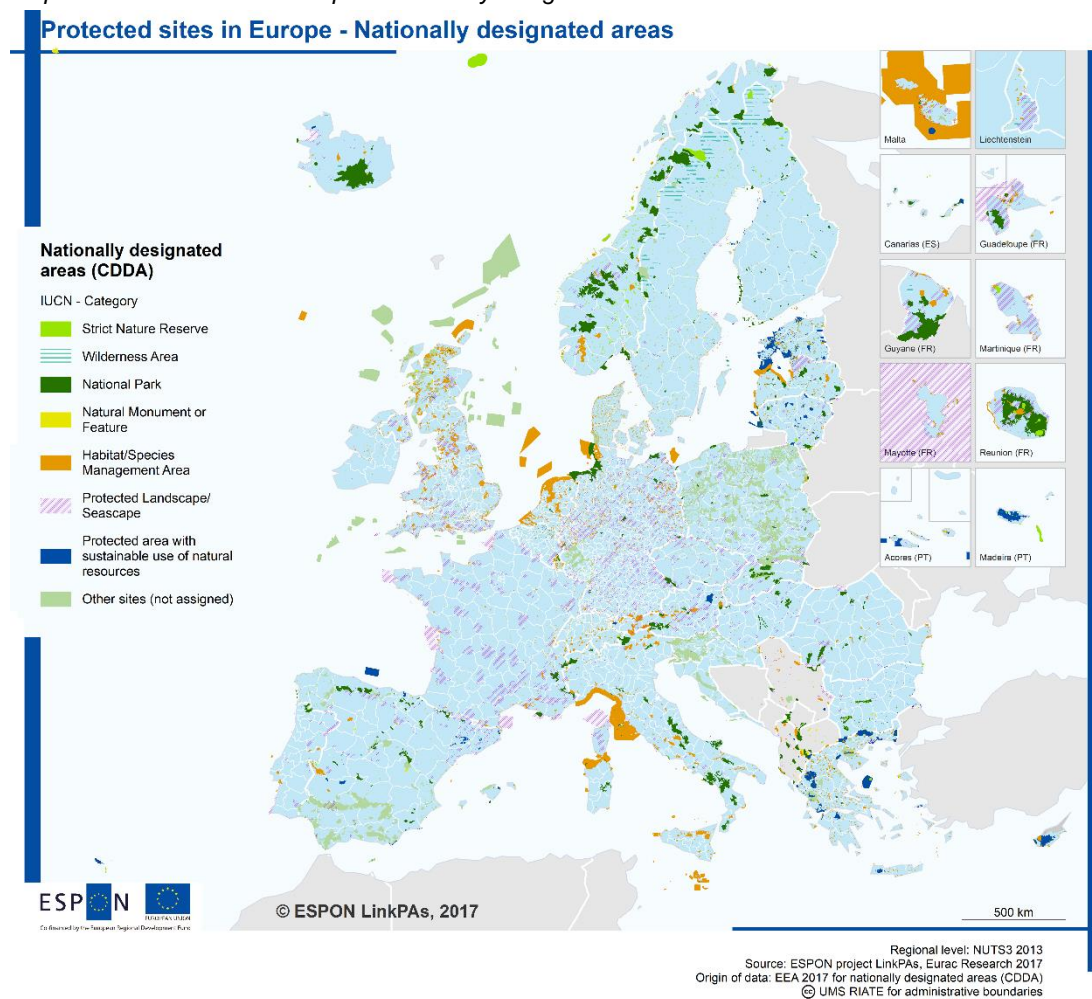
The following two maps show the protected sites in Europe; the first showed Natura 2000 sites (Map. 2), the second Protected areas classified according to IUCN (Map. 3).

Map 3: Protected sites in Europe – Natura 2000 sites



Source: LinkPAs project elaboration, 2017

Map 4: Protected sites in Europe – Nationally designated areas



Source: LinkPAs project elaboration, 2017

### (b) Documentary Sources

In order to analyse the NPAs at hand, legal, political and administrative documents have collected – they mainly concerned with legal regulations, promoted actions and policies. It is important to bear in mind that all policies that are implemented to conserve protected areas generally have an impact on the territory as a whole (including internal and external areas). These sources play a pivotal role in the analysis of NPAs types and case-studies. A list of sources of interest that can help is provided below. The main types of documentary sources used to investigate the functioning and territorial effects of the NPAs were:

- European laws
- National laws
- Regional laws
- Local administrative acts
- Decisions by management authorities

- Decisions by managers and executives holding competences on protected areas and NPAs management
- Other documents affecting the governance of NPAs

In this contest, the stakeholders served as “contact points” and data provides during the collection phase. It was consequently essential to establish long-lasting relationships and cooperation with all involved stakeholders as this ensured an effective and efficient data-collection process within all relevant territories.

### 5.3 Data usage

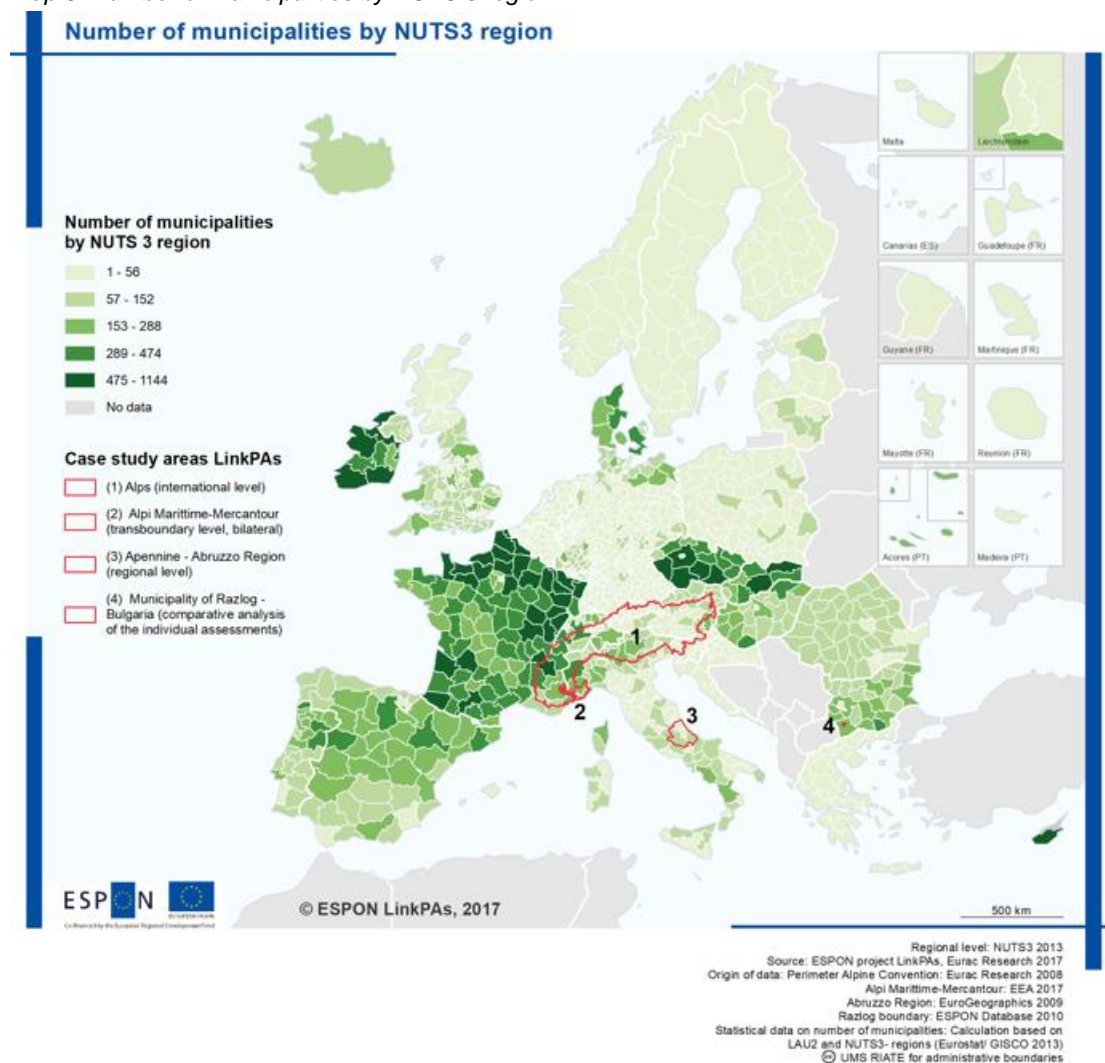
Collected data from the sources described above provided a description of the NPAs identified as case-studies. Aggregated data allowed us to describe the specific characteristics of the analysed networks at different levels. A NUTS3 level analysis allowed investigating the NPAs’ territories. In other words, collected data provided a multi-criteria description of the territories under enquiry, especially when considering the dimensions set out above. However, it is essential to clarify that the term “data” as described above differs from “indicators” as used in relation to the concept of “green economy”. Here, “data” is considered as a means that provides descriptive information; conversely, “indicators” allow to monitor the performance of the territories in a NPA where specific policies are applied with specific regard to the three identified dimensions (i.e. natural capital, ecoservices and cultural services); a set of “metrics” for each dimension (and sub-dimension, where appropriate) are also establish to gauge performance. Not all the data initially assumed at the beginning of the LinkPAs project were in fact available at NUTS3 level; most of them was only available at NUTS2 level or in a form that cannot be used for the intended purpose. However, some data have been collected at NUTS3 level and updated, such as the number of municipalities by NUTS3 region, the proportion of protected areas for each region, the GDP and population.

The geodata of the LinkPAs case study boundaries have been taken from various sources: Those pertaining to the Abruzzo Region have been derived from the EuroGeographics 2009 data set; the data regarding the Municipality of Razlog from the ESPON Database 2010 (Project “Harmonised Datasets on Local Units – LAU 2”); the perimeter of the Alpine Convention has been taken from the internal database of the Institute for Regional Development of Eurac Research (2008). The Alpine Convention perimeter represents the ALPARC network, which consists of more than 1,000 protected areas and covers 84perati. 28% of the Alpine area (the Alps in 25 Maps). To highlight the case study of the Maritime Alps – Mercantour, the dataset on Nationally Designated Areas, created by the European Environment Agency 2017, has been used. The case studies of the LinkPAs project have been previously discussed within the ESPON – GEOSPECS project. This project has also resulted in an analysis whose findings have been 84perationa in a map, which is published on the ESPON website: <http://www.geospecs.eu/CaseStudies.html>.



Maps 4 and 5 show the number of municipalities by NUTS3 region (Map 4) and the Protected Sites in Europe (28+4) according to the world database, divided by categories identified by means of the IUCN (Map 5). The map was created in order to highlight, during the internal discussion of the research team for the elaboration of the following reflections, the administrative complexity of the Nuts 3 regions. It was necessary to have a map that would allow, by overlapping it with other maps, such as that relating to PAs and in particular that relating to the concentration of PAs in Nunts3 regions, to better understand at what level of detail to carry out some in-depth studies and how the component of administrative diversity should be taken into account.

Map 5: Number of municipalities by NUTS 3 region



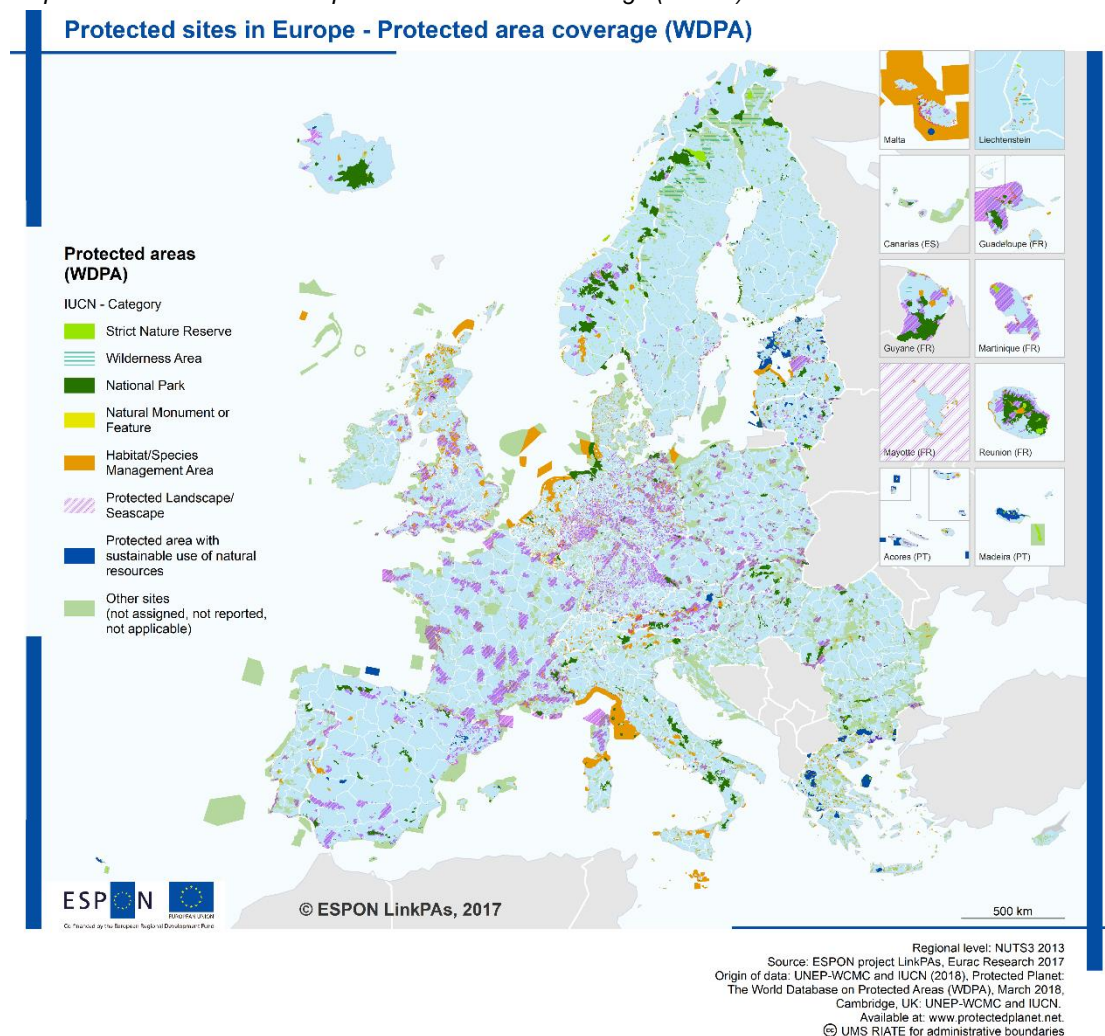
Source: LinkPAs project elaboration, 2018

The number of municipalities at NUTS3 level has been identified through spatial analysis using the “spatial join” tool. Firstly, the centroid of each municipality had to be identified using the municipal boundary data (ESPON Database 2010) for the whole EFTA area. Then, the number has been calculated using the “spatial join” tool. The resulting classification has been carried out using the “Natural Breaks” method.



The data use for Map 5 have been drawn from the World Database on Protected Areas, by looking at each individual country belonging to the European Free Trade Association (EFTA); the data had been previously collected in the UNEP-WCMC and IUCN (2018) database and Protected Planet – WDPa and updated on March 2018

Map 6: Protected sites in Europe – Protected area coverage (WDPa)

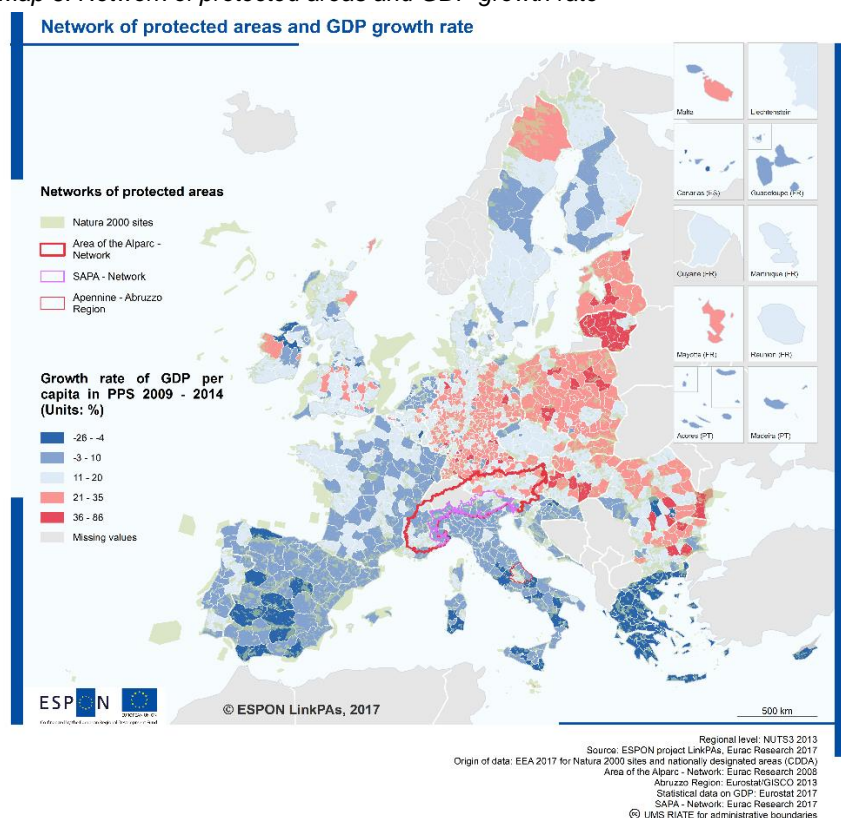


Source: LinkPAs project elaboration, 2017

Gross domestic product (GDP) is the most frequently used measure of national accounts (EUROSTAT, 2017b), which summarises the economic position of a country (OECD, 2014) or region. As PAs and NPAs are often Transboundary (IUCN, 2011), cross-country and cross-region, GDP comparisons should have been made using purchasing power standards (PPS), which adjust values to account for differences in price levels between countries (EUROSTAT, 2008). The most up-to-date and complete data available (years 2009 to 2014) are provided by the Eurostat database “Regional statistics by NUTS classification” (EUROSTAT, 2017a). Data from 2015 to present are still missing for a significant number of NUTS3 areas.

The comparison of data regarding the proportion of protected areas' surface by NUTS3 regions (Map 1) with the growth rate of GDP in PPS at the same level (Map 6) highlights that NPAs could have a potential positive impact on the territory. With specific regard to the Abruzzo Region, the data show that NUTS 3 areas with a higher number of PAs, in which one or more NPAs are active, the GDP in the period 2009-2014 (the five years most characterised by the global economic crisis) shows no negative signs but even positive ones.

Map 6: Network of protected areas and GDP growth rate



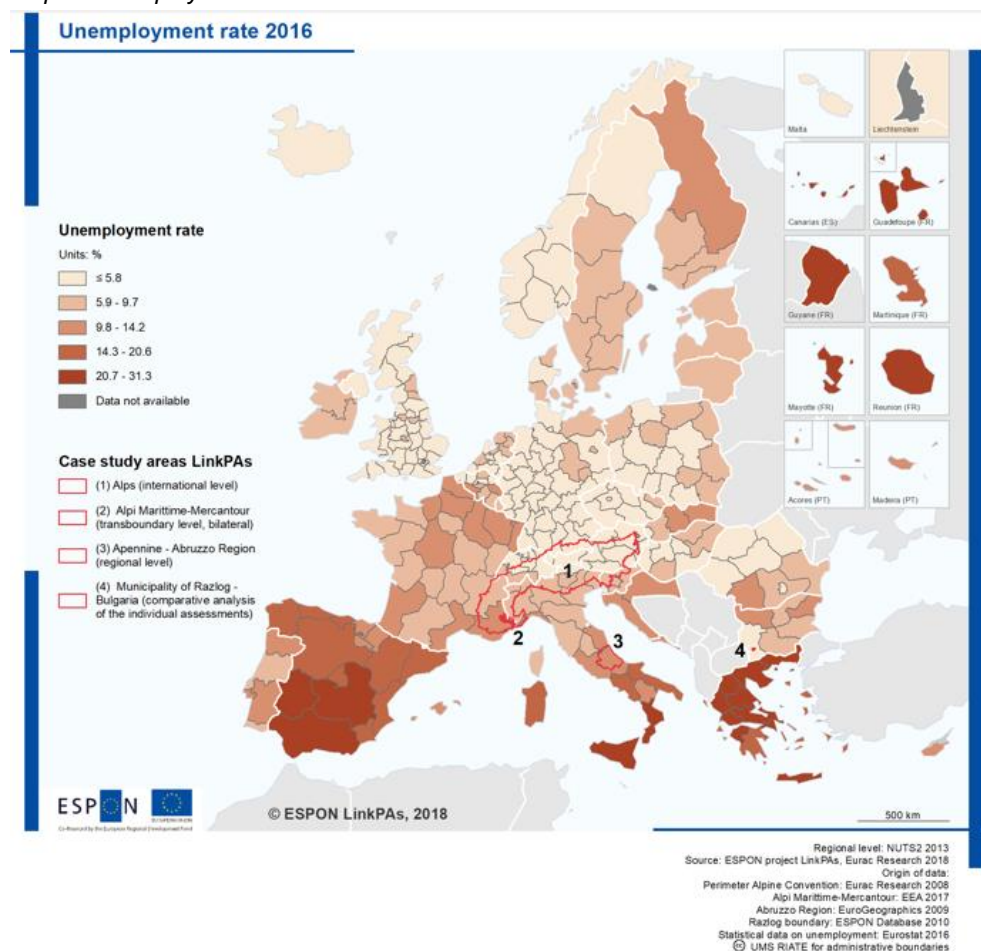
Source: LinkPAs project elaboration, 2018

The same thing can be noticed for some areas of the Alpine case studies, and in particular for some areas of the case study “Alpi Marittime-Mercantour”. Global economic recession may bear direct and indirect negative impacts in the management of PAs by exacerbating poverty and, therefore, increasing pressure on natural resources. The recession also affects tourism sector, which is one of the main source of revenues for regions where PAs and NPAs are located. By data, the opposite trend shown confirms current dynamics related to some of the most marginal and fragile areas, as already emerged in other ESPON projects. One of the hypotheses for this phenomenon is the presence and a positive impact of NPAs on territorial policies and measures in particular with regard to the economic sectors. The analysis proposed by LinkPAs, concerning in particular SMEs, contributes confirming this hypothesis.

Concerning Population, ESPON DATABASE provide data from 2013 to 2015 of the ESPON area and Candidate Countries at NUTS3, NUTS2, NUTS1 and NUTS0 levels. For specific analysis of the 4 case studies, thanks to the main project stakeholders, data at LAU level have

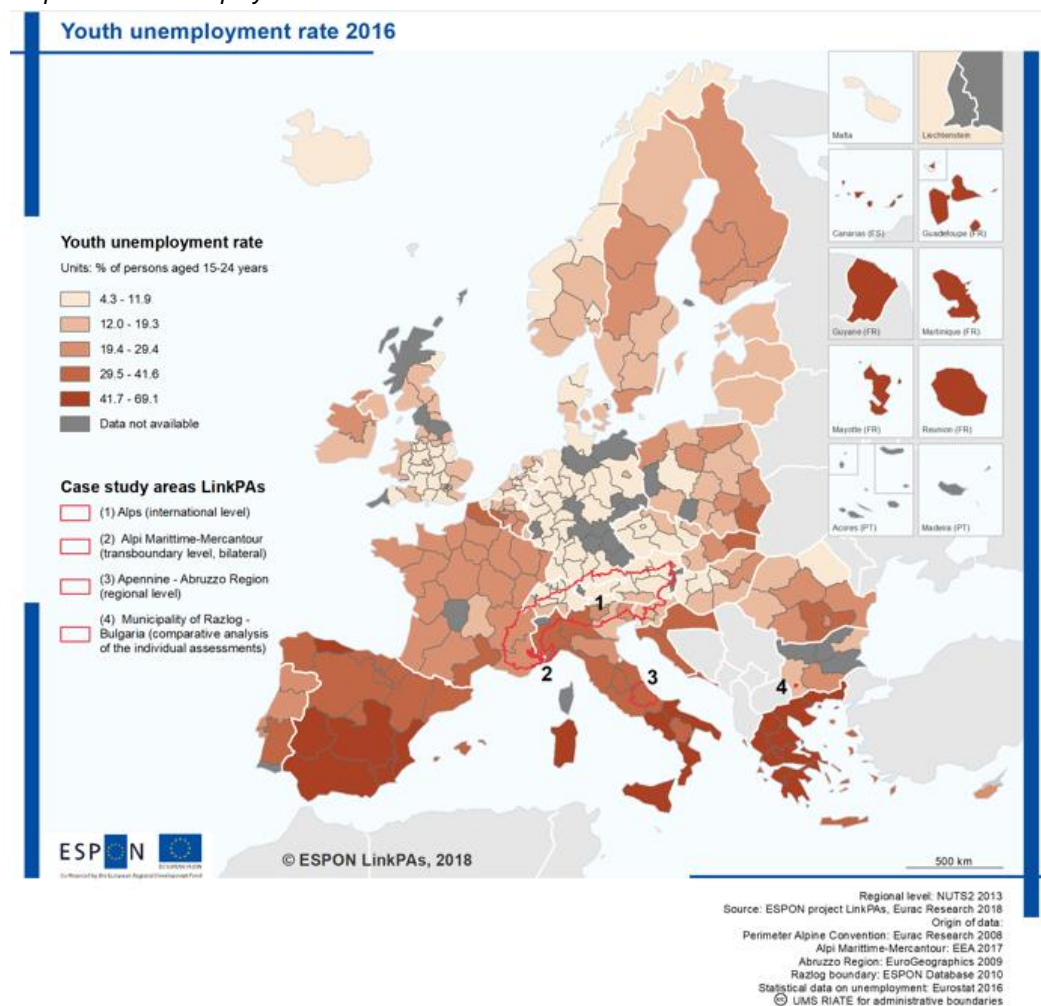
been collected. Part of the data has been taken from the databases of the French National Institute of Statistics and Economic Studies (INSEE), the Italian National Institute of Statistics (ISTAT), Bulgarian National Statistical Institute (NSI) and of the Alpine Convention. The data collection focused in particular on resident population by age groups, population dynamics, incidence of foreign-born residents, disposable income of private households, unemployment statistics at regional level (Map 7) and with specific focus on young people, 18-24 (Map 8).

Map 7: Unemployment rate 2016



Source: LinkPAs project elaboration, 2018

Map 8: Youth unemployment rate 2016



Source: LinkPAs project elaboration, 2018

Data collection highlighted the unavailability of some data across Europe on the NUTS3 regional level. For this reason, it was decided to focus the collection using specific national and sub national data sources for each specific case study. This specific data collection, together with economic data, contribute to highlight the dynamics in these areas that followed the 2008 global financial crisis, and their resilience (ESPON, 2013).

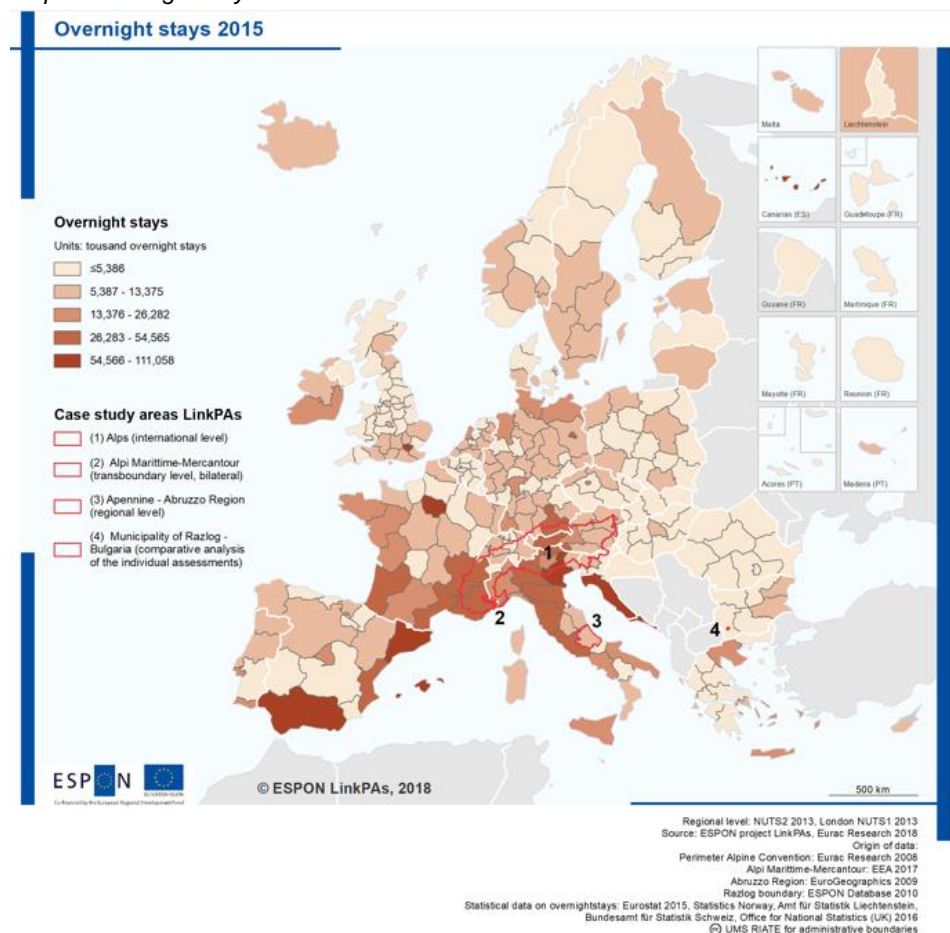
With regard to the productive sector, data were acquired on the number of enterprises by sector (agriculture, handicraft, industry, services and transport) with a specific focus on those considered as eco-services, cultural services, training and social services, and tourism. In order to highlight the physical accessibility of the 4 case studies and to identify a synthetic indicator regarding sustainable energy at an appropriate level of detail, data to meet the design requirements are not available.

Taking into account that “Tourism has the potential to play a significant role in the economic aspirations of many EU regions: it can be of particular importance in remote/peripheral regions” (European Union, 2004), and that it is “one of the economic activities with the greatest potential to generate growth and jobs in the EU” (CE, 2007), data on this sector, mainly related to NUTS2,



were acquired. In particular, LinkPAs project collected data for the Overnight stays (2015) (Map 9).

Map 7: Overnight stays 2015



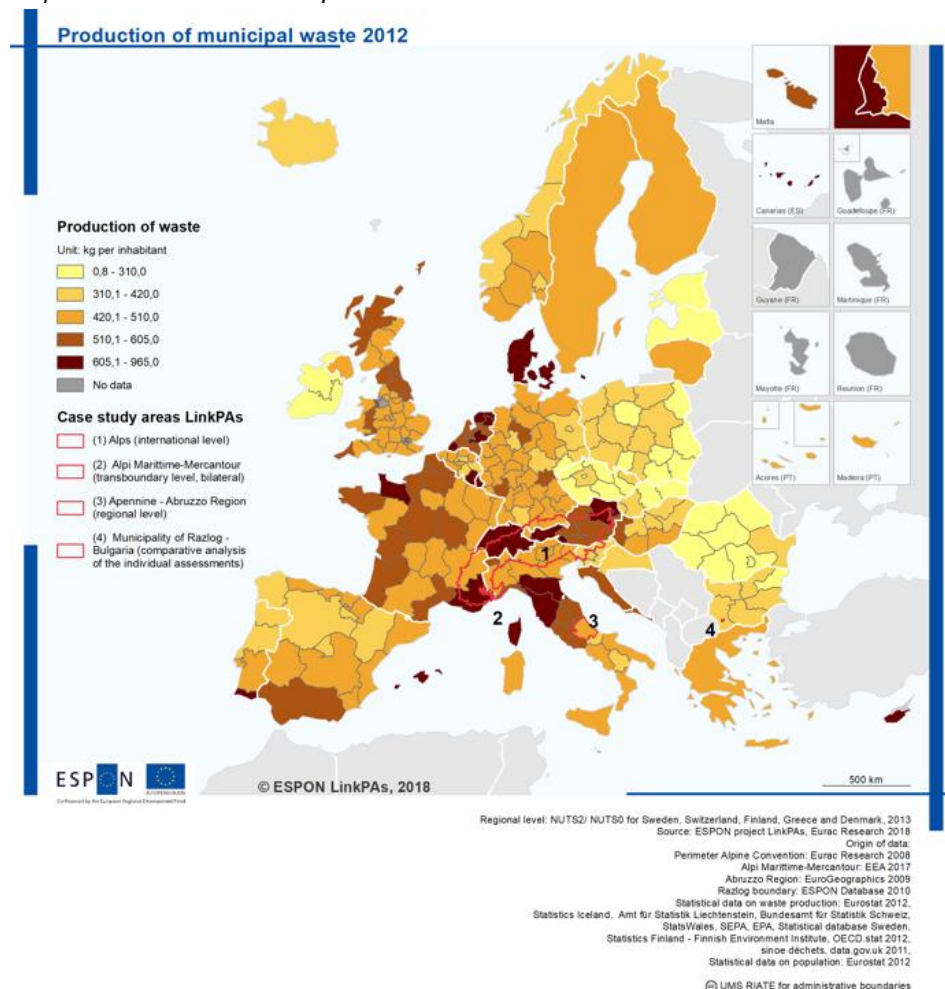
Source: LinkPAs project elaboration, 2018

Thanks to the contribution of the national statistical institutes and the collaboration of local stakeholders, data have been collected in order to have them available for the 4 case studies also at LAU level (not available for all countries) as well as specific data that have been useful in including or excluding certain aspects from the analyses carried out (e.g. this is the case of data on waste production, Map 10).

Part of the data collected on economic sectors also helped to understand the material benefits of Natural Capital and Ecosystem Services for the population. A map of European ecosystem types can be viewed on the website of the Biodiversity Information System for Europe (BISE) (<http://biodiversity.europa.eu/maes/mapping-ecosystems/map-of-european-ecosystem-types>). Regarding data for ecosystem mapping (EU, 2007), at the moment it is not possible to retrieve the necessary data at the useful level for the purposes of the project. The BISE European project "Mapping and Assessment of Ecosystems and their Services" (MAES) indicates 2020 as the time horizon for data collection and analysis at European level.

Nevertheless, an effort was made to research qualitative data for the 4 case studies on the non-material benefits people obtain from ecosystems are called 'cultural services'<sup>19</sup> (CE, 2008) and main green infrastructures as defined and listed by the European Union in the Green Infrastructures Strategy (CE, 2013; Civi & Jones-Walters, 2015).

Map 80: Production of municipal waste 2012



Source: LinkPAs project elaboration, 2018

<sup>19</sup> Cultural services include aesthetic inspiration, cultural identity, sense of home, and spiritual experience related to the natural environment; opportunities for tourism and for recreation are also considered within the group. Cultural services are also deeply interconnected with each other and often connected to provisioning and regulating services (FAO, 2017)

## **6 Local Actors (particularly SMEs) in the implementation of NPAs and to mobilise private sector investment in sustainable territorial development within NPAs**

The project investigated SMEs and the role they can play within PAs and – with a wider scope – within NPAs. The analytical process mainly aimed at finding possible answers to the following research question (RQ): “how can new stakeholders and particularly the private sector and SMEs be involved in the management of the assets stored or available in PAs being parts of NPAs?”

For the purpose of this project, the management of NPAs appears to be a sort of “management of the assets stored or available in PAs making up NPAs”. These assets may be of interest to both the private sector and SMEs, as they may potentially include them in their production chain when creating goods or proposing services.

In order to answer this RQ, the analysis has firstly focused on the private sector in Europe and particularly its SMEs, their characteristics and recent evolutions. This has allowed us to identify which stakeholders had to be primarily and specifically addressed so as to properly tackle the issue at hand. It should be noted that this section is not aimed at providing further analysis regarding PAs and NPAs, since the concepts and figures we will refer to have already included in the previous chapters of the LinkPAs scientific and main reports.

What follows is a set of methodological information concerning the most significant issues and theories regarding how to involve NPAs in the implementation and design of those policy instruments that appear critical for achieving a greater involvement of stakeholders in the wide notion of PA management – especially when they are part of the private sector and SMEs.

To this end, the four topics discussed below are:

- 1) identification and relevance of European SMEs;
- 2) definition of the concept of “PA business environment”;
- 3) definition of the concept of materiality and development of a materiality index for the purpose of this project (i.e. materiality of European Green Infrastructure Policy Sectors for different categories of businesses; and major business opportunities to benefit SMEs when deriving from natural capital within and ecosystem services from PAs, NPAs and GIs);
- 4) the role of NPAs in involving the private sector and SMEs in actions aimed at the management of natural assets stored in PAs as well as at mobilizing finance in the regions having NPAs.

The general remarks that follow are concerned with the relationship between NPAs and PAs and SMEs, as also described in the LinkPAs project objectives and in its ToRs.

The definition of SMEs that has been adopted for the purpose of this project is based on the analyses performed by the European institutions across the EU-28 member states. According to the data reported in these analyses, SMEs represent a significant share of the whole EU companies, provide an important portion of total employment, and generate a good share of value added.

The analysis performed on SMEs located within or in the close surroundings of PAs is based on a solid theoretical background, which has been retrieved from EU sources, as the bibliographic references mentioned thorough will show.

The theoretical concept of “business environment” has been used for the purpose of the LinkPAs project; it has been applied to protected areas, since we assume some amount of overlapping between the PA (and physical dimension) and business environment, as it has been traditionally suggested in the literature regarding business and economics. The resulting scope of application has special characteristics that depend significantly on the specific features of the PA where the company operates; each PA’s specific features are particularly important for some economic activities and sectors, which seem to depend more on the natural capital and ecological services available in PAs.

Another concept that has been used in this project is “materiality”, which is commonly used to define the selection process that a company adopts when deciding what topics to include in its voluntary reports. A company defines a topic as “material” when either the company’s operations are impacted by this topic or the company’s operations impact on that topic with some consequences, which can be objective facts or perceptions of different stakeholders. Within the LinkPAs framework, the concept of materiality has been used to assess which policy sectors NPAs and green infrastructures seem to have an impact on are more “material” for SMEs – i.e. which sectoral policies more significantly impact on SMEs’ business operations. At the same time, the benefits deriving from the existence of PAs in the analysed areas have been assessed against a set of SMEs’ categories; this helps to identify those business categories (sectors) that are more positively affected by being linked to or located in a PA – this happens, for instance because, these SMEs make use of assets that are only available within PAs and help them to conduct their operations or core-business.

Another relevant section of this LinkPAs targeted analysis devoted to business involvement is concerned with how traditional categories of environmental policy instruments can be matched with alternative categories of NPAs that can play a role in designing and/or implementing the categories of policy instruments themselves. The results of this analysis in twofold: on the one hand it has been able to define those categories of NPAs that appear more capable to support policy makers in designing (innovative) policy instruments, due to their unique competences and knowledge, which are primarily bases on territorial and environmental aspects; on the other hand, it has highlighted those categories of NPAs that seem able to better support or substitute policy makers and public administrations in implementing policy instruments on the territories within which they operate or have an interest on.

The following paragraphs will provide an overview of EU SMEs, by taking into account the three topics discussed above.

## **6.1 SMEs in EUROPE**

In 2016, within the EU-28 block, SMEs represent 99.8% of the companies operating in the non-financial sector (93% of which are micro-SMEs, i.e. employing less than 10 persons); they



provided 67% of total employment and generated 57% of value added (EC 2017a). In general, SMEs show a positive economic performance – as confirmed by the figures regarding employment (+1.6% in 2015 and 2016) and value added they generate (+1.4 % in 2016 and +5.8% in 2015). SMEs have been recovering from the financial crisis almost across all Europe. As for the employment rate in SMEs, all Member States except Latvia recorded a general growth: in fourteen states raised by 2% or more in 2016. The value added of SMEs within all Member States except Greece and Poland increased in 2016 (raising to more than +2% in 22 MS). In 2016 value added by SMEs grew more than 5% in Bulgaria, which incidentally hosts one of the LinkPAs stakeholder regions.

Another factor that it is worth considering is that a large majority of newly created firms in the EU-28 between 2012 and 2014 were established in non-ICT industries; in particular the ‘wholesale and retail trade’, ‘professional, scientific and technical activities’ and ‘construction’ sectors accounted for 58 % of all the enterprises created during that period (EC 2017a).

## **6.2 PA Business Environment**

NPAs have been demonstrated to be a widespread type of enterprise across Europe and their geographical distribution has been mapped thanks to several research projects (see for instance Chapter 1, Maps, etc. in this report). A significant share of PAs being members to NPAs is located in mountain regions that are characterised by a lower level of accessibility and a lower endowment of ICT. This could therefore negatively affect the development of enterprises, especially if they belong to more advanced industries.

However, the observed trend in newly established SMEs shows that there is still room for new SMEs and jobs to be created in relatively remote and less serviced regions in Europe. Awareness is in the arise regarding the natural and cultural assets stored in PAs and managed either directly at the PA level or indirectly through the NPAs’ governance mechanisms that have been investigated in this study. Understanding the potential of these assets as inputs for producing goods and services, as well as supporting business operations by mitigating business risks and offering opportunities for development is a promising path of growth and study.

Assuming the spatial delimitation of PAs as a consequence of special protection measures that apply to “a clearly defined geographical space” (Dudley & Stolton 2008), all territorial policies holding a comprehensive territorial scope of application also refer to the PAs localised within that scope (at least if they do not allow for actions forbidden by or non-compliant with the act ruling for “special protection” within a given PA’s boundaries; Lausche 2011).

Therefore, a consistent “positive” policy analysis aimed at describing the role and potential of PAs in steering territorial development as well as a “normative” analysis aimed at recommending possible actions to be delivered through NPAs for mobilising finance for territorial development need to be based on a sound assessment of a set of territorial development sectors, which deeply linked to regional PAs and NPAs.

In performing a “positive” analysis of the room for local actors mobilisation in the EU (particularly of the potential for SMEs’ growth), we assume that a general “external business environment” influences SMEs’ decisions and strategies (Worthington & Britton 2009), but also that the distinctive features of PAs and the activities that NPAs do or could perform to assist such a process (according to their “governance model” and practice) determine a specific “external PA environment” that provides specialised opportunities for SMEs’ location and development. The result is a shortlist of territorial policy sectors being consistent with PAs’ specific features and economic potential on which green infrastructures impact on (European Commission 2013). The outcome is a set of sectors addressed by territorial policies and coherent with the distinctive aims of PAs.

In performing a “normative” analysis of the current and prospective role of NPAs in mobilizing investment for regional sustainable territorial development, distinctive features of alternative models of NPAs are considered. We assume that different “governance models” are effective in performing specific actions that in turn support investment and business development decisions. In particular some features of different NPAs (institutional structure, participating bodies or organisations, legal status, expertise on funding programmes, etc.) should approximate the capability of an NPA of performing specific categories of actions. Knowing these capabilities and their strategic potential allows for designing consistent strategies.

From a business-driven standpoint, the “external environment” is a system made up of different social, cultural, economic and ethical variables that influence (and occasionally are influenced by) business behaviour – including strategy, decision making, and management choices in general (Worthington & Britton 2009). Usually “environmental analysis” techniques refer to the external environment in general; however, it is possible to mould these strategies to fit a better-defined scope. In this case, the scope is to see PAs as defined by IUCN and, incidentally, as they were found to be in the regions under inquiry.

In turn, specific characteristics of PAs can shape a unique environment, characterised by a major presence of distinctive features that – according to IUCN – include “nature, (...) associated ecosystem services and cultural values” (Dudley & Stolton 2008). We can define the “external PA environment” as the domain characterised by specific features and territorial policies typically belonging to a PA and its immediately surrounding areas.

Consequently, it seems clear that SMEs localised within a PA will both have a general external business environment and a special external PA environment. Both these features exert a great deal of influence on the company’s business operations. This LinkPAs targeted analysis is concerned with sector policies impacting on Green Infrastructures and NPAs, PA assets and ecosystem services flowing from PAs to outer territories and natural capital. Hence, this investigation primarily focuses on the assets and ecosystem services that can be typically found in PAs – and on their impact on businesses and their operations. We will analyse the relationship between assets of PAs and businesses from two different perspectives: under the viewpoint of assets and policies of PAs, we will check which SMEs categories may consider each category of assets (and policies) relevant to their business operations; under the point of

view of SMEs, we will investigate which set of PA assets are relevant for the typical business operations of SMEs, clustered by category. The materiality of a given PA's assets is used as an assessment tool to gauge whether these very assets, and sector policies for Green Infrastructures, are sizeable to each specific category of SMEs and their business operations. Moreover, the most relevant policy sectors and assets of PAs under the business viewpoint will be identified based on typical business operations by category of SMEs.

This far we have provided a definition of a PA business environment that results from the integration of a traditional "business environment" with a special "PA environment" as described in the literature regarding nature protection and management of sites; however, it should be borne in mind that this type of PA environment is subject to some form of legal or voluntary restrictions that are applied on a case-by-case basis.

### **6.3 Materiality Principle**

The specific features of PAs and ecosystems that most clearly relate to business activities can be defined according to the qualitative analysis of the benefits that SMEs can obtain from the "materiality" of ecosystem and biodiversity. This analysis is mainly based on findings and case studies collected in the relevant literature (TEEB, NCC, EC Business @ Biodiversity, and WBCSD CEV). Materiality is often conceived as the threshold over which a dimension becomes relevant to an organisation because it shapes its external impacts (economic, social and environmental) or influences stakeholders' decisions. (GRI-Robecosam 2015). It is also possible to rank material aspects according to their relative priority for a given organisation.

A materiality index has been developed for each policy sector impacted by green infrastructure policies, according to a qualitative assessment of the main correspondences between: a) the list of policy sectors on which PAs and Green Infrastructures impact across Europe, and b) the main business sectors with a relationship to the "external PA environment" according to TEEB (2012) and WBCSD (2010).

Significant contributions within the literature (e.g. TEEB, NCC) have linked a set of standard business sectors to the exploitation of natural capital and ecosystem services flowing from that natural capital (NC). Assuming that NC is significantly stored in PAs, PAs are consequently endowed with a significant storage capacity of NC and therefore able to deliver ecosystem services (Ess) to wider territories outside their boundaries.

Drawing on the shortlisted policy sectors where Green Infrastructures and NPAs are more likely to impact according to the European Commission (2013), the targeted analysis carried out here has allowed to identify the more relevant and material sectors for SMEs, which has resulted in a list of sectors (SIS) and objectives (SPO) that have been defined as "strategic" (Table 12).

Table 12: Strategic impact sectors (SIS) and strategic policy objectives (SPO) for NPAs and Green Infrastructures (GI)

| <b>NPA / Green Infrastructure Strategic Impact Sectors (SIS)</b> | <b>Strategic Policy Objectives (SPO)</b>                                  |
|--|---|
| <b>Enhanced efficiency of natural resources</b>                  | Maintaining soil fertility  |
|  | Ensuring biological control   |
|  | Increasing pollination  |
|  | Storing freshwater resources  |
| <b>Investment and employment</b>                                 | Conveying a better image of NPAs  |
|  | Increasing investment   |
|  | Increasing employment   |
| <b>Climate change mitigation and adaptation</b>                  | Improving resilience to deal with climate impact                          |
|  | Reducing GHGs   |
|  | Improving temperature control   |
|  | Improving storm damage control  |
| <b>Disaster prevention</b>                                       | Ensuring erosion control  |
|  | Reducing risk of forest fires   |
|  | Reducing flood hazards  |
| <b>Biodiversity and conservation benefits</b>                    | Sustaining and improving biodiversity                                     |
|  | Promoting existence value of habitats, species and genetic diversity      |
|  | Conserving habitats, species and genetic diversity for future generations |
| <b>Tourism &amp; recreation</b>                                  | Making destinations more attractive                                       |
|  | Increasing range and capacity of recreational opportunities               |
| <b>Ecoservices</b>   | Resilience  |

Source: adapted from EC 2013

It is worth mentioning that the policies aimed at promoting investment and jobs creation usually are cross-cutting and tend to be relevant for all types of industries. However, all those policies deserve some attention due to the numerous governmental initiatives and huge finance mobilisation across Europe aimed at supporting “green economic sectors”, e.g. through “Green Stimulus Packages” (see: HSBC 2009, McKinsey 2009, Bowen et al. 2009).

On the basis of this targeted qualitative analysis, we posit that the shortlisted “strategic impact sectors” (SIS) are those policy domains that, through specific policy actions aimed at delivering “strategic policy objectives” (SPO), can provide the most effective support to mobilize SMEs and encourage investment in the territories where NPAs can currently be found. Thanks to the capabilities which characterise the different models of NPAs and their specific features, these networks can contribute to enhancing territorial development. This can be done mainly by providing expert knowledge, experience and policy making capacities in the fields of natural resource and biodiversity management, and sustainable regional development – an approach that is in line with the different strategic priorities and goals that motivate the very foundation of each specific NPA.

In practical terms, a two-sides matrix can be used to identify the *degree of materiality* of a set of impact policy-sectors (side A: independent variable in columns) on a set of standard business sectors (side B: dependent variable in rows). If an impact policy-sector from side A influences a business sector (side B), we can claim that the former is material to the latter. As a result, we obtain a materiality index whose score indicates how strongly a policy-sector impacts on a business sector, i.e. how much material a policy-sector is to a business belonging to a business sector (see Table 13).

Table 13: Two sides matrix of business sectors and impact sectors

|           |                               | SIDE A                            |                |              |                     |                           |                       |              |                    |                               |                 |                    |         |           |           |                        |         |
|-----------|-------------------------------|-----------------------------------|----------------|--------------|---------------------|---------------------------|-----------------------|--------------|--------------------|-------------------------------|-----------------|--------------------|---------|-----------|-----------|------------------------|---------|
|           |                               | Impact Policy-Sectors (GI / NPAs) |                |              |                     |                           |                       |              |                    |                               |                 |                    |         |           |           |                        |         |
| SIDE B    | Business sectors of SMEs      | Natural resources efficiency      | Climate change | Biodiversity | Disaster prevention | Water-related agriculture | Land/ Soil management | Conservation | Farming / Forestry | Low carbon energy & transport | Investment Jobs | Health / wellbeing | Tourism | Transport | Education | Ecoservices accounting | Culture |
|           | Forestry                      | 1                                 | 1              |              | 1                   |                           | 1                     |              | 1                  |                               | 1               | 1                  | 1       | 1         |           | 1                      | 1       |
|           | Farming                       | 1                                 | 1              | 1            | 1                   | 1                         | 1                     | 0            | 1                  |                               |                 |                    |         |           |           |                        |         |
|           | Fishing                       |                                   | 1              |              | 1                   | 1                         | 1                     |              |                    |                               | 1               |                    | 1       | 1         |           |                        |         |
|           | Mining & Quarry               | 1                                 | 1              |              | 1                   |                           | 1                     |              |                    |                               | 1               |                    |         | 1         |           | 1                      |         |
|           | Consumer goods/ manufacturing | 1                                 | 1              |              | 1                   |                           |                       |              |                    | 1                             | 1               |                    |         |           |           | 1                      |         |
|           | Health care                   | 1                                 |                | 1            |                     |                           |                       | 1            |                    |                               | 1               | 1                  | 1       |           |           |                        |         |
|           | Financials / Banking          | 1                                 | 1              | 1            | 1                   | 1                         | 1                     | 1            |                    |                               |                 |                    |         |           |           |                        |         |
|           | Cosmetics and personal care   | 1                                 |                | 1            |                     | 1                         |                       | 1            |                    |                               | 1               | 1                  | 1       |           | 1         | 1                      |         |
|           | Water supply and sanitation   | 1                                 | 1              | 1            | 1                   | 1                         | 1                     | 1            | 1                  |                               | 1               | 1                  | 1       | 1         | 1         | 1                      |         |
|           | Tourism                       | 1                                 |                | 1            |                     |                           |                       | 1            |                    | 1                             | 1               | 1                  | 1       | 1         | 1         | 1                      | 1       |
| Transport |                               |                                   |                |              |                     |                           |                       |              | 1                  |                               |                 | 1                  | 1       |           | 1         |                        |         |

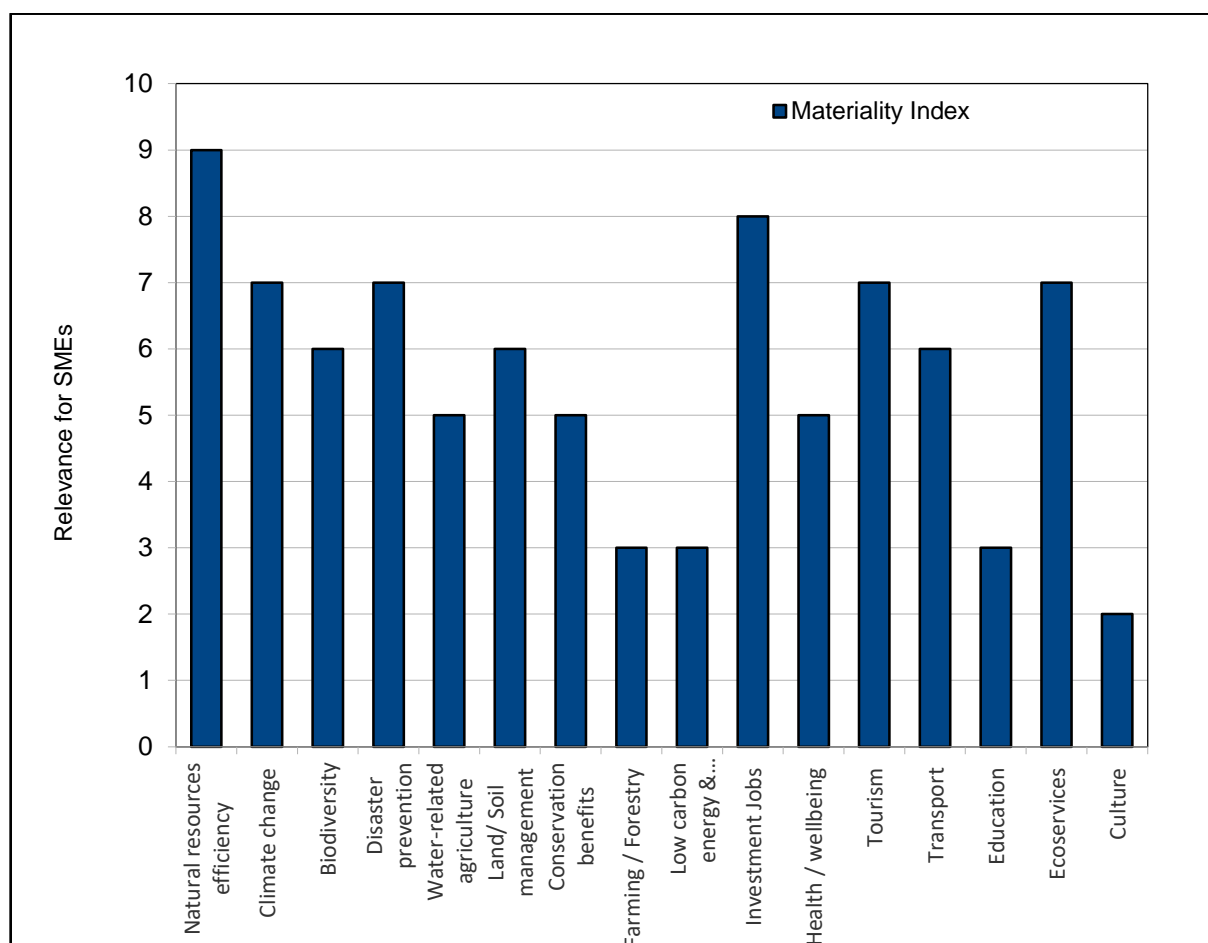
Source: LinkPAs project elaboration, 2018

A general materiality index includes the total score for each business sector, based on the assumption that, generally speaking, PAs positively contribute to creating a different impact policy-sectors listed in the table 13.

Here, materiality has been defined according to a qualitative analysis of the literature on business-ecosystem relationships. This approach involves assigning a score equal to 1 when a relationship between an impact sector and a business sector is detected, and 0, when it is not. The general results for all business sectors have been summarized in the graph below

(Fig. 8). The analysis has helped to identify those impact sectors that can be typically qualified as relevant to businesses of any type and size. Natural resource efficiency, investment and jobs creation, followed by climate change, biodiversity, disaster prevention, tourism and ecosystem services (or ecoservices) show a higher level of materiality for European SMEs. More detailed results can be derived from Table 13 above from which information for each business sector can be retrieved.

Fig. 8: Relevance for SMEs of main policy sectors of NPAs/Gis (materiality index)



Source: LinkPAs project elaboration, 2018

#### 6.4 Assessment of business opportunities for SMEs localised in PAs/NPAs

The *opportunities for businesses* that can derive from NC and Ess is another dimension that we considered worth investigating. Since we assumed that: NC is significantly stored in PAs and ecological networks (according to the theory and studies on Green Infrastructures, or Gis); NPAs often aim to create sound ecological connections across PAs within a region, identifying these business opportunities and classifying them (at least in general terms) may explain why companies and SMEs are likely be interested and involved in the management of PAs, NPAs and Gis in general.

It is generally accepted that businesses can enhance their economic performance by integrating biodiversity into business decision-making (e.g. by reducing risk, increasing revenue

streams, reducing costs or improving their products) and make use of the potentially huge opportunities offered by biodiversity in terms of new products and services. Moreover, scaling up new markets for biodiversity and ecosystem services could provide major business opportunities and help find a substantial amount of finance for biodiversity. Since those opportunities are expected to be significantly diverse depending on the industry under scrutiny (TEEB 2012), they can be grouped by homogenous categories and assigned to the industries already investigated in the previous analyses.

*Table 14: Broader and detailed categories of business opportunities from ecosystem and their services*

| <b>Broader categories of Business Opportunities</b> | <b>Business Opportunities (detail)</b>              |
|---|---|
| Operational   | Increased quality, decreased cost of inputs         |
|   | Increased output or productivity                    |
|   | Sustainability of business operations               |
|   | Supply chain opportunities                          |
| Regulatory and legal                                | Lower transition costs in anticipating new policies |
|   | Mitigation of risk due to environmental disasters   |
| Reputational  | Improved brand or image                             |
|   | Attracting new customers                            |
|   | Reaching new niche markets                          |
| Markets and products                                | Changes in consumer preferences                     |
|   | Purchaser requirements                              |
| Financing   | Attracting growing SRI investment                   |

*Source: adapted from TEEB 2012*

Biodiversity loss and ecosystem decline are linked to major trends affecting business (e.g. social, economic and environmental change) which also face several risks (WRI et al. 2008) but also offer opportunities related to biodiversity and ecosystem services (TEEB 2012). Impacts and dependencies can affect the competitive position and performance of a company. In addition, public perception of business impacts on nature may influence consumer preferences, corporate reputation and the ability to maintain the legal or social “license to operate”. The main benefits from ecosystems identified for businesses in TEEB (2012) are reported in Table 14.

Drawing on the same data provided above, an estimate of the overall potential benefits for SMEs (by category) deriving from the “external PA environment” shows that some industries would see a more significant business potential to or recognise a dependency from their external PA environment than others. Not surprisingly, water supply and management, tourism and forestry industries show a higher interest in the potential benefits they can obtain from PAs.

Table 15: Matrix business sectors / business opportunities from PAs/NPAs/Gis

| Business Opportunities                       |   | Impact SME business sectors in PAs |          |           |                 |                |                   |             |             |
|--|---|------------------------------------|----------|-----------|-----------------|----------------|-------------------|-------------|-------------|
|  |   | Biological                         |          |           | Extrac<br>tive  | Consumer       |                   | Hea<br>lth  | Finan<br>ce |
| Broader categories of Business Opportunities | Business Opportunities (detail)                     | Forestry                           | Farming  | Fishing   | Mining & Quarry | Consumer goods | Consumer services | Health care | Financials  |
| Operational                                  | Increased quality, decreased cost of inputs         | 1                                  |          | 1         |                 | 1              | 1                 | 1           |             |
|  | Increased output or productivity                    | 1                                  | 1        | 1         |                 |                |                   |             | 1           |
|  | Sustainability of business operations               | 1                                  | 1        | 1         | 1               |                |                   |             |             |
|  | Supply chain opportunities                          |                                    |          |           |                 | 1              | 1                 | 1           |             |
|  | Category total                                      | 3                                  | 2        | 3         | 1               | 2              | 2                 | 2           | 1           |
| Regulatory and legal                         | Lower transition costs in anticipating new policies |                                    |          |           | 1               |                |                   |             | 1           |
|  | Mitigation of risk due to environmental disasters   |                                    |          |           | 1               |                |                   |             | 1           |
|  | Category total                                      | 0                                  | 0        | 0         | 2               | 0              | 0                 | 0           | 2           |
| Reputational                                 | Improvement to brand or image                       | 1                                  | 1        | 1         |                 | 1              | 1                 |             |             |
|  | Attract new customers                               |                                    |          |           |                 | 1              | 1                 | 1           |             |
|  | Reach new niche markets                             |                                    |          |           |                 | 1              | 1                 | 1           |             |
|  | Category total                                      | 1                                  | 1        | 1         | 0               | 3              | 3                 | 2           | 0           |
| Markets and products                         | Changes in consumer preferences                     | 1                                  | 1        | 1         |                 |                | 1                 | 1           |             |
|  | Purchaser requirements                              | 1                                  | 1        | 1         |                 | 1              |                   |             |             |
|  | Category total                                      | 2                                  | 2        | 2         | 0               | 1              | 1                 | 1           | 0           |
| Financing                                    | Attract growing SRI investment                      | 1                                  | 1        | 1         | 1               | 1              | 1                 |             |             |
|  | Category total                                      | 1                                  | 1        | 1         | 1               | 1              | 1                 | 0           | 0           |
|  | <i>Total for all categories</i>                     | <i>10</i>                          | <i>8</i> | <i>10</i> | <i>5</i>        | <i>9</i>       | <i>9</i>          | <i>7</i>    | <i>4</i>    |

Source: TEEB (2012), The Economics of Ecosystems and Biodiversity in Business and Enterprise. Edited by Joshua Bishop. Earthscan, London and New York; WBCSD (2010), Guide to Corporate Ecosystem Valuation – A framework for improving corporate decision-making; Global Reporting Initiative (2007) Biodiversity. A GRI reporting resource.

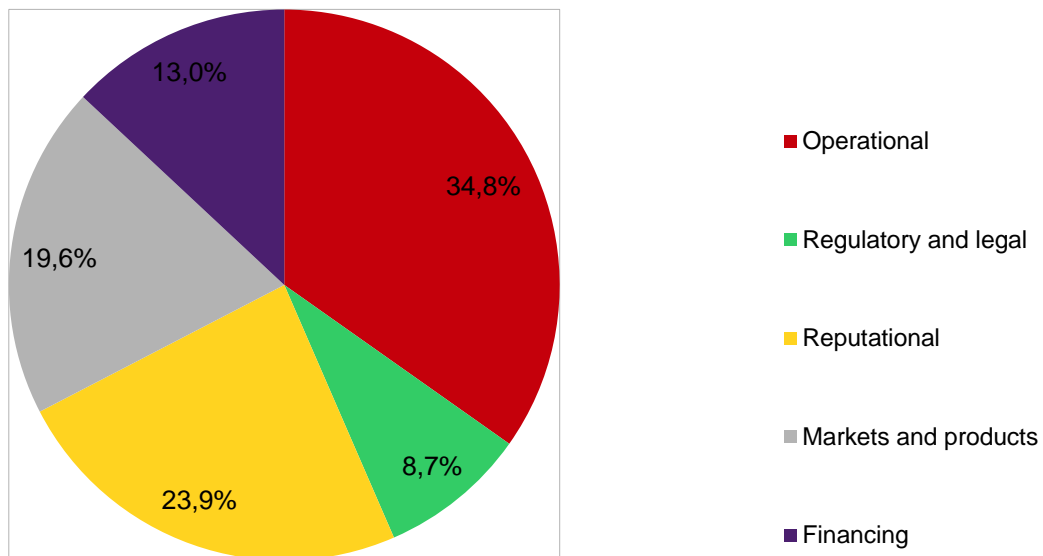
Source: LinkPAs project elaboration, 2018

As shown in the figures 9 and 10, according to the literature and reported practice, business opportunities for SMEs may derive from PAs particularly within the consumer services, biological resource-based and consumer goods industries. At the same time, the most common categories of benefits to be found in these sites (and mainly deriving from ecosystem goods and services) are reputational, operation- and market- or product-related.



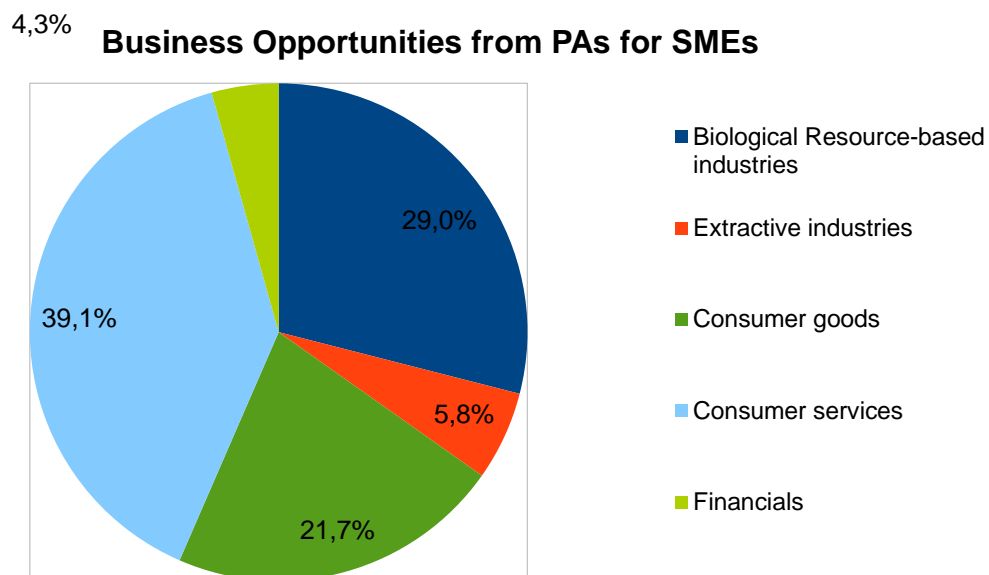
Fig. 9: Business opportunities for SMEs localised in PAs, by category of business opportunities

### Share of categories of business opportunities for SMEs from PAs / Green Infrastructures



Source: LinkPAs project elaboration, 2018

Fig- 10: Business opportunities for SMEs localised in PAs, by industry



Source: LinkPAs project elaboration, 2018

#### **6.4.1 The Role for NPAs in easing and supporting a further involvement of SMEs in sustainable territorial development in the regions hosting PAs networks.**

This section aims at proposing a possible role for NPAs in easing and supporting a further involvement of SMEs in sustainable territorial development in the regions characterised by the presence of PAs networks.

The research conducted so far by LinkPAs has shown that NPAs tend to influence only a set of policy sectors among the many contributing to territorial development at regional level.

The reasons driving a focused approach of NPAs to specific matters rest first and foremost on the history and mission of PAs and, to a lesser degree, on the very existence of NPAs themselves. Both PAs and NPAs mainly look for goals in the fields of nature conservation, sustainable and long-term management of natural resources. Only occasionally they delve into a few nature-dependent economic sectors (e.g. agriculture, forestry, ecotourism, etc.).

As the practice with the stakeholder regions has shown, there is still a limited commitment of NPAs to regional development issues (with few circumscribed exceptions at the project level) and a possible critical role for them in the field still is to be found. However, their vocational and legal function to protect natural resources and promote their sustainable use makes them formally qualified to be involved in sustainable territorial development.

This section aims at addressing the following questions:

1. which are the SME categories that can be addressed within NPA regions?
2. which are the policies & policy instruments that can be used to address and involve SMEs in NPA regions – particularly in SH regions?
3. given a set of policy instruments, which are the governance competencies required for their design and implementation in the regions where NPAs are found? Are these competencies available in NPAs?

Therefore, as a preliminary step, in paragraph 6.4.2 (Policy analysis) we have collected the priority policies in the LinkPAs stakeholder regions according to the case study analysis (Chapter 7); we have subsequently grouped them by policy sector in order to find which are the mostly covered policy sectors and identify a few cross-cutting policies that have been planned within the stakeholder regions.

In paragraph 6.4.3 (Relevant industries and SMEs for sustainable territorial development), we have listed those categories of SMEs which either have been addressed by policies for (or are suitable to be involved in) sustainable regional territorial development in NPA-covered regions. In paragraph 6.4.4 we have introduced the topic of the possible role of NPAs in promoting public and private investment on Green Infrastructure in Europe.

In paragraph 6.4.5 we have investigated which categories of policy instruments exist and can be used to increase SMEs involvement in sustainable territorial development.

In paragraph 6.4.6 we have analysed which governance capacities are needed to better implement the categories of policy instruments previously identified. By looking at the four models that LinkPAs identified for NPAs management (Chapter 1), we have attempted to assess which ones are more suitable for supporting respectively the design (i) and implementation (ii) of the categories of policy instruments supporting sustainable territorial operational.

In paragraph 6.4.7 we have summarised the main outcomes of this analysis and provided a brief introduction to the recommendations.

In paragraph 6.4.8, we have drawn some recommendations based on these findings, and clarified what role NPAs may play in the stakeholder regions, in cooperation with and support to other decision makers, to enhance the involvement of SMEs in a sustainable, long-term territorial development process.

## 6.4.2 Policy analysis

Different approaches to address territorial development through policies currently coexist in the stakeholder regions under scrutiny. Their level of integration depends on the governance structure of the territorial bodies of government, as highlighted by the case-study analysis (Chapter 7). Across the stakeholder regions, the sampled policies affecting PAs or NPAs only rarely have regional economic development or businesses as distinctive targets. Only few regional policies or planning instruments in the stakeholder regions clearly mention some economic sectors or industries they address – mainly tourism, forestry, agriculture, and transport. In contrast, most of those policies focus on non-economic targets, e.g. nature conservation, enhancement of ecological connectivity, protection of endangered species, pollution control.

The main policies implemented in the stakeholder regions in the 4+4 primary policy sectors identified (Chapter 4) and listed below have been gathered in Table 16 (“Biodiversity” and “Conservation benefits” have been merged since no significant differences in terms of impact of the respective policies on SMEs could be detected).

*Table 16: Policies in the LinkPAs stakeholder regions clustered by primary policy sector (including cross-cutting policies)*

| Policy sectors              | Policy description   | SH region           |
|-----------------------------|--|---------------------|
| Agriculture & forestry      | Promotion and management of agriculture and forestry   | Abruzzo             |
| Biodiversity/Conservation   | Protection of natural heritage   | Maritime Mercantour |
| Biodiversity / Conservation | Implementation of regional plans, strategies in programs in the field of natural resource management by PAs (not NPA)  | Abruzzo             |
| Biodiversity / Conservation | Natural resource management (NRM): setup of regional protected areas, coordination of the development of management plans for Natura2000 sites, integration and harmonization in regional plans of national PA's actions | Abruzzo             |

|  |   |                      |
|--|---|----------------------|
| Biodiversity / Conservation                        | Management plans for both Rila NP and Pirin NP: conservation, preservation and management of natural resources and natural heritage   | Razlog               |
| Biodiversity / Conservation                        | Municipal Development Plan for Razlog Municipality explicitly addressing environmental protection   | Razlog               |
| Biodiversity / Conservation                        | Participation in the definition of the international framework for implementation of the Protocol Nature Protection of the AC   | Alparc               |
| Biodiversity / Conservation                        | Promotion of "ecological connectivity"  | Alparc               |
| Biodiversity / Conservation                        | Key competences and experience in regional, local and international NRM   | Alparc               |
| Ecoservices  | Soil conservation and risk prevention   | Abruzzo              |
| Ecoservices  | Climate change and resilience   | Abruzzo              |
| Ecoservices  | Climate change: mitigation and adaptation   | Alparc               |
| Education  | Environmental education   | Marittime Mercantour |
| Education  | Environmental education   | Alparc               |
| Employment & Investment                            | Municipal Development Plan for Razlog Municipality explicitly addressing human well-being, stable economy   | Razlog               |
| Employment & Investment                            | Established multi-stakeholder cooperation between Local Action Group Razlog, local or non-governmental networks, SMEs, etc. and local administration in preparing proposals for additional external funding with regard to NPAs | Razlog               |
| Employment and Investment / Cross-cutting policies | Research and development, Innovation  | Alparc               |
| Tourism & recreation                               | sustainable tourism   | Abruzzo              |
| Tourism and recreation                             | Sustainable tourism also through European Economic Interest Grouping (EEIG) EUROGIN, le Alpi del mare, les Alpes de la mer not recalling SMEs   | Marittime Mercantour |
| Tourism and recreation                             | Municipal Development Plan for Razlog Municipality explicitly addressing tourism & particularly eco-tourism   | Razlog               |
| Tourism and recreation / Education                 | Municipal Development Plan for Razlog Municipality explicitly addressing preserved traditions.  | Razlog               |
| Tourism and recreation/ Conservation benefits      | Protection of cultural heritage   | Marittime Mercantour |
| Transport  | Sustainable mobility also through European Economic Interest Grouping (EEIG) EUROGIN, le Alpi del mare, les Alpes de la mer not recalling SMEs  | Marittime Mercantour |
| Cross-cutting policies                             | Co-decision role in the field of sustainable territorial planning,  | Alparc               |
| Cross-cutting policies                             | Territorial management and planning   | Marittime Mercantour |
| Cross-cutting policies                             | Participation in drafting a Ministerial Declaration on sustainable spatial development (2016)   | Alparc               |
| Cross-cutting policies                             | Good practice exchange, coordination, communication and promotion of initiatives  | Alparc               |
| Cross-cutting policies                             | Local project development.  | Alparc               |

Source: LinkPAs project elaboration, 2018

### 6.4.3 Relevant industries and SMEs for sustainable territorial development

In order to compile a list of SMEs (by industry) included in the primary policy sectors for the LinkPAs stakeholder regions (Chapter 7), we have considered the three following categories:

1. SMEs expressly targeted or referred to by the observed regional policies
2. SMEs showing a direct thematic link to the identified policy sectors (and which can therefore be included in these sectors)

SMEs showing an indirect link to the identified policy sectors through the relationship between existing regional policies and distinctive regional assets. Table 17 summarises the results that are drawn from the analysis of the policies collected in the stakeholder regions by looking at the eight primary policy sectors identified by this LinkPAs targeted analysis.

- “*Directly targeted*”: SMEs explicitly addressed by policies or measures under at least one of the identified policy sectors, according to the studies conducted in the stakeholder regions.
- “*Thematically targeted*”: SMEs showing a clear-cut, direct contextual or thematic link to at least one of the identified policy sectors in the stakeholder regions (e.g. agriculture, forestry).
- “*Indirectly targeted*”: SMEs showing a significant degree of exposure to or dependence from natural, technical or social phenomena being addressed by policies issued or planned under at least one of the policy sectors in the stakeholder regions (e.g. industries depending on the provision and quality of regional natural resources such as water, timber, etc.).

It is widely accepted that some of the assets typically stored in PAs, their distinctive ecosystems and the services which they provide to wider regions outside PAs can deliver benefits to businesses (TEEB 2012, WBCSD 2011, WRI 2012). Thus, some industries being indirectly impacted by policies for biodiversity and natural resource management (as well as for agriculture & forestry, and other policy sectors) can be identified. In order to identify the “*indirectly targeted*” SMEs or industries as defined above, we have focused on those industries: a) for which impacts (i.e. business risks and/or opportunities) that show a significant dependence on ecosystems have been identified (“red sectors” in F&C 2004, and other major sectors in TEEB 2012 and WBCSD 2011); b) whose *demand function* or *production function* depend more directly from assets and ecosystems localised in, or flowing from PAs; c) where a significant presence of SMEs is registered at national or regional level (Eurostat 2018); and d) whose presence in areas covered by NPAs can be determined.

Table 17 includes those types of SMEs (by industry) that are *directly (D)*, *thematically (T)* and *indirectly (I)* affected by regional policies under the identified policy sectors. It also summarises the main risks and opportunities identified for each *indirectly* affected industry, according to the literature in the field of ecosystem services (COWI 2010, EUROSIF 2009, F&C 2004, TEEB 2012, WBCSD 2011).

Table 17: SMEs (by industry), ecosystem-dependency and synthetic assessment of related ecosystem risks & opportunities

| Policy sector interested  | SMEs (by industry)                | Dependency | Synthetic Assessment of risks and opportunities for the industry (SME)   |
|---|-----------------------------------|------------|--|
| Biodiversity, Conservation, Tourism & Recreation                          | Construction & building materials | I          | <p>Most significant risks include: licenses to expand operations or land exploitation (legal), insecurity of supply of raw materials such as timber (operational), not well-defined relation with regulators and spatial planners, liability for environmental impacts.</p> <p>Opportunities include: the possibility to obtain licenses to expand operations for products in line with new legal standards (regulatory &amp; legal), reach new markets for sustainable materials and projects, complying to green public procurement (GPP) standards and involvement in their definition (operations and markets); developing new brands, goods/services or improving existing one (reputation), increasing sales and reaching new markets through certifications (access to markets), accessing finance from “green investment funds” or banks (finance)</p>   |
| Biodiversity, Conservation, Ecosystems                                    | Electricity                       | I          | <p>Most significant risks include: limited or no access to land or time-consuming procedures to obtain permits (legal), reputation, insecurity in supply due to ecosystem degradation or external impact such as water shortage due to climate change or lack of timber-fuel (operational), reduced access to markets and GPP due to non-compliance with supply standards (markets and operations), difficult relations with regulators (non-compliance with standards), liabilities for environmental impacts.</p> <p>Opportunities include: the possibility to access clean, flowing, cool water (power industry dependence on ecosystem services, Ess) which translates in cost reduction (e.g. cheaper transport of coal-fired plants; power resources deriving for hydropower). Significant unexploited potential can derive from new ecosystem markets (e.g. carbon sequestration, air &amp; water purification – e.g. nutrients) affecting the property value of land provisioning Ess.</p> |
| Biodiversity, Conservation, Tourism and Recreation                        | Food & Drugs Retailers            | I          | <p>Main risks include: reputation, insecurity of supply, relation with regulators (non-compliance)</p>   |
| Biodiversity, Tourism and Recreation, Agriculture & forestry              | Food producers and processors     | T/I        | <p>Main risks include: reputation, access to markets (procurement standards), insecurity of supply, relation with regulators (non-compliance), liabilities (for environmental impacts).</p> <p>Opportunities have been found in the evolution of consumers’ preferences: organic foods, traceability, ethical sourcing/fair trade, sustainability, corporate social responsibility (CSR) policies</p>  |
| Biodiversity, Tourism and Recreation, Agriculture and forestry, Transport | Forestry & Paper                  | T/I        | <p>Main risks include: access to land / permits time, access to markets (procurement standards), security of supply, relation with regulators (non-compliance).</p> <p>Opportunities include: consumers’ preference for products derived from sustainably managed forests, Forest management certification is becoming an important requirement to access the EU market.</p>   |
| Tourism and Recreation, Biodiversity, Conservation                        | Tourism (Leisure & Hotels)        | D          | <p>Main risks include: access to land / permits time, reputation, access to markets (procurement standards), security of supply.</p> <p>Opportunities include: consumer trends toward environmentally sustainable activities have positively affected the tourism sector, travel agents have realised that sustainable tourism provides an excellent market opportunity,</p>   |

|  |                    |     |  |
|--|--------------------|-----|--|
|  |                    |     | in which economic profit and respect for the environment go hand in hand. The International Ecotourism Society (TIES) has developed a worldwide network in support of “responsible travel to natural areas that conserves the environment and improves the well-being of local people” (www.ecotourism.org). Successful ecotourism companies, growing number of organisations promoting these companies.   |
| Biodiversity, Conservation, Ecosystems | Mining             | I   | Main risks include: access to land / permits time, reputation. Opportunities are: corporate water conservation practices that can reduce water footprint and costs (operational), water treatment of effluents and bringing sanitation facilities to downstream communities could reinforce relationships; promoting local reforestation and secure access to biomass in ways that reinforce business relationships with local communities and NGOs (reputational). Biomass use reduces operating costs and the carbon footprint of the mine (both).   |
| Biodiversity, Conservation, Ecosystems | Oil & Gas          | I   | Main risks include: access to land / time-consuming procedures to obtain permits, reputation, access to markets (procurement standards), relation with regulators ( <i>non-compliance</i> ), liabilities (for environmental impacts). Oil producing regions mature and yield progressively less oil, the petroleum industry is increasingly forced to explore and produce in ever more sensitive environments. In socially and environmentally sensitive areas, access to reserves can be denied, restricted, or unresolved. Where access is permitted, opposition from local communities can constrain production operations, making them costlier. Financial implications of possible restricted access of extractive companies to company reserves in ecologically important and protected areas. Opportunities differ widely (reputational /legal), e.g. for programmes for low-impact operations on NRS in partnership with NGOs or scientific institutions |
| Biodiversity, Conservation, Ecosystems | Utilities          | I   | Risks include: access to land / permits time, reputation, relation with regulators ( <i>non-compliance</i> ), liabilities (for environmental impacts). The power sector may face a range of business risks as a result of global climate change and degrading ecosystems. Capacity for major power companies located in areas that are considered to be water scarce or stressed. Overuse of water and degraded ecosystems that are less able to capture or regulate water streams can lead to water-related disruptions for power companies, which can cause load losses or outages, possibly reducing revenues and increasing costs (Sauer et al. 2010). Main opportunities rest on the ecosystem markets’ potential (e.g. carbon credits, purified water, etc.)   |
| Biodiversity, Conservation, Ecosystems | Beverages          | T/I | Risks include: access to land (springs), security of supply of inputs (water) / time-consuming procedures to obtain permits, reputation, relation with regulators, liabilities   |
| Biodiversity, Conservation, Ecosystems | Chemicals          | I   | Risks include: access and security of supply of inputs (for 108perational), reputation, relation with regulators, liabilities  |
| Biodiversity, Conservation, Ecosystems | Financial services | I   | Risks include: increased incidence of natural disasters, reputational risks, financing risk (impact on a company’s cash flows reducing its credit quality and consequently increasing the cost of accessing new finance. Major lenders are also tightening environmental requirements for access to corporate loans, particularly signatories to the Equator Principles, and   |

|   |                                    |     |  |
|---|------------------------------------|-----|--|
|   |                                    |     | <p>insurers are increasingly sensitive to risks associated with biodiversity loss and ecosystem degradation).</p> <p>Opportunities include: improved stakeholder perception, streamlined operations, enhanced ability to attract talent, and increased profit through investments in biodiversity and ecosystem services, bio-enterprise investment funds</p>  |
| Biodiversity, Conservation, Ecoservices | General retailers                  | I   | <p>Opportunities include: sustainable sourcing, discernment in choosing which items to stock, improved packaging and distribution techniques. Decreased operating costs, heightened customer loyalty and increased supply chain security</p>   |
| Biodiversity, Conservation, Ecoservices | Household Goods & Textiles         | I   | <p>Opportunities include: consumers' preference for ethically sourced, organic and fair trade fabrics, natural fibres – mainly cotton and blends – are fashionable and often preferred over man-made fibres, organic cotton has become a marketing tool for many companies, widespread demand for natural fibres in EU, use of some fibres in high-end products due to their relatively high production and raw-material costs, Sustainable leather is used in the garment and accessories industries, opportunities for this sector to engage in profitable biodiversity and ecosystem services conservation, as consumers are demanding eco-friendly small leather goods, whether they are made from recycled materials or using environmentally friendly production processes (e.g. tanning). Handicrafts: influenced by fashion trends, consumer purchasing patterns and economic conditions (Barber et al. 2006). Social and environmental values are gaining importance within this sector and a fair-trade movement is appearing in the handicrafts and decoration sector</p> |
| Biodiversity, Conservation, Ecoservices | Personal Care & Household Products | T/I | <p>Risks include: shortage of organic ingredients from biodiversity loss or limitation in access.</p> <p>Opportunities include: growing markets for natural and organic cosmetics, using fair trade to guarantee long-term supply of organic ingredients</p>   |
| Biodiversity, Conservation, Ecoservices | Pharmaceuticals & Biotech          | I   | <p>Risks include: the loss of wild genetic resources used as inputs to production.</p> <p>Opportunities include: reference to Good Agricultural and Collection Practices (GACP) for medicinal plants (WHO 2003) to guarantee the origin and consistent quality of wild products. Such practices can help ensure a stable source of raw materials and thus a more secure supply chain, reducing the risk of charges of 'bio-piracy' or inadequate benefit sharing</p>   |
| Biodiversity, Conservation, Ecoservices | Fisheries                          | T/I | <p>Opportunities include: sustainability of supply, growing number of sustainable consumers eager to consume fish without negatively impacting the environment, use of certification and eco-labelling schemes, access to new markets—both geographically and in terms of new niche markets from sustainable product categories—and retention of existing markets, price premiums for certified products, growing market for certified seafood (demand from major retailers)</p>   |

Source: LinkPAs project elaboration, 2018

The resulting list includes SMEs, by industry, being *directly (D)*, *thematically (T)* and *indirectly (I)* targeted by policies in Europe, particularly in the stakeholder regions (Table 18). Few SMEs categories are directly addressed by regional policies recalling SMEs or businesses (mainly in the tourism and transport sectors) (D), others are thematically affected by regional policies (T),



the remaining categories are indirectly affected (I). The indirect relationship (I) has been established according to the dependencies, risks and opportunities of each industry on ecosystem goods and services typically found in PAs. As expected, there is some degree of overlapping, since the same category of SMEs is often targeted simultaneously by more policies, often through different instruments.

*Table 18: List of SMEs to be addressed in NPA regions (by industry) and their dependencies*

| <b>SMEs to be addressed (by industry)</b> | <b>Dependency</b> |
|---|-------------------|
| Construction & building materials         | I                 |
| Electricity                               | I                 |
| Food & Drugs Retailers                    | I                 |
| Food producers and processors             | T/I               |
| Forestry & Paper                          | T/I               |
| Tourism (Leisure & Hotels)                | D                 |
| Mining                                    | I                 |
| Oil & Gas                                 | I                 |
| Utilities                                 | I                 |
| Beverages                                 | T/I               |
| Chemicals                                 | I                 |
| Financial services                        | I                 |
| General retailers                         | I                 |
| Household Goods & Textiles                | I                 |
| Personal Care & Household Products        | T/I               |
| Pharmaceuticals & Biotech                 | I                 |
| Fisheries                                 | T/I               |

*Source: LinkPAs project elaboration, 2018*

#### **6.4.4 Investment and finance for Green Infrastructure: supporting NPAs in mobilising public and private territorial investment**

Financial means directly earmarked to PAs are limited and managed within special financial programmes at EU, national or regional level. They are the main source of finance for NPAs and their members. Most of these financial instruments address priorities such as enhancing nature conservation, intervening to halt biodiversity loss, and protecting endangered species or assets. Most of the projects promoted within NPAs address the core-actions performed by PAs and NPAs in the field of biodiversity conservation, enhancement and nature protection. Some refer to sustainable tourism development and ecological connectivity.

Given the current conditions and the need for a change in the interpretation of the role of PAs and NPAs in territorial development across Europe, Green Infrastructure (GI) demonstrates to be the most suitable tool to steer a more concrete role of NPAs in European regional policies. According to the Commission, “GI is a successfully tested tool for providing ecological, economic and social benefits through natural solutions. It helps us to understand the value of the benefits that nature provides to human society and to mobilise investments to sustain and enhance them. It also helps avoid relying on infrastructure that is expensive to build when nature can often provide cheaper, more durable solutions” (COM/2013/0249). The concept of GI has been proposed as an integral part of spatial planning and territorial development policies as integration or alternative to classical grey solutions – in support to the implementation of the EU 2020 Biodiversity Strategy. The 2013 EU strategy on GI promotes investments in GI to restore ecosystems, ensure connection between natural areas, and allow species to thrive across their natural habitats. Healthy GIs are expected to assure that ecosystems deliver their benefits to the society. The EU provides several opportunities to support initiatives by EU countries and regions enhancing GI through funding. Structural, cohesion, maritime and fisheries, rural development funds, LIFE+, EFSI, Horizon 2020 and Nature programmes can be used to find solutions to enhance processes. GI is also financed through the Natural Capital Financing Facility, jointly managed by the European Commission and the European Investment Banks. Investments in natural capital projects which generate revenues or save costs and contribute to nature, biodiversity and climate change adaptation objectives by public and private entities, also in partnership can be covered. According to the EU Commission, EU Member States and regions need to invest more in the development of research, innovation and entrepreneurial capacity in areas such as sustainable energy, ecosystem services and eco-innovation within the Europe 2020 Strategy. Green infrastructure is also potentially valuable for private investors. It has been suggested it could be used by developers to increase land value or to protect private assets from the impact of climate change, since ecosystems provide services of carbon storage, erosion and flood control.

LinkPAs has analysed how NPAs can facilitate shared conservation and regional development goals by enhancing local assets and natural capital. NPAs goals are achieved through voluntary actions and public policy primarily found in some primary policy sectors. Specific natural and “governance” characteristics of NPAs make it possible to clarify their future role in attracting and spending financial resources. They surely hold significant competences in easing the exchange of information among their member organisations as well as in setting up effective training modules and education initiatives. These clear strengths can be exploited to share information on available sources of finance with members and other local stakeholders and play a coordination role in preparing project proposals to be financed through the financial sources mentioned above.

### 6.4.5 Survey on policy instruments for achieving involvement of SMEs in sustainable territorial development

In order to achieve a greater involvement of SMEs and the private sector in sustainable territorial development of the regions where NPAs are found, several *policy instruments* can be used. They have been described in the literature and applied in practice; they can be clustered coherently by means of the classification adopted for SMEs and associated to the three resulting groups according to their policy targets (i.e. *direct*, *thematic* and *indirect* targets).

We focus on those policy instruments commonly adopted in the field of environmental and biodiversity management (OECD 2012). Their design and implementation are likely to require some capacities of governance, which can be found in different types of organisations involved with public policy actions (including PAs and NPAs). We have tried to assess to what extent these capacities are available within NPAs – and on the basis of the analysis of the four governance models identified in LinkPAs (see Chapter 2). The analysis has been developed by numbering the eleven criteria used to define the four NPA governance types (Table 19)

Table 19: Criteria used to determine NPA governance categories (numbered)

| Categories  | #  | Criteria   |
|---|----|--|
| Relationship between PAs within a network                           | 1  | Existence of a shared action plan or programme identifying priorities and actions to be taken by/under NPA           |
|   | 2  | Existence of a continuous coordination of the PAs activities   |
| Relationship between NPAs and the related institutional framework   | 3  | Existence of a formal strategic/institutional agreement as a basis for NPA   |
|   | 4  | Existence of cooperation with other NPAs   |
|   | 5  | Funds (from any source) earmarked to NPAs management or activities   |
|   | 6  | NPA's formal participation in institutional decision-making processes at the EU / Transnational/National/Local level |
|   | 7  | NPA holds decision-making capacity on behalf of PAs  |
| Relationship between PAs and the other actors involved              | 8  | NPA involves PAs as well as institutions   |
|   | 9  | NPA involves PAs as well as other stakeholders   |
| Specificity of NPA aims and activities in terms of themes and scope | 10 | NPA applies to a geographical specific area  |
|   | 11 | NPA focuses on topics shared by the member PAs   |

Source: LinkPAs project elaboration, 2018

Policy instruments can be analysed based on their scope and targets. In a regional analysis, the scope of their application is a relevant variable since it determines the outreach of policies and their focus on specific components of a well-defined environment. The targets of policy instruments can be analysed according to their capacity to address SMEs, wider thematic domains, or specific phenomena or objects (e.g. resources, asset, etc.)

Concerning their scope, the policy instruments that we have considered refer to the “external business environment” of the different categories of SMEs identified above, i.e. the environment

that influences SMEs' decisions and strategies (Worthington & Britton 2009). Particularly, we focus on policy instruments that more directly address SMEs operating in PAs or in their surroundings and thus experiencing a special business environment, where a primary role is played by assets and resources mostly found in PAs that can be termed a "PA business environment".

Table 20: Categories of policy instruments in the EU and their relationship to SMEs policy targets (direct, thematic, indirect) and policy sectors

| Relationship to SMEs      | Policy instruments   | Relevant examples in EU   | Description  | Targeted policy sectors  | Targeted SMEs (by industry) in NPAs   |
|---------------------------|--|---|--|--|---|
| Directly targeted (D)     | Subsidies, funding, labelling and certification, voluntary agreements, permits and quotas, etc.                                  | Small Business Act (SBA) for EU (2008), Entrepreneurship 2020 Action Plan (2013), Guidebooks on support to SME policy from structural funds (regional level), etc.  | Directly aim at promoting and enhancing SMEs and entrepreneurship with no strict link to territorial policies or characteristics. Promote a business-friendly environment for existing small and medium-sized enterprises (SMEs) and potential entrepreneurs at different territorial levels, including the regional one.  | Agriculture & forestry<br>Employment and Investment<br>Tourism & recreation<br>Transport       | Tourism (Leisure & Hotels)  |
| Thematically targeted (T) | Agricultural and other subsidies, CAP and rural development funds, infrastructure, promotional instruments, labels, quotas, etc. | EU Biodiversity Strategy (2011), Strategic framework – Education & Training 2020, CAP and rural development, Communication "Europe, the world's No. 1 tourist destination", EU employment package (2012), EU climate policy, EU CC adaptation strategy and plan | Address thematic issues, full or parts of policy sectors and can target SMEs or industries under policy sectors. They usually pursue broader aims than entrepreneurship or SMEs that appear as instrumental to the achievement of sectoral policy targets. They refer to sectors where SMEs conduct their business operations.   | Agriculture & forestry<br>Biodiversity / Conservation<br>Ecoservices<br>Cross-cutting policies | Food producers and processors<br>Forestry & Paper<br>Beverages<br>Personal Care & Household Products<br>Fisheries   |
| Indirectly targeted (I)   | Zoning, spatial planning regulations, PES, prohibitions on use, permits and quotas, etc.   | EU biodiversity strategy (2011), Business-Biodiversity, Green Infrastructure  | Address policy sectors, assets or other aspects not immediately linked to SMEs and economic territorial development. However, they can support phenomena that indirectly contribute to sustainable territorial development, for instance by easing access to or allowing innovative uses of regional resources, or providing benefits to SMEs through the provision of high quality assets or services, often flowing from specific ecosystem (i.e. ecosystem services). | Biodiversity/<br>Conservation<br>Ecoservices<br>Education                                      | Construction & building materials<br>Electricity<br>Food & Drugs<br>Retailers<br>Mining<br>Oil & Gas<br>Utilities<br>Chemicals<br>Financial services<br>General retailers<br>Household Goods & Textiles<br>Pharmaceuticals & Biotech<br>Food producers and processors<br>Forestry & Paper<br>Beverages<br>Personal Care & Household Products<br>Fisheries |

Source: LinkPAs project elaboration, 2018

Concerning their targets, policy instruments can be clustered coherently under the categories adopted for SMEs in section 5.1 (see Table 14) and associated to the three resulting groups according to their policy targets (i.e. *direct*, *thematic* and *indirect* targets). Table 20 includes some types of policy instruments for each group, as well as few practical examples from the experience within the EU, and a brief description.

Directly targeted policies include regulatory (permits and quotas, etc.), economic (subsidies, funding), as well as information instruments (labelling and certification, voluntary agreements). Thematically targeted instruments include regulatory (zoning, protected areas, limitations on use), economic (Agricultural and other subsidies, CAP and rural development funds) and information (promotional tools, labels, etc.) tools. Finally, indirectly targeted policies include also instruments from the three mentioned categories. The policies aim to make the benefits from Ess and PAs visible to SMEs as well as encourage investors and entrepreneurs to choose PAs or their immediate surroundings as suitable business locations. To this purpose, some policies (or policy instruments) can be deployed for specific industries, as summarised in Table 20.

The policy instruments that can be used to reduce biodiversity loss and promote sustainable use of natural resources can be grouped under three broad categories (cf. the examples in Table 21):

1. regulatory instruments: directly setting standards of behaviour,
2. economic instruments: changing incentives to favour particular kinds of behaviours,
3. information & other instruments: typically aiming to overcome information & coordination problems (OECD 2012).

Table 21: Examples of policy instruments (by category)

| <b>Regulatory instruments</b>   | <b>Economic instruments</b>  | <b>Information &amp; other instruments</b>  |
|---|--|---|
| Restrictions or prohibitions on use<br>Access restrictions & protected areas<br>Permits & quotas<br>Spatial planning & Planning requirements<br>Standards | Taxes & charges<br>New subsidies & Subsidy reform<br>Payment for Environmental Services (PES)<br>Offsets<br>Tradable permits | Liability instruments, fines & bonds<br>Labelling and certification<br>Green public procurement (GPP)<br>Voluntary agreements<br>Corporate accounting |

Source: LinkPAs project elaboration, 2018

Therefore, we have detected a wide array of instruments that can be used to enhance SMEs participation in sustainable territorial development across Europe (cf. Table 5). Some have already been set by the EU and deployed for different purposes ranging from direct support to SMEs, enhancing thematic policies (from agriculture, to biodiversity and conservation purposes, to sustainable transportation, etc.), supporting phenomena which indirectly contribute to sustainable territorial development.

The third category of instruments indirectly targeting SMEs is particularly important to a study on NPAs, since the policy instruments it gathers target assets classically stored in PAs or in their surrounding areas (e.g. buffer zones, or the ecological network at large). The policies they aim to implement include: protection, sustainable use of resources, enhancement of ecosystems and their services, green infrastructure and territorial resilience.

The analysis performed by LinkPAs in the stakeholder regions has shown that all NPAs hold distinctive capacities in the field of natural resource, biodiversity and ecosystem management, ecological connectivity, nature protection and the closer economic activities (e.g. green tourism, organic agriculture, sustainable forest management, etc.).

The literature and practice across PAs have shown that: ecosystem degradation has a material impact on companies; new emerging business opportunities are linked to restoring and sustainably managing ecosystems; communities, NGOs, customers, consumers and shareholders are becoming increasingly conscious of the interrelationship between business operations and the state of ecosystems. This existing regulatory and legal context requires that companies minimize and mitigate their ecosystem impacts; moreover, there is an increasing demand for compensating any damages that companies may have caused (WBCSD 2011, Hanson et al. 2012). Consequently, policy instruments addressing issues like biodiversity loss and sustainable use of natural resources are expected to become crucial in supporting business operations and the economic success of particular categories of SMEs.

The recalled scientific and operational background of PAs and NPAs on biodiversity, NRM and nature-based economic activities can thus be exploited in support of SMEs mobilization and continued growth in the regions hosting NPAs.

The next step is therefore to investigate how the wide range of policy instruments available for the three mentioned purposes, and particularly those addressing biodiversity and natural resources, can be effectively supported through the distinctive governance competencies of NPAs at the regional level.

#### **6.4.6 The Role of NPAs in policy design and implementation of sustainable territorial development**

Table 21 shows that a range of policy instruments are available for involving SMEs in territorial development. Most of them do not openly consider PAs or NPAs as suitable players for their definition or implementation and do not establish any direct connection to such organisations. As a consequence, the role played by NPAs is limited to few occurrences, especially under the categories of *directly* and *thematically* targeted policy instruments.

However, there is a fair amount of awareness on the following aspects concerning European NPAs:

1. they hold distinctive *competences* in fields such as biodiversity and natural resource management, sustainable and eco-friendly tourism, landscape protection, environmental education and training, scientific activities on-site, and others;

2. alternative governance models of NPAs exist and show distinctive *capacities of governance* that can be assessed against a set of standard criteria, as the typology constructed for alternative governance models of NPAs (Chapter 2) demonstrates;
3. albeit indirectly and at different levels, some of the sampled NPAs in the stakeholder regions already participate in policy design and implementation (cf. Chapter 7).

Drawing on this information, we can suggest that the governance needs relating to the three categories of policy instruments in Table 22 (demand) can be matched to those identified for alternative governance models (supply). This needs to be done in order to formulate a few possible recommendations for integrating NPAs in sustainable territorial development, with special reference to the involvement of SMEs. Table 7 reports on the governance models for NPAs and their distinctive competencies, as also described in the typology in Chapter 1. On the basis of our analysis of the “governance capacities” of alternative NPA governance models, the policy instruments listed above have been matched to a set of capacities typically found in NPAs and according to the model typology.

We have assumed the following distribution of governance criteria in terms of demand and supply:

- 1) demand: a category of policy instruments is assumed to express a need of governance criteria that ease their design and implementation;
- 2) supply: each governance model is assumed to present a combination of governance criteria.

The governance criteria used for the purpose of this study are those (11) that have been used for the categorization of models of governance of NPAs in Chapter 2, namely:

- 1) Existence of a shared action plan or programme identifying priorities and actions to be taken by/under NPA
- 2) Existence of continuous coordination of PA activities
- 3) Existence of a strategic/institutional agreement as political framework for NPA
- 4) Existence of cooperation with other NPAs
- 5) Funds (from any source) earmarked for NPA management or activities
- 6) NPA's formal participation in institutional decision-making processes at the EU/Transnational/National/Local level
- 7) The NPA holds decision-making capacity on behalf of PAs
- 8) The NPA involves PAs as well as government institutions
- 9) The NPA involves PAs as well as other stakeholders
- 10) The NPA applies to a geographical specific area
- 11) The NPA focuses on topics shared by the member PAs

Governance needs and endowments are assigned a score equal to 1 if they are fully comply with the category of policy instrument under scrutiny; conversely their score is equal to 0.5 if they are only partly relevant to the instrument considered.

Table 22: Governance needs for design and implementation of policy instruments and NPA governance capacities for governance models

| 1  | 2  | 3  | 4  | 5  |
|--|--|--|--|--|
| <b>Category of policy instruments</b>  | <b>Non-Standardised governance needs for managing policy instruments</b>   | <b>Standardised governance needs, by suitable criteria</b> ( <i>in brackets: less significant criteria, weighted 0.5 instead of 1 if present in governance needs and NPA model</i> ) | <b>NPA models with higher presence of suitable governance criteria for policy design</b> | <b>NPA models with higher presence of suitable governance criteria for policy implementation</b> |
| Regulatory instruments (command & control)   | <ul style="list-style-type: none"> <li>- assuring compliance</li> <li>- assuring enforcement of rules</li> <li>- effective PA management and financing</li> <li>- effective monitoring on enforcement</li> <li>- knowledge on local communities and issues</li> <li>- know-how on stakeholder consultations</li> </ul>   | <b>Design:</b><br>2, 6, 8, 9, 10<br><br><b>Implementation:</b><br>1, 2, 3, 5, 6, 7, 8, 10  | <u>Model 3: 100%</u><br>Model 2: 67%<br>Model 4: 50%<br>Model 1 :33%                     | <u>Model 3: 100%</u><br>Model 4: 75%<br>Model 2: 67%<br>Model 1 :67%                             |
| Economic instruments   | <ul style="list-style-type: none"> <li>- mechanisms for sharing knowledge</li> <li>- information on resource endowment</li> <li>- information on tax bases (potential)</li> <li>- shared database for environmental, ecosystem and assets information</li> </ul>   | <b>Design:</b><br>1, 2, 6, (7), 8, 9, (10)<br><br><b>Implementation:</b><br>1, 2, 3, 5, 6, 7, 10   | <u>Model 2: 83%</u><br>Model 1: 42%<br>Model 4: 38%<br>Model 3: 25%                      | <u>Model 3: 100%</u><br>Model 1: 67%<br>Model 2: 67%<br>Model 4: 50%                             |
| Information  | <ul style="list-style-type: none"> <li>- shared database for environmental, ecosystem and assets information</li> <li>- available knowledge on green consumerism / green marketing</li> <li>- availability of good institutional relationships (vertical governance e.g. for GPP)</li> <li>- availability of good business relationships (horizontal governance)</li> <li>- knowledge and management on tradeoffs</li> </ul> | <b>Design:</b><br>1, 6, 8, 9, (11)<br><br><b>Implementation:</b><br>2, 5, 6, 7, 8, 9   | <u>Model 2: 67%</u><br>Model 4: 38%<br>Model 1: 33%<br>Model 3: 25%                      | <u>Model 4: 50%</u><br>Model 3: 50%<br>Model 2: 33%<br>Model 1: 33%                              |
| <i>Criteria in the governance models:<br/>           Model 1: 1, 3, 4,5, 6, 10; Model 2: 1, 8, 10; Model 3: 1, 2, 7, 10; Model 4: 5, 8, 10, 11</i> |  |  |  |  |

Source: LinkPAs project elaboration, 2018

The combination of criteria deemed necessary for the design or implementation of a category of policy instruments is reported in column 3.

The matching between criteria demanded by categories of policy instruments and offered by governance models can be expressed as a percentage, which indicates to what extent a governance model is suitable for designing or implementing a category of policy instruments.

The results are reported in columns 4 and 5, which provides a ranking of governance models based on their estimated capacity to meet the needs for the design and implementation of each



category of policy instruments; the underlined model in the ranking is also the most suitable for a category it refers to.

The relative ability of alternative existing models of NPAs to manage specific policy instruments can thus be evaluated according to the two dimensions reported in Table 22 (column 3) and better defined below:

1. *participation in policy design*: support to the creation and fine-tuning of policy instruments suitable to address issues included in or attributable to at least one of the identified policy sectors;
2. *role in policy implementation*: functions and activities supporting or enacting the territorial implementation of policy instruments included or attributable to the identified policy sectors.

As a consequence, some models seem more suitable than others to address one of the purposes recalled above, while others can be thought as being able to ideally address both. The conclusions concerning this assessment have been included in the recommendations offered below.

#### **6.4.7 Summary of main outcomes of the analysis and introduction to recommendations**

We have acknowledged that NPAs and their members hold special knowledge and expertise in their core-business of managing biodiversity, natural resources and the economic activities, which are more strictly linked to a limited number of SMEs categories. Moreover, NPAs actions seem to influence a limited set of policy sectors, within which NPAs have been somehow playing a role (ranging from environmental education to transport).

We have also recognised that NPAs have special governance capacities that have been analysed and summarised according to four types of NPA governance models.

We have also detected that some SME categories can be associated to the policy sectors on which NPAs exert some influence. Different categories of SMEs show a dependency from the policies enacted within given policy sectors; these policies have been defined as direct, thematic or indirect.

We have found that policy makers can make use of a range of policy instruments to address SMEs directly, thematically and indirectly. However, until recently, PAs and NPAs have played a minor role and shown small interest in contributing to designing or implementing territorial policies dealing with themes other than biodiversity and natural resource management, or directly linked economic activities. This is likely to happen mainly because of lack of institutional capacities and significant decision-making power; however, there is also some unexploited potential for NPAs, which could profitably focus on regional territorial development.

In order to investigate the potential of NPAs action in terms of regional governance, we have asked ourselves whether the underlying reason for this lack of pro-active involvement was due to an inadequate matching between the governance capacities demanded for the design and implementation of policy instruments, and the governance capacities NPAs can offer. We have

therefore aimed to better understand why NPAs still display a limited involvement in sustainable territorial development at regional level across Europe. Thus, we have attempted to determine what types of competences are needed and available within NPAs according to the governance models that have been defined for this targeted analysis. We have found that different models may be suitable for designing accurate policy instruments, or in the implementation of these instruments and their related policies.

#### **6.4.8 Recommendations on integrating NPAs in sustainable territorial development at regional level**

In order to propose some recommendations on the integration of NPAs in sustainable territorial development at regional level, it is necessary to consider the main findings of the analysis performed so far across the whole project.

Drawing on the findings of this targeted analysis, it is recommended that:

- it should be borne in mind that many policies and policy instruments can be found at different levels across the EU, ranging from international to the local government, and they have been conceived to address SMEs and enhance their growth (Table 20). If the objective is to foster an increased involvement of NPAs in policies supporting SMEs and their localisation within PAs and their surroundings, it is advisable to conduct a detailed review of the policies and policy instruments that can both support SMEs and refer (directly, thematically, or indirectly) to the policy sectors that NPAs have an impact on (Tables 20 and 12). The resulting list of policy instruments could be managed by organisations –such as NPAs- that already have experience on the scope and targets of these policies and have already shown they can impact on the policy sectors to which the policy instruments belong. NPAs have clearly demonstrated to have a distinctive comparative advantage in terms of knowledge and expertise when dealing with sectors that are more directly connected to biodiversity and natural resource management and nature-based economic activities. NPAs competences on these topics are highly specialised and competitive. Therefore, those SME categories that mainly depend on specific assets, ecosystems and their services can significantly benefit from the support of NPAs and their members to identify ecosystem risks and opportunities, make safe investment choices and adopt a consistent and useful value proposition for their products. Therefore, it is advisable to clearly identify the interested SME categories, assess their regional presence and relevance and involve experts from NPAs in the design and/or implementation of policy instruments addressing the business dimension of biodiversity and sustainable use of natural resources (Table 22), including spatial planning, subsidies, PES schemes, GPP and others.
- Within the EU, NPAs have shown limited decision-making capacities and can only indirectly participate in policy making, since competences rest on territorial public administrations at national and municipal level. However, some NPAs that are particularly active at international level as official observers or members of EU working

groups (e.g. Alparc) have demonstrated the knowledge-based potential in shaping decision-making processes. A greater involvement of NPAs in the design of decision making processes and policy instruments (as consultative bodies, formal members of working groups, observers) and in the implementation of policies and policy instruments (as implementing, controlling or policing bodies) is therefore advisable. As for supporting a major involvement of SMEs and the mobilisation of finance, a greater involvement of NPAs could be particularly welcome when designing and implementing those policy instruments that require a good deal of knowledge and a well-coordinated exchange of information that are collected by PAs.

- The analysis of the demand of competences for three clusters of policy instruments (i.e. regulatory, economic, information and other) has shown that some NPAs governance models display greater coherence in terms of NPAs governance capacities and governance needs associated to each policy instrument for its design and implementation. Such preliminary finding would need to be further investigated to establish in more specific terms the governance needs and capacities defined above. In any case, it is advisable to find the appropriate institutional approach to involve at first the NPAs more seemingly in line with the more suitable governance models for the design and implementation of the three categories of policy instruments discussed here. In particular, it seems worth supporting: a greater involvement of NPAs under governance model 3 in both designing and implementing regulatory instruments; a greater involvement of governance model 2 in designing model 3 to implement economic instruments; and using model 2 to design model 4 so as to implement information and other instruments.
- One significant outcome of this targeted analysis is the need for capacity building in NPAs that can help them match the governance needs and fill in the current gap in governance competences. Hence, first and foremost, it seems worth focusing on promoting training and professional education to improve capacity building with those NPAs that are seemingly more fit to support the development and growth of SMEs at regional level. Other NPAs could better serve many other purposes and could specialise at achieving targets different from sustainable territorial development.

NPAs only occasionally participate in decisions resulting in any mobilisation of finance at regional level. They do not hold any specific competence on financial matters. However, they hold significant competences in subjects covered by EU policies, especially on Green Infrastructures. Consequently, NPAs can participate in creating enabling conditions for private investment in environmentally sensitive areas, by sharing their knowledge on potential business risks and opportunities from biodiversity and ecosystem services with or within competent boards, working groups, decision making structures and public administrations at all levels. Hence, it is advisable to increase the participation of NPAs and their representatives within these institutional contexts and especially when Green Infrastructures are to be addressed

## **7 Case studies methodological approach**

### **Background and key objective**

The ESPON LINKPAs project has investigated four different case studies (i.e. Abruzzo Region, European Park Alpi Marittime Mercantour, ALPARC territory, Razlog Municipality) with the following objectives:

- Demonstrate good and innovative mechanisms of territorial governance within protected areas and their surroundings
- Identify cooperative options for integrating protected areas into sectoral and regional policies

The case studies are based on different typologies and structures of mountain networks of protected areas. Their analysis allowed to determine their influence and impact on territorial development and derive recommendations for actions and policies to improve natural resource management and sustainable development in mountain areas.

### **Specific considerations**

The individual case studies intend to stress the role that NPAs can have at different levels, spanning from the international to the local level. Due to the diversity of the case studies under investigation, and in consideration of several factors including the different cultural and legal contexts within which they are embedded, an homogenous categorisation has proved impossible to achieve. Nonetheless, the approach used here have demonstrated to be as appropriate and satisfactory as possible.

### **Selected approach**

The selected methodology is based on the IUCN approach to assess the governance of systems of NPAs (IUCN Governance Guideline<sup>20</sup>). It has been used to identify relevant actors and governance systems. Therefore, the working matrices developed by IUCN to support the analysis of networks of protected areas in the proposed case studies have adequately served this purpose. Subsequently, a review of sector policies and regional planning documents has been carried out to supplement the analysis of the stakeholder territories.

In order to better understand their point of view, territorial stakeholders have been interviewed on the basis of a semi-structured questionnaire. The most relevant results of these interviews have been integrated into the analysis of the individual stakeholder territories.

### **Structure and process**

The case studies are based on in-depth desktop research as well as interviews with key stakeholders from protected areas and related stakeholders and policy makers. Each LinkPAs

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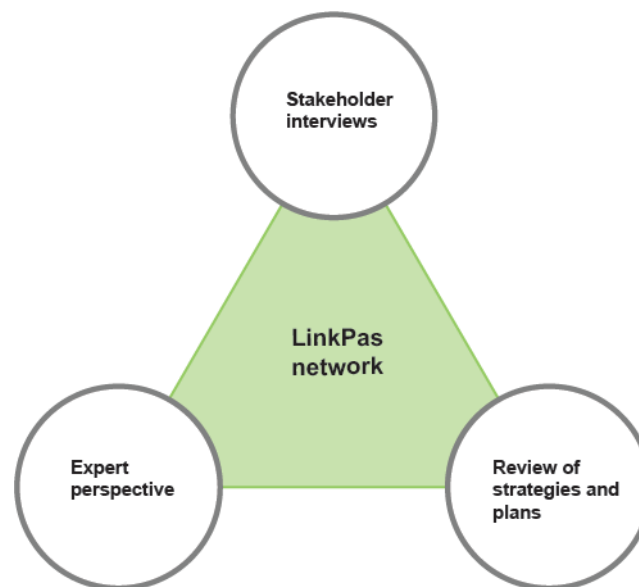
<sup>20</sup> <https://portals.iucn.org/library/sites/library/files/documents/PAG-020.pdf>

partner has been in charge of carrying out their face-to-face interviews so as to ensure maximum participation and data retrieval. Phone interviews have also been carried out when it has been deemed necessary.

The case studies analysis have been a crucial part of the investigation process as they form the basis upon which a typology of NPA governance structures can be developed, as well as proposing concrete policy recommendations and actions at local level.

To explore economic connections between protected areas and protected area networks, the LinkPAs team have referred to previous experiences and existing methodologies (Fig. 11) (cf. Jungmeier et al. 2005).

*Fig. 11: Elements of case studies methodology adopted*



*Source: LinkPAs project adaptation on Jungmeier et al. 2005*

The investigation of the case studies included the following steps:

**Desktop research data:**

- Collection of basic data on the NPA and PAs within the stakeholder territories
- Classification of protected areas within the stakeholder territories according to objectives and categories
- Collection and analysis of spatially relevant reports, plans, strategy documents
- Identification of territorial stakeholders relevant to protected area networks
- Identification of main formal processes as a result of the above
- Typologies of networks (with regard to objectives and governance)

### **Field data collection phase**

- Semi-structured interviews with key stakeholders within the NPA based on specific questions addressing the territorial role and impact of the NPA and the relations between the NPA and its stakeholder territory (Annex 4)
- Collection of concrete projects and programmes to identify concrete contributions of the NPAs on territorial and economic development

### **Analysis phase**

- Identification of key sectors and policies influenced by the NPAs
- Definition of the role of the NPAs in territorial development
- Proposing of actions and recommendations for stakeholder territories
- Comparative analysis of case studies to answer questions and elaborate policy recommendations

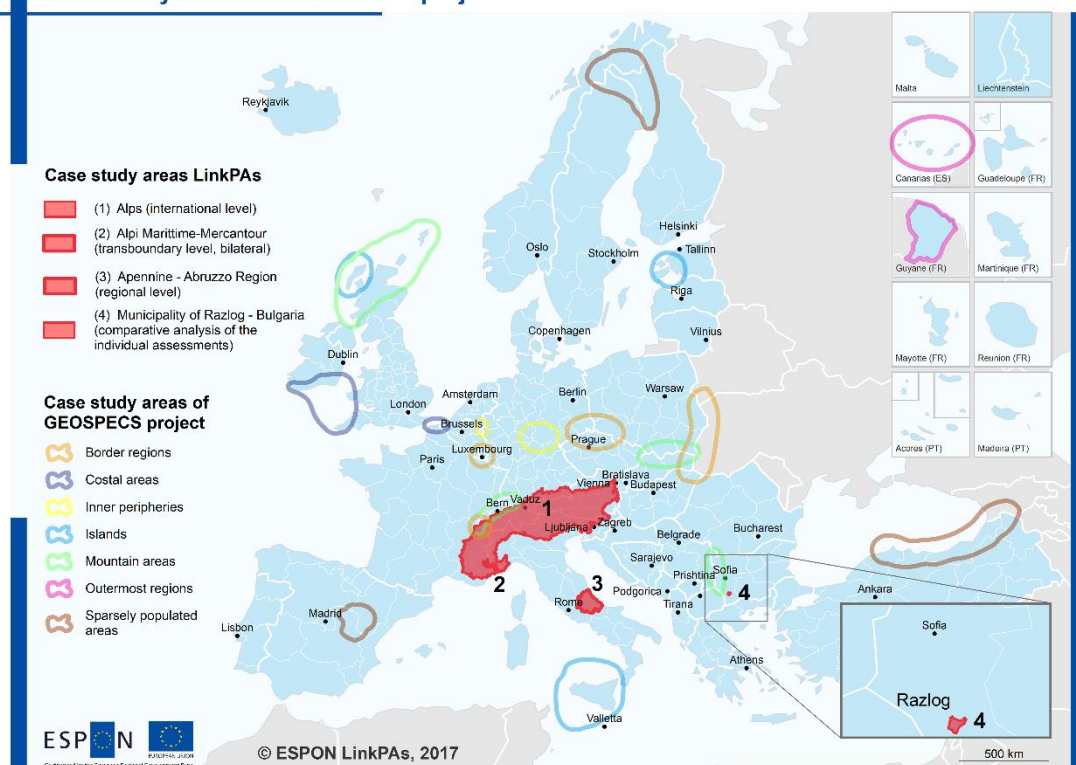
Furthermore, spatial data has been collected to supplement the generally available datasets focusing on map of territorial units (i.e. political boundaries, protected areas, settlements), zoning of individual PAs (where available) and other regional, spatially explicit maps (e.g. spatial planning, land cover, biodiversity hotspots regional strategies defining priority areas for certain uses such as tourism, land-use plans etc.).

## **7.1 Results of the case study territories**

The following section provides a comprehensive description of the NPAs located in the stakeholder territories, their role, their current situation; it also provides an overview on relevant policies and their link to the NPAs. Subsequently, the concrete contributions of the NPAs to strategy and policy development, as well to the implementation of territorial policies leading to concrete territorial impact, will be highlighted. Drawing on the case studies analysis reported above, the results that have been obtained are compared against the typologies of the NPAs developed within this LinkPAs project to identify opportunities and recommendations for NPAs in general and the stakeholder territories in particular (Map 11)

Map 91: Case study in the LinkPAs project

### Case study areas in the LinkPAs project

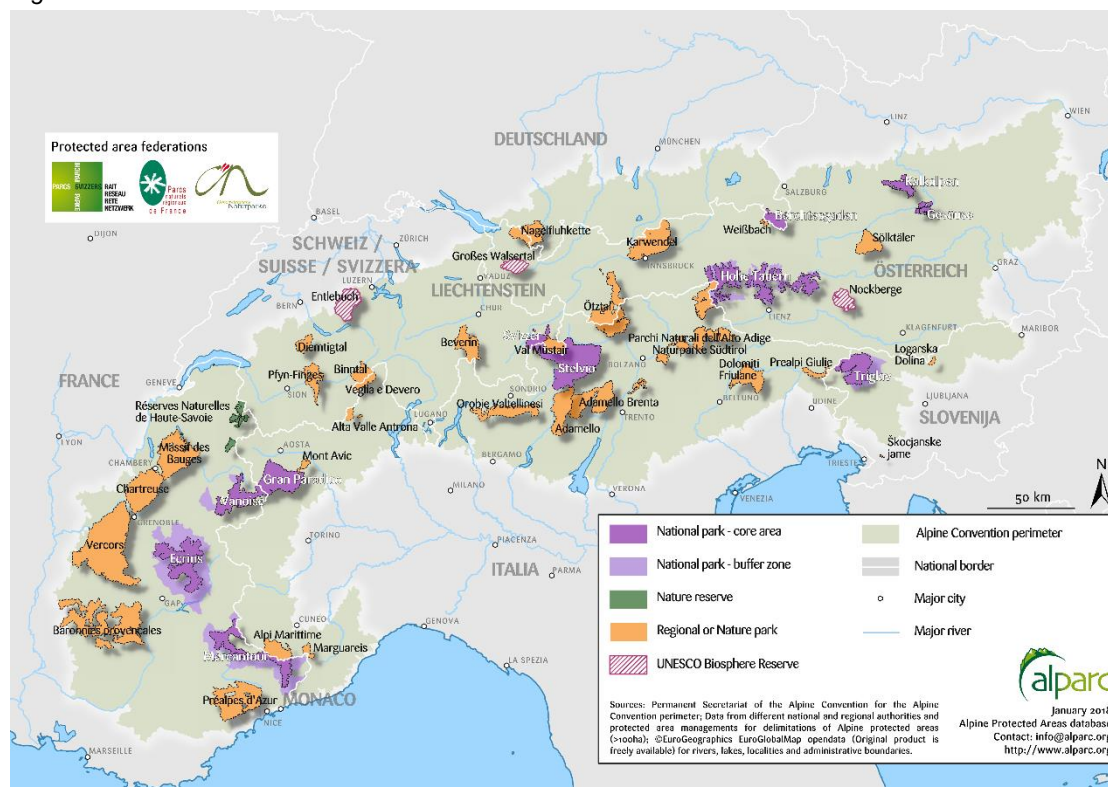


Source: LinkPAs project elaboration, 2017

## 7.2 The transnational level: ALPARC

Stretching approximately 1,200 kilometres across eight Alpine countries (Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland), the Alps represent the highest and most extensive mountain range system in Europe. The Alpine Network of Protected Areas brings together more than one hundred protected areas that can be subsumed under different categories. More than 1000 PAs over 100 ha (13 National Parks, almost 100 natural regional parks, almost 400 nature reserves, more than 500 PAs with a special status, 11 geoparks and 5 World Heritage sites) are found in the Alps; however, the statutes referring to different categories of PAs often overlap so that the same physical territory may be included in the same or more than a single category of PA (e.g. the same area can be both a regional park and a geopark).

Fig. 12: PAs in ALPARC



Source: Provided to LinkPAs project by “Alpine network of protected areas ALPARC”

### 7.2.1 Governance and role of the ALPARC NPA

ALPARC is both an implementation tool of the Alpine Convention (AC) and a platform for the cooperation and exchange of experiences for Alpine PAs. The Permanent Secretariat of the AC and ALPARC consolidated their collaboration in 2013 with a Memorandum of Cooperation.

The organization of ALPARC comprises a General Assembly (all members); a Council (PA managers) to define the general directions of ALPARC, a President and two Vice-Presidents representing the Council and ALPARC, a Coordination Unit for managing projects and an elected Board of five members, namely: the President, two Vice-Presidents, the Treasurer and the Secretary General.

Its strategic priorities are set in its internal strategic documents: ALPARC strategy 2016 – 2021, ALPARC vision, Action Plan, Activity programme 2016 – 2021 and the ALPARC Political demands.

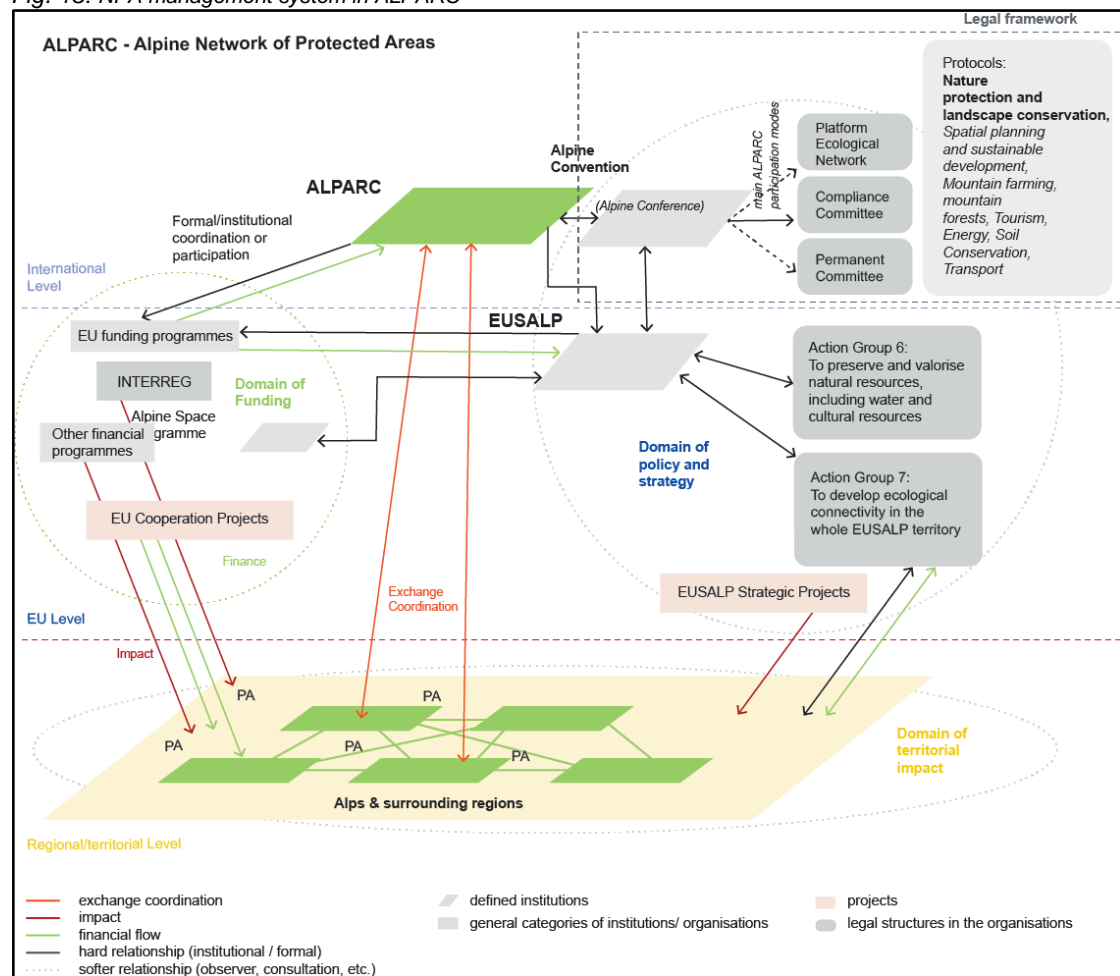
The three main goals of ALPARC have been identified as follows: 1) Contributing to the implementation of the Alpine Convention; 2) implementing concrete projects on the ground together with PAs and their partners, especially in the fields of biodiversity and ecological connectivity, regional innovation and sustainable development and contributing to environmental education in a broad sense; 3) Lobbying for PAs in the Alps, by supporting and representing them at international level, by elaborating EU projects with PAs and ensuring



communication on PAs and the goals of AC and EUSALP. Collecting funds is to be seen as an essential approach for effectively achieving these goals.

This NPA is involved in the territorial development of the Alpine Region along the three dimensions recalled above. Fig. 13 shows the three domains that have been used for its international comparison with the other NPAs analysed in this study, which are respectively: (1) the domain of funding, (2) the domain of policy/strategy and (3) the domain of territorial development.

Fig. 13: NPA management system in ALPARC



Source: LinkPAs project elaboration, 2018

The fact that ALPARC has an institutionalized role in the implementation of the AC allows for the organisation to be involved in numerous strategy development processes within the Alpine territory. ALPARC has engaged in the EUSALP process for 2 years, mainly as part of the Action Group 7, which focuses on developing ecological connectivity and strength, improving and restoring biodiversity and enhance ecosystem services. This framework also serves to develop strategic projects. ALPARC regularly participates in the institutional activities of the Alpine Convention and its organisations (e.g. Alpine Conference and Permanent Committee,

Compliance Committee) as an official observer. It also participates in thematic Working Groups and Platforms, especially the Platform on Ecological Connectivity.

The NPA fosters a continuous exchange of know-how between Alpine PAs and their managers. In addition, it participates in strategic projects aiming to improve the efficiency of nature protection, sustainable land use and development in the Alps. All these projects include effective actions to be developed locally and within Alpine PAs. The PAs are test-sites for some project activities and sometimes participate actively as partners and with their own budget.

### **7.2.2 Concrete contributions to territorial development and implementation strategies**

ALPARC contributes to the development and implementation of territorial development strategies in the stakeholder territories, concentrating its activities across four “strategic lines of action” that emerge from an analysis of the strategic and planning documents:

- **Promoting ecological connectivity in the Alps, particularly by inking PAs**
- **Sustainable regional development and quality of life**
- **Communication, international mountain environmental education and training**
- **Sharing experience in PAs management**

For each line of action, concrete activities have been carried out on the territory involving PAs and other stakeholders. Moreover, some lobbying activities have taken place in institutional contexts to support some of the priorities of this NPA and its members, which have also been based on the outcomes of international projects.

#### **Promoting ecological connectivity in the Alps**

I i) the “Ecological continuum initiative” aimed to create or restore ecological connectivity between important areas for nature conservation (pAs and non-pAs). Launched by ALPARC, it is developed in partnership with the International Commission for the Protection of the Alps (CIPRA) and the International Scientific Committee for Alpine Research (ISCAR)<sup>21</sup>. The resulting territorial evidence includes the following main achievements:

- Support in establishing the Ecological Network Platform of the Alpine Convention (AC)
- Support in establishing the “Large Carnivores” Working Group of the AC
- Development of the ECONNECT ([www.econnectproject.eu/](http://www.econnectproject.eu/)), GreenAlps (<http://www.greenalps-project.eu/>) and ALPBIONET2030 (<http://www.alpine-space.eu/projects/alpbionet2030/en/home>) project under the Alpine Space Programme (ASP)<sup>21</sup>

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<sup>21</sup> Cf. both the GreenAlps and ALPBIONET2030 projects, in which ALPARC acts as a lead partner

ii) the Alpine Convention Ecological Network Platform (Econet) (2007), set up by AC, aims to create an Alpine cross-boundary spatial network of PAs and connect their resources with the support of experts, policy makers and stakeholders. The territorial and policy evidence delivered by Econet includes the following achievements:

- Designation of 10 Pilot Regions of the AC for Ecological Connectivity / Econet
- Participation in the “Green Infrastructure and Restoration” Working Group of the European Commission (EC)

iii) EUSALP Action Group (AG) 7 (see box below)

- v) Territorial Cooperation and other thematic projects, involving Alpine PAs as study-sites or partners, have been promoted and developed by ALPARC, providing territorial evidence of the work done by this NPA (e.g. ASP Alpbionet 2030, ASP Econnect, ASP Green Alps).

*Box 4: Example of best practice: Involvement in strategic working groups and the EUSALP Action Group*

ALPARC provides its long-existing experience on ecological connectivity by actively participating in AG7 and lobbying for a recognition of the thematic results achieved in the Alpine Region and AC. ALPARC representatives took part in the four AG7 meetings organised so far and other major EUSALP events. AG7 aims at setting up a comprehensive macro-regional scheme by applying the EU Strategy for Green Infrastructure (GI) at regional level within the Alps.

*Source: LinkPAs project elaboration, 2018*

### **Sustainable regional development and quality of life**

In this context, ALPARC activities are quite recent; in general, they have aimed at testing and spreading models for development of peripheral Regions hosting PAs, built on endogenous natural & cultural assets, and focused on new social trends (e.g. health and quality of life, “slow” movement, green economy). This goal is sought through the development of specific projects, such as:

- WeWild, aimed at elaborating a joint communication strategy and awareness-raising tools to reduce the impact of winter sport practitioners on wildlife in the Alps; it sought the involvement of PAs, Alpine clubs, environmental NGOs, regional governments and outdoor companies.
- Alpine Green Economy Board and workshops: ALPARC contributed by proposing a section of the 6<sup>th</sup> Report on the State of the Alps of the AC (Greening the economy in the Alps) on the link between Green Economy and ecological connectivity; this section also included some preliminary policy recommendations.
- The Future of PAs in the Alp: Political Demands: according to this document, PAs are recognised as “delivering vital environmental, social and economic benefits” to societies

and worth considering as “an integral part of our economies, territorial development and human well-being”. This is the starting point for a lobbying action aimed at the “compensation of the PAs ecosystem services” from which the economy derives benefits.

*Box 5: Example of best practice: the Innovalps Project*

**The Innovalps Project** focused on innovative approaches to regional development based on the experiences stemming from the pilot-sites (PAs) of the members of ALPARC. Territorial evidence of the positive impact of ALPARC is confirmed by the examination of the following pilot sites: Nature park Pfyn-Finges, Switzerland; Nature park Tiroler Lech, Austria; Regional Nature Park of the Baronnies provençales, France.

*Source: LinkPAs project elaboration, 2018*

### **Communication, international mountain environmental education and training**

Communication and networking for advanced environmental education across all the Alpine countries is a primary objective for ALPARC. This activity has shown a remarkable territorial impact since it has involved large groups of citizens, practitioners and PA managers across all the Alps and included many initiatives, often including international partners. Some of these activities are summarised below:

Resources and communication campaigns for all PAs in the network: online portal ([www.ALPARC.org](http://www.ALPARC.org)), documentation, travelling exhibitions (Mythical Mountains, return of wilderness, information displays), standard communication resources for the general public (postcards, flyers, etc.), ViViAlp – The Alps from the air (virtual tour of alpine PAs); Coordination of 35 Visitor Centres within Alpine PAs across all the Alpine countries; educational activities such as “Youth at the top”, which has been running since 2015, help to bring together young people from all the Alpine countries into protected areas (<https://www.youth-at-the-top.org/en/>)

### **Sharing experience in management of PAs**

ALPARC promotes and acts as a *platform for sharing experience* on governance and know-how at different levels, seeking to involve all stakeholders. In general, a further transnational value of knowledge exchanges rests in the multilingual communication approach ALPARC follows. Two categories of tasks can be identified, thus bringing territorial evidence into effective NPA action:

Sharing of knowledge, experience and know-how among PA managers and directors in the Alps, looking for the harmonization of management methods with a large involvement of PAs across all the Alps, as well as other stakeholders. Evidence is provided by long-standing cooperation, symposia, workshops and similar events that regularly take place within the PAs found across the Alps.

Cooperation with other networks, partnerships in and outside the Alps on different topics:

collaborations with other networks and institutions in and outside the Alpine Region (e.g. Alpine Alliance Network of Municipalities, International Scientific Council for Alpine Research (ISCAR)). Transregional cooperation appears particularly active with the Carpathian region. Territorial evidence of this action is provided by the initiative mentioned below.

*Alpine-Carpathian Partnership for NPA management:* it is a long-term cooperation (started in 2002) between PAs in the Alps & the Carpathians where the ALPARC governance model was shared and adjusted to suit the creation of the Carpathian Network of Protected Areas (CNPA). Joint activities and exchange meetings were organized to facilitate the sharing of the NPA governance model.

The contributions of ALPARC can be summarised according to the following key types of intervention:

**Projects and initiatives.** Since its foundation, ALPARC has performed numerous actions having either direct or indirect effects on the Alpine region. Direct territorial effects are linked to the implementation of projects and tangible initiatives addressing the above-mentioned topics.

**Lobbying & networking.** Indirect territorial effects are related to activities whose outcomes can be perceived at a later stage. They are mainly linked to lobbying, networking within and outside the Alpine territory and the participation in institutional decision-making processes, which address the following issue:

**Experience and knowledge sharing.** The transfer of experiences related to PA management and governance is a strategic objective. It is operationalized by supporting initiatives seeking the stakeholders' involvement (e.g. Alpine PA managers) and cooperation projects involving other territorial networks.

In sum, the ALPARC network pursues policy objectives targeting very specific sectors encompassing primarily the conservation of biodiversity and the provision of conservation benefits; however it also addresses other sectors such as regional economic development (investment), cultural ecosystem services including health or tourism and recreation, as well as topics related to ecological connectivity such as transport, an important sector within the Alpine region. Education is the main topic tackled by almost all NPAs.

The ALPARC economic impact on the areas it include is mostly indirect, due to its organizational set-up, but this NPA is most likely to have a significant impact on other regions, as it can influence planning and strategy processes.

### **7.2.3 Opportunities and challenges**

ALPARC can be included in Model 1 because it established in the framework of agreements or conventions with a wider perspective.

#### **Challenges**

As ALPARC is mainly working at a transnational strategic level, its direct impact on territorial planning is limited or rather indirect.

The performed analysis has also indicated a scattered and non-continuous dialogue with the business sector in the Alpine region, both at NPA and single PAs level; in addition, there is not a formal strategy either addressing businesses in general or attempting to meet SMEs' expectations. Only few projects developed by ALPARC or some member PAs envisage the participation of local companies mainly in the tourist (e.g. European Charter for Sustainable Tourism) and organic food sectors.

Activities linked to “business networking” and “investment” are limited. A rough stakeholder analysis reveals that the stakeholder groups commonly targeted by ALPARC activities are: PA managers, schools, scientists, National, EU and International Institutions and Policy Makers. Less regular exchanges have been made mainly through specific projects with farmers, Park communities & Local Action Groups, SMEs and micro-enterprises (in specific case studies).

### Opportunities

ALPARC clearly qualifies as an institutionalized and recognized network with a clear mandate and governing body, officers and staff. ALPARC's impact on the international level, especially regarding its core-business “ecological connectivity”, has increased significantly through lobbying and efforts to influence strategic decision-making on transnational level as a provider of expertise.

Its unique position to reliably act on at least four different levels (local, regional, EU, Alpine) exchanging with bodies holding skills in other sectors allows to bring PA managers to participate in decision making and position them as implementing bodies for wider territorial policies.

A questionnaire distributed amongst ALPARC partners (N=13) underpins the important role of the network in terms of good practice exchange, coordination, communication and promotion of initiatives, environmental education, local project development. Their key-competences include NRM, R&D, education and climate change.

Table 23: Opportunities and Challenges for ALPARC in Model 1

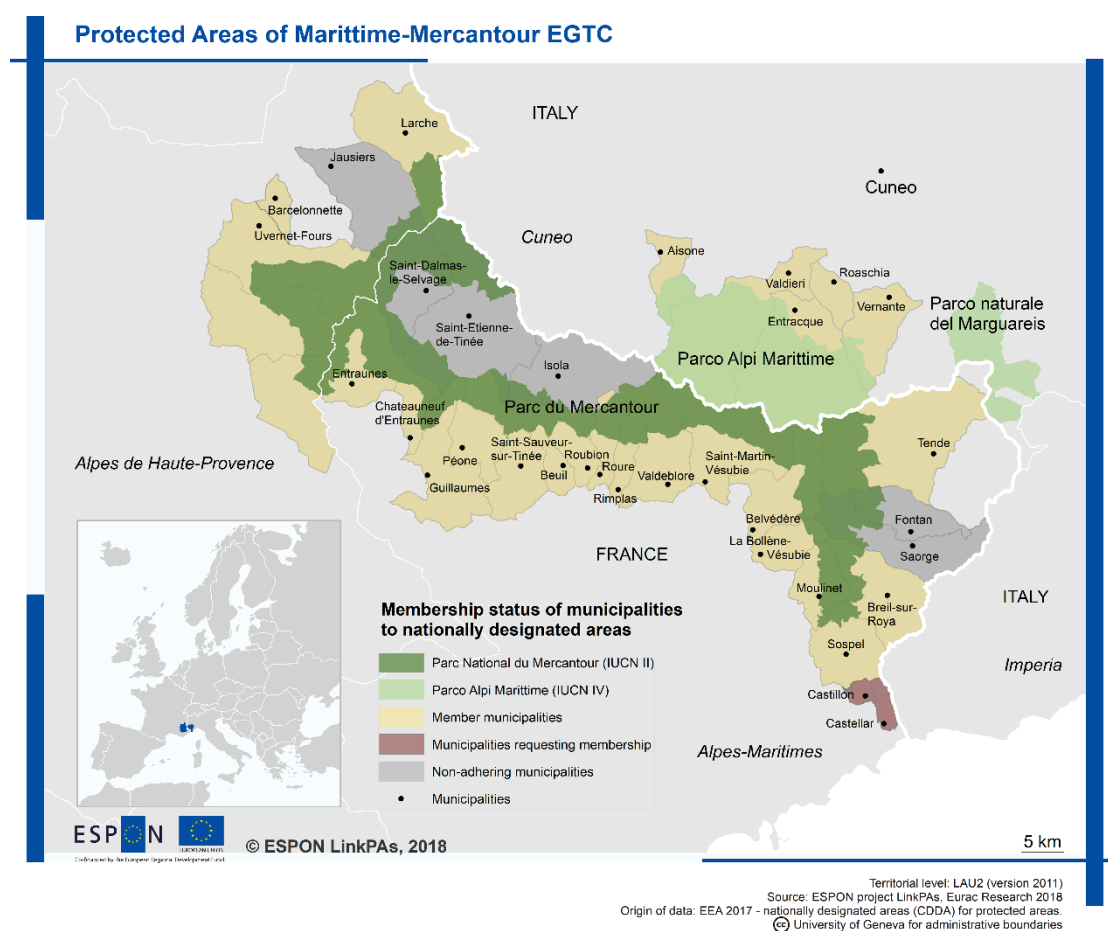
| NPA models  | Criteria combination (cluster)  | Opportunities  | Challenges   |
|---|---|--|--|
| MODEL 1-- NPAs established in the framework of agreements or conventions with a wider perspective | Existence of a strategic/ institutional agreement as political framework for the NPA. Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA. The NPA: applies to a geographically specific area; participates in institutional decision-making processes at the EU/Transnational/National/ Local level; involves PAs and territorial authorities. Existence of specific funds – external, public or private, EU, national or regional-- supporting NPA activities. | The existence of an institutional agreement within which the network is established enhances its ability to contribute to the pinpointing of territorial strategies for the related geographical area; The NPA: is able to enforce policies for the protection of biodiversity in and outside the PA area and foster the strengthening of ecological networks; it promotes the exchange of experiences between PAs, which increases the effectiveness of PA actions; it promotes connections between PAs to strengthen partnerships – applicable to some of PAs within the network-- on common themes and projects. The NPA can mobilize additional resources for PAs. | Enhancing the involvement of local populations in the policy processes of the individual PAs. Depending on the extension of the area involved, this may or may not be advisable; Improving the possibility of influencing directly the activation of economic processes on a local scale while maintaining its links to broader strategies; Encouraging partnerships among PAs to implement pilot projects; developing innovative tools and agreements |

Source: LinkPAs project elaboration, 2018

### 7.3 The transboundary level: The Alpi Maritime-Mercantour Park

The Mercantour National Park (FR) and the Alpi Maritime Natural Park are bordering areas between France and Italy (Map 12). They joined forces to establish a network of protected areas that currently covers 96,500 ha (respectively 68,500 ha in France and 28,000 ha in Italy). Since the Parco Alpi Maritime and the Parc national du Mercantour share a 35 km border, their cooperation allows to protect an area that extends over 100,000 hectares, including mountains such as Gelàs, Argentera and Mercantour. This area features many protected areas that are linked together by networks that operate at different levels. However, the Alpi-Maritime Mercantour European park is the only one that manages to connect and coordinate all these areas into

Map 102: Protected Areas of Alpi Maritime-- Mercantour



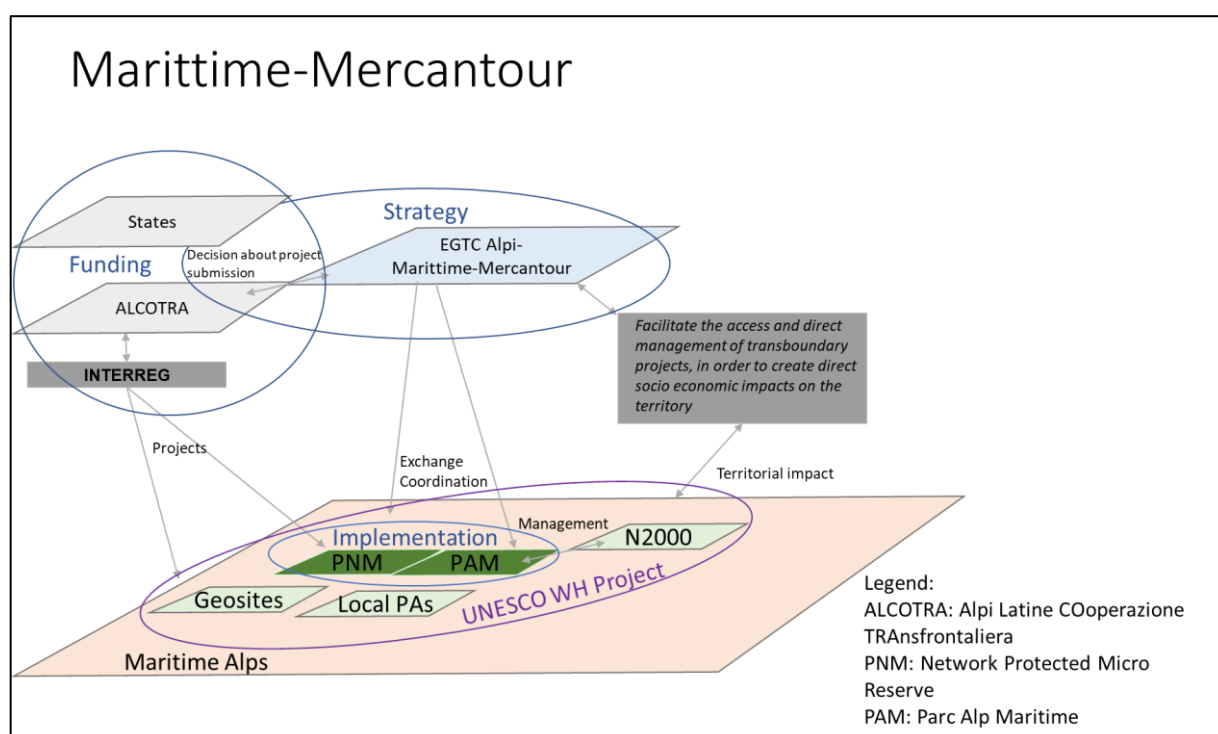
Source: LinkPAs project elaboration, 2018

#### 7.3.1 Governance and role of the EGTC NPA

Sharing a common natural and cultural heritage in adjacent territories, this informal partnership was originally motivated by the need for a joint management of the wildlife in this area. However, it has more recently developed into a shared vision of sustainable development with a new juridical structure. As a result, the European Grouping of Territorial Cooperation (EGTC) was

formed. Through the EGTC, the Alpi Marittime-Mercantour network has established a joint strategy for the harmonization of policies in the field of nature conservation and sustainable development for both territories. The EGTC currently is the most advanced transboundary European PA Network strategy. It has decision-making power for the politics directly related to the NPA defined in the legal document. It links the PA directors and local politics in the decisions of the transboundary actions of the NPA. Even though national territorial decisions stay within the responsibility of the individual park, all transboundary decisions are taken by the EGTC.

Fig. 14: NPA management system in Alpi Maritime Mercantour



Source: LinkPAs project elaboration, 2018

The network chart of EGTC underpins the clear focus on implementation of a jointly developed strategy within a predefined territorial unit. The fact that EGTC is closely linked with ALCOTRA/INTERREG equips the area with an appropriate funding instrument having a specific focus on the transboundary question.

In comparison to other NPAs, the Alpi Marittime-Mercantour is rather basic in structure because there are only two PAs having almost same level and objectives. Its uncomplicated organizations also depends on the fact that the EGTC is the reference point that allows the whole network to work.

In future, the connections with other PAs included in the UNESCO project (even if inscription should fail) should be strengthened. These connections could be supported by means of the EEIG EUROCIN “Alpi del mare”.



### **7.3.2 Concrete contributions to territorial development and implementation strategies**

The clear structure and focused key documents allow for a very focused work and role of the EGTC. These documents include the Charter of the National Park, the Action Plan for the “Alpi Marittime-Mercantour”, the Twinning Charter and the Alpi Marittime-Mercantour Integrated Transboundary Plan. They clearly define the tasks, responsibilities and scope of the EGTC.

The EGTC contributes to enhancing and implementing territorial development strategies by focusing its activities on six strategic goals, as defined in the Alpi Marittime-Mercantour Integrated Transboundary Plan:

- Increasing cultural knowledge
- Increasing natural knowledge
- Territory management and planning
- Education on environment and sustainable development
- Sustainable Tourism
- Sustainable mobility

Given the clear focus of the EGTC, the sectors this NPA impacts on are also very focused, reflecting the strategic goals of the ITP: Biodiversity conservation, conservation benefits, agriculture and forestry, tourism development, education and sustainable mobility.

Cooperation with municipalities. One of the key effects of the transboundary networking is that it can help solving existing tensions between PAs and administrative bodies. When the Mercantour NP was established, some municipalities thought that it was the cause of some economic loss. This attitude led to frequent opposition against the Mercantour NP projects. However, the transboundary politics of the network were perceived with great interest and, after seeing its positive impact, it led to a stronger cooperation between the municipalities and the Mercantour NP.

Reaching management goals. Inspired by the inputs and stronger development focus of the Italian counterpart, the French National Park reinforced its role in the Region becoming an “Aire d’Adhesion” meaning that municipalities can subscribe to the Chart of National Parks. This approach changed the relationship between park and territory, leading to an improved integrated territorial management of the area. On the one hand, the Alpi Marittime (Italian) Natural regional park followed the example of the Mercantour (French) national park regarding its firm conservation objectives and integrated these aspect in its managing approach. The EGTC combines these two core objectives (i.e. biological conservation and sustainable development) in its strategy. This resulted in the homogenization of Natura 2000 management plans and a joint development strategy for Geosites.

Increase funding opportunities & visibility. The transboundary network helped to gain access to the FEDER ALCOTRA financial funding (ERDF/Interreg), a main funding instrument. It has also

increased the visibility of the NPA in terms of territorial marketing in the ecotourism sector (see box below).

Success factors and potential extension. The success factor of the EGTC is that it is both a juridical entity and a transboundary efficient decision-making entity, thus making it one of the few institutions that can coordinate transboundary territorial development. Thanks to their joint effort to become included in the UNESCO World Heritage List, and in light of the results achieved in terms of landscape planning and ecotourism, the Alpi del Mediterraneo-- Alpes de la Méditerranée have become a source of inspiration to other protected areas and municipalities, which have asked to join their network. The network managed to evolve from being a network purely focused on nature conservation into a platform devoted to regional development.

*Box 6: Example of best practice: FEDER ALCOTRA Funding instrument*

The transboundary network helped to gain access to the FEDER ALCOTRA financial funding (ERDF/Interreg), a main funding instrument. It is the key tool to implement applied projects for biological conservation and sustainable development within their territories, targeting transboundary ecosystem restoration, transboundary tourism infrastructures, joint environmental education activities, a transboundary tourism strategy and transboundary networks of tourism actors. Since 1991, 27 ALCOTRA projects have obtained 18.5 Mio. € to carry out transboundary projects.

*Source: LinkPAs project elaboration, 2018*

*Box 7: Example of best practice: Sustainable tourism development initiative*

One of the main common objectives of the Alpi Marittime-Mercantour Protected Areas Network is tourism management, in particular transboundary tourism management. Therefore, in order to achieve this general objective, they sought to validate the European Chart of sustainable tourism. The Alpi Marittime-Mercantour GECT has been applied to an INTERREG ALCOTRA projects (worth €821 089,04) named "I parchi naturali delle Alpi meridionali si impegnano per "ecoturismo". The project has made it possible to offer ecotourism-based activities throughout the territory, thus expanding the work already carried out under the "Transboundary Integrated Plan". In addition, it increased cross-border networking among operators (see shared education, participation in tourist fairs), thus improving the visibility of cross-border territories. As part of this project, the European Chart of sustainable tourism was validated for the 2017-2022 period.

*Source: LinkPAs project elaboration, 2018*

Interviews with French and Italian park stakeholders and mayors of French and Italian municipalities of the territory indicate that the network based on Alpi Marittime Nature Park and

Mercantour National Park is perceived as a great opportunity for the Italo-French Maritime Alps mountain territory. It is a transboundary cooperation between territory actors on which territory actors and parks stakeholders can rely to propose projects related to the preservation of the environment and sustainable territorial development. Stakeholders are keen to share their territory. The person in charge for the implementation of transboundary projects within Mercantour administration has also confirmed this by stating the following comments about the purpose of this partnership: “[stakeholders are really developing a] feeling of membership in the transboundary territory to promote the implementation of joint projects in the areas of competence of parks”. The European park is therefore an advantage for municipalities in terms of territorial management.

According to the mayor of Saint-Martin-Vesubie, being included in the UNESCO’s World Heritage List (WHL), beyond achieving international recognition, would bring: “very significant touristic benefits and additional environmental protection both for the two parks, especially for the endemic flora and fauna”. It would “put this mountain territory under the spotlight”. This view was also supported by the retired vice director of the Mercantour NP. That said, it is the high profile of the European Park, and the efficiency of the EGTC framework, that facilitated its application to the WHL. At local and European level, the Alpi Marittime-Mercantour NPA defines itself as one of the main institutions able to support transboundary projects.

On the basis of these interviews, it was possible to outline some challenges and opportunities.

### 7.3.3 Opportunities and challenges

Alpi Marittime – Mercantour is included in Model 3 of governance. It works for the management of specific physiographic units sharing action plan or programme identifying priorities and actions to be taken by/under the network.

Table 24: Opportunities and challenges for Alpi Marittime-- Mercantour

| NPA models   | Criteria combination (cluster)   | Opportunities  | Challenges   |
|--|--|--|--|
| MODEL 3--<br>Territorial networks:<br>NPAs for the management of specific physiographic units.<br><br>ETGC | Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA<br>The NPA applies to a geographically specific area<br>The NPA has decision-making power in substitution of or on behalf of PAs<br>Existence of a continuous coordination of PA activities | The NPA is in a specific geographical, ecological, landscape area; this fosters the development of common strategies and projects for biodiversity management that are generally more effective than those that can be implemented by single PAs; Possibility of making use of well-known tools for the management of specific areas; The NPA can involve local populations, since it stresses the importance of the identity of such a specific area; Facing common issues with a shared programme allows for a more efficient utilization of available resources; The stable collaboration between PAs enhances their ability in proposing and/or taking part in projects and therefore the possibility of access to additional funds. | Strengthening the role of the NPA in developing wider territorial policies<br>Strengthening the NPA’s role as a model for other similar territories;<br>Improving the ability to involve the private sector and stimulate innovation as a basis to foster SMEs’ activities |

Source: LinkPAs project elaboration, 2018

## Challenges

Competing institutions – local rights – regional standards. The analysis shows a certain degree of ambivalence in the mayors' attitude towards the network. On the one hand, they want to be part of a transboundary European project; on the other hand, they fear that this project gives city residents the impression that their existing rights will be cancelled (e.g. freedom to pick mushrooms and plants, cutting firewood, at no charge), perhaps leading to hampering development. Thus, some mayors seem to work to further their own individual priorities, considering twinning with others as secondary aspect. This factor prevents them from using this EGTC as a tool to enact joint efforts and collaboration to get the necessary aid. By contrast, there are other mayors who give more credit to the EGCT as a territorial opportunity.

Clearly defined territory & common standards & power relations. As for the Italian end of the NPA, the consistency of cross-border projects is sometimes weakened by a territory that is not well defined, one which can also be described as "scattered". Indeed, the fragmentation of protected areas (e.g. the NP network in the Cuneo Province is made up of two large nature parks and very small, scattered PAs) does not allow for a systematic collaboration among stakeholders.

## Opportunities

Link between economic and ecological network. The EGTC has proven to be the appropriate tool for managing this transboundary protected area network. As a matter of fact, the Alpi Marittime-Mercantour was first based on simple collaboration, which later led to the creation of a real European Park. By now, it has become a point of reference in terms of transboundary management of biodiversity and natural resources. Whereas the protected areas have built a network by means of an EGTC, the main economic actors have built their own network with a European Economic Interest Grouping (EEIG): "EUROCIN, le Alpi del mare, les Alpes de la mer". This EEIG does not particularly focus on SMEs or the green economy. However, they have already managed to encourage a certain degree of mobility and sustainable tourism. Establishing fruitful links between the EGTC and the EEIG is highly advocated, as this could assist in improving the NPA's long-term, sustainable economic management.

"Political weight of the network": The two parks are distinct entities that share a common mission, meaning the protection of the environment. This protected area network seeks to create a model to improve governance, one in which transboundary projects are fully integrated.

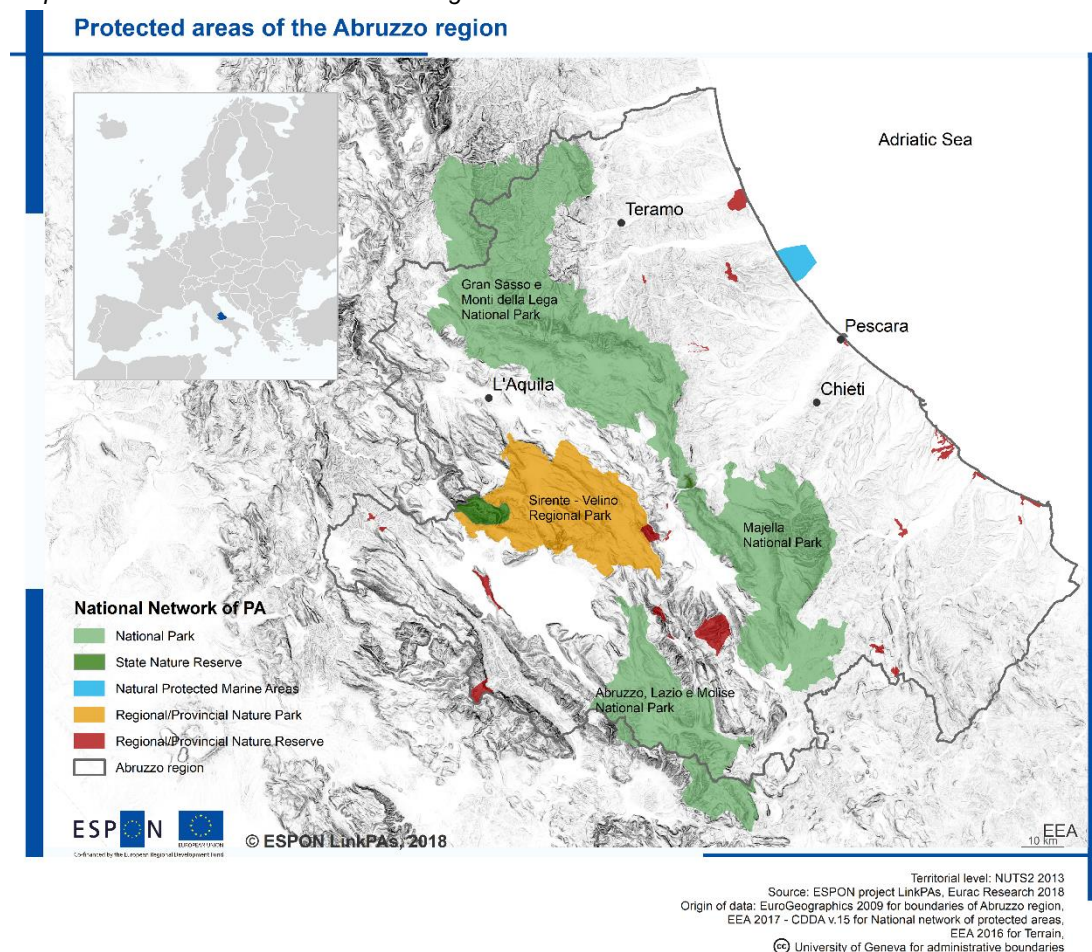
The EGTC Alpi Marittime-Mercantour allows for the organization of **multi-stakeholder meetings**, in which the different actors can express their ideas and meet their French or Italian colleagues. Since the network can rely on widespread support at the local level, it also has an enormous potential for supporting effectively the **management** of the region. The high profile of the European Park and the efficiency of the EGTC framework have encouraged the managers to apply for the listing of this park as one of the **UNESCO World Heritage** sites. Being listed as a World Heritage site would surely enhance the Park's international status, attracting tourism and improving its environmental protection.

## 7.4 The regional level: Abruzzo Region

The Abruzzo-Apennines area features the highest peaks within the Italian Apennines. Abruzzo is a Region of central Italy stretching from the centre of the Apennines to the Adriatic Sea, and it is characterized by extensive mountainous areas. The Apennines stretch from the north to the south of Italy. Apart from the Alpine Regions in the north and the islands, all the Italian Regions are somehow linked to the Apennine system (Map 13).

Although a network of protected areas has not been established to date, the parks scattered across the Apennines are all coordinated by the Italian Federation of Parks and Nature Reserves. Abruzzo has managed to successfully combine the protection of its natural heritage and much of its landscape with a thriving socio-economic development. With a third of its territory set aside as park, the Region not only holds a cultural and civil record for protection of the environment, but also stands out as the biggest nature area in Europe.

Map 113: Protected Areas of Abruzzo Region



Source: LinkPAs project elaboration, 2018

Territorial policies and strategies of the Apennine Regions are all dealing with mountain-related issues. The main challenges are the conservation and valorisation of cultural and natural resources, demographic trends, increasing the offer of general services including the

implementation of the digital agenda, accessibility and risk prevention. There are high expectations towards (N)PAs to support the implementation of these strategies as they encompass one third of the territory.

#### **7.4.1 Governance and role of the NPAs**

Abruzzo has a complex system of PAs where two different institutional networks coexist. First, the national network of PAs (FEDERPARCHI) coordinates the national parks and national reserves of Abruzzo. It comprises the Ministry for the Environment as legal authority, the managing bodies of the protected areas and the regional offices of the national policy for biodiversity in charge of the management of the national reserves. Second, a regional network of PAs established by a regional law includes the regional park and some smaller reserves. The Natura 2000 is part of the regional ecological network of PAs. It is an instrument fostering the dialogue between national and regional management bodies. Abruzzo Region works on ensuring the coherence between the objectives of its regional policies and the management of PAs and its related networks. However, an overarching coordinating body for all protected area categories in Abruzzo is not in place yet. This is a challenging issue since the FEDERPARCHI network's priorities and objectives are defined at national level. To improve the coordination between the two institutionalised NPAs and the regional administration and to jointly develop joint priorities for addressing natural capital management and territorial strategies in Abruzzo, a new framework law on PA management to define a shared decision-making process is currently discussed.

Furthermore, several other ecological or protected area networks are active within Abruzzo. However, these networks are considered sub-networks to the two main networks mentioned above.

Natura 2000 Ecological network. Abruzzo Region has established a Natura 2000 regional network. There are 58 Natura2000 sites (53 Special Areas of Conservation – SACs and 5 Special Protection Areas – SPAs). Natura2000 sites are managed by 58 different bodies including the Region, municipalities, parks, consortiums. Many of these sites are inside regional and national parks.

Regional Reserve Network. In 1986 the Region of Abruzzo established 17 regional natural reserves of particular ecological value.

Coastal and Marine Protected Areas Network-- RAMCA. The territory of the Abruzzo Region has 9 coastal and marine protected areas (Regional protected areas) and six Natura 2000 sites forming this ecological network. They are managed by the region.

Istituto abruzzese per le aree protette – IAPP. The Institute for Protected Areas of Abruzzo is a no-profit organization founded in 2008 to:

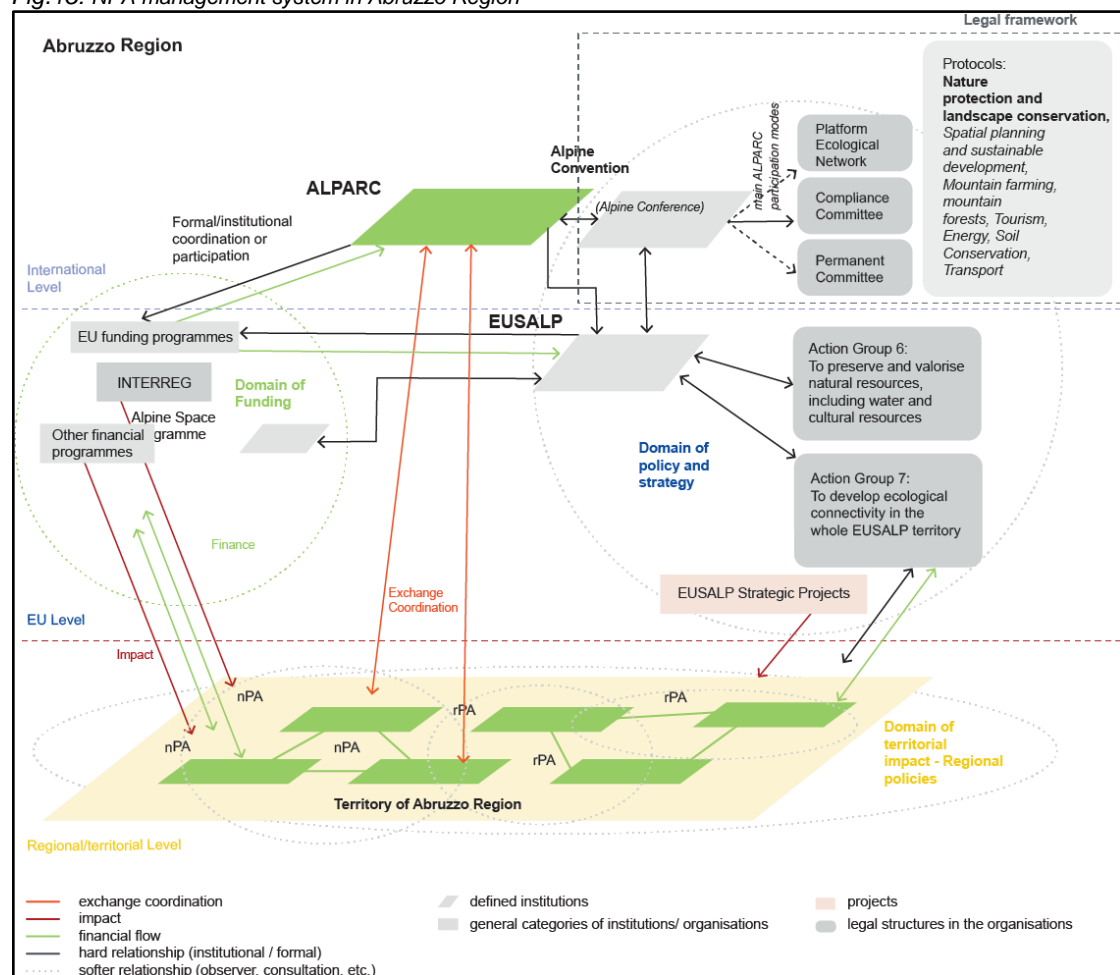
- manage the regional nature reserves and promote all the activities related to the management of natural protected areas
- promote the active participation of citizens in the management of protected areas.

## The role of the network in territorial development

The two main actors of the network, Abruzzo Region (regional protected areas) and the Italian Ministry of Environment (national protected areas), have developed regional or national strategies and funding instruments to meet their respective objectives. This means that the protected areas are also the implementers of the corresponding strategies and receive funding to carry out their tasks. The municipalities are in charge of managing some of the regional protected areas.

Whereas ALPARC and EGTC have specific EU funding instruments (INTERREG), the network of protected areas in Abruzzo has no direct or specific links with EU funding instruments, even though some other instruments are available. Fig. 12 clearly shows that the decision-making process takes place at either regional or national level thanks to informal exchanges occurring among the local protected areas.

Fig. 15: NPA management system in Abruzzo Region



Source: LinkPAs project elaboration, 2018

The territory of Abruzzo is included in the area covered by the EU Strategy for the Adriatic and Ionian Region (EUSAIR). Regions and other territorial stakeholders can contribute to and benefit from strategic projects developed under EUSAIR. The national protected areas (NPAs) in the Abruzzo Region are coordinated, managed and funded directly by the Ministry for the



Environment (IMELS). The Region and the Ministry cooperate and prepare proposals for conservation measures targeting Natura2000 sites and the Regional Landscape Plan. There is cooperation between IMELS and the Abruzzo Region, although such cooperation is not structured and only limited to specific actions. A new governance framework would enhance the coordination among all PAs, including Natura2000 sites, and improve the management of natural resources. This framework would also help to achieve the EU objectives set by the EU Biodiversity Strategy 2020 and the EU Green Infrastructure Strategy. The managing body of the network of regional protected areas (RPAs) is the Region itself. The management of some of the RPAs is delegated to the related municipalities.

*Box 8: Example of best practice: Regional Adaptation Strategy*

The Abruzzo Region approved the Regional Adaptation Strategy and the creation of the Adaptation Plan to tackle climate change is currently under way. This strategic document is based on the Adaptation Plan (PACC, 2015) and identifies “Forests, biodiversity and protected areas” as its main objectives. This strategy seeks to support a joint action involving PAs (under national and regional networks) sharing the common goal of improving the resilience of the territory. PAs are also involved in communication campaigns for climate change adaptation and could serve as the pilot areas where the testing of climate change mitigation measures is carried out at the local level, thus improving the maintenance of biodiversity and habitats.

*Source: LinkPAs project elaboration, 2018*

*Box 9: Example of best practice: Regional Tourism Plan (RTP, 2017-2019)*

The Regional Tourism Plan (RTP, 2017-2019) and its strategical document identify actions seeking to increase the competitiveness of Abruzzo’s tourist system. Its rich biodiversity, the many species and habitats, wilderness and quality of landscapes are the main resources for the promotion of tourism in Abruzzo. PAs are the key actors in the implementation of RTP, maintaining and improving the management of their resources (natural and cultural heritage) and the efficiency and quality of the services they offer. Expected results include the promotion of natural and cultural resources and support of the SME acting in related sectors (e.g. agriculture, manufacturing, tourism services, education, etc.)

*Source: LinkPAs project elaboration, 2018*

For this, regional funds (regional operational programmes) and “EU funds” (FEASR, ERDF) are available. The coordination among municipalities is particularly advocated when the PAs territory expands along different municipalities. Each PA can cooperate with other PAs at regional and national level (e.g. the transnational NPAs AdriaPAN network, which is also a section of the MedPAN network dedicated to PAs in the Adriatic Sea). Cooperation between all PAs is occasionally also related to the implementation of wider projects (e.g. the “Apennine



Park of Europe” – APE; and the Action Plan for the conservation of the Marsican bear-- PATOM). This type of cooperation helps PAs to take part in European projects and support specific actions addressing the specific needs of these areas.

#### **7.4.2 Concrete contributions to territorial development and implementation strategies**

The analysis of sector policies and applying regional and national strategies revealed a broad involvement of protected areas in a wide range of topics. This includes not only the preparation of management plans for the respective territories of protected areas, but also broad expectations to support the implementation of many strategies including climate change and mitigation, biodiversity conservation, disaster prevention, conservation benefits, support of agricultural development, health, tourism, transport, education and ecosystem services in general.

Contribution to territorial development of own territories: NPAs and Pas are involved in a wide range of regional development plans but carry full responsibility for the development of their own territories including zoning and project implementation. In order to achieve their objectives, individual PA managers highlight the importance of NPAs as platforms to ease the exchange of experiences and knowledge and develop projects aiming to obtain additional funding. Previous initiatives such as the Apennine Convention never came to life due to the lack of funding. The main challenge of regional environmental policies and territorial strategies is to successfully combine the protection of natural assets and landscapes with socio-economic development. The protected areas themselves acknowledge that the lack of funding for a networking organization and/or a lobbying to enhance their involvement into regional planning processes is a major challenge. They still refer to the programmatic document of the Apennine Convention (2007), which represents an important basis and was developed within the national “Apennine Park of Europe – APE” project, involving all the Apennine PAs and promoted by the Italian Ministry for the Environment in the 1999.

*Box 10: Example of best practice: River contract initiative*

“River Contract” is a regional instrument for integrated NRM; it is a voluntary negotiated and participatory strategy to manage river basins. This model has already been tested in protected areas in Abruzzo as a tool for linking NPAs management with civil society and the private sector.

*Source: LinkPAs project elaboration, 2018*

Contribution to rural development and territorial planning. Other sectors (livestock & farming, silviculture and energy) show a tight thematic link with PAs management. The water sector, natural hazards control and climate regulation are crucial local ecosystem services. (N)PAs are important partners for the implementation of National Strategy for Inner Areas. This strategy identifies PAs as key actors for its implementation. Similarly, the Regional Strategy of

Adaptation to Climate Change implemented by the Regional Plan for Abruzzo Region requires involvement of PAs. The involvement of NPAs in compiling the Natural Asset Plan and Landscape Regional Plan further indicate the growing importance of NPAs in territorial planning.

#### Contribution to concrete territorial development

Presently, the concrete territorial impact of the NPAs in Abruzzo cannot be exhaustively assessed due to the diverse and multifaceted nature of all the institutions involved. Direct impacts on territorial development are strongly linked to the ongoing management of the protected areas and implementation of national policy in conservation. In recent years, Abruzzo has boosted its green territory label, leading to a significant development of the Region that includes the enhancement of the ecotourism circuit and the improved quality of Abruzzo's products and services. At the local level, some Regional Nature Reserves work on the promotion of sustainable tourism and infrastructures to valorise biodiversity (e.g. the European Charter for Sustainable Tourism in Protected Areas), given that nature and cultural tourism is the key potential for development in the area. Regional nature reserves are managed by municipalities, and this fosters the involvement of local cooperatives and shows that local initiatives are able to link conservation of biodiversity, sustainable development and the creation of SMEs. Local activities include research, education, dissemination, valorisation of local products and contributions to the shift to organic farming.

According to stakeholders' interviews and the analysis of policy documents, it clearly appears that the protected areas in Abruzzo Region strive to actively contribute to the creation of added economic value by focusing on tourism. The implementation of the Strategy for Inner Areas involves making the areas more attractive by improving services, enhancing recreational offer and supporting the creation of economic opportunities to contrast depopulation in rural areas. Other actions indirectly seek to support the creation of infrastructures and jobs by improving rural areas and attracting additional external funding.

Pushing sustainable tourism. In the past years, Abruzzo Region promoted the green territory label creating significant growth (e.g. enhancement of the naturalistic tourism circuit, improved quality of products and services). The Regional Reserve Network works on the promotion of (eco)tourism and infrastructures to valorize biodiversity (e.g. European Charter for Sustainable Tourism in Protected Areas).

*Box 11: Example of best practice: The European Charter for Sustainable Tourism in Protected Areas (ECST).*

The ECST was adopted by the Abruzzo Lazio and Molise National Park, along with the Protected marine area of Torre del Cerrano. This practical management tool developed by EUROPARC Federation enables protected areas to develop sustainable tourism. The main objective of the Charter is working in partnership with all relevant stakeholders to develop a common sustainable tourism strategy and an action plan based on a thorough situation analysis. The Charter can be considered as the basis for common standards for tourism in protected areas.

*Source: LinkPAs project elaboration, 2018*

*Box 12: Example of best practice: The creation of the Regional Reserve Network*

In 1986, the Abruzzo Region established a network of regional reserves to promote sustainable tourism and tourism-based facilities related to the valorization of biodiversity. The two reserves in this network welcome more than 100.000 visitors annually. This network could serve as an example of best practice for exchanging knowledge on how to develop ecotourism-related offers and services in other protected areas in Abruzzo.

*Source: LinkPAs project elaboration, 2018*

### **7.4.3 Opportunities and challenges**

According to the typology of NPAs developed by this LinkPA project, the Abruzzo Region can be subsumed under Model 3 “Territorial network: NPAs for the management of specific physiographic units” toward Model 2. However, Abruzzo currently features two main networks (including national and regional PAs) with separate stakeholders, responsibilities, territories, objectives and budget lines. Thus, Abruzzo should be seen as having two Model 3 networks managed by the public administration.

Consequently, an overarching shared action plan and programme is not available at regional level, even though the Apennine Convention is closely linked to it.

#### **Opportunities**

The regional stakeholders see a rather weak position of protected areas in decision-making processes related to the development of regional plans, strategies in programs in the field of natural resource management. Protected areas are supposed to implement rather than to decide and to develop. Stakeholders from the Region emphasize the importance of a stronger involvement of NPAs in strategy development and decision-making but fall short on a coordinated effort of involvement. Therefore, a shared strategy and action plan, including a

clear definition of the role of the NPAs, and designed by the NPAs and PAs in these networks is certainly needed and highly expected.

There is also a certain challenge related to the fact that Abruzzo has two major NPAs within one territory: The National and Regional Protected Areas are basically separated systems with own budget lines, objectives and tasks.

Consequently, the protected areas in the Region **lack coordination** to carry out biodiversity conservation actions at the regional level or implement valorisation policies, including the exploitation of ecosystem services by protected areas (e.g. mitigation of climate change, protection of soil and water, cultural services).

### **Challenges**

The Abruzzo Region has the legal mandate for developing regional policies and strategies addressing sustainable development of all its territory. In the field of natural resource management (NRM), it has the mandate to establish regional protected areas, to coordinate the development of management plans for Natura2000 sites, and to also integrate and harmonize in its plans the national PA's actions which are established by the Italian Ministry. In terms of the management of natural resources the municipalities play a crucial role at the local level as they are the managing bodies of regional reserves and of Natura 2000 sites.

There are funding instruments available for the implementation of pilot project (e.g. FEARS, ERDF). Targeted topics include sustainable tourism, conservation and valorisation of biodiversity, agriculture and forestry, climate change and resilience, soil conservation and risk prevention. Many PAs of Abruzzo are thus involved in such kind of pilot projects, seeking for the implementation of national strategies.

The Abruzzo Region directed the project "Apennine Park of Europe – APE", a project involving all the Apennine PAs (1999), which contributed to drafting the document upon which "the Apennine Convention" was based (2007). Even though at the moment the convention does not entail any organizational body or specific actions, it still represents an important point of reference for the Region in **designing its policy** for protected areas.

The cooperation with other network more formalised (e.g. ALPARC or MedPAN) could be useful for the better PA management and territorial development.

The **widespread appreciation** of NPAs as players in NRM in Abruzzo and the consideration they receive in many policy documents is a very strong starting point for broadening the involvement of NPAs in the future in a coordinated and, in some cases, institutionalized manner. It seems therefore safe to suggest that NPAs should play an important role in the development of regional policies and wider-ranging policies such as mountain strategy and climate change strategy. The Region and PAs have already developed **good practices** and interesting operational tools to facilitate these integrations, which could be further extended and included in the planning instruments already in use.

Table 25: Opportunities and challenges for NPA for Abruzzo Region

| NPA models   | Criteria combination (cluster)   | Opportunities   | Challenges  |
|--|--|---|---|
| <p>MODEL 3-- Territorial networks: NPAs for the management of specific physiographic units.</p> <p>Abruzzo</p> | <p>Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA</p> <p>The NPA applies to a geographically specific area addressing specific topics within a clearly defined space.</p> <p>The NPA has decision-making power in substitution of or on behalf of PAs.</p> <p>Existence of a continuous coordination of PA activities.</p> | <p>The NPA is in a specific geographical, ecological, landscape area; this fosters the development of common strategies and projects for biodiversity management that are generally more effective than those that can be implemented by single PAs; Possibility of making use of well-known tools for the management of specific areas; The NPA can involve local populations, since it stresses the importance of the identity of such a specific area; Facing common issues with a shared programme allows for a more efficient utilization of available resources; The stable collaboration between PAs enhances their ability in proposing and/or taking part in projects and therefore the possibility of access to additional funds.</p> | <p>Strengthening the role of the NPA in developing wider territorial policies</p> <p>Strengthening the NPA's role as a model for other similar territories;</p> <p>Improving the ability to involve the private sector and stimulate innovation as a basis to foster SMEs' activities</p> |

Source: LinkPAs project elaboration, 2018

## 7.5 The local level: The Razlog Municipality

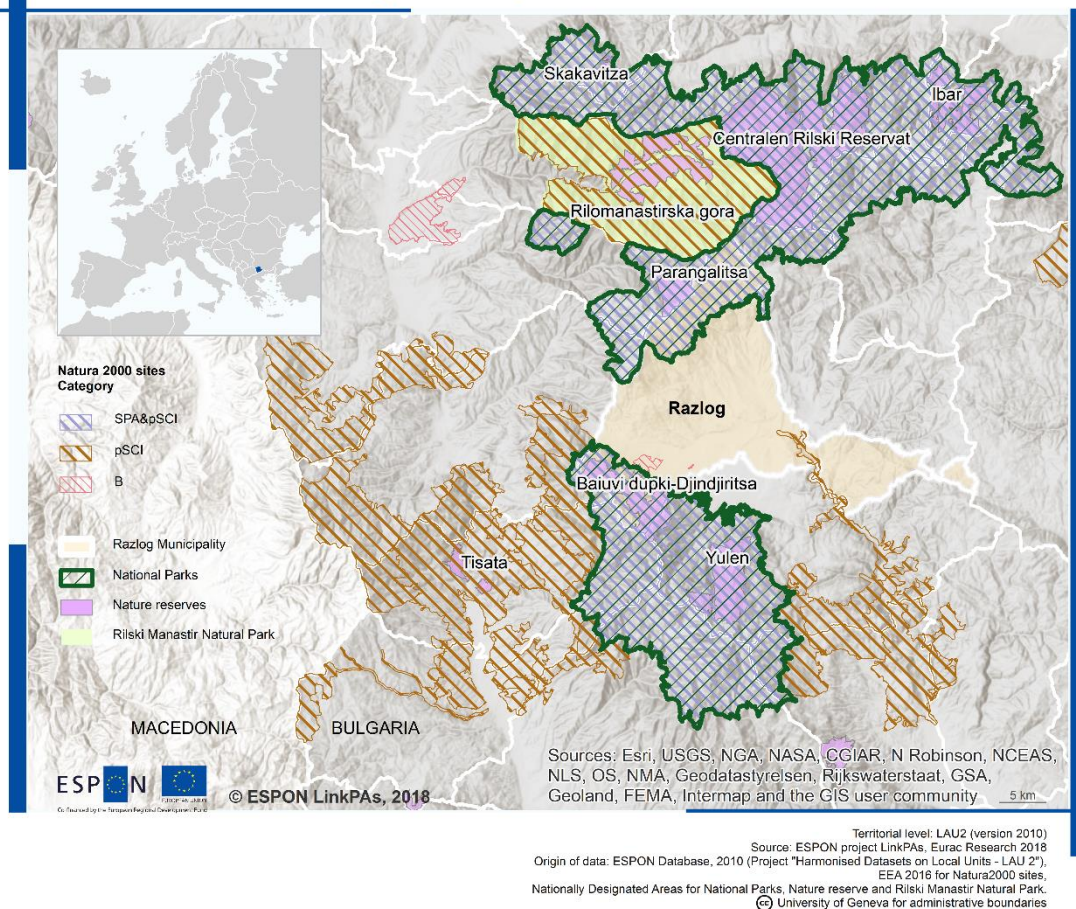
The Municipality of Razlog in Bulgaria covers an area of 440 km<sup>2</sup> and is located within an ecologically significant region (map 14). It is the most dynamic and fast-developing municipality in the Blagoevgrad region. Razlog Municipality covers large parts of National Park "Rila" (IUCN Cat. V) and smaller areas of National Park "Pirin". (IUCN Cat. II, some parts Cat. I). Together with a number of other protected areas and Natura 2000 sites, the area is a territorial ecological network with enormous potential. However, centralised management and a strict policy regarding shared responsibilities limit the formal opportunities for intersectoral cooperation.

### 7.5.1 Governance and role of the NPAs

The governance of the protected areas within the stakeholder territory is defined in the Bulgarian Protected Areas Act and refers to the IUCN categorization. The Bulgarian Protected Areas Act outlines all aspects of management, planning and protection of the territories. The Rila NP Directorate is under the administrative governance of the Ministry of Environment and Waters and its National Nature Protection Service carries responsibility for the development of strategies, programmes, plans and legislative documents regarding conservation and NPA management in Bulgaria. Consequently, the network is mainly formed by national authorities and actors from the conservation sector.

Map 1412: Map of N2000 site and Nature reserves in the Razlog case-study area (incl. Razlog municipality)

### Protected areas in the Razlog case-study area



Source: LinkPAs project elaboration, 2018

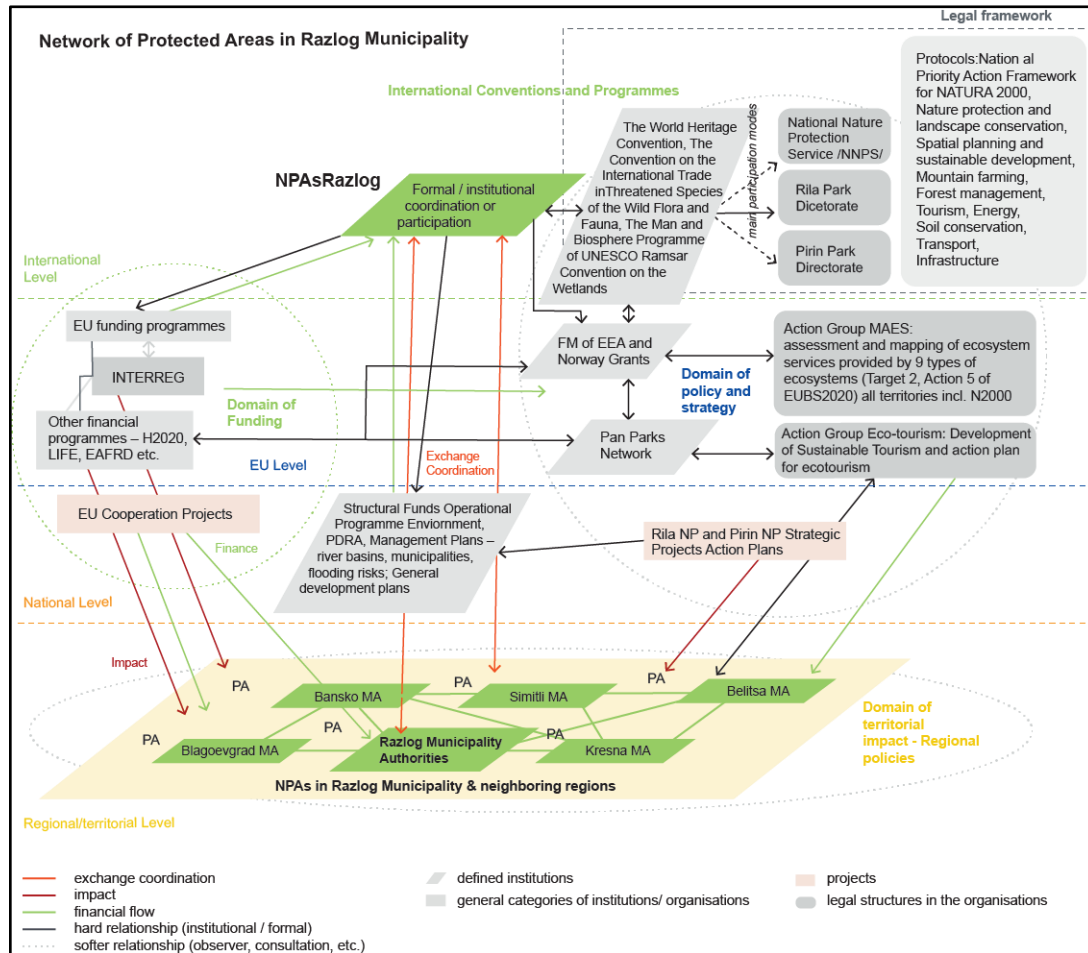
The Bulgarian Protected Areas Act establishes a mandatory requirement entailing the inclusion of Operational Programmes into key strategic documents at European, national and regional level. The network of protected areas within the Razlog Municipality is based on four operational levels:

- International level – implementation of international conventions and programmes that set the legal framework of the network, managed by the National Nature Protection Services (NNPS) and the directorates of Rila NP and Pirin NP.
- EU level – exploiting funding mechanisms (financial programmes and funding grants) and policy implementation tools.
  - Actions taken at EU level related by the Razlog municipality: Action Group MAES (assessment and mapping of ecosystem services provided for the entire territory, incl. N2000 sites) and Action Group Eco-tourism (development of Sustainable Tourism Action Plan)



National level— Rila NP and Pirin NP Strategic Projects Action Plans operate in accordance with the priorities set by the National Structural Funds, the Operational programme “Environment” (2014-2020), PDRA, General development, Management Plans –

Fig. 16: NPA management system in Razlog Municipality



Source: LinkPAs project elaboration, 2018

- addressing river basins, municipalities, flood risk. The Strategic projects action plans establish financial support at local level. Along with the EU Cooperation projects, these action plans have direct impact on the territorial development of the protected areas under scrutiny.
- Regional – the territorial impact of the network on the protected areas is visible in the management plans for the Blagoevgrad region; in addition, it is connected to the local initiatives of the neighbouring municipalities: Blagoevgrad, Bansko, Simitli, Belitsa, and Kresna.

The direct exchange and coordination between the administrative bodies and institutions aim to better manage and implement programmes to increase the financial support of the municipalities involved.

### 7.5.2 Concrete contributions to territorial development and implementation strategies

The objectives of the management plans for both Rila NP and Pirin NP are mainly oriented around the conservation and preservation of natural resources and natural heritage. The PAs have adopted and implemented the international conventions and national conservation guidelines (Natura 2000, CBD, UNESCO MaB Seville Strategy, National Priority Framework for Action in Natura 2000 Areas). Unfortunately, the regional territorial development strategies do not involve this network, as they fall into a different legislative responsibility. Nonetheless, a certain degree of informal exchange has been detected. The fact that regional development strategies consider Razlog a local urban centre increases the need for integrated NRM and spatial plans. According to an analysis of the strategic documents regarding this area, the NPA policy objectives are manifold encompassing for instance the efficiency of use of natural resources, climate change mitigation, biodiversity conservation, agriculture, forestry, land management, tourism and economic development as well as transport. This is partly reflected in the management plans of Rila and Pirin NP but given the loose connection of the NPA with other regional stakeholders, there is high probability that it will remain at an “objective” level and will hardly enter local policy and implementation processes.

The NPA could contribute substantially to the development goals defined within the Municipal Development Plan for Razlog Municipality (e.g. environmental protection, preserved traditions, human well-being, stable economy, (eco)tourism). However, territorial development strategies (e.g. European 2020 Strategy, National Development Programme for Bulgaria 2020, National Strategy for Regional Development, Strategy for Regional Development of Blagoevgrad Region 2014-2020) make only little reference to NPA and the conservation sector. The diversity of protected areas bears a potential for the development of ecotourism, sustainable use of abundant natural resources. Bringing together the large number of existing PAs, all having different objectives, and overcoming the sectoral approach is still a challenge. The park directorate put forward proposals for actions aiming at the development of the park in the fields of sustainable tourism/recreation, eco-friendly livelihood, infrastructure, R&D and education. LAG Razlog supports the population in preparing proposals for additional funding (Box 13).

*Box 13: Example of best practice: LAG Razlog*

LAG Razlog was one of the partners in the “Creating of a Network of Emblematic Mediterranean Mountains” project, which was implemented and financed within the framework of the Rural Development Programme 2007-2013 (LEADER). The network comprised 5 partners representing emblematic Mediterranean mountains: Massif de Canigou (France), Saint-Victoire (France), Pirin mountain (Bulgaria), Mount Olympus (Greece), El Pedraforca (Spain). The main goal of the project was to create a sustainable network of emblematic Mediterranean mountains through which the partners in the project could exchange experiences, know-how and models of organisation pertaining to these territories, and therefore having high tourist potential; the project also sought to help partner



share responsibility in preserving their fragile and precious mountain ecosystems (e.g. NP and PA). An International Conference was held in Razlog during which the partners discussed on the possibility to create a Network of mountain regions. The good practices for sustainable mountain development for the region of Pyrenees, Olympus, Alps, Pirin and Rila were also presented. A common document (charter) was developed, containing the conditions and criteria needed to establish a Network of Emblematic Mediterranean Mountains.

*Source: LinkPAs project elaboration, 2018*

Natural capital investments PES of Rila and Pirin NPs have not been implemented yet. Extending local partnerships to other sectors (e.g. tourism, community development) and developing integrated regional planning are potentially effective approaches in this sense (Box 14).

*Box 14: Example of best practice: "Sustainable Tourism and Promoting Ecology in Partnership"*

"Sustainable Tourism and Promoting Ecology in Partnership" Project-- 2014-2016 (funded by the Bulgaria-- Macedonia IPA Cross-Border Cooperation Program 2007-2013, led by Municipality of Razlog). The overall objective is to ensure a balanced and effective regional development through effective conservation and utilization of the available natural resources and their integration into the regional tourist product. The project outcomes are: eco-routes created on the territory of NP Rila; tourism services further developed; environmental campaigns, meetings and events; promotional materials and publications; catalogue of local flora and fauna; brochures for ecological tourism and environmental protection; improved infrastructure for eco-tourism; opportunities for the interactive observation of the local flora and fauna; alternative tourism services based on the use of specific natural resources; enhanced environmental awareness among the local population and other stakeholders.

*Source: LinkPAs project elaboration, 2018*

There are no formal mechanisms for the involvement of the NPAs in regional development processes. Thus, the NPA action remains very much limited to its own territories. The local NPA claims to provide added economic value to the Region by raising additional external funding, developing offers to visitors with the aim to sustainably develop the (NPA) area. Given the high potential for the creation of ecosystem services in the area (water provision was mentioned in the interviews), the increasing tourism sector offers interesting possibilities to integrate NPAs into regional planning.

*Box 15: Example of best practice: Local cooperation on local heritage, "Historic paths, buildings and patterns"*

The provincial landscape organization, local landowners and entrepreneurs, municipalities established a successful co-operation with local restaurants, shops etc. receiving ongoing support from regional and local authorities. The revenues were used for heritage maintenance and landscape management. In addition, nearby villages close to Rila NP met

co-operatives that seek to retain the local food tradition and give jobs to people living in remote areas. These successful initiatives are important linking points between the NPA, local administration, civil society and private sector.

Source: LinkPAs project elaboration, 2018

### 7.5.3 Opportunities and challenges

The Razlog Municipality NPA can be subsumed under Model 3, although the Region does not currently have a shared action plan or programme. However, there is a shared action plan for the protected areas within the municipality boundaries; it includes some management planning documents. At the moment, the link among the local territorial units within the individual sites is weak.

Table 26: Opportunities and challenges for NPA for Razlog Municipality

| NPA models  | Criteria combination (cluster)   | Opportunities  | Challenges   |
|---|--|--|--|
| MODEL 3—<br>Territorial networks:<br>NPAs for the management of specific physiographic units.<br><br>RAZLOG | Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA<br>The NPA applies to a geographically specific area addressing specific topics within a clearly defined space.<br>The NPA has decision-making power in substitution of or on behalf of PAs<br>Existence of a continuous coordination of PA activities. | The NPA is in a specific geographical, ecological, landscape area; this fosters the development of common strategies and projects for biodiversity management that are generally more effective than those that can be implemented by single PAs; Possibility of making use of well-known tools for the management of specific areas; The NPA can involve local populations, since it stresses the importance of the identity of such a specific area; Facing common issues with a shared programme allows for a more efficient utilization of available resources; The stable collaboration between PAs enhances their ability in proposing and/or taking part in projects and therefore the possibility of access to additional funds. | Strengthening the role of the NPA in developing wider territorial policies<br>Strengthening the NPA's role as a model for other similar territories;<br>Improving the ability to involve the private sector and stimulate innovation as a basis to foster SMEs' activities |

Source: LinkPAs project elaboration, 2018

### Challenges

The objectives of the management plans for both Rila NP and Pirin NP are mainly oriented around the conservation and preservation of natural resources and natural heritage. The PAs have adopted and implemented the international conventions and national conservation guidelines (Natura 2000, CBD, UNESCO MaB Seville Strategy, National Priority Framework for Action in Natura 2000 Areas). However, if one considers NRM in a broader territorial sense, including Green Infrastructure, the legal analysis clearly shows the **lack of operational and administrative connections** between regional territorial development strategies and NPAs. This has led to local conflicts between the managing body and local stakeholders. The ongoing management planning process, featuring clear territorial development tasks, requires a greater involvement by other parties (particularly those that focus on rural development, land use and tourism development).

Other challenges are linked to the fact the NPA does not **interact sufficiently** at the local level; moreover, a better **integration of other sectors**, such as tourism, education, climate change and waste management, into the management plans is certainly needed.

### **Opportunities**

To **strengthen the role of the NPAs** regarding the implementation of **territorial development strategies** (e.g. European 2020 Strategy, National Development Programme for Bulgaria 2020, National Strategy for Regional Development, and Strategy for Regional Development of Blagoevgrad Region 2014-2020) is required. The fact that regional territorial strategies gear towards making Razlog a local urban and touristic centre explains the increased necessity for integrated NRM and spatial planning.

The **Municipal Development Plan** for the Razlog Municipality explicitly mentions topics related to NRM as part of its goals (e.g. environmental protection, preserving traditions, human well-being, stable economy, (eco)tourism). This is a promising starting point for better integration in terms of planning and managing natural resources. In addition, the management plans for Rila and Pirin NP have a strong community-based component. This approach could be further enhanced to raise awareness and improve NRM streamlining within the municipality.

The analysis detected **well-established multi-stakeholder cooperation** between LAG Razlog, local or non-governmental networks, SMEs, etc. and the local administration, with the aim of drawing up proposals to obtain additional funding for NPAs. Such collaboration is beneficial to territorial development, given that the needs of both the private and public sectors are taken into account.

Shared experiences and **knowledge exchange** represent solid ground for the enhancement of the administrative procedures and regulations that aim to better implement projects and strategies.

### **Synthesis**

The case studies analysed here has helped to investigate the specific stakeholder territories and demonstrate how protected area networks are governed, which territorial impact they have had so far and how they are linked to territorial development in general. This serves as a basis to detect and propose effective and innovative mechanisms of territorial governance within protected areas and the surroundings. Furthermore, the analysis has identified cooperation options for an improved integration of protected areas into sectoral and regional policies.

## 7.6 Shared features among the stakeholder regions

### 7.6.1 Shared features among mountain areas and mountain NPAs

Half of the global population depends on mountains and mountain ecosystem services. They support about a quarter of global biodiversity and are at the same time exceptionally fragile. Land use pressure puts the integrity of mountain ecosystem at risk across Europe, bringing about needs and posing challenge for (N)PAs. More than 30% of the global protected areas are located within mountain areas (Körner & Ohsawa 2006). The territories investigated here features large parts that are included in protected areas (e.g. about 30% of the Abruzzo Region is part of PA).

Mountain areas share similar challenges that became evident in all stakeholder territories. Depopulation, low industrialization and a strong dependency on the primary sector are key challenges increasingly addressed by specific strategies (e.g. Strategy for Inner Areas in Italy). Mountain areas are often feature primary sectors (i.e. agriculture, forestry) as well as the tourism sector. Coordinating better the sustainable and integrated development of these backbones of the European Green Infrastructures (EC 2016) appears essential. It is therefore not surprising that a large number of NPAs was established over the last 20-25 years. While ecological connectivity and green infrastructures are gaining political momentum (Baró et al. 2015), and Natura 2000 networks that included large areas are still being used, the mission of NPAs can extend beyond their own territories.

From the economic point of view, the management of PAs, like national parks, implies changing and using new productive resources in quantitative as well as qualitative terms, which may influence the availability of consumptive and non-consumptive uses of natural resources by households inside and outside the park (*cf.* Gren and Isacs, 2009, Getzner *et al.* 2014). From the territorial stakeholders' perspective, (N)PAs are crucial regional actors as they are considered able to develop new, ecologically viable solutions on land use and in charge of managing large territorial units.

PAs in mountain areas offer employment opportunities for academics in remote areas. They collect knowledge and implement projects in less economically dynamic areas (Huber et al. 2013). Drawing on the strategies currently being proposed, PAs are an economic asset that can no longer be neglected, which also explains why demands to integrate it into regional development have increased. NPAs in mountain areas seek to develop economic opportunities to valorise their natural assets. This becomes increasingly important as public conservation budgets are shrinking and there is an increasing demand for implementing a wider range of activities. Abruzzo Region and Razlog Municipality has considered this as their main objective but they are both still working on determining the way forward. In contrast, the EGTC Alpi Marittime-Mercantour has already proven its impacts and consequently increased its reputation and status within the region.

## 7.6.2 Governance models for the NPAs in stakeholder territories

Governance is globally recognized as a key issue of PA research which seeks to better understand emerging governance procedures and improve their effectiveness (cf. Borrini-Feyerabend et al. 2013; Pütz et al. 2017). Getzner et al. (2014) claim that one of the main aims of integrative management in protected areas is the integration of policies, objectives and aims into local, regional and national political decision making. Across the stakeholder territories under review, different governance models apply with different scopes and objectives. Drawing on the information retrieved from the case studies analysis, the LinkPA project has been able to develop a set of typologies (i.e. NPA models) for NPAs).

Mountain NPAs act in multi-stakeholder environments and seek to find ways to jointly develop a specific area or a specific topic. Consequently, the NPA models reflect the institutional setting, the existence of their own strategies or action plans, territorial scope and the governance level they address (e.g. international/strategic, regional/territorial or not specifically bound to a give territory).

Table 27: Typologies of NPAS; developed by LinkPAs

| NPA models   | Criteria combination (cluster)   |
|--|--|
| <p>MODEL 1-- NPAs established in the framework of agreements or conventions with a wider perspective</p> <p><b>ALPARC</b></p>  | <p>Existence of a strategic/ institutional agreement as political framework</p> <p>Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA.</p> <p>The NPA refers to a specific area and participates in institutional decision-making processes at the EU/Transnational/National/ Local level; it involves PAs and territorial authorities.</p> <p>Existence of specific funds – external, public or private, EU, national or regional— supporting NPA activities.</p> |
| <p>MODEL 2-- NPAs based on a shared programme to face common challenges from an ecological and/or environmental point of view</p> <p>(Razlog is close to this model but could develop towards model 3 as it is dealing with a territorial development challenge in a currently very sectoral environment)</p>              | <p>Absence of a strategic/institutional agreement as political framework for the NPA</p> <p>Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA</p> <p>The NPA applies to a geographical specific area</p> <p>The NPA might involve PAs as well as territorial authorities.</p>   |
| <p>MODEL 3-- Territorial networks: NPAs for the management of specific physiographic units.</p> <p>EGTC Alpi Marittime /Mercantour</p> <p>Razlog could develop towards model 3 as it is dealing with a territorial development challenge in a currently very sectoral environment, but is currently closer to Model 2.</p> | <p>Existence of a shared action plan or programme identifying priorities and actions to be taken by/under the NPA</p> <p>The NPA applies to a geographically specific area addressing specific topics within a clearly defined space.</p> <p>The NPA has decision-making power in substitution of or on behalf of PAs</p> <p>Existence of a continuous coordination of PA activities.</p>  |
| <p>MODEL 4-- NPAs as platforms addressing different topics and aiming at exchanging experiences</p> <p>EUROPARC<br/>MedPAN,<br/>European Geoparks Network, Protected Micro-Reserves, SAPA</p>  | <p>The NPA involves PAs and other territorial authorities and stakeholders</p> <p>The NPA focuses on shared topics</p> <p>The NPA might apply to a geographically specific area</p> <p>The NPA might have some internal funds (membership fees, if applicable)</p>   |

Source: LinkPAs project elaboration, 2018

All the NPAs investigated in this study have a territorial dimension. But there is a particular context for Abruzzo Region and Razlog Municipality.

It is difficult to include Razlog Municipality and Abruzzo Region in a specific model.

- **Model 2: voluntary cooperation, bottom-up, joint actions of the NPA, fragmented institutional framework, actions carried out by PAs, NPA acts as a lobbying body to bring NPA topics to a broader (policy) audience**

- o Abruzzo: There are two main networks (for national and regional protected areas). Actions are carried out by PAs, we have a fragmented institutional framework, but the cooperation is not voluntary but within the structures of public administration and it is not bottom-up. There is no coordinated body “NP” which acts as a lobbying body to bring PA topics to a broader policy audience (at least not in a structured, explicit process).

- o Razlog: Razlog network is a sectoral network of the protected areas in Razlog municipality, which closely work together within protected areas and pursue a common vision of conservation. However, the network is neither bottom-up nor voluntary cooperation, but set within the legal tasks assigned to the NP directorates. Actions are carried out by the PA.

- **Model 3: territorial network, specific geographic scope, ability to influence territorial policies, effective decision making bodies, shared projects and programmes, other policy sectors involved:**

- o Abruzzo: The two main NPAs in Abruzzo have a specific territorial scope (the Region of Abruzzo) and some shared programmes/projects, but lack the ability to influence territorial policies nor do they have decision-making bodies which extend beyond the individual protected areas.

- o Razlog: The NPA has a very specific territorial scope (the protected areas within the municipality) within a strong mandate to define the territorial development within their boundaries, but there are no innovative governance instruments nor the involvement of other stakeholders in territorial decision-making.

Thus, it was difficult to put the case study areas to a specific typology: Abruzzo is very close to Model 2 but lacking the organized cooperation between the networks. Apparently, the cooperation is happening within the normal administrative tasks as the PAs are subordinated to either Federal or Regional operational bodies within a fragmented institutional framework. Similarly, Razlog is tending towards model 2 having actions carried out by NPAs and sectoral voluntary cooperation to reach a common objective. However, it also has some elements of model 3: it is a territorial network with a clear mandate and vision (with the strong limitation that it is limited to its own territory). They have strong influence on territorial development, but this does not extend beyond the boundaries of the individual PAs. They are not as obvious as it is for ALPARC or Alpi Marittime EGTC: Abruzzo could develop towards model 2 as it only lacks a structured cooperation for joint actions and programmes and a weak role in bringing NPA topics to a broader audiences. Razlog could develop towards model 3 as it is dealing with a territorial development challenge in a currently very sectoral environment, but is currently closer to Model 2.

### Governance of individual PAs within the network

It is essential to know about the governance type of the individual protected areas within the network as this also defines the objectives and mandates of the networks representing them.

An analysis of the individual sites was carried out along with the analysis of the NPA governance. According to the IUCN Guidelines for Governance of Protected Areas (Borrini-Feyerabend et al. 2013), the individual case studies under scrutiny prove to be rather heterogeneous. ALPARC covers a wide range of different PA-governance types (from community managed to government management PAs), EGTC Alpi Marittime-Mercantour is managed by what could be considered a subordinated government institution. Abruzzo features mostly areas governed by government agencies (National Protected Areas) and subordinated government institutions (Regional Protected Areas). In addition, some protected areas (Natura 2000 sites) are managed by municipalities. The protected areas in Razlog are all managed by government (NP Directorates which are subordinated to the Ministry).

### *Organizational structures*

Pütz et al. (2017) revealed a diverse set of governance practices applied to regional nature parks in Switzerland. Drawing on different empirical sources and research methods, they identified three forms of park organizations: 1. Parks that are organized as associations; 2. Parks that are affiliated to single municipalities; 3. Parks that are associated with a regional government bodies. They state that different governance practices result from different forms of regional embeddedness between top-down and bottom-up approaches and related tensions. Different levels of organization and embeddedness have also been observed in the stakeholder territories.

The organizational structures of the case study territories are very different. Whereas ALPARC is organized as an association with its own statutes and membership (NPA Model 1 or Type I Park, according to Pütz et al. 2017), EGTC Alpi-Marittime is a legally institutionalized body for territorial coordination (NPA Model 3 or Type III Park, according to Pütz et al. 2017). Both these NPAs have clear statutes and defined a clearly defined mission. In contrast, there are some more informal networks mostly within the public administration (e.g. the Abruzzo Region and Razlog NPA, which feature some elements of the NPAs described in Models 2 and 3), which basically represent their public administration bodies. Thus, these bodies do not entail a specific networking role. They are rather defined as having a coordination role that includes other administrative tasks. As a consequence, institutionalised networking bodies are more flexible in developing specific strategies or deciding which strategies or initiatives are worth pursuing, whereas administrative informal networks are more focused on the implementation of such strategies and initiatives.

### *Involved stakeholders*

All NPAs in the stakeholder territories conceive themselves as institutions that are not isolated, but rather embedded in or part of existing administrative or sectoral networks with multiple

stakeholders. In particular, networks of protected areas need to consider their relevant institutional setting, react to regional developments and seek to find their optimal position within these greater networks.

EGTC and ALPARC can be considered examples of best practices as they have managed to find their appropriate position in the greater network. This claim is proved by EGTC's strong reputation and the fact that ALPARC is involved in many/most of the relevant working groups, platforms and strategic initiatives in its territory. In contrast, Abruzzo Region is still trying to define what is the appropriate position for its networks; alternatively, they are considering the possibility of establishing a new regional NPA. It is therefore not surprising that, while being interviewed, its PAs mentioned that they feel they are not sufficiently involved in strategy development when, on the contrary, many regional strategies stress that PAs should have an important implementing role. This leads to cast a inhomogeneous picture of this regional network and the actors to be involved.

#### *The Objectives of NPAs*

All the stakeholder territories analysed here share similar core objectives and themes (i.e. biodiversity conservation, ecological connectivity, sustainable development), even though they are located in different European areas. According to Lange and Jungmeier (2013, Parks 3.0) protected areas are self-similar structures as they share common objectives regardless of the administrative or cultural context. All the case studies investigated share key topics and objectives such as biodiversity conservation and conservation benefits, tourism development, education, (core business), create added values and seek to influence land use and management to pursue their objectives.

However, aside their core objectives, the stakeholder networks show additional focal topics, including ecosystem services (as in the case of Razlog municipality), a strong "territorial mission" with an explicit objective on territorial planning (as for the EGTC Alpi-Marittime Mercantour).

It is important to bear in mind what are the mission and objectives of (N)PAs, their core business, and the political stakeholders' expectations, which tend to bring about additional, external objectives that NPAs are expected to implement. This means for instance that NPAs are supposed to push regional economic development in remote areas due to the lack of other actors. However, many PAs can only work on their core missions. For instance, within the Abruzzo Region there are high expectations regarding the role of (N)PAs in the implementing of many strategies (e.g. the Strategy for Inner Areas), regardless its actual capacities or objectives. The mission of the protected areas is clear, but their role in the greater picture is diffuse.

The NPA in Razlog municipality has a clear mission, which has been defined by national authorities and via international directives and conventions. However, this mission is explicitly geared towards the local territories, thus making the network of existing actors rather sectoral.



The analysis clearly shows that there is a close link between the key mission of the NPA and the local actors involved.

### *Funding*

Financial issues are crucial for the success of any organization. For NPAs, this also proves to be a crucial twofold issue, as explained below:

Funding of the NPA structure: A secured basic funding for a body with explicit networking tasks is crucial. Aside public funding, Pütz et al. (2017) includes membership fees, self-generated income, sponsoring or foundations as key sources of income for (N)PAs. Getzner *et al.* (2014) also claim that public funding often assures a certain management quality and objectivity for national park policies. Within the cases studies analysed here, ALPARC and EGTC proved they can carry out their activities on a regular basis and ensure their active involvement in different territorial processes because they can rely on an explicitly and well defined mission. In contrast, other networks (e.g. Razlog: informal network activities or within administrative procedures) or Abruzzo (two different administrative networks) do not seem to achieve coordinated and enduring progress due to their lack of a clearly defined mission. In Abruzzo, the Apennine Convention helped to mould a modern strategy for protected areas, but it remains a mere strategic document without a well-structured organization that can work on its implementation due to lack of funds.

Access to funding instruments: If NPAs can rely on funding instruments (e.g. FEDER ALCOTRA, INTERREG Alpine Space), they can also access funding to complete targeted actions. This is particularly true if the NPAs objectives are also part of the priorities set in funding programmes. On the other hand, the NPAs in Razlog and Abruzzo have no funding instruments explicitly linked to them, which makes it more difficult to fund specific targeted actions. However, when it comes to the implementation of regional strategies, this becomes both a challenge and an opportunity for (N)PAs. If the strategies explicitly assigns a role to NPAs and the former are linked to respective funding instruments, then additional funding for PAs may be made accessible, provided that the PAs have the necessary capacity and competence to use it.

### *Legal mandate and institutional integration*

The role of a network greatly depends on its mandate and defined scope. This role is often very conservation-based, being also the core objective of all NPAs. CNPA for instance is legally integrated in the partner countries through the Carpathian Convention. Based on the experiences in the Alps (AC and ALPARC), CNPA the second multi-level governance mechanism covering whole mountain area. These ALPARC and CNPA are also the only sub-regional treaty-based regimes for the protection and sustainable development of a mountain region. A similar mechanism took also place regarding the Barcelona Convention and the Mediterranean network of Marine protected areas (MedPAN).

ALPARC is a good example of an NPA that, being supported by the AC Protocols, has managed to assert its involvement into institutional decision-making processes. As explained earlier, EGTC was designed for a specific purpose and, over a long time, it has achieved a well-defined

legal status. This status endows it with a certain power and clear function within other territorial networks. On the contrary, networks that are part of public administration bodies such as the Razlog and Abruzzo Region NPAs have legally defined but limited objectives and tasks. Consequently, if these networks are to be broadly involved in territorial development, they also need a clear legal mandate to do so. Even if defined as their task, it the respective human capacities and competences need to be considered and be developed accordingly. Even though networks with a shared programme are not fully in place in all NPAs investigated, through the analysis it has become evident that all NPAs are progressively extending their mission towards a more integrated approach that seeks to include sustainable economic development, green economy, ecosystem services and integrated spatial development. That said, this development needs to be coupled with a revision of existing legal frameworks and the creation of an effective capacity building programme.

NGOs or associations (cf. NPA Model 4) usually have only a consultative role in strategy development processes (e.g. observers or working group members). However, they are free to define their mission and influence actors within a greater network.

### **7.6.3 Integrating NPAs into territorial policies**

The integration of NPAs into territorial policies could be achieved according to :

- (1) The level of integration the NPAs strive to have
- (2) The level of integration or impact, regional/national policies would like NPAs to achieve

Within the project, an in-depth analysis has been carried out on the sector policies each individual NPA is linked to (Table 28). This offers an interesting insight into the current challenges NPAs have to face. ALPARC and Alpi Marittime-Mercantour are specifically designed networks that have a very focused view on the sectors they seek to impact on. Due to the fact that their institutional documents, their strategies and action plans depict key topics, networks within public administration are supposed to achieve far broader impacts on sector policies. This enables these networks to have a broader impact. Yet, if they are not sufficiently coordinated, funded and equipped, NPAs can only partially fulfil a long list of political wishes. In this regard there has to be a clear distinction between the policy objectives NPAs actively pursue through actions and strategies and policy objectives they indirectly contribute to (e.g. by their mere existence). For instance, all NPAs and their members certainly seek to ensure erosion control through their land management policies, but none of the NPAs investigated actively pursues this scope. This opens the policy questions, which sectors should be actively pursued. The policy sectors the NPAs all actively try to impact on relate to the core objectives of the NPAs themselves, which are biodiversity conservation, conservation benefits, agriculture and forestry, tourism and education.

It is rather interesting that hardly any of the NPAs examined has soils as one of the topics they address. For instance, UNCCD (e.g. Land Degradation Neutrality) has it as one of its core topics. It is also a major topic within mountain protected areas encouraging land use on up to

30% of the mountain territories. Many protected areas increase property values due to the fact that the Regions become more attractive. Thus, this could be a policy sector NPAs should pay more attention to as appear in several protected areas but has not yet been confirmed by scientific studies.

While looking at the concrete achievements the NPAs may have reached, ALPARC demonstrates to be a very good example as it has a clear focus on strategy development, which has helped it to obtain important results (see Chapter ALPARC). At regional/transboundary level, EGTC is a strong network and has achieved the harmonization of local policies; at regional level, it reached the harmonization of Natura 2000 standards and reconciled with regional territorial development. Conversely, the Abruzzo Region and Razlog NPA impact or seek to impact on a wide range of sectors without having an appropriate order to shape or influence them. While in ALPARC and EGTC is different because the administrative networks are in charge of achieving territorial goals as defined by national or regional policies.

Table 28: Link between sector policies and NPAs.

| Sector policies<br>NPAs impact on        | Policy Objectives  | Case studies |                               |                   |                          |
|--|--|--------------|-------------------------------|-------------------|--------------------------|
|  |  | ALPARC       | Alpi Marittime-<br>Mercantour | Abruzzo<br>Region | Rila<br>National<br>Park |
| Enhanced efficiency of natural resources | Maintenance of soil fertility  |              |                               |                   | X                        |
|  | Ensuring biological control  |              |                               |                   | X                        |
|  | Increasing pollination   |              |                               |                   | X                        |
|  | Storing freshwater resources   |              |                               | X                 | X                        |
| Climate change mitigation and adaptation | Improving resilience to deal with climate impact                           |              |                               | X                 |                          |
|  | Reduction in GHGs  |              |                               |                   |                          |
|  | Improving temperature control  |              |                               |                   | X                        |
|  | Improving storm damage control   |              |                               |                   | X                        |
| Biodiversity                             | Sustaining and improving biodiversity                                      | X            | X                             | X                 | X                        |
| Disaster prevention                      | Ensuring erosion control   |              |                               |                   |                          |
|  | Reducing the risk of forest fires  |              |                               | X                 |                          |
|  | Reducing flood hazards   |              |                               |                   |                          |
| Water-related agriculture                | Regulating water flows   |              |                               |                   | X                        |
|  | Increasing water purification  |              |                               |                   | X                        |
|  | Improving water provisioning   |              |                               |                   | X                        |
| Land and soil management                 | Reducing soil erosion  |              |                               | X                 | X                        |
|  | Maintaining/enhancing soil organic matter                                  |              |                               |                   | X                        |
|  | Increasing soil fertility and productivity                                 |              |                               |                   |                          |
|  | Mitigating land take, fragmentation and soil sealing                       |              |                               |                   |                          |
|  | Improving land quality and making land more attractive                     |              |                               |                   |                          |
|  | Enhancing property values  |              |                               |                   |                          |
| Conservation                             | Promoting existence value of habitat, species and genetic diversity        | X            | X                             | X                 | X                        |
|  | Conserving habitat, species & genetic diversity for future generations     | X            | X                             | X                 | X                        |
| Agriculture and forestry                 | Promoting multifunctional resilient agriculture and forestry               |              | X                             | X                 | X                        |
|  | Enhancing pollination  |              |                               |                   | X                        |
|  | Enhancing pest control   |              |                               |                   | X                        |
| Low-carbon transport and energy          | Improving energy supply & safety, promoting biomasses and renewable energy |              |                               | X                 | X                        |
|  | Delivering better integrated, less fragmented transport solutions          |              | X                             |                   |                          |
|  | Offering innovative energy solutions                                       | X            |                               |                   | X                        |
| Investment and employment                | Conveying a better image of NPAs   | X            |                               | X                 | X                        |
|  | Increasing investments   | X            |                               |                   |                          |

|                               |  |   |   |   |   |
|-------------------------------|--|---|---|---|---|
|                               | Increasing employment  | X |   |   |   |
|                               | Increasing labor productivity  | X |   |   |   |
| <b>Health and well-being</b>  | Improving air quality and noise regulations  |   |   |   | X |
|                               | Improving accessibility to exercise areas and amenities                              | X |   | X |   |
|                               | Improving health and social conditions   | X |   |   |   |
| <b>Tourism and recreation</b> | Making destinations more attractive  | X | X | X | X |
|                               | Increasing range and capacity of recreational opportunities                          | X | X | X | X |
| <b>Transport</b>              | Encouraging sustainable travel (multimodal links & integration of transport systems) | X | X | X |   |
| <b>Education accounting</b>   | Creating teaching resources and 'natural laboratories'                               | X | X | X | X |
| <b>Ecoservices</b>            | Resilience   | X |   | X | X |

Source: LinkPAs project elaboration, 2018

The analysis showed that NPAs can influence territorial development in 3 ways: by shaping strategies and policies; by implementing projects or strategies; and by sharing knowledge with and among different actors. Whereas legally established bodies seem to have the advantage of becoming part of adequate working groups and setting overall directions, local or non-governmental networks have more freedom to involve other actors such as SMEs.

### Impact on development

The approach developed by Jungmeier et al. (2005) has been used to classify the economic impacts of the protected areas (networks) under scrutiny. The results are based on the analysis of activities and strategies as well as their validation against the regional stakeholders' feedback.

The results also show a clear distinction between the different NPA models. In particular, ALPARC has a mainly indirect impact, but it also influences the development of other territories and regions; it also has well-established mechanisms that helps it to be involved in strategic planning. NPA models with a clear territorial perspective have an economic impact in terms of income generation, tourism benefits.

Table 29: Summary of effects of selected NPAs on regional development and territorial planning

| <b>Effects on regional development</b>                                      |               |   |                           |               |
|---|---------------|---|---------------------------|---------------|
|   | <b>ALPARC</b> | <b>Alpi<br/>Marittime-<br/>Mercantour</b> | <b>Abruzzo<br/>Region</b> | <b>Razlog</b> |
| + = indicated directly<br>(+) indicated indirectly<br>- = not indicated     |               |   |                           |               |
| <b>Economic effects</b>   |               |   |                           |               |
| Economic value added  | (+)           | +   | +                         | +             |
| Creation of infrastructure  | -             | +   | (+)                       | -             |
| Visitor expenses  | -             | +   | +                         | +             |
| Local income  | (+)           | (+)                                       | +                         | +             |
| New jobs (job creation)   | -             | -   | (+)                       | (+)           |
| Tax revenue   | (+)           | -   | (+)                       | -             |
| Keeping people in region  | (+)           | +   | +                         | +             |
| Cross-sector cooperation  | (+)           | (+)                                       | +                         | -             |
| Other economic impacts (external funding)                                   | +             | +   | +                         | +             |
| Impacts on other regions, countries   | +             | +   | -                         | -             |
| <b>Involvement of NPAs in territorial development process</b>               |               |   |                           |               |
| Influence on planning processes of the PA areas within regional development | (+)           | +   | +                         | (+)           |

|   |   |   |     |   |
|---|---|---|-----|---|
| Mechanism to be involved in regional strategy development and regional planning | + | + | (+) | - |
|---|---|---|-----|---|

Source: LinkPAs project elaboration, 2018 on the basis of the matrix of Jungmeier et al. 2006

#### 7.6.4 Criteria to enhance NPAs influence on territorial development

The analysis of the stakeholder territories has led to identify several possible mechanisms that may help NPAs to fulfil their role in territorial development (Table 30):

Table 30: Criteria to enhance NPAs influence on territorial development

| Criteria for the implementation of strategies                               | Criteria for strategy development (not an exhaustive; more options may be available) |
|---|--|
| Adequate capacities and competences of NPA or PA staff                      | Legal acknowledgement, formal involvement  |
| Legal mandate/demand by policy or strategies                                | Strong lobbying activities   |
| Adequate funding instruments to fund actions                                | NPAs are formally recognised by bodies responsible for strategy development          |
| NPAs have standing relationships with the stakeholders they seek to involve | NPAs are well-established institutions   |
| Alignment with given objectives, programmes and strategies                  | NPAs scope of work extends beyond exiting boundaries                                 |

Source: LinkPAs project elaboration, 2018

## 8 The future role of NPAs in territorial development

Lange & Jungmeier claim that three different generations of protected areas can be defined (Lange & Jungmeier 2013). These typologies of protected areas can also apply for NPAs and have been defined according to the historic development of the protected areas movement.

Table 31: Generations of protected areas

|                    | 1 <sup>st</sup> Generation  | 2 <sup>nd</sup> Generation   | 3 <sup>rd</sup> Generation (Parks 3.0)   |
|--------------------|---|--|--|
| <b>Approach</b>    | statistic   | dynamic  | integrated   |
| <b>Concept</b>     | segregation   | balance  | integration  |
| <b>Motivation</b>  | ethic, romantic   | emotional, ethic-political   | rational, evidence-based   |
| <b>Steering</b>    | public administration, top down, regulating   | management, top down and bottom up, mediating  | governance, network, stimulating   |
| <b>Aim</b>         | species, habitats, sceneries  | land-use and ecosystems  | socio-sphere in eco-sphere   |
| <b>Disciplines</b> | natural sciences  | natural sciences, economics, (human & social sciences)   | natural sciences, economics, human & social sciences, planning techniques, philosophy & cultural sciences  |
| <b>Principles</b>  | long-term perspective, internationality, global perspective, ethically based approach | sustainable development, internationality, global perspective, benefit sharing, participation, governance, long-term perspective, knowledge management | sustainable development, internationality, global perspective, inter-& transdisciplinary, ecological and economic effectiveness, benefit sharing, participation, governance, long-term perspective, ethically based approach, knowledge management |
| <b>Process</b>     | constant  | cyclic   | ?  |
| <b>Complexity</b>  | low   | high   | very high  |
| <b>Staff</b>       | sectoral experts  | multisectoral experts / managers   | interdisciplinary managers   |
| <b>Education</b>   | sectoral  | (autodidact)   | specific education / training  |
| <b>References</b>  | Lane 2010<br>Weixlbaumer 1998   | Lane 2010<br>Weixlbaumer 1998<br>Imboden 2007<br>Mose 2005   | Imboden 2007<br>Getzener & Jungmeier 2009<br>Jungmeier 2011a   |

Source: Lange & Jungmeier 2013

Considering the current situation in the stakeholder territories, ALPARC and EGTC would be described as modern NPA of the 3<sup>rd</sup> generation as their integrated approach includes their attempt to influence decision-making processes, multi-stakeholder governance systems and the integration of different sectors; in contrast, Razlog can be considered as an NPA of the 1<sup>st</sup> generation and Abruzzo as part of the 2<sup>nd</sup> generation.

This classification also allows to understand the background and organization of the networks analysed here and also the underlying structures and existing capacities. After carrying out the analysis of the different stakeholder territories and their policy objectives, it has become clear that the most successful NPAs are those clustered under the 3<sup>rd</sup> generation type, as their basic understanding is in line with the policy demands expressed towards NPAs. Although Razlog and the Abruzzo Region can be seen as part of the 1<sup>st</sup> generation type due to the framework, competences and structures they are based on, they also strive towards the 3<sup>rd</sup> generation type. In this light, territorial contributions of NPAs should be analysed not only in terms of models, but according to the perception of protected areas as institutions. As a result, changing the NPA structures and models would also question the “raison d’être” of these protected areas and how they can adapt the connected structures (e.g. legal framework, staffing).

## **8.1 The role of NPAs in mainstreaming and influencing territorial development and NRM**

NPAs can potentially play an important role in bringing “ecological and sustainability topics” such as Green Infrastructure to a broader attention and lobbying to enhance them within policy processes. NPAs proved their ability to influence and shape territorial strategies by being (legally) part of advisory boards, steering committees or working groups such as EUSALP Action Groups. In order to strengthen NPAs.

This role can be still increased and particularly NPAs with legal integration (e.g. through conventions) or with a strong lobbying. ALPARC already identified this as a main pillar for future development.

Relying on their extensive knowledge on how to manage natural resources of ecologically sensitive mountain territories helps NPAs to develop a broad territorial perspective. This can in turn make them valuable partners for strategies aiming at territorial development.

Thus, planning strategies and policy stakeholders should formally include PAs and NPAs in decision-making processes (or at least consider them as consulting bodies). They are fully capable to participate in shaping policies, especially in those sectors where they are particularly skilled and have a significant knowledge base.

### **The role of NPAs in implementing NRM and territorial strategies**

NPAs with a specific territorial scope such as EGTC or the Abruzzo Region can be important partners for regional authorities as they can work as implementers of projects and strategies. In particular, if the strategies strive to operationalize core topics such as conservation, ecological connectivity, sustainable land-use, tourism, climate action, these networks can

become valuable partners for their effective implementation. However, authorities should first formally acknowledge the existing capacities and competences of these NPAs.

Policy makers working on planning strategies should consider NPAs as “implementing bodies” of government policies, particularly when performing those actions they have sufficient experience on (conservation, ecological connectivity, etc.). To develop those actions they are competent on (probably more efficiently and effectively than other organizations or offices), NPAs may also be allocated funds by their governments.

### **The role of NPAs in facilitating knowledge exchange**

Successful NPAs (e.g. ALPARC) contribute to gather dispersed knowledge and skills by making them available to the whole network (sometimes getting support from governments via funding in a second stage). They are often the only bodies able to transfer best-practices from one area to another. This is particularly relevant for NRM topics. This function will gain in weight in future as territorial strategies tend to focus on integrated and macroregional areas (e.g. GI-Strategy, river basin or watershed-based strategies).

## **8.2 Lessons learned and transferability**

The following section describes some key lessons learned from the case study areas investigated here; is also outlines the transferability of these key lessons onto other areas and they apply to NPAs in general. The success and role of NPAs need to be clearly designed and integrated and the lessons reported here can be used to this end.

NPAs require a clearly defined mission and objective that must be supported by a clear mandate.

Be they formal or informal, as part of public structures or not, successful NPAs must declare their key objectives as clearly as possible. NPAs need to do this via a formal mandate or a clearly defined role that allows them to influence policies on core topics. NPAs are new, often additional networks supplementing the work of existing administrative structures. They need to be included into the multi-stakeholder environments the latter work in. ALPARC and EGTC Alpi Marittime have their missions clearly defined and are therefore well integrated into the strategic processes that are most relevant to their work. This position can be achieved in two ways:

- By legal mandate from an appointed authority (e.g. through legal amendments)
- By mandate through effective and targeted lobbying (e.g. being involved and invited into strategic processes).

Consider NPAs capacities and competences

NPAs need to have appropriate structures, staff and capacities to fulfil their tasks. To be successful, policy objectives, NPA objectives and the structures of the NPA need to be aligned.

NPAs require continuity



A NPA requires time to be successful. For instance, ALPARC and EGTC Alpi Marittime-Mercantour required several years to consolidate their activities and to finally have broad impacts on their territories. Furthermore, standardized processes (e.g. periodic conferences, meetings) are crucial and need to be coherently established. Hence, a clear funding strategy and a potential link to funding instruments is essential.

#### NPAs are the most effective tools for sharing knowledge

NPAs of all types proved to be optimal instruments to share knowledge between different actors and protected areas. Consequently, these networks can also fulfil a communication role with regard to policy strategies (e.g. green infrastructures), as ALPARC demonstrates.

#### Alignment of objectives, strategies and mandate

If NPAs are supposed to achieve territorial impacts and influence on related policies, they need to be inserted in the policy documents. If a strategy establishes that an NPA has to serve as implementer, the NPA requires this to be stated in a formal mandate, coupled with adequate funding. Moreover, the NPA implementing tasks need to be in line with the objective and strategic documents that pertain to the NPA itself.

#### Remain focused

There is a general trend towards placing additional tasks and expectations on NPAs (Hammer et. al 2016). This also means extending the original mission of NPAs towards influencing territorial development, achieving regional economic development or combatting climate change. Furthermore, with the increasing trend to mainstream sustainable land management and the large coverage with Natura 2000 additional challenges appeared for PAs to extend their scope of work beyond their territories. This is where NPAs can come into play as they are potential actors to address a wider scope (e.g. ALPARC is influential because of its involvement in policies that apply to the whole alpine area, inside and outside protected areas).

Policy stakeholders need to acknowledge that NPAs can be crucial actors, although they are mostly the result of cooperation needs to tackle conservation. Therefore, NPAs need to be equipped with adequate funding instruments, capacities and competences if they are to fulfil additional roles.

## 9 Policy recommendations for integrating NPAs into territorial and sectoral development strategies in stakeholder Regions and European mountain regions

There is a general trend towards placing additional tasks and expectations on NPAs (Hammer et. al 2016). This also means extending the original mission of NPAs towards influencing territorial development, achieve regional economic development or combat climate change. Furthermore, the increasing trend to mainstream sustainable land management and the large coverage with Natura 2000 have brought about additional challenges for PAs, which have been forced to extend their scope of work beyond their territories. NPAs can come into play as potential actors that can address this wider scope for PAs.

The following policy recommendations aim to answer questions regarding the ways NPAs can cater for the stakeholders' needs (ToR, p. 4), with regard to the potential integration of NPAs within the policy framework and the implementation process in mountain regions, and in the stakeholders territories in particular. NPAs can provide appropriate territorial solutions to the various issues arising in terms of biodiversity and natural capital conservation in general, and within mountain areas in particular.

*The NPAs' role in this process can be successfully implemented if such a role is included within a regulatory framework, which fits in the European GI policy.*

In identifying four models of different types of NPAs in Europe, including both European mountain and the stakeholder territories, the LinkPAs project has highlighted the strong relationship between NPAs and the institutional context, which is mainly concerned with conservation and development strategies. It is therefore suggested that *NPAs should be allowed to take part in those processes that involve general and sectoral planning strategies and the management of natural resources, within stakeholder territories and across Europe.*

Two main fields of actions are identified both for territorial and sectoral development (integrated) strategies: a) NPAs active involvement in elaborating strategies; b) NPAs active involvement in implementing strategies. To enhance the NPAs active involvement in elaborating strategies, the LinkPAs project recommends that NPAs should:

- **be legally acknowledged, via a formal involvement, which allows to have a clearly defined mission;**
- **develop strong lobbying activities;**
- **be formally recognised by bodies responsible for strategy development;**
- **ensure that they are recognised as well-established institutions;**
- **extend scope of work beyond existing (political, administrative and physical) boundaries.**

To enhance the NPAs active involvement in implementing strategies, the LinkPAs project recommends that NPAs should:

- **develop adequate capacities and competences for all NPA or PA staff (capacity building);**

- **obtain a legal mandate, as a result of policy- or strategy-driven demands;**
- **be granted access to adequate funding instruments to fund actions;**
- **enhance their standing relationships with the stakeholders they seek to involve;**
- **align with set objectives, programmes and strategies;**

In this context, the linkPAs project has identified two general preconditions.

*The first general precondition is the establishment of a unified and harmonised planning strategy that sets forth a well-defined role for the NPAs within a given territory.*

This planning approach should be formally laid down in a convention or agreed upon on a voluntary basis by signing an official agreement proposed by the government and/or region that legally represents the territory in which the PAs are located. In this way NPAs become:

- 1) institutional bodies of territorial cooperation in the context of biodiversity policy at different levels in: a) orienting policy; b) maintaining international and European relations c) linking with EU cooperation programs d) dealing with international, European, transnational, national and regional strategies; e) suggesting innovative paths for sustainable territorial development;
- 2) management instruments that are able to: a) allow territories to receive, interpret and implement the directives linked to GIs on the basis of territorial diversity; b) actively interact with the government, regions, and municipalities in accordance with their institutional set-up and sectoral focus; c) coordinate PA actions; d) collaborate on and promote development strategies within PA territories; e) assessing PA actions qualitatively and quantitatively, along with ex-ante and ex-post assessment tools.

The LinkPAs project has remarked that NPAs need to promote, organise and manage activities in accordance with their territorial context. They can be involved in sustainable territorial development in:

- **carrying out analyses of the sectors that have an impact on the PAs and related businesses;**
- **supporting the development of sustainable strategic plans to integrate PAs into territorial polycentric development, in accordance with national/regional strategies;**
- **suggesting programmes that foster territorial cooperation among PAs;**
- **helping PAs to access funds;**
- **enhancing communication, exploitation and dissemination of the added value represented or produced by PAs;**
- **helping to multiply PAs relations with economic actors, particularly SMEs, in order to attract new investments**
- **monitoring and offering guidelines for sustainable territorial planning activities and PA management.**
- **promoting research and development, innovation and assessment within PAs.**

Therefore, *the second general precondition involves adopting the most useful management model for an NPA: choosing the right model in different contexts (on the basis of geographical diversity) will depend on the role that each NPA is assigned within a given territory.*

Policy stakeholders need to acknowledge that NPAs can be crucial actors, although they are mostly the result of cooperation needs to tackle conservation. Therefore, NPAs need to be equipped with adequate funding instruments, capacities and competences if they are to fulfil any additional roles.

### **General policy recommendations on improving NPAs role**

#### **1. Improving the EU GI policy in order to make the EU Biodiversity Strategy more effective**

Any improvements to the EU Biodiversity Strategy should take into account the enormous effort that NPAs have to make in order to hammer out an innovative approach to nature conservation. The NPAs' specific role as formal/institutional structures/bodies in managing any relevant issues/sectors (Biodiversity; Conservation; Tourism and recreation; Education, Agriculture and Forestry, Investment and employment; Transport; and Ecoservices) should be officially recognised. By doing so, NPAs would be better equipped to manage natural resources, developing integrated planning and multi-level governance. However, creating a common intervention policy (i.e. by means of a common methodological approach to sustainable spatial planning devoted to nature conservation) could limit or even impair the NPAs range of action. In terms of territorial natural conservation, it is recommended that the challenge does not lie in pinpointing common policies (or at least not in the short term), but in identifying the potential and more practical common parameters for the competitiveness of a protected territory. This also means detecting shared objectives, which may not necessarily depend on factors such as geographical diversity.

#### **2. Experimenting with new multi-level governance models**

As the four typologies of NPAs show, NPAs can influence policy-making processes in several ways and at different levels. Two major issues have clearly emerged from the analysis of EU and stakeholders territories: i) *how to preserve territorial diversity* and ii) *how to develop a common territorial policy (or policies)*. If they were granted a formal role, as proposed above, NPAs would act as innovative actors promoting advanced territorial models of governance, which are in compliance with national regulations. This implies the adoption of a new multi-level governance model, as proposed by an EGTC organisation (Ch. 3). The Abruzzo Region would particularly benefit from the application of such a model<sup>22</sup>, since this Region has a high number of both PAs and NPAs that cover most of its territory. The NPAs' active involvement in regional Biodiversity and Climate Change management could contribute to revisiting current regional policies by means of the integrated vision they provide. Working as GI, the NPAs could promote the implementation of a regional regulation policy devoted to climate change mitigation, including related ecoservices.

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<sup>22</sup> LinkPAs project wishes that the Apennine Region will arrange as EGTC in implementing the recent Chart on Climate Change mitigation signed on 22<sup>nd</sup> of May 2018 in Camerino (IT).

### **3. Extending the NPAs field of action across different territorial dimensions (identity, traditions, legislation, regulations, attitudes, economic activities, etc.) and within the framework of EU policies**

In order to fully comply with existing sustainable development criteria, it is important to stress how natural resources can be exploited in accordance with development strategies, particularly in mountain areas. An increasingly closer, long-term cooperation among stakeholders, especially within cross-border mountain areas, could certainly bridge the existing gap. In order to contribute to integrated territorial development strategies, NPAs should act as consultants for PAs. To this end, the former could make use of the financing opportunities offered by EC, ECB, and EIB, as well as national/regional financial support and funds. NPAs can help PAs in tackling issues by obtaining EU funds through the EU's many programmes (e.g. Structural Funds, ESIF 2020), which can also improve integrated policies. NPAs should take a leading role in promoting and financing PAs activities and attracting SMEs, e.g. facilitating the digital transition within mountain areas and developing innovative, technological and research activities.

### **4. Adopting ecoservices accounting within the framework of territorial diversity**

NPA policies must always take into account the geographical diversity, which is an inherent part of mountain regions, and make sure to invest in it. Climate change adaptation policies have certainly contributed to this so far. Therefore, NPAs within mountain areas can play a key role in the ongoing debate regarding ecoservices accounting as instrument to ensure sustainability at regional level. Therefore, as core bodies within the GI policy, NPAs could well be better suited to disseminating best practices and encouraging the exchange of experiences, as well as supporting the development of appropriate project solutions favouring access to European programs and funds related to the topic.

### **5. Stressing the experience of NPAs in the sustainable management of natural resources**

The extensive experience of NPAs in the sustainable management of natural resources justify a major involvement in the development of territorial strategies. NPAs should strengthen their role as agents to promote sustainable/green economic sectors, particularly their core sectors, ecological connectivity and knowledge exchange. NPAs have to play an important role in defining common standards for tourism, hiking, green labels, Natura 2000 management. NPAs can support the creation of strong sustainable and regional tourism brands in compliance with the general territorial objectives.

### **6. Supporting the designing and/or implementation of policy instruments to involve local business in territorial development**

NPAs can facilitate shared conservation and regional development goals by enhancing local assets and natural capital helping to design and implement policy instruments that can be used to involve private sector, particularly SMEs related to policy sectors on which NPAs exert some influence. To achieve this goal, it is important to consider the role that SMEs play in exploiting eco-technologies, which should be harnessed in order to enhance the quality of life and

regeneration of surrounding areas. Since each model of governance is more suitable in implementing and/or designing some specific type of policy instruments, among regulatory, economic and information and communication instruments, each NPA have to cooperate with regional/national authorities in compliance with its specific role, in the context of specific development strategies (e.g. Smart Specialisation); moreover, each NPA have to fill the gap for ensuring governance capacities to manage policy instruments in force.

**7. Promoting training and professional education for improving capacities on the NPAs to support the development and growth of SMEs within PAs and in surrounding territories.**

The NPAs are often the only bodies able to transfer best-practices from one area to another. This is particularly relevant for NRM topics. In this context, a reinforced role of NPAs in training activities is also useful to increase employment opportunities (e.g. by eco-services related development). The training function will gain in weight in future as territorial strategies tend to focus on integrated and macroregional areas (e.g. GI-Strategy, river basin or watershed-based strategies).

**8. Enhancing the NPAs' role in implementing Integrated Territorial Investment, Structural Funds (ESIF) and EU Infrastructural Plans to help PAs management in mountain area.**

The service sector attracts private investment, especially when dealing with research, agriculture, tourism and cultural heritage valorisation. An NPA's organisational structure should include experts able to manage economic and financial instruments linked to the economic valorisation of natural resources (e.g. support local employment within natural resources sectors). In a new scenario in which the NPAs' role is formally recognised, their *territorial capability* can be legitimated through national/regional policies, particularly by sectoral policies with a major impact at the regional and local level. Frameworks can be provided to help regional and national programmes to: address development opportunities and challenges within PAs; encourage cooperation between programmes that operate in the same mountain ranges.

**Specific policy recommendations for stakeholders mountain areas**

NPAs in mountain areas seek to develop economic opportunities to valorise their natural assets. This becomes increasingly important as public conservation budgets are shrinking and there is an increasing demand for implementing a wider range of activities. The Abruzzo Region and Razlog Municipality have considered this point as their main objective; but they are both still working on determining the way forward. In contrast, the EGTC Alpi Marittime-Mercantour has already reached this aim and consequently increased its reputation and status within the transborder region. During the implementation of the LinkPAs project, the dialogue with TA stakeholders allowed to sketch some specific recommendations.

**International Level:** As ALPARC is mainly working at a transnational strategic level, its direct impact on territorial planning is limited or rather indirect; the **ALPARC's** interests have focused on sharing experiences among PAs and regional and local bodies in charge of environmental

policies as well as on obtaining inputs for development of pilot actions at the pan-Alpine level, also through existing platforms (e.g. Platform Ecological Networks of the Alpine Convention) and contributions in the implementation of the EUSALP Action Plan. The LinkPAs project framework has allowed to list those elements that can help to develop ALPARC's action, and other similar NPAs. Hence, generally speaking, this type of NPAs can be encouraged to trigger further regional development, if in turn they reinforce their network's members' active participation in common projects and cooperation activities (be they transborder and local) to develop and disseminate the main goals and results achieved. Moreover, such NPAs need to be formally acknowledged and their institutional role in establishing working boards with the Regions needs to be reinforced. This in turn can ensure they obtain adequate funds. Such relations may increase awareness among regional and other authorities regarding the impact that policy actions can have on these NPAs. Other communication and dissemination activities could help to raise awareness among stakeholders. In this context, NPAs can prove their strength in demonstrating how stakeholders can take advantage from sharing common interests, exchange experiences and technical and scientific competences to as to tackle the same issues they may face. It goes without saying that NPAs can consequently bring together different public and private stakeholders, thus representing a wider range of protected areas, and expanding their scope beyond the single PAs. As a result, NPAs can facilitate the relations between single PAs and regional authorities and their participation to the planning and regional development processes. Lastly, NPAs encourage the development of EU projects, for and with PAs, and the procurement of funds that otherwise could not be obtained. The main weakness of these NPAs is the scarcity of dedicated human and economic resources that consequently implies the discontinuity of the network's activities and thus the absence of long-term program and still little project and planning work, in relation to which networks usually do not take leading role. Moreover, whilst the heterogeneous participation in the NPAs is an advantage, it also implies administrative and legal differences hard to overcome, as well as incoherence with the PAs' main institutional goals (mainly conservation) that are often overlooked. Also, these NPAs seem to struggle in participating in networks at regional level, which instead would facilitate an overall view also of the local realities. As for the effective communication of the outcomes of these NPAs, common promotional activities have demonstrated to be worth considering. For instance, using the web (and social media) to improve the PAs network is a viable solution: official websites of regional authorities and other entities as the Alpine Convention and national and international associations have already been used in this sense. Moreover, publishing technical and scientific publication reporting on these NPAs' achievements has also demonstrated to be important, along with the promotion of NPA-related events and exhibition, seeking the involvement of the wider public, institutions and the media. Shared and coordinated communication strategies targeting local and external actors are therefore highly recommended.

**Transboundary level:** An NPA is in a specific geographical, ecological, landscape area; this fosters the development of common strategies and projects for biodiversity management that

are generally more effective than those that may be implemented by single PAs. **EGTC European Park Alpi Marittime Mercantour** is particularly interested in reinforcing the mandate of the EGTC, also fostering transborder cooperation in relation with the dialogue among protected areas and territories at local level, implementation of existing policies and strategies for nature conservation, develop pilot actions at regional and cross-border levels (Italy-France) for the creation of green jobs. The LinkPAs project has highlighted that EGTC is the right tool for managing trans-boundary Protected Areas Networks. As a matter of fact, starting with preliminary collaboration activities, and then creating a real European Park, the Marittime-Mercantour has by now set the example in terms of trans-boundary management of biodiversity and natural resource. Within this Park, its protected areas have built a network based on an EGTC, while the main economical actors have built their own network via a European Economic Interest Grouping (EEIG) called “EUROCIN, Le Alpi del mare-les Alpes de la mer”. This group is driven by share economic interests, but it does not focus particularly on SMEs as such, nor it does on green economy. Yet, they already display and support some level of mobility, which is also linked to sustainable tourism. Creating stronger links between EGTC and EEIG is highly recommended in order to conceive a long term, sustainable economic management. However, these protected areas have well-defined missions that cannot be extended because of their lack of authority in this regard. In addition, they are already under a good deal of pressure as they try to reach their objectives via continuously shrinking public budgets. For this reason, it is very important to remark that protected areas are territorial reference points but not actors of economic development. They attempt to encourage good practices as developed by municipalities regions, or economic actors, but they are not directly responsible for economy or political decisions.

**Regional Level:** The **Abruzzo Region** is interested in how to implement national strategies on green economy at regional and local level; this can be achieved by formally establishing a regional NPA that can coordinate national, regional and local PAs (multilevel governance). This institutionalised organisation may act as a lobbying body to convey PA-related topics to a broader policy audience; in addition, it can offer technical support to measure territorial impacts of existing strategies for mountain areas (e.g. Italian Strategy for Inner Areas). The **widespread appreciation** of NPAs as NRM players in Abruzzo and the fact that their work is acknowledged in many policy documents are very good starting point for broadening the involvement of NPAs in a coordinated and, in some cases, institutionalized manner in future actions. It seems therefore safe to suggest that this type of NPAs should play an important role in the development of regional policies and wider-ranging policies such as mountain strategies and climate change strategies. Abruzzo and its PAs have already developed **good practices** and interesting operational tools to facilitate this kind of integration, which could be further extended and included in the planning instruments already in use. The existing NPAs could be encouraged to contribute to triggering regional development further, in particular by promoting activities and projects that can help to achieve common goals and obtain funds. The NPAs should therefore acquire more negotiating power and be allowed to participate in and address regional planning



processes. Moreover, more effective and efficient management of the resources, creating employment as well, could be provided by these very NPA.

In order to make regional and other authorities more aware of the impact that policy actions can have on NPAs, it is necessary to promote and facilitate the relations between PAs and Italian regions through consultations, debates, permanent working tables, etc. In general, the NPAs should strengthen their communication and promotion strategies so as to support their members and disseminate the results they have achieved. This targeted analysis has brought the importance of defining the institutional role of NPAs to the fore, as it can in turn help to formalise their involvement in the planning processes and ensure that their activities are financed. As for the Abruzzo Region's willingness to develop a trans-regional network in the Apennine area (as demonstrated by the application of the new process of Apennine Chart on Local Adaptation to Climate Change Carta), it is suggested that Abruzzo look to the example set by ALPARC in promoting pilot actions in the Alpine area.

**Local level: The well-established multi-stakeholder cooperation** between LAG Razlog, local or non-governmental networks, SMEs, etc. and the local administration, with the aim of drawing up proposals to obtain additional funding for NPAs is beneficial to territorial development, given that the needs of both the private and public sectors are taken into account. The **Razlog Municipality** can seize the opportunity to develop territorial strategies based on best practices (e.g. in the tourism sector and management of biodiversity), strengthen cooperation between two national parks within its borders (National Rila Parks and National Pirin Park) and expand into wider international networks of mountain areas (e.g. Network of Emblematic Mediterranean mountains). To do this, the Razlog Municipality should focus on:

- laying down a more clearly defined set of regulations and norms guarantee territorial conservation;
- better referring to and integrating the acts and laws that set the legal framework of the NPAs;
- introducing additional measures to support climate change mitigation in their plans;
- implementing better regulation management processes to enhance tourism and construction activities, for instance by establishing well-defined restrictions regarding the number of visitors and vehicles that are granted access to the glacier area called "Seven Rila lakes" and its surrounding territories;
- disseminating their park-related activities among the local populations via social media or organizing regular seminars, workshops, lectures (with the involvement of scholars and researchers);
- establishing a network of (experimental) observation plots that will assess the dynamics and the ecological conservation status of forest habitats - more efforts are needed to identify specific measures for overall environmental improvement.

**The active role of PAs by NPAs implies moving towards a joint capitalization. In few words, NPAs should try to harmonise the currently fragmented situation affecting their territorial natural capital. To do this, it is necessary for the many existing actors**

**to work together and commit to ensuring their full involvement in project development and planning.**

## **10 Proposals for further research in the subject area of NPA activity**

The findings of the LinkPAs project suggest a series of potential avenues for further research related to the processes and mechanisms through which local and regional stakeholders can promote smart, sustainable and inclusive development.

LinkPAs project scope was to explore the role of existing NPAs to define and implement sustainable territorial development strategies and policies. Further research is required to deepen the meaning of these results. On the basis of the evidence collected and our proposed recommendations, future research may be geared to the following areas.

It is possible to apply the deep analysis carried out for existing NPAs in stakeholder's regions to other existing NPAs, enlarging the panel of case studies to provide other more detailed evidence of the impact that NPAs have on growth in different territorial areas. This research will be useful in integrating NPAs management at regional level, in particular Natura 2000, with NPAs management at national level

It would be useful to promote further investigation on PAs and NPAs role on territorial scope and governance issues in applying the EU instruments (ESIF), in particular CAP, in relation with the EU Biodiversity Strategy and climate change mitigation. Since the cross border and crosscutting nature of NPAs this investigation would be particularly indicated in implementing the green infrastructure policy related research.

The NPA object as conceived in LinkPAs project is useful to better enhance the nexus 'economic development - environmental benefits' in analysing PAs as producers of public goods (High Nature Value). Further investigation is needed in considering new ways to manage PAs in their delivery of social, economic and environmental benefits through coordinated policy and practice by NPAs. Measuring the well-being and the quality of life produced by the NPAs action should be a new related task in this investigation. The place evidence of this measure could reinforce the role of mountain areas in future EU policy attracting new investments.

The analysis of the demand of competences for three clusters of policy instruments (i.e. regulatory, economic, information and other) has shown that some NPAs governance models display greater coherence in terms of NPAs governance capacities and governance needs associated to each policy instrument for its design and implementation. Such preliminary finding would need to be further investigated by means of a screening on the policies and policy instruments that can both support

SMEs and refer (directly, thematically, or indirectly) to the policy sectors influenced by NPAs by identify the interested SME categories.

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## **List of Annexes**

Annex 1: List of documents for case studies

Annex 2: Data from the WDPA database

Annex 3: Data from the CDDA database

Annex 4: Template Questionnaire Administered to the local Stakeholders by the LinkPAs partners

## **Annex 1: List of documents for case studies**

### **ALPARC**

ALPARC Strategy 2016-2021 available in French, German, Slovenian, Italian at <http://www.alparc.org/the-alparc-network/alparc-s-objectives>

Plan d'action ALPARC 2016 – 2021 available in French, German, Slovenian, Italian at <http://www.alparc.org/the-alparc-network/alparc-s-objectives>

ALPARC Political Demands available in English and German at <http://www.alparc.org/the-alparc-network/alparc-s-objectives>

ALPARC Vision available in French, German, Slovenian, Italian at <http://www.alparc.org/the-alparc-network/alparc-s-objectives>

Activity programme 2016-2021 available in English at <http://www.alparc.org/the-alparc-network/alparc-s-objectives>

Protocol “Nature Protection and Landscape Conservation” to the Alpine Convention available at [http://www.alpconv.org/en/convention/protocols/Documents/protokoll\\_naturschutzGB.pdf](http://www.alpconv.org/en/convention/protocols/Documents/protokoll_naturschutzGB.pdf)

Multiannual Work Programme of the Alpine Conference 2017-2022 (Alpine Convention, 2016) Alpine Convention available at [http://www.alpconv.org/en/convention/workprogramme/Documents/MAP2017-22\\_en.pdf](http://www.alpconv.org/en/convention/workprogramme/Documents/MAP2017-22_en.pdf)

Alpine Convention - Mandate Platform Ecological Network available at [http://www.alpconv.org/en/organization/groups/WGEcologicalNetwork/Documents/ECONET2017-2018\\_EN.pdf](http://www.alpconv.org/en/organization/groups/WGEcologicalNetwork/Documents/ECONET2017-2018_EN.pdf)

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Candidate Dossier for adopting ECST - European Charter for Sustainable Tourism in Protected Areas Dossier De Candidature CETD “Promouvoir à l'échelle des parcs Mercantour et Alpi Marittime, un tourisme durable à forte valeur ajoutée locale qui contribue au maintien de la

biodiversité, des paysages et à la préservation des patrimoines culturels” available at <http://fr.marittimemercantour.eu/media/2d1326a0.pdf>

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Transborder Integrated Plan - Piano Integrato Transfrontaliero Alpi Marittime - Mercantour, financed by tranborder cooperation programme ALCOTRA 2007-2013, available at <http://it.marittimemercantour.eu/progetti/pit>,  
<http://it.marittimemercantour.eu/media/177dbf87.pdf>

## **Abruzzo Region**

A strategy for inner areas in Italy: definition, objectives, tools and governance (2014) - [http://www.agenziacoesione.gov.it/opencms/export/sites/dps/it/documentazione/servizi/materiali\\_uval/Documenti/MUVAL\\_31\\_Aree\\_interne\\_ENG.pdf](http://www.agenziacoesione.gov.it/opencms/export/sites/dps/it/documentazione/servizi/materiali_uval/Documenti/MUVAL_31_Aree_interne_ENG.pdf)

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Sangro-Trigno

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### **Razlog Municipality**

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## Annex 2: Data from the WDPA database

IUCN Categories: NA = Not Assigned; NR = Not Reported; Not App = Not Applicable.  
The typologies also included in the CDDA are highlighted in red.

| Country                                   | Definition or Type of PA                             | IUCN       | No. of PAs |
|---|--|------------|------------|
| Austria                                   | <b>Biosphere Park</b>                                | V          | 1          |
|   |  | VI         | 3          |
|   | <b>Ecological Development Area</b>                   | IV         | 3          |
|   | <b>Ex-lege landscape protection</b>                  | V          | 1          |
|   | <b>Flora Protection Area</b>                         | IV         | 3          |
|   |  | V          | 2          |
|   | <b>landscape and nature protection area</b>          | IV         | 4          |
|   | <b>Landscape Protection Area</b>                     | IV         | 1          |
|   |  | V          | 246        |
|   | <b>National Park</b>                                 | II         | 9          |
|   | <b>Nature Park</b>                                   | IV         | 4          |
|   |  | V          | 46         |
|   | <b>Nature Reserve</b>                                | IV         | 465        |
|   | <b>Protected biotopes</b>                            | III        | 3          |
|   | <b>Protected Habitat</b>                             | IV         | 6          |
|   | <b>Protected Landscape Section</b>                   | III        | 125        |
|   |  | IV         | 158        |
|   |  | V          | 48         |
|   | <b>Protected Natural Objects of local importance</b> | III        | 8          |
|   | Ramsar Site, Wetland of International Importance     | NR         | 15         |
|   | Regional protected areas                             | III        | 9          |
|   | <b>Rest Area</b>                                     | IV         | 10         |
|   | Site of Community Importance (Habitats Directive)    | Not App/NR | 253        |
| <b>special conservation areas</b>         | IV   | 3          |            |
| Special Protection Area (Birds Directive) | NR   | 99         |            |
| townscape protected area                  | NA   | 1          |            |
| World Heritage Site                       | Not App  | 1          |            |



|                     |   |         |     |
|---------------------|---|---------|-----|
| Belgium             | Certified Nature Reserve (Brussels Capital Region)            | NA      | 1   |
|                     | <b>Certified Nature Reserve (Flemish Region)</b>              | IV      | 359 |
|                     | <b>Certified Nature Reserve (Walloon Region)</b>              | IV      | 146 |
|                     | Flemish Ecological Network (Flemish Region)                   | NA      | 222 |
|                     | Forest Reserve (Brussels Capital Region)                      | NA      | 2   |
|                     | <b>Forest Reserve (Flemish Region)</b>                        | IV      | 62  |
|                     | <b>Forest Reserve (Walloon Region)</b>                        | VI      | 18  |
|                     | Green zone of high biological value (Brussels Capital Region) | NA      | 39  |
|                     | Marine Protected Area (OSPAR)                                 | Not App | 2   |
|                     | Military zones (Flemish Region)                               | NA      | 23  |
|                     | <b>Nature Park (Walloon Region)</b>                           | V       | 9   |
|                     | Protected Dunes (Flemish Region)                              | NA      | 104 |
|                     | Protected zone in the forest (Brussels Capital Region)        | NA      | 4   |
|                     | <b>Public Forest (Flemish Region)</b>                         | VI      | 5   |
|                     | Ramsar Site, Wetland of International Importance              | IV      | 2   |
|                     |   | NR      | 5   |
|                     |   | V       | 1   |
|                     | Regional nature reserve (Brussels Capital Region)             | NA      | 13  |
|                     | <b>Regional Nature Reserve (Flemish Region)</b>               | IV      | 74  |
|                     | <b>Scientific Interest Site (Walloon Region)</b>              | IV      | 153 |
|                     | Site of Community Importance (Habitats Directive)             | IV      | 281 |
|                     | Special Protection Area (Birds Directive)                     | IV      | 255 |
|                     | <b>State Nature Reserve (Walloon Region)</b>                  | IV      | 215 |
| World Heritage Site | Not App   | 1       |     |

|          |  |     |     |
|----------|--|-----|-----|
| Bulgaria | <b>Managed Reserve</b>                           | IV  | 35  |
|          | <b>National Park</b>                             | II  | 3   |
|          | <b>Natural Monument</b>                          | III | 349 |
|          | <b>Nature Park</b>                               | V   | 11  |
|          | <b>Protected Site</b>                            | III | 1   |
|          |  | VI  | 562 |
|          | Ramsar Site, Wetland of International Importance | NR  | 8   |

|  |   |         |     |
|--|---|---------|-----|
|  | Site of Community Importance (Habitats Directive) | NR      | 233 |
|  | Special Protection Area (Birds Directive)         | NR      | 119 |
|  | <b>Strict Nature Reserve</b>                      | la      | 55  |
|  | UNESCO-MAB Biosphere Reserve                      | Not App | 1   |
|  | World Heritage Site                               | Not App | 3   |

|         |   |         |     |
|---------|---|---------|-----|
| Croatia | <b>Forest Park</b>                                | NA      | 26  |
|         | <b>Horticultural Monument</b>                     | NA      | 119 |
|         | <b>National Park</b>                              | NA      | 8   |
|         | <b>Natural Monument</b>                           | NA      | 80  |
|         | <b>Nature Park</b>                                | NA      | 11  |
|         | Ramsar Site, Wetland of International Importance  | NR      | 5   |
|         | <b>Regional Park</b>                              | NA      | 2   |
|         | <b>Significant Landscape</b>                      | NA      | 82  |
|         | Site of Community Importance (Habitats Directive) | NR      | 741 |
|         | Special Protection Area (Birds Directive)         | NR      | 38  |
|         | <b>Special Reserve</b>                            | NA      | 77  |
|         | <b>Strict Reserve</b>                             | NA      | 2   |
|         | UNESCO-MAB Biosphere Reserve                      | Not App | 2   |
|         | World Heritage Site                               | Not App | 2   |

|  |   |    |    |
|--|---|----|----|
| Cyprus   | <b>National Forest Park</b>                             | II | 9  |
|  |   | V  | 1  |
|  | <b>Nature Reserve</b>                                   | la | 1  |
|  |   | II | 5  |
|  | <b>Ramsar Site, Wetland of International Importance</b> | NR | 1  |
|  | Site of Community Importance (Habitats Directive)       | NR | 40 |
|  | Special Protection Area (Birds Directive)               | NR | 30 |
| Specially Protected Areas of Mediterranean Importance (Barcelona Convention) | NA  | 1  |    |

|                |                                 |     |    |
|----------------|---------------------------------|-----|----|
| Czech Republic | <b>National Nature Monument</b> | III | 56 |
|                |                                 | IV  | 61 |

|  |   |            |      |
|--|---|------------|------|
|  |   | V          | 3    |
|  | <b>National Nature Reserve</b>                    | la         | 9    |
|  |   | lb         | 2    |
|  |   | III        | 21   |
|  |   | IV         | 75   |
|  |   |            |      |
|  | <b>National Park</b>                              | II         | 3    |
|  |   | V          | 1    |
|  | <b>Nature Monument</b>                            | lb         | 2    |
|  |   | III        | 516  |
|  |   | IV         | 1037 |
|  |   | V          | 4    |
|  | <b>Nature Reserve</b>                             | lb         | 1    |
|  |   | III        | 52   |
|  |   | IV         | 756  |
|  | <b>Protected Landscape Area</b>                   | V          | 26   |
|  | Ramsar Site, Wetland of International Importance  | NR         | 14   |
|  | Site of Community Importance (Habitats Directive) | Not App/NR | 1112 |
|  | Special Protection Area (Birds Directive)         | NR         | 41   |
|  | UNESCO-MAB Biosphere Reserve                      | Not App    | 6    |

|  |   |         |      |
|--|---|---------|------|
| Denmark  | <b>Protected habitats (all lakes, bogs, streams, heaths and meadows etc.)</b> | IV      | 97   |
|  | Baltic Sea Protected Area (HELCOM)  | NR      | 66   |
|  | Marine Protected Area (OSPAR)   | Not App | 34   |
|  | <b>National Park</b>  | NA      | 4    |
|  | <b>Protected by conservation order, excl. Church surroundings</b>             | la      | 6    |
|  |   | lb      | 7    |
|  |   | II      | 9    |
|  |   | III     | 20   |
|  |   | IV      | 203  |
|  |   | NA      | 146  |
|  |   | V       | 1425 |
| Ramsar Site, Wetland of International Importance | NR  | 28      |      |

|  |   |         |     |
|--|---|---------|-----|
|  | Site of Community Importance (Habitats Directive) | NR      | 261 |
|  | Special Protection Area (Birds Directive)         | NR      | 113 |
|  | World Heritage Site                               | Not App | 2   |

|                               |   |     |      |
|-------------------------------|---|-----|------|
| Estonia                       | Baltic Sea Protected Area (HELCOM)  | NR  | 7    |
|                               | <b>Limited management zone of national park</b>                               | VI  | 29   |
|                               | <b>Limited management zone of natural object protected at municipal level</b> | V   | 22   |
|                               | <b>Limited management zone of nature reserve</b>                              | V   | 2    |
|                               |   | VI  | 176  |
|                               | <b>Limited management zone of protected landscape</b>                         | V   | 593  |
|                               |   | VI  | 7    |
|                               | <b>Limited-conservation area</b>  | VI  | 335  |
|                               | <b>Managed conservation zone of national park</b>                             | IV  | 89   |
|                               |   | V   | 2    |
|                               | <b>Managed conservation zone of nature reserve</b>                            | Ib  | 1    |
|                               |   | IV  | 318  |
|                               |   | V   | 23   |
|                               | <b>Managed conservation zone of protected landscape</b>                       | Ib  | 1    |
|                               |   | IV  | 111  |
|                               |   | V   | 112  |
|                               | National park   | NA  | 5    |
|                               | Natural object protected at municipal level                                   | NA  | 20   |
|                               | Nature reserve  | NA  | 158  |
|                               | Protected landscape (nature park)   | NA  | 152  |
|                               | <b>Protected nature monument</b>  | III | 1125 |
|                               |   | V   | 1    |
|                               | Ramsar Site, Wetland of International Importance                              | NR  | 14   |
|                               | Site of Community Importance (Habitats Directive)                             | NR  | 542  |
|                               | Special Protection Area (Birds Directive)                                     | NR  | 66   |
|                               | <b>Strict nature reserve of national park</b>                                 | Ia  | 17   |
|                               | <b>Strict nature reserve of nature reserve</b>                                | Ia  | 12   |
| <b>Unzoned protected area</b> | III   | 1   |      |

|  |  |    |      |
|--|--|----|------|
|  |  | NA | 76   |
|  |  | V  | 126  |
|  | <b>Wilderness conservation zone of national park</b>       | lb | 61   |
|  | <b>Wilderness conservation zone of nature reserve</b>      | lb | 172  |
|  |  | IV | 3    |
|  |  | V  | 1    |
|  | <b>Wilderness conservation zone of protected landscape</b> | lb | 85   |
|  |  | IV | 1    |
|  |  | V  | 2    |
|  | Woodland key habitat                                       | NA | 4813 |

|  |   |     |       |
|--|---|-----|-------|
| Finland  | Baltic Sea Protected Area (HELCOM)                | NR  | 27    |
|  | <b>Grey Seal Protection Area</b>                  | IV  | 7     |
|  | <b>Herb Rich Forest Reserve</b>                   | lb  | 1     |
|  |   | IV  | 46    |
|  | <b>National Park</b>                              | lb  | 1     |
|  |   | II  | 38    |
|  | <b>Old Growth Forest Reserve</b>                  | lb  | 2     |
|  |   | IV  | 88    |
|  |   | NA  | 1     |
|  | <b>Private Nature Reserve</b>                     | lb  | 4     |
|  |   | III | 1     |
|  |   | IV  | 106   |
|  |   | NA  | 10422 |
|  |   | VI  | 14    |
|  | <b>Protected Habitat Type</b>                     | IV  | 21    |
|  |   | NA  | 1141  |
|  | <b>Protected Mire</b>                             | lb  | 93    |
|  |   | IV  | 77    |
|  | Ramsar Site, Wetland of International Importance  | NR  | 47    |
|  | Site of Community Importance (Habitats Directive) | NR  | 1634  |
| <b>Site of Species Under Strict Protection</b> | IV  | 6   |       |

|  |  |         |     |
|--|--|---------|-----|
|  |  | NA      | 217 |
|  | Special Protection Area (Birds Directive)                                | NR      | 456 |
|  | <b>State Forest Protected by Decision of the Forest and Park Service</b> | IV      | 24  |
|  | <b>State Nature Reserve</b>  | la      | 2   |
|  |  | lb      | 11  |
|  |  | III     | 1   |
|  |  | IV      | 18  |
|  |  | NA      | 134 |
|  |  | V       | 3   |
|  | <b>Strict Nature Reserve</b>   | la      | 18  |
|  |  | IV      | 1   |
|  | Temporary Protection Order   | NA      | 153 |
|  | <b>Wilderness Area</b>   | lb      | 12  |
|  | World Heritage Site  | Not App | 1   |

|        |   |         |     |
|--------|---|---------|-----|
| France | <b>Biotope Protection Order</b>   | IV      | 828 |
|        | <b>Corsican Nature Reserve</b>  | IV      | 6   |
|        | <b>Forest Biological Reserve</b>  | la      | 46  |
|        |   | IV      | 189 |
|        | <b>Land acquired by a regional conservatory of natural areas</b>                              | IV      | 780 |
|        | <b>Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy)</b> | IV      | 576 |
|        | <b>Marine Nature Park</b>   | V       | 6   |
|        | Marine Protected Area (OSPAR)   | Not App | 39  |
|        | <b>National Hunting and Wildlife Reserve</b>  | IV      | 10  |
|        | <b>National Nature Reserve</b>  | III     | 13  |
|        |   | IV      | 139 |
|        | <b>National Park - Buffer zone/Area of adhesion</b>   | V       | 7   |
|        | <b>National Park - Core Area</b>  | II      | 6   |
|        |   | V       | 1   |
|        | <b>National Park - Integrale Reserve</b>  | la      | 2   |
|        | Ramsar Site, Wetland of International Importance  | IV      | 1   |
| NR     |   | 36      |     |

|  |  |         |      |
|--|--|---------|------|
|  | <b>Regional Nature Park</b>  | V       | 49   |
|  | <b>Regional Nature Reserve</b>   | IV      | 134  |
|  | Site of Community Importance (Habitats Directive)                            | Not App | 5    |
|  |  | NR      | 1364 |
|  | Special Protection Area (Birds Directive)                                    | NR      | 397  |
|  | Specially Protected Areas of Mediterranean Importance (Barcelona Convention) | NA      | 5    |
|  | UNESCO-MAB Biosphere Reserve   | Not App | 1    |
|  | World Heritage Site  | Not App | 4    |

|                     |   |         |      |
|---------------------|---|---------|------|
| Germany             | Baltic Sea Protected Area (HELCOM)                | NR      | 12   |
|                     | <b>Landscape Protection Area</b>                  | NA      | 109  |
|                     |   | V       | 8646 |
|                     | Marine Protected Area (OSPAR)                     | Not App | 6    |
|                     | <b>National Park</b>                              | II      | 16   |
|                     | <b>Nature Reserve</b>                             | IV      | 8249 |
|                     |   | NA      | 517  |
|                     |   | V       | 3    |
|                     | Ramsar Site, Wetland of International Importance  | NR      | 31   |
|                     | Site of Community Importance (Habitats Directive) | NR      | 4554 |
|                     | Special Protection Area (Birds Directive)         | NR      | 742  |
|                     | UNESCO-MAB Biosphere Reserve                      | Not App | 3    |
| World Heritage Site | Not App   | 3       |      |

|        |   |     |    |
|--------|---|-----|----|
| Greece | <b>Absolute Nature Reserve area</b>                         | la  | 2  |
|        |   | II  | 1  |
|        |   | IV  | 1  |
|        | <b>Absolute nature reserve zone in National Marine Park</b> | la  | 1  |
|        | <b>Absolute nature reserve zone in National Park</b>        | la  | 4  |
|        |   | III | 1  |
|        |   | IV  | 1  |
|        | <b>Aesthetic Forest</b>                                     | III | 19 |

|   |     |    |
|---|-----|----|
| Controlled hunting area   | NA  | 7  |
| <b>Core zone in National (Woodland) Park</b>                                | II  | 10 |
| Game breeding station   | NA  | 21 |
| <b>National (Woodland) Park - Peripheral zone</b>                           | VI  | 5  |
| <b>National Marine Park</b>   | IV  | 1  |
|   | VI  | 1  |
| National Marine Park - Peripheral zone                                      | NA  | 1  |
| <b>National Park</b>  | IV  | 1  |
|   | V   | 1  |
|   | VI  | 13 |
| <b>National Park - Peripheral zone</b>                                      | NA  | 3  |
|   | VI  | 10 |
| <b>Natural Monuments and landmarks (protected as strict nature reserve)</b> | Ia  | 2  |
|   | III | 7  |
| <b>Nature reserve area</b>  | II  | 1  |
|   | IV  | 3  |
|   | V   | 1  |
|   | VI  | 4  |
| <b>Nature reserve area - Peripheral zone</b>                                | V   | 1  |
|   | VI  | 1  |
| <b>Nature reserve zone in National Marine Park</b>                          | Ia  | 1  |
|   | II  | 1  |
|   | IV  | 1  |
| <b>Nature reserve zone in National Park</b>                                 | II  | 12 |
|   | IV  | 7  |
|   | VI  | 7  |
| <b>Others</b>   | II  | 1  |
|   | III | 1  |
|   | IV  | 4  |
|   | NA  | 4  |
|   | V   | 2  |
|   | VI  | 29 |
| Protected Forest  | VI  | 3  |



|  |  |         |     |
|--|--|---------|-----|
|  | <b>Protected significant natural formation, protected landscape and landscape elements</b> | III     | 1   |
|  |  | IV      | 1   |
|  |  | NA      | 1   |
|  | Ramsar Site, Wetland of International Importance   | NR      | 10  |
|  | Site of Community Importance (Habitats Directive)  | NR      | 241 |
|  | Special Protection Area (Birds Directive)  | NR      | 202 |
|  | UNESCO-MAB Biosphere Reserve   | Not App | 2   |
|  | <b>Wildlife Refugee</b>  | IV      | 603 |
|  | World Heritage Site  | Not App | 2   |

|   |   |     |     |
|---|---|-----|-----|
| Hungary                                   | <b>Landscape Protection Area</b>                  | V   | 39  |
|   | <b>National Park</b>                              | II  | 5   |
|   |   | V   | 5   |
|   | <b>Natural Monument</b>                           | III | 88  |
|   | <b>Nature Conservation Area</b>                   | IV  | 156 |
|   |   | NA  | 1   |
|   |   | V   | 13  |
|   | Ramsar Site, Wetland of International Importance  | NR  | 28  |
|   | Site of Community Importance (Habitats Directive) | NR  | 479 |
| Special Protection Area (Birds Directive) | NR  | 56  |     |
| World Heritage Site                       | Not App   | 1   |     |

|                       |                               |         |    |
|-----------------------|-------------------------------|---------|----|
| Iceland               | <b>Conservation Area</b>      | IV      | 1  |
|                       |                               | V       | 1  |
|                       | <b>Habitat protection</b>     | IV      | 3  |
|                       |                               | V       | 1  |
|                       | Marine Protected Area (OSPAR) | Not App | 9  |
|                       | <b>National Park</b>          | II      | 3  |
|                       | <b>Natural Monument</b>       | II      | 1  |
|                       |                               | III     | 41 |
|                       |                               | IV      | 1  |
| <b>Nature Reserve</b> | Ia                            | 2       |    |

|                     |  |     |    |
|---------------------|--|-----|----|
|                     |  | Ib  | 2  |
|                     |  | II  | 1  |
|                     |  | III | 3  |
|                     |  | IV  | 14 |
|                     |  | V   | 4  |
|                     |  | VI  | 13 |
|                     | <b>Public Recreation Area or Country Park</b>    | V   | 23 |
|                     | Ramsar Site, Wetland of International Importance | NR  | 4  |
| World Heritage Site | Not App  | 1   |    |

|         |   |         |     |
|---------|---|---------|-----|
| Ireland | Marine Protected Area (OSPAR)                     | Not App | 19  |
|         | <b>Natural Heritage Area</b>                      | IV      | 155 |
|         | Ramsar Site, Wetland of International Importance  | NR      | 36  |
|         | Site of Community Importance (Habitats Directive) | NR      | 430 |
|         | Special Protection Area (Birds Directive)         | NR      | 165 |
|         | UNESCO-MAB Biosphere Reserve                      | Not App | 2   |

|       |  |     |     |
|-------|--|-----|-----|
| Italy | <b>International significance Natural Marine Area</b>            | IV  | 1   |
|       | <b>National Park</b>   | II  | 24  |
|       | <b>Natural Marine Reserve and Natural Protected Marine Areas</b> | IV  | 27  |
|       | <b>Other Protected Natural Regional Areas</b>                    | III | 55  |
|       |  | IV  | 53  |
|       |  | V   | 63  |
|       | Others   | IV  | 2   |
|       | Ramsar Site, Wetland of International Importance                 | III | 1   |
|       |  | IV  | 1   |
|       |  | NR  | 48  |
|       | <b>Regional/Provincial Nature Park</b>                           | IV  | 66  |
|       |  | V   | 68  |
|       | <b>Regional/Provincial Nature Reserve</b>                        | Ia  | 24  |
|       |  | IV  | 291 |
|       |  | V   | 50  |

|  |  |         |      |
|--|--|---------|------|
|  | Site of Community Importance (Habitats Directive)                            | NA / NR | 2321 |
|  | Special Protection Area (Birds Directive)                                    | NR      | 610  |
|  | Specially Protected Areas of Mediterranean Importance (Barcelona Convention) | NA      | 11   |
|  | <b>State Nature Reserve</b>  | la      | 92   |
|  |  | IV      | 51   |
|  |  | V       | 4    |
|  | UNESCO-MAB Biosphere Reserve   | Not App | 1    |
|  | World Heritage Site  | Not App | 5    |

|                              |   |     |     |
|------------------------------|---|-----|-----|
| Latvia                       | Baltic Sea Protected Area (HELCOM)                | IV  | 1   |
|                              |   | NR  | 6   |
|                              | <b>Biosphere Reserve</b>                          | V   | 1   |
|                              | <b>Micro-reserve</b>                              | IV  | 24  |
|                              | <b>National Park</b>                              | II  | 4   |
|                              | <b>Nature Monument</b>                            | III | 357 |
|                              | <b>Nature Park</b>                                | II  | 41  |
|                              |   | IV  | 1   |
|                              | <b>Nature Reserve</b>                             | IV  | 261 |
|                              | <b>Protected Landscape Area</b>                   | V   | 9   |
|                              | <b>Protected Marine Area</b>                      | IV  | 7   |
|                              | Ramsar Site, Wetland of International Importance  | NR  | 6   |
|                              | Site of Community Importance (Habitats Directive) | NR  | 328 |
|                              | Special Protection Area (Birds Directive)         | NR  | 99  |
| <b>Strict Nature Reserve</b> | lb  | 4   |     |

|               |  |    |    |
|---------------|--|----|----|
| Liechtenstein | <b>Forest Reserve</b>                            | lb | 9  |
|               | <b>Nature Reserve</b>                            | la | 11 |
|               | <b>Protected Forest</b>                          | IV | 22 |
|               | Protected Landscape                              | V  | 2  |
|               | Ramsar Site, Wetland of International Importance | la | 1  |

|           |                                    |    |   |
|-----------|------------------------------------|----|---|
| Lithuania | Baltic Sea Protected Area (HELCOM) | IV | 1 |
|-----------|------------------------------------|----|---|

|  |   |         |     |
|--|---|---------|-----|
|  |   | NR      | 5   |
|  | <b>Biosphere polygon</b>                          | VI      | 30  |
|  | <b>Biosphere Reserve</b>                          | Ia      | 1   |
|  | <b>Nature Reserve</b>                             | IV      | 401 |
|  |   | V       | 1   |
|  |   | VI      | 2   |
|  | Ramsar Site, Wetland of International Importance  | NR      | 6   |
|  | <b>Recuperational plot</b>                        | IV      | 3   |
|  | Site of Community Importance (Habitats Directive) | Not App | 66  |
|  |   | NR      | 409 |
|  | Special Protection Area (Birds Directive)         | NR      | 84  |
|  | <b>State Park</b>                                 | II      | 5   |
|  |   | V       | 30  |
|  | <b>State Strict Reserve</b>                       | Ia      | 5   |
|  |   | V       | 1   |

|            |   |    |    |
|------------|---|----|----|
| Luxembourg | <b>Integral forest protection area</b>                  | Ib | 5  |
|            | <b>Nature Park</b>                                      | II | 2  |
|            | <b>Protected Area</b>                                   | Ib | 44 |
|            | <b>Ramsar Site, Wetland of International Importance</b> | IV | 2  |
|            | Site of Community Importance (Habitats Directive)       | NR | 48 |
|            | Special Protection Area (Birds Directive)               | NR | 18 |
|            | <b>ZPS - Natura 2000</b>                                | IV | 17 |
|            | <b>ZSC - Natura 2000</b>                                | IV | 48 |

|       |  |     |    |
|-------|--|-----|----|
| Malta | <b>Area of Ecological Importance</b>                               | IV  | 20 |
|       | <b>Area of Ecological Importance/Site of Scientific Importance</b> | IV  | 44 |
|       | <b>Area of High Landscape Value</b>                                | V   | 13 |
|       | <b>Bird Sanctuary</b>  | IV  | 15 |
|       |  | NA  | 11 |
|       | <b>List of Historical Trees Having an Antiquarian Importance</b>   | III | 6  |
|       | <b>National Park</b>   | II  | 1  |

|  |   |    |    |
|--|---|----|----|
|  | <b>Nature Reserve (Filfla)</b>                                  | la | 1  |
|  | <b>Nature Reserve (Islands)</b>                                 | la | 2  |
|  | <b>No Berthing Zone/No Entry Zone except for Fisheries</b>      | VI | 1  |
|  | Protected Beaches   | NA | 11 |
|  | Site of Community Importance (Habitats Directive)               | NR | 35 |
|  | <b>Site of Scientific Importance</b>                            | IV | 10 |
|  | <b>Special Areas of Conservation - International Importance</b> | IV | 35 |
|  | <b>Special Areas of Conservation - National Importance</b>      | IV | 7  |
|  | Special Protection Area (Birds Directive)                       | NR | 21 |
|  | <b>Special Protection Areas</b>                                 | IV | 21 |
|  | <b>Tree Protection Area</b>                                     | IV | 30 |

|             |   |         |     |
|-------------|---|---------|-----|
| Netherlands | Marine Protected Area (OSPAR)                     | Not App | 5   |
|             | <b>National Park</b>                              | II      | 20  |
|             | <b>Nature Conservation Act</b>                    | IV      | 160 |
|             | Ramsar Site, Wetland of International Importance  | NR      | 45  |
|             | Site of Community Importance (Habitats Directive) | NR      | 138 |
|             | Special Protection Area (Birds Directive)         | NR      | 77  |
|             | UNESCO-MAB Biosphere Reserve                      | Not App | 1   |
|             | World Heritage Site                               | Not App | 1   |

|                       |  |         |     |
|-----------------------|--|---------|-----|
| Norway                | <b>Botanical Conservation Area</b>         | IV      | 21  |
|                       |  | NA      | 5   |
|                       | Botanical Protection of Species            | NA      | 4   |
|                       | Botanical/Zoological Protection of Species | NA      | 1   |
|                       | <b>Habitat management area</b>             | IV      | 6   |
|                       | <b>Marine Protected Area</b>               | la      | 6   |
|                       | Marine Protected Area (OSPAR)              | Not App | 11  |
|                       | <b>National Park</b>                       | II      | 39  |
|                       | <b>Natural Monument</b>                    | III     | 107 |
|                       |  | NA      | 141 |
| <b>Nature Reserve</b> | la   | 2182    |     |

|  |  |         |     |
|--|--|---------|-----|
|  |  | lb      | 1   |
|  |  | III     | 2   |
|  |  | IV      | 1   |
|  |  | NA      | 3   |
|  | <b>Protected Landscape</b>                       | IV      | 60  |
|  |  | V       | 134 |
|  | Ramsar Site, Wetland of International Importance | NR      | 33  |
|  | <b>Temporary Protected Area</b>                  | la      | 1   |
|  |  | NA      | 1   |
|  | <b>Wildlife Conservation Area</b>                | IV      | 174 |
|  |  | NA      | 1   |
|  | <b>Wildlife/Botanical Conservation Area</b>      | IV      | 8   |
|  | World Heritage Site                              | Not App | 1   |
|  | <b>Zoological Protection of Species</b>          | IV      | 1   |
|  |  | NA      | 33  |

|                     |   |         |      |
|---------------------|---|---------|------|
| Poland              | Baltic Sea Protected Area (HELCOM)                | NR      | 9    |
|                     | <b>Landscape Park</b>                             | NA      | 4    |
|                     |   | V       | 118  |
|                     | <b>National Park</b>                              | II      | 16   |
|                     |   | NA      | 5    |
|                     |   | V       | 2    |
|                     | <b>Nature Reserve</b>                             | IV      | 1434 |
|                     |   | NA      | 54   |
|                     | Protected Landscape Area                          | NA      | 401  |
|                     | Ramsar Site, Wetland of International Importance  | lb      | 1    |
|                     |   | IV      | 2    |
|                     |   | NR      | 10   |
|                     | Site of Community Importance (Habitats Directive) | NR      | 849  |
|                     | Special Protection Area (Birds Directive)         | NR      | 145  |
|                     | UNESCO-MAB Biosphere Reserve                      | Not App | 2    |
| World Heritage Site | Not App   | 1       |      |

|   |  |         |     |
|---|--|---------|-----|
| Portugal                                  | <b>Botanical Reserve</b>                               | IV      | 1   |
|   | <b>Geological and High-Altitude Vegetation Reserve</b> | VI      | 1   |
|   | <b>Habitats or Species Management Protected Area</b>   | IV      | 54  |
|   | <b>Integral Natural Reserve</b>                        | la      | 6   |
|   | <b>Leisure and Mountain Reserve</b>                    | VI      | 9   |
|   | <b>Local Nature Reserve</b>                            | IV      | 2   |
|   | <b>Local Protected Landscape</b>                       | III     | 4   |
|   | Marine Protected Area (OSPAR)                          | Not App | 12  |
|   | <b>National Park</b>                                   | II      | 1   |
|   | <b>Natural Monument</b>                                | III     | 17  |
|   | <b>Nature Park</b>                                     | V       | 13  |
|   |  | VI      | 1   |
|   | <b>Nature Reserve</b>                                  | la      | 5   |
|   |  | lb      | 22  |
|   |  | IV      | 9   |
|   | Other  | lb      | 1   |
|   | <b>Partial Nature Reserve</b>                          | la      | 1   |
|   | <b>Partial Reserve</b>                                 | la      | 1   |
|   |  | lb      | 2   |
|   |  | V       | 3   |
|   |  | VI      | 3   |
|   | <b>Private Protected Area</b>                          | VI      | 1   |
|   | <b>Protected Landscape</b>                             | V       | 27  |
|   | Ramsar Site, Wetland of International Importance       | NR      | 28  |
|   | <b>Regional Natural Park</b>                           | V       | 1   |
|   | <b>Regional Protected Landscape</b>                    | IV      | 2   |
|   | <b>Resource Management Protected Area</b>              | VI      | 34  |
|   | <b>Silence and Tranquility Area</b>                    | V       | 1   |
|   |  | VI      | 3   |
|   | Site of Community Importance (Habitats Directive)      | NR      | 106 |
| Special Protection Area (Birds Directive) | NR   | 62      |     |
| UNESCO-MAB Biosphere Reserve              | Not App  | 1       |     |

|  |                     |         |   |
|--|---------------------|---------|---|
|  | World Heritage Site | Not App | 1 |
|--|---------------------|---------|---|

|         |   |            |     |
|---------|---|------------|-----|
| Romania | <b>National park</b>                              | II         | 13  |
|         | <b>Natural monument</b>                           | III        | 172 |
|         | <b>Natural park</b>                               | V          | 15  |
|         | <b>Nature reserve</b>                             | IV         | 539 |
|         | Ramsar Site, Wetland of International Importance  | NR         | 3   |
|         | <b>Scientific reserve</b>                         | Ia         | 36  |
|         | Site of Community Importance (Habitats Directive) | NR/Not App | 435 |
|         | Special Protection Area (Birds Directive)         | NR         | 162 |
|         | World Heritage Site                               | Not App    | 2   |

|          |  |     |     |
|----------|--|-----|-----|
| Slovakia | Buffer Zone of a National Nature Reserve, Nature Reserve, National Nature Monument, Nature Monument; | NA  | 51  |
|          | Buffer Zone of a Protected Site  | NA  | 4   |
|          | Buffer Zone of the National Park; second level/grade of protection                                   | NA  | 9   |
|          | <b>National Nature Monument</b>  | III | 58  |
|          |  | NA  | 2   |
|          | <b>National Nature Reserve</b>   | Ia  | 164 |
|          |  | Ib  | 23  |
|          |  | IV  | 32  |
|          | <b>National Park; third level of protection</b>  | II  | 8   |
|          |  | V   | 1   |
|          | <b>Nature Monument / Private Nature Monument</b>   | III | 244 |
|          | <b>Nature Reserve / Private Nature Reserve</b>   | Ia  | 187 |
|          |  | IV  | 204 |
|          | Protected feature  | III | 1   |
|          | <b>Protected Landscape Area; second level of protection</b>  | V   | 14  |
|          | <b>Protected Site / Private Protected Site</b>   | III | 2   |
|          |  | IV  | 170 |
|          | Ramsar Site, Wetland of International Importance   | NR  | 13  |
|          | Site of Community Importance (Habitats Directive)  | NR  | 473 |
|          | Special Protection Area (Birds Directive)  | NR  | 41  |



|  |                     |         |   |
|--|---------------------|---------|---|
|  | World Heritage Site | Not App | 2 |
|--|---------------------|---------|---|

|   |   |         |      |
|---|---|---------|------|
| Slovenia                                  | Ecological Important Area                         | NA      | 305  |
|   | <b>Horticultural Monument</b>                     | III     | 1    |
|   |   | NA      | 116  |
|   | <b>Landscape Park</b>                             | III     | 2    |
|   |   | V       | 40   |
|   | <b>National Park</b>                              | II      | 1    |
|   | <b>Natural Monument</b>                           | III     | 1157 |
|   |   | NA      | 1    |
|   | <b>Nature Reserve</b>                             | Ia      | 6    |
|   |   | Ib      | 49   |
|   |   | III     | 3    |
|   |   | V       | 1    |
|   | Ramsar Site, Wetland of International Importance  | NR      | 1    |
|   | <b>Regional Park</b>                              | III     | 1    |
|   |   | V       | 2    |
|   | Site of Community Importance (Habitats Directive) | Not App | 1    |
|   |   | NR      | 323  |
| Special Protection Area (Birds Directive) | NR  | 31      |      |
| Specialy Protected Area                   | NA  | 355     |      |
| <b>Strict Nature Reserve</b>              | Ib  | 1       |      |
| World Heritage Site                       | Not App   | 2       |      |

|                             |                                  |     |     |
|-----------------------------|----------------------------------|-----|-----|
| Spain                       | <b>Animal Refuge</b>             | III | 1   |
|                             | <b>Area of regional interest</b> | IV  | 2   |
|                             |                                  | V   | 1   |
|                             |                                  | VI  | 1   |
|                             |                                  | VI  | 1   |
|                             | Biosphere Reserve                | VI  | 1   |
|                             | Cave                             | NA  | 134 |
| <b>Ecocultural corridor</b> | VI                               | 1   |     |
| <b>Ecological corridor</b>  | IV                               | 4   |     |

|   |         |     |
|---|---------|-----|
| Fluvial Reserve                             | NA      | 6   |
| ICCA  | NR      | 2   |
| <b>Integral Reserve</b>                     | Ib      | 3   |
| <b>Marine Protected Area</b>                | VI      | 1   |
| Marine Protected Area (OSPAR)               | Not App | 13  |
| <b>Marine Reserve</b>                       | IV      | 1   |
|   | VI      | 9   |
| <b>Microreserve</b>                         | III     | 1   |
|   | IV      | 1   |
|   | NA      | 46  |
| <b>Nacional Park</b>                        | II      | 15  |
| <b>Natura 2000</b>                          | NA      | 276 |
|   | V       | 6   |
| <b>Natural Area (recreational)</b>          | VI      | 2   |
| Natural Area (singular)                     | IV      | 1   |
| <b>Natural Monument</b>                     | III     | 225 |
|   | NA      | 22  |
| <b>Natural Monument (National Interest)</b> | V       | 1   |
| <b>Natural Park</b>                         | Ia      | 1   |
|   | II      | 43  |
|   | IV      | 3   |
|   | NA      | 23  |
|   | V       | 60  |
|   | VI      | 1   |
| <b>Nature enclave</b>                       | IV      | 28  |
| <b>Nature Place</b>                         | II      | 32  |
|   | NA      | 1   |
| <b>Nature Place (Local Interest)</b>        | NA      | 75  |
| <b>Nature Place (National Interest)</b>     | III     | 7   |
| <b>Nature Place (picturesque)</b>           | IV      | 1   |
| <b>Nature Reserve</b>                       | Ia      | 1   |
|   | Ib      | 31  |
|   | III     | 1   |

|  |  |     |     |
|--|--|-----|-----|
|  |  | IV  | 53  |
|  |  | NA  | 25  |
|  |  | V   | 1   |
| <b>Nature Reserve (Integral)</b>                 |  | la  | 7   |
|  |  | lb  | 9   |
|  |  | III | 2   |
|  |  | NA  | 1   |
| <b>Nature Reserve (Management)</b>               |  | IV  | 3   |
| <b>Nature Reserve (Partial)</b>                  |  | IV  | 62  |
|  |  | VI  | 2   |
| <b>Nature Reserve (Special)</b>                  |  | IV  | 1   |
|  |  | NA  | 1   |
|  |  | V   | 15  |
| <b>Nature Reserve (Wildlife)</b>                 |  | IV  | 13  |
| <b>Periurban Park</b>                            |  | NA  | 1   |
|  |  | VI  | 6   |
| Periurban Protected Area                         |  | NA  | 21  |
| <b>Private Area (Ecological interest)</b>        |  | VI  | 1   |
| <b>Protected Biotope</b>                         |  | III | 8   |
| <b>Protected Landscape</b>                       |  | NA  | 11  |
|  |  | V   | 46  |
| Protected Wetland                                |  | NA  | 5   |
| <b>Protection Plan</b>                           |  | NA  | 1   |
|  |  | V   | 167 |
|  |  | VI  | 16  |
| Ramsar Site, Wetland of International Importance |  | NR  | 57  |
| <b>Regional Park</b>                             |  | II  | 7   |
|  |  | V   | 5   |
| <b>Rural Park</b>                                |  | V   | 7   |
| <b>Singular tree</b>                             |  | la  | 1   |
|  |  | III | 23  |
|  |  | IV  | 3   |
|  |  | NA  | 32  |

|  |  |               |      |
|--|--|---------------|------|
|  |  | V             | 6    |
|  |  | VI            | 7    |
|  | Site of Community Importance (Habitats Directive)                            | Not App/NA/NR | 1467 |
|  | <b>Site of national interest</b>   | la            | 1    |
|  |  | NA            | 3    |
|  | <b>Site of scientific interest</b>   | la            | 2    |
|  |  | lb            | 18   |
|  |  | III           | 2    |
|  |  | IV            | 4    |
|  |  | NA            | 63   |
|  | Special Protection Area (Birds Directive)                                    | NA            | 600  |
|  |  | NR            | 47   |
|  | Specially Protected Areas of Mediterranean Importance (Barcelona Convention) | NA            | 9    |
|  | UNESCO-MAB Biosphere Reserve   | Not App       | 2    |
|  | Wetland Site   | NA            | 48   |
|  | World Heritage Site  | Not App       | 6    |

|        |                                    |         |      |
|--------|------------------------------------|---------|------|
| Sweden | Baltic Sea Protected Area (HELCOM) | NR      | 28   |
|        | <b>Habitat Protection Area</b>     | la      | 936  |
|        |                                    | NA      | 6819 |
|        | Marine Protected Area (OSPAR)      | Not App | 10   |
|        | <b>National Park</b>               | la      | 1    |
|        |                                    | II      | 23   |
|        |                                    | III     | 2    |
|        |                                    | IV      | 3    |
|        | Natural Monument                   | NA      | 1355 |
|        | <b>Nature Conservation Area</b>    | III     | 18   |
|        |                                    | IV      | 28   |
|        |                                    | NA      | 7    |
|        |                                    | V       | 35   |
|        | <b>Nature Reserve</b>              | la      | 2184 |
|        |                                    | lb      | 161  |

|  |   |            |      |
|--|---|------------|------|
|  |   | III        | 292  |
|  |   | IV         | 1261 |
|  |   | NA         | 378  |
|  |   | V          | 272  |
|  | Others  | NA         | 107  |
|  | Ramsar Site, Wetland of International Importance  | NR         | 67   |
|  | Site of Community Importance (Habitats Directive) | NR/Not App | 3988 |
|  | Special Protection Area (Birds Directive)         | NR         | 544  |
|  | Wildlife and Plant Sanctuary                      | NA         | 967  |
|  | World Heritage Site                               | Not App    | 2    |

|             |  |         |      |
|-------------|--|---------|------|
| Switzerland | Core zone  | la      | 1    |
|             | Emerald Sites  | NA      | 37   |
|             | Federal Hunting Reserves   | IV      | 42   |
|             | <b>Federal Inventory of Alluvial Zones of National Importance</b>  | IV      | 283  |
|             | <b>Federal Inventory of Amphibian Spawning Areas of National Importance</b>                                | IV      | 824  |
|             | <b>Federal Inventory of Dry Grasslands and Pastures of National Importance</b>                             | IV      | 2941 |
|             | <b>Federal Inventory of Fenlands of National Importance</b>  | IV      | 1171 |
|             | <b>Federal Inventory of Raised and Transitional Mires of National Importance</b>                           | la      | 545  |
|             | <b>Federal Inventory of Reserves for Waterbirds and Migratory Birds of International and National Imp.</b> | IV      | 35   |
|             | Ramsar Site, Wetland of International Importance   | NR      | 11   |
|             | <b>Swiss National Park</b>   | la      | 1    |
|             | World Heritage Site  | Not App | 3    |

|                |   |    |      |
|----------------|---|----|------|
| United Kingdom | <b>Area of Outstanding Natural Beauty</b>               | V  | 38   |
|                | <b>Area of Outstanding Natural Beauty (NI)</b>          | V  | 8    |
|                | <b>Area of Special Scientific Interest (NI)</b>         | IV | 390  |
|                | <b>Demonstration and Research Marine Protected Area</b> | NA | 1    |
|                | <b>Heritage Coast</b>                                   | NA | 14   |
|                |   | V  | 32   |
|                | <b>Local Nature Reserve</b>                             | IV | 1616 |

|  |  |            |      |
|--|--|------------|------|
|  |  | NA         | 166  |
|  | <b>Marine Conservation Zone</b>  | NA         | 56   |
|  | Marine Protected Area (OSPAR)  | Not App    | 246  |
|  | <b>National Nature Reserve</b>   | II         | 19   |
|  |  | III        | 3    |
|  |  | IV         | 342  |
|  | National Nature Reserve, Wetland of International Importance, Site of Community Importance, Special Protection Area Site of Community Importance | IV         | 1    |
|  | <b>National Park</b>   | V          | 15   |
|  | <b>National Scenic Area</b>  | IV         | 1    |
|  |  | NA         | 40   |
|  | <b>Nature Conservation Marine Protected Area</b>   | IV         | 12   |
|  |  | NA         | 18   |
|  | Nature Reserve   | Ia         | 17   |
|  |  | II         | 5    |
|  |  | III        | 3    |
|  |  | IV         | 335  |
|  |  | V          | 586  |
|  |  | VI         | 1    |
|  | Ramsar Site, Wetland of International Importance   | NR         | 149  |
|  | <b>Regional Park</b>   | NA         | 3    |
|  | Site of Community Importance (Habitats Directive)  | Not App/NR | 658  |
|  | <b>Site of Special Scientific Interest (GB)</b>  | III        | 340  |
|  |  | IV         | 6273 |
|  | Special Protection Area (Birds Directive)  | NR         | 272  |
|  | UNESCO-MAB Biosphere Reserve   | Not App    | 2    |
|  | <b>Voluntary Reserve</b>   | NA         | 1    |
|  | Wildland reserve   | IV         | 9    |
|  | World Heritage Site  | Not App    | 5    |

### ANNEX 3: Data from the CDDA database

| State                      | Agency  | Designate                                     |
|----------------------------|---|---|
| AUT                        | Lander Authority  | Biosphere Park                                |
|                            |   | Ecological Development Area                   |
|                            |   | Ex-lege landscape protection                  |
|                            |   | Flora Protection Area                         |
|                            |   | Landscape and nature protection area          |
|                            |   | Landscape Protection Area                     |
|                            |   | National Park                                 |
|                            |   | Nature Park                                   |
|                            |   | Nature Reserve                                |
|                            |   | protected biotopes                            |
|                            |   | Protected Habitat                             |
|                            |   | Protected Landscape Section                   |
|                            |   | Protected Natural Objects of local importance |
|                            | Rest Area   |   |
| Special conservation areas |   |   |
|                            | Community   | Regional protected areas                      |
| BEL                        | Agentschap voor Natuur en Bos<br>(Agence flamande pour la nature et les forêts) | Certified Forest Reserve (Flemish Region)     |
|                            |   | Certified Nature Reserve (Flemish Region)     |
|                            |   | Forest Reserve (Flemish Region)               |
|                            |   | Public Forest (Flemish Region)                |
|                            |   | Regional Nature Reserve (Flemish Region)      |
|                            | Service public de Wallonie  | Certified Forest (Walloon Region)             |
|                            |   | Certified Nature Reserve (Walloon Region)     |
|                            |   | Forest Reserve (Walloon Region)               |
|                            |   | Nature Park (Walloon Region)                  |
|                            |   | Scientific Interest Site (Walloon Region)     |
|                            |   | State Nature Reserve (Walloon Region)         |
| BGR                        | Executive Forest Agency   | Nature Park                                   |
|                            | Ministry of Environment and Water   | Managed Reserve                               |
|                            |   | National Park                                 |
|                            |   | Natural Monument                              |

|  |   |  |
|--|---|--|
|  |   | Protected Site   |
|  |   | Strict Nature Reserve  |
| CHE  | Federal Office for the Environment -<br>Species, Ecosystems, Landscapes<br>Division                                   | Core zone  |
|  |   | Federal Hunting Reserves   |
|  |   | Federal Inventory of Alluvial Zones of National<br>Importance  |
|  |   | Federal Inventory of Amphibian Spawning Areas of<br>National Importance                                |
|  |   | Federal Inventory of Dry Grasslands and Pastures of<br>National Importance                             |
|  |   | Federal Inventory of Fenlands of National Importance   |
|  |   | Federal Inventory of Raised and Transitional Mires of<br>National Importance                           |
|  |   | Federal Inventory of Reserves for Waterbirds and<br>Migratory Birds of International and National Imp. |
|  |   | Swiss National Park  |
| CYP  | Ministry of Agriculture, Rural<br>Development and the Environment -<br>Department of the Environment                  | RAMSAR Wetland   |
|  | Ministry of Agriculture, Rural<br>Development and the Environment -<br>Department of Fisheries and Marine<br>Research | Turtle Nesting Beach   |
|  | Ministry of Agriculture, Rural<br>Development and the Environment -<br>Forestry Department                            | National Forest Park   |
|  |   | Nature Reserve   |
|  | Ministry of the Environment and<br>Water  | UNESCO Global Geopark  |
|  | Ministry of Interior - Department of<br>Town Planning and Housing   | Areas of Special Aesthetic Value   |
|  |   | Coasts and Areas for Nature Protection   |
|  |   | Marine Protected Area  |
|  |   | Protected Landscape  |
| Ministry of Interior - Game and Fauna<br>Service | Permanent Game Reserve Area   |  |
| CZE  | Ministry of the Environment   | National Nature Monument   |
|  |   | National Nature Reserve  |
|  |   | National Park  |
|  |   | Nature Monument  |
|  |   | Nature Reserve   |
|  |   | Protected Landscape Area   |
| DEU  | German Environment Ministry -<br>Federal Agency for Nature<br>Conservation  | Landscape Protection Area  |
|  |   | National Park  |
|  |   | Nature Reserve   |



|     |   |  |
|-----|---|--|
| DNK | Ministry of the Environment and Food<br>-Danish Nature Agency | Protected habitats (all lakes, bogs, streams, heaths and meadows etc.) |
|     |   | Protected by conservation order, excl. Church surroundings             |
|     | The Environmental Agency                                      | National Park  |
|     |   | Nature Reserve   |
| ESP | Local Authority   | Area of regional interest  |
|     |   | Ecocultural corridor   |
|     |   | Natura 2000  |
|     |   | Private Area (Ecological interest)                                     |
|     |   | Protection Plan  |
|     | Ministry of Agriculture, Food and the Environment             | Animal Refuge  |
|     |   | Ecological corridor  |
|     |   | Integral Reserve   |
|     |   | Marine Protected Area  |
|     |   | Marine Reserve   |
|     |   | Microreserve   |
|     |   | Nacional Park  |
|     |   | Natural Area (recreational)  |
|     |   | Natural Monument   |
|     |   | Natural Monument (National Interest)                                   |
|     |   | Natural Park   |
|     |   | Nature enclave   |
|     |   | Nature Place   |
|     |   | Nature Place (National Interest)                                       |
|     |   | Nature Place (picturesque)   |
|     |   | Nature Reserve   |
|     |   | Nature Reserve (Integral)  |
|     |   | Nature Reserve (Management)  |
|     |   | Nature Reserve (Partial)   |
|     |   | Nature Reserve (Special)   |
|     |   | Nature Reserve (Wildlife)  |
|     |   | Periurban Park   |
|     |   | Protected Biotope  |
|     |   | Protected Landscape  |

|     |  |  |
|-----|--|--|
|     |  | Regional Park  |
|     |  | Rural Park   |
|     |  | Singular tree  |
|     |  | Site of national interest  |
|     |  | Site of scientific interest  |
| EST | Local governments                      | Limited management zone of natural object protected at municipal level |
|     | Ministry of the Environment            | Habitat/species management zone of species protection site             |
|     |  | Limited management zone of national park                               |
|     |  | Limited management zone of nature reserve                              |
|     |  | Limited management zone of protected landscape                         |
|     |  | Limited management zone of species protection site                     |
|     |  | Limited-conservation area  |
|     |  | Managed conservation zone of national park                             |
|     |  | Managed conservation zone of nature reserve                            |
|     |  | Managed conservation zone of protected landscape                       |
|     |  | Protected nature monument  |
|     |  | Strict nature reserve of national park                                 |
|     |  | Strict nature reserve of nature reserve                                |
|     |  | Unzoned protected area   |
|     |  | Wilderness conservation zone of national park                          |
|     |  | Wilderness conservation zone of nature reserve                         |
|     |  | Wilderness conservation zone of protected landscape                    |
| FIN | Metsähallitus (State-owned Enterprise) | Grey Seal Protection Area  |
|     |  | Herb Rich Forest Reserve   |
|     |  | National Park  |
|     |  | Old Growth Forest Reserve  |
|     |  | Protected Habitat Type   |
|     |  | Protected Mire   |
|     |  | Site of Species Under Strict Protection                                |
|     |  | State Forest Protected by Decision of the Forest and Park Service      |
|     |  | State Nature Reserve   |
|     |  | Strict Nature Reserve  |
|     |  | Wilderness Area  |

|   |  |  |
|---|--|--|
|   | <b>Regional Environment Centres</b>  | Private Nature Reserve   |
| <b>FRA</b>  | <b>Coastal protection agency (managed by the Minister for Ecology)</b>   | Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) |
|   | <b>Fédération des Conservatoires d'Espaces Naturels</b>  | Land acquired by a regional conservatory of natural areas                              |
|   | <b>Ministry for an Ecological and Solidary Transition</b>  | Marine Nature Park   |
|   |  | National Nature Reserve  |
|   |  | National Park - Buffer zone/Area of adhesion   |
|   |  | National Park - Core Area  |
|   |  | National Park - Integral Reserve   |
|   |  | Regional Nature Park   |
|   | <b>Ministry for an Ecological and Solidary Transition but also Regional council</b>  | Corsican Nature Reserve  |
|   |  | Regional Nature Reserve  |
| <b>National forest office (Jointly managed by the Ministry for Ecology and the Ministry for Agriculture)</b>                              | Forest Biological Reserve  |  |
| <b>Office National de la Chasse et de la Faune Sauvage (Jointly managed by the Ministry for Ecology and the Ministry for Agriculture)</b> | National Hunting and Wildlife Reserve  |  |
| <b>Prefect of department</b>  | Biotope Protection Order   |  |
| <b>GBR</b>  | <b>Coast of Arran Seabed Trust &amp; Scottish Government</b>   | Voluntary Reserve  |
|   | <b>Department of the Environment Northern Ireland</b>  | Area of Outstanding Natural Beauty (NI)  |
|   |  | Area of Special Scientific Interest (NI)   |
|   | <b>Natural England, Natural Resources Wales</b>  | Heritage Coast   |
|   |  | Area of Outstanding Natural Beauty   |
|   | <b>Natural England, Natural Resources Wales, Scottish Government, National Park Authorities</b>  | National Park  |
|   | <b>Natural England, Natural Resources Wales, Scottish Natural Heritage</b>   | Site of Special Scientific Interest (GB)   |
|   | <b>Natural England, Scottish Natural Heritage, Natural Resources Wales and Department of the Environment Northern Ireland</b>                                      | National Nature Reserve  |
|   | <b>Natural England, Scottish Natural Heritage, Natural Resources Wales and Department of the Environment Northern Ireland, Local Authorities</b>                   | Local Nature Reserve   |
|   | <b>Natural England, Scottish Natural Heritage, Natural Resources Wales, Department of the Environment Northern Ireland and Joint Nature Conservation Committee</b> | Marine Conservation Zone   |
|   | <b>Scottish Government, Scottish Natural Heritage</b>  | National Scenic Area   |
|   | Nature Conservation Marine Protected Area  |  |

|  |   |   |
|--|---|---|
|  | <b>Scottish Natural Heritage, Joint Nature Conservation Committee</b>                                   | Demonstration and Research Marine Protected Area                                    |
|  | <b>Scottish Natural Heritage, Local Authorities</b>   | Regional Park   |
| <b>GRC</b>                             | <b>Decentralized Governance - Forestry Services</b>   | Protected Forest  |
|  | <b>Ministry of the Environment, Energy and Climate Change - Directorate General for the Environment</b> | Absolute Nature Reserve area  |
|  |   | Absolute nature reserve zone in National Marine Park                                |
|  |   | Absolute nature reserve zone in National Park                                       |
|  |   | National Marine Park  |
|  |   | National Park   |
|  |   | National Park - Peripheral zone   |
|  |   | Nature reserve area   |
|  |   | Nature reserve area - Peripheral zone   |
|  |   | Nature reserve zone in National Marine Park   |
|  |   | Nature reserve zone in National Park  |
|  |   | Others  |
|  |   | Protected significant natural formation, protected landscape and landscape elements |
|  | <b>Ministry of the Environment, Energy and Climate Change - Special Secretariat for Forests</b>         | Aesthetic Forest  |
|  |   | Core zone in National (Woodland) Park   |
|  |   | National (Woodland) Park - Peripheral zone  |
|  |   | Natural Monuments and landmarks (protected as strict nature reserve)                |
|  |   | Wildlife Refugee  |
|  | <b>HRV</b>  | <b>Ministry of the Environment and Energy</b>                                       |
| Nature Park                            |   |   |
| Strict Reserve                         |   |   |
| Special Reserve                        |   |   |
| <b>Regional authorities (Counties)</b> |   | Horticultural Monument  |
|  |   | Regional Park   |
|  |   | Natural Monument  |
|  |   | Significant Landscape   |
|  |   | Forest Park   |
| <b>HUN</b>                             | <b>Ministry of Rural Development - National Authority for Nature Conservation</b>                       | Landscape Protection Area   |
|  |   | National Park   |
|  |   | Natural Monument  |

|  |  |   |
|--|--|---|
|  |  | Nature Conservation Area                                  |
| IRL  | <b>Minister for Culture, Heritage &amp; the Gaeltach</b>   | National Nature Reserve (private ownership)               |
|  |  | National Nature Reserve (state ownership)                 |
|  |  | National Park   |
|  |  | Natural Heritage Area                                     |
|  |  | No shooting area (Wildfowl Sanctuary)                     |
|  |  | Refuge for Fauna  |
| ISL  | <b>Ministry for the Environment and Natural Resources</b>  | Conservation Area   |
|  |  | Habitat protection  |
|  |  | National Park   |
|  |  | Natural Monument  |
|  |  | Nature Reserve  |
|  |  | Public Recreation Area or Country Park                    |
| ITA  | <b>Regional/Provincial Administration</b>  | Regional/Provincial Nature Park                           |
|  |  | Regional/Provincial Nature Reserve                        |
|  | <b>Ministry of the Environment and for Protection of the Land and Sea</b>                          | National Park   |
|  |  | Natural Marine Reserve and Natural Protected Marine Areas |
|  |  | Other Protected Natural Regional Areas                    |
|  |  | State Nature Reserve                                      |
| <b>Ministry for the Environment/Ministry for Foreign Affairs</b> | International significance Natural Marine Area   |   |
| LIE  | <b>Office for forest, nature and landscape</b>   | Forest Reserve  |
|  |  | Nature Reserve  |
|  |  | Protected Area  |
|  |  | Protected Forest  |
| LTU  | <b>State Protected Areas Service - The Ministry of the Environment</b>                             | Biosphere polygon   |
|  |  | Biosphere Reserve   |
|  |  | Nature Reserve  |
|  |  | Recuperational plot                                       |
|  |  | State Park  |
|  |  | State Strict Reserve                                      |
| LUX  | <b>Department of Territorial Planning - Ministry of Sustainable Development and Infrastructure</b> | Nature Park   |
|  |  | Integral forest protection area                           |

|  |   |  |
|--|---|--|
|  | <b>Department of the Environment -<br/>Ministry of Sustainable Development<br/>and Infrastructure</b> | Protected Area   |
|  |   | RAMSAR   |
|  |   | ZPS - Natura 2000  |
|  |   | ZSC - Natura 2000  |
| <b>LVA</b>   | <b>Ministry of the Environmental<br/>Protection and Regional Development</b>                          | Biosphere Reserve  |
|  |   | Micro-reserve  |
|  |   | National Park  |
|  |   | Nature Monument  |
|  |   | Nature Park  |
|  |   | Nature Reserve   |
|  |   | Protected Landscape Area                                       |
|  |   | Protected Marine Area  |
|  |   | Strict Nature Reserve  |
| <b>MLT</b>   | <b>The Environment and Resources<br/>Authority</b>  | Bird Sanctuary   |
|  |   | National Park  |
|  |   | Nature Reserve (Filfla)  |
|  |   | Nature Reserve (Islands)                                       |
|  |   | Special Areas of Conservation - International<br>Importance    |
|  |   | Special Areas of Conservation - National Importance            |
|  |   | Special Protection Areas                                       |
|  |   | Tree Protection Area   |
|  | <b>Heritage Malta, Office of the Prime<br/>Minister</b>   | List of Historical Trees Having an Antiquarian<br>Importance   |
|  | <b>Planning Authority</b>   | Area of Ecological Importance                                  |
|  |   | Area of Ecological Importance/Site of Scientific<br>Importance |
|  |   | Area of High Landscape Value                                   |
|  |   | Site of Scientific Importance                                  |
| <b>Transport Malta, Malta Transport<br/>Centre</b> | No Berthing Zone/No Entry Zone except for Fisheries   |  |
| <b>NLD</b>   | <b>Ministry EZ RVO/GISCC</b>  | National Park  |
|  |   | Nature Conservation Act  |
| <b>NOR</b>   | <b>Directorate for Nature Management</b>  | Protected Geotope (Svalbard)                                   |
|  | <b>The Norwegian Environment Agency</b>   | Botanical Conservation Area                                    |
|  |   | Habitat management area  |

|                        |   |   |
|------------------------|---|---|
|                        |   | Marine Protected Area                           |
|                        |   | National Park                                   |
|                        |   | National Park (Svalbard)                        |
|                        |   | Natural Monument                                |
|                        |   | Nature Reserve                                  |
|                        |   | Nature Reserve (Antarctic)                      |
|                        |   | Nature Reserve (Jan Mayen)                      |
|                        |   | Nature Reserve (Svalbard)                       |
|                        |   | Protected Landscape                             |
|                        |   | Temporary Protected Area                        |
|                        |   | Wildlife Conservation Area                      |
|                        |   | Wildlife/Botanical Conservation Area            |
|                        |   | Zoological Protection of Species                |
| POL                    | General Directorate for Environmental Protection  | Landscape Park                                  |
|                        |   | National Park                                   |
|                        |   | Nature Reserve                                  |
| PRT                    | Local Authorities                                 | Geological and High-Altitude Vegetation Reserve |
|                        |   | Habitats or Species Management Protected Area   |
|                        |   | Integral Natural Reserve                        |
|                        |   | Leisure and Mountain Reserve                    |
|                        |   | Local Nature Reserve                            |
|                        |   | Local Protected Landscape                       |
|                        |   | Partial Reserve                                 |
|                        |   | Protected Landscape                             |
|                        |   | Regional Natural Park                           |
|                        |   | Regional Protected Landscape                    |
|                        |   | Resource Management Protected Area              |
|                        | Silence and Tranquillity Area                     |   |
|                        | Institute for Conservation of Nature and Forestry | Botanical Reserve                               |
|                        |   | National Park                                   |
|                        |   | Natural Monument                                |
| Nature Park            |   |   |
| Nature Reserve         |   |   |
| Partial Nature Reserve |   |   |

|     |   |  |
|-----|---|--|
|     |   | Private Protected Area                               |
|     |   | Protected Landscape                                  |
| ROU | Ministry of the Environment and Climate Change    | Biosphere Reserve                                    |
|     |   | National Park  |
|     |   | Natural Monument                                     |
|     |   | Natural Park   |
|     |   | Nature Reserve                                       |
|     |   | Scientific reserve                                   |
| SVK | State Nature Conservancy                          | National Nature Monument                             |
|     |   | National Nature Reserve                              |
|     |   | National Park; third level of protection             |
|     |   | Nature Monument / Private Nature Monument            |
|     |   | Nature Reserve / Private Nature Reserve              |
|     |   | Protected Landscape Area; second level of protection |
|     |   | Protected Site / Private Protected Site              |
| SVN | Ministry of Agriculture and the Environment       | Horticultural Monument                               |
|     |   | Landscape Park                                       |
|     |   | National Park  |
|     |   | Natural Monument                                     |
|     |   | Nature Reserve                                       |
|     |   | Regional Park  |
|     |   | Strict Nature Reserve                                |
| SWE | County Administrative Board                       | Nature Conservation Area                             |
|     | County Administrative Board and Local Authorities | Nature Reserve                                       |
|     | County Board and Regional Board of Forestry       | Habitat Protection Area                              |
|     | Parliament  | National Park  |



## Annex 4: Template Questionnaire Administered to the local Stakeholders by the LinkPAs partners

The survey has been conducted on stakeholder's territories basis.

The analysis has been conducted both at local level and on a transnational basis to give an overview of the answers of the 55 respondents. Results has been summarized in the Chapter 7.

ALPI MARITTIME – MERCANTUR: 8 respondents (5 decision-makers 3 PA responsible/staff)

ALPARC: 12 respondents (3 decision-makers; 7 PA responsible/staff; 2 NPA representatives)

ABRUZZO: 12 respondents (1 decision maker; 8 PA responsible/staff; 2 NPA representatives; 1 research body)

RAZLOG: 23 respondents (officials of Razlog Municipality, researchers of Bulgarian Academy of Sciences, Local NGOs, librarians, entrepreneurs, and stakeholders from the SMEs).

| Question   | Options / answers |                |              |          |          |                       |
|--|-------------------|----------------|--------------|----------|----------|-----------------------|
| Name of the respondent   |                   |                |              |          |          |                       |
| Institution  |                   |                |              |          |          |                       |
| e-mail address   |                   |                |              |          |          |                       |
| Level of involvement in a NPAs<br>(International / Transboundary /<br>National / Regional / Local) | International     | Transboundary  |              | National | Regional | Local                 |
| Your role<br>(with regard to the NPA)  | Politician        | Decision maker | Entrepreneur | Resident | NGO      | Mediator / Ambassador |
|  |                   |                |              |          |          |                       |

|  |               |                        |                           |  |                      |                      |                           |                              |                |               |
|--|---------------|------------------------|---------------------------|--|----------------------|----------------------|---------------------------|------------------------------|----------------|---------------|
| <b>Main roles/actions played by NPAs you are involved with</b>   | Communication | Territorial planning   | Networking businesses     | Investment   | Research             | Education / training | Management of the network |                              |                |               |
|  |               |                        |                           |  |                      |                      |                           |                              |                |               |
| <b>In your opinion, what are the most significant activities developed by NPAs you are involved with</b> |               |                        |                           |  |                      |                      |                           |                              |                |               |
| <b>Can NPAs play a useful role in promoting your institutional interest? Provide 2 examples</b>          | Example 1     |                        |                           |  | Example 2            |                      |                           |                              |                |               |
|  |               |                        |                           |  |                      |                      |                           |                              |                |               |
| <b>Name at least 2 positive aspects of your NPA</b>  |               |                        |                           |  |                      |                      |                           |                              |                |               |
| <b>Name at least 2 weaknesses of your NPA</b>  |               |                        |                           |  |                      |                      |                           |                              |                |               |
| <b>In your opinion, which of the following policies could be effectively implemented by your NPA?</b>    | Innovation    | Research & Development | Human capital / education | Social services or policies in support of disadvantaged groups | Economic development | Employment / Jobs    | Transport                 | Natural resources management | Climate change | Public health |
|  |               |                        |                           |  |                      |                      |                           |                              |                |               |

|  |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |
|--|--------------------|-----------------|-----------------------|----------------------|-------------------------|----------------|------------------|-------------------------|----------------------------------|-----------------------|--------------------------|--|------------------|
| <p>Which of these policies are more in line with your institutional goals? Explain briefly under each corresponding column</p> |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |
| <p>According to your experience, which of the listed sectors would require more attention / action within a NPA?</p>           | <p>Agriculture</p> | <p>Forestry</p> | <p>Climate change</p> | <p>Manufacturing</p> | <p>Renewable energy</p> | <p>Tourism</p> | <p>Transport</p> | <p>Water management</p> | <p>Building and construction</p> | <p>Green research</p> | <p>Cultural Heritage</p> | <p>Demographic and social challenges</p> | <p>Education</p> |
| <p>Name 1-2 projects highlighting cooperation between PAs and regional planning authorities</p>                                |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |
| <p>Name 1-2 projects highlighting best practice models for regional cooperation (e.g. PAs and SMEs)</p>                        |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |
| <p>Name 1-2 projects highlighting the involvement of NPA in policy making</p>  |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |
| <p>Name 1-2 projects highlighting joint planning processes and impacts (ecological and/or socioeconomic), if any</p>           |                    |                 |                       |                      |                         |                |                  |                         |                                  |                       |                          |  |                  |

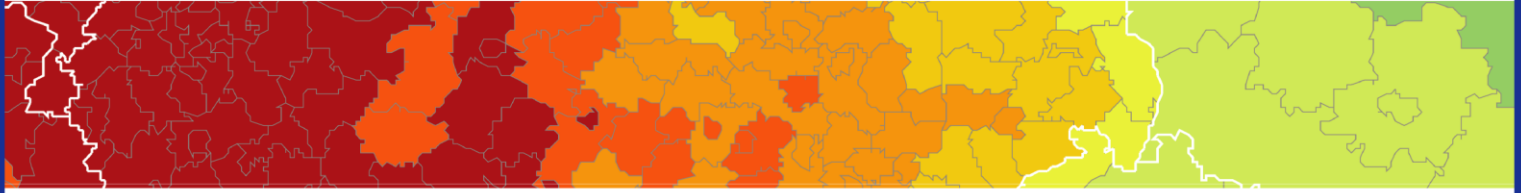
|  |   |  |   |   |   |   |  |  |   |
|--|---|--|---|---|---|---|--|--|---|
| <p>Given your suggestion or provide an example to help the effective communication of the outcomes of the NPA you work with.</p> |   |  |   |   |   |   |  |  |   |
| <p>In your experience, is there any particular “added value” deriving from living in mountain areas? If so please explain.</p>   |   |  |   |   |   |   |  |  |   |
| <p>Name some plans or strategic documents applicable to the NPA you work with</p>  |   |  |   |   |   |   |  |  |   |
| <p>Name the institutions and stakeholders involved in the management of NPA you work with</p>                                    | <p>Federal or national ministry or agency in charge</p> | <p>Sub-national ministry or agency in charge</p> | <p>Government-delegated management (to a NGO)</p> | <p>Transboundary governance (formal arrangements between one or more sovereign States or Territories)</p> | <p>Collaborative governance (diverse actors and institutions work together)</p> | <p>Joint governance (pluralist board or other multi-party governing body)</p> | <p>non-profit organisations (e.g., NGOs, universities)</p> | <p>for-profit organisations (e.g., corporate owners, cooperatives)</p> | <p>Community conserved areas and territories – established and run by local communities</p> |
|  |   |  |   |   |   |   |  |  |   |

| Tick which of the following groups of responsibilities are held by each of the institutions or stakeholders you named | Finance & Budget | Legal fwk on conservation | Approval of designation of PA | Management and planning of PA | Approval of management Plan | Conservation activities | Education and awareness programs | Regional economic programs | Spatial and territorial planning and strategies | Research and Innovation | Tourism plans and strategies | Infrastructure development | No formal role but claims one or can |
|---|------------------|---------------------------|-------------------------------|-------------------------------|-----------------------------|-------------------------|----------------------------------|----------------------------|---|-------------------------|------------------------------|----------------------------|--------------------------------------|
| Stakeholder/Institution 1   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| (add name!)   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| Stakeholder/Institution 2   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| (add name!)   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| Stakeholder/Institution 3   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| (add name!)   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| Stakeholder/Institution 4   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| (add name!)   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| Stakeholder/Institution 5   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| (add name!)   |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |
| <b>In your opinion, how can NPAs be encouraged to contribute more effectively to triggering regional development?</b> |                  |                           |                               |                               |                             |                         |                                  |                            |   |                         |                              |                            |                                      |

|  |  |
|--|--|
| <b>In your opinion, how can regional and other authorities be made aware of the impact that policy actions can have on NPAs?</b> |  |
| <b>Other useful comments</b>   |  |

**Glossary** : fwk: framework ; NPA/NPAs: network(s) of protected areas ; PA/PAs: protected area(s); SME/SMEs: small and medium enterprises





### **ESPON 2020 – More information**

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