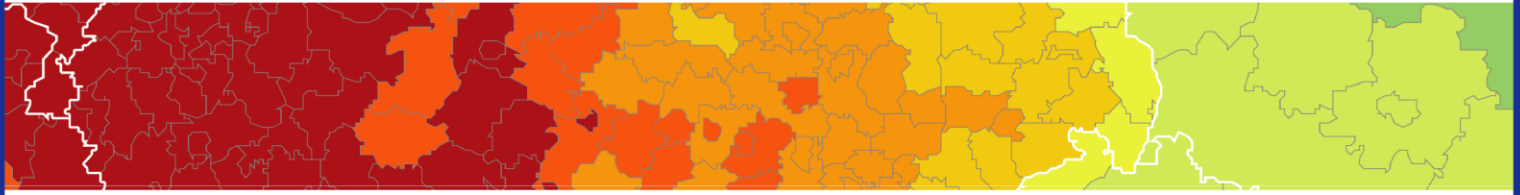


Inspire policy making by territorial evidence



LinkPAs - Linking networks of protected areas to territorial development

Targeted Analysis

Main 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
EAFRD	European agricultural fund for rural development
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
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
MPA	Mountainous 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	Parc Alp MAritime
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
WHL	World Heritage List

1 Existing NPA models and governance: opportunities and challenges

1.1 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 on by all LinkPAs Partners.

Box 1: Concepts and definitions agreed on 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)

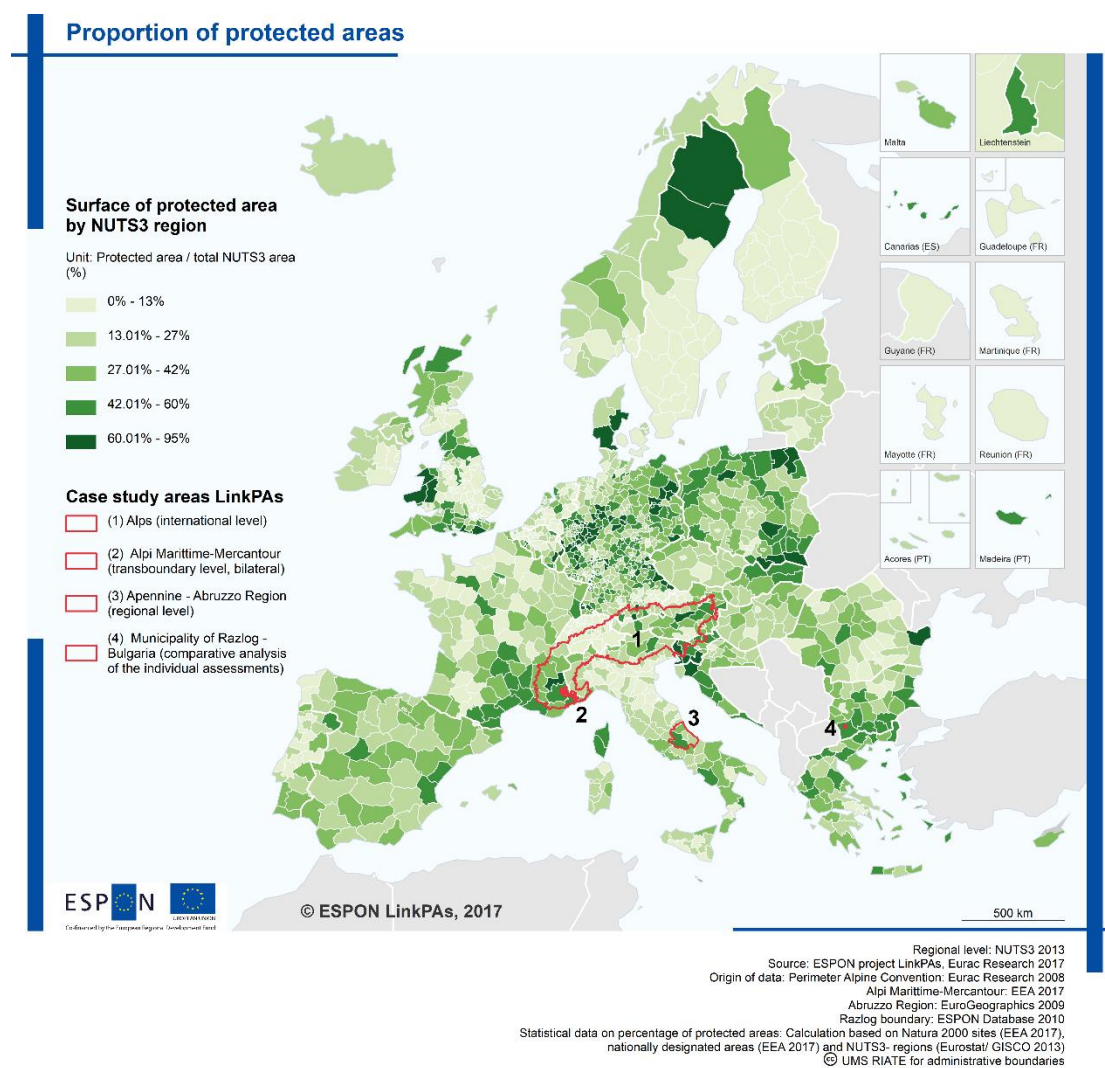
Ecosystem services: according to the *Millennium Ecosystems Assessment* (2005a), they consist of:

- 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-areas management is currently framed within an ecological network approach (IUCN, 2003). Therefore, PAs are being increasingly 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) have emerged as a governance instrument in the framework of territorial sustainable development.

Map 1: Proportion of Protected Areas



Source: LinkPAs project elaboration, 2018

1.2 Overview of existing NPAs at the EU level

The LinkPAs analysis on existing NPAs in Europe (ANNEX 1) has highlighted the fact that these networks exchange information, experiences and/or managing activities for the benefit of their sites, according to shared aims, geographical features and designation criteria (e.g. directives

and conventions). NPAs can be seen as policy instruments (not necessarily leading to new designation-based regulations for PAs), which require coordination and cooperation between PAs within territories and administrative regions. NPAs aim at enhancing the management effectiveness of PAs, harmonizing tools within specific territorial contexts, fostering cooperation among PAs, involving other institutional bodies and stakeholders, and building new partnerships. Besides different typologies of PAs (cf. the IUCN definition of PAs in BOX 1), NPAs are systems of PAs that can be institutional or non-institutional, built around different objectives and managed according to an ecological perspective or a wider cooperation-based approach. One aim of NPAs is to facilitate nature conservation in cases where species or habitats are found in more than one geographic location. From this “ecological” point of view, two of the most important European networks of protected areas are the EU-funded network Natura 2000 and its sister network, the Emerald Network. They make up the two main components of the Pan-European Ecological Network (PEEN) due to their political importance, geographic extension and biological and landscape diversity. Natura 2000 has resulted from the Habitat Directive (1992) and it seeks to convert the ideas and recommendations on habitat conservation contained in the Bern Convention into enforceable laws, thus reinforcing its application in the member States of the European Union. The aim of the Natura 2000 network is to ensure the long-term survival of Europe's most valuable and threatened species and habitats. Since directives are legally binding, the Member States are expected to collaborate to implement them, especially considering that they propose the creation of Sites of Community Importance (SCIs) that can match the specific features of the habitats included in their territory. Defining the existing NPAs has been made possible by the careful analysis of the data regarding the typologies of PAs included in the World Database on Protected Areas (WDPA), which is the more comprehensive dataset to generally define PAs at global scale.

The WDPA maps 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 nonetheless achieve conservation in the long-term period; According to the WDPA, this is possible thanks to what they generally define as other effective area-based conservation measures.

An extremely heterogeneous picture emerges when comparing the PAs listed per each EU state and the EU ESPON countries (EU28 + Norway, Island, Switzerland and Liechtenstein), which in turn has offered some preliminary and significant inputs for NPAs investigation, as we point out below.

The WDPA classification/categorization sets three different levels of designation for PAs that are in turn likely to shape NPAs: international, regional and national level. *International designations* include sites under the UNESCO's Man and the Biosphere Programme (MAB); *Regional agreements* include sites under the Natura 2000 network (European level) and the Emerald Network, 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), the HELCOM Marine Protected Areas network, the Specially Protected Areas of Mediterranean Importance (SPAMI) network. *National designations* of NPAs are 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.

With these premises in mind, this targeted analysis has made use of the European inventory of Nationally Designated Areas – CDDA. On the basis of CDDA data, the LinkPAs project has compiled an overview of the different situations that have been reviewed across Europe (Table 1). Four main types of institutional set-ups have been observed: 1) Only one national network depending on a single agency is present; 2) More than one national networks depending on different agencies are present; 3) One or more national and subnational networks are present; 4) Only subnational networks are present. Table 1 contains a description of these different set-ups, including the countries where they are found.

The survey includes all the EU and four non-EU countries covered by ESPON2020 (Iceland, Liechtenstein, Norway, Switzerland). Table 1 below describes the four different set-ups as listed in the database under the field named as “Addresses of the administrative authority responsible for the designation” (CDDA_v15_tabledefinition).

Table 1: 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.

1.3 Models of governance of 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 that involves a large number of interdependent actors such as NGOs, the private sector, scientific networks and international institutions. In order to identify models of governance for NPAs, LinkPAs has established a typology with four analytical categories related to aspects of governance, which are:

- 1) the relationship between PAs within a network,
- 2) the relationship between NPAs and the related institutional framework,
- 3) the relationship between PAs and the other actors involved;
- 4) 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. For each category, specific criteria have been adopted to study how the existing NPAs are managed (cf. Table 2, Table 3).

Table 2: Analysing models of governance for NPAs: Categories and related criteria

	Categories	Criteria	Explanation
1)	PAs Relationship within a network	Existence of a shared action plan or programme identifying priorities and actions to be taken by/under NPA	PAs adopt a shared strategic document which includes common objectives to be achieved as part of an NPA
		Existence of a continuous coordination of the PAs activities	PAs regularly take part in meetings to discuss the implementation of NPA action plans and/or the sharing of results, information, knowledge, activities, etc.
2)	NPAs and related institutional framework	Existence of a formal strategic/institutional agreement establishing the NPA	The NPA is set up in compliance with an institutionally or formally recognised agreement (e.g. an international treaty). The agreement may formally refer to the NPA (the agreement refers to or regulates the NPA) or not (NPA refers to and/or implements the agreement)
		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 NPAs management or activities	The NPA is supported by financial instruments (e.g. member fees, funds from European projects, national/ regional/private funds)
		NPA's formal participation in institutional decision-making processes at the EU/Transnational/National/Local level	The NPA acts as a member, advisory body, observer on institutional boards (e.g. macro-regional strategy, regional committee, etc.) contributing to decision-making processes
		The NPA holds decision-making capacity on behalf of PAs	The NPA is formally delegated by PAs to take decisions on behalf of PAs on specific decisions and/or topics

3)	PAs Relationship with the other actors involved	The NPA involves PAs as well as government institutions	The NPA cooperates with the managing bodies of PAs as well as other institutional authorities (institutions: municipalities, provinces, regions, ministries, etc.)
		The NPA involves PAs as well as other stakeholders	The NPA cooperates with the managing bodies of PAs as well as other stakeholders (stakeholders: associations, the private sector, NGOs, etc.)
4)	Specificity of NPA aims and activities in terms of themes and scope	The NPA applies to a geographical specific area	The NPA has a clear, focused geographical scope that specifically addresses the area it includes (e.g. Alpine region, regional boundaries, etc.)
		The NPA focuses on topics shared by the member PAs	The NPA actions are shaped around a specific theme or set of issues, which stem from the member PAs needs or objectives (e.g. focusing on specific type of PAs and/or specific objectives)

Source: LinkPAs project targeted analysis, 2018

Table 3: Analysis of models of governance for NPAs: Performance of selected NPAs as listed in Annex 1

Criteria	NPAs															
	E M E R A L D	N A R A C	A P A C	C P A R	O S P A R	H E L C O M	S P A M I S	D A N U B E P A R K	B P A N A	M A I A	M A B	E G T C	E U R O P A N	M e d P A N	S A P A	E G N
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	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.

Table 3 shows the performance of selected NPAs in Europe with regard to the criteria mentioned above. By clustering common behaviours, it is possible to identify four governance models for NPAs based on a combination of the basic criteria shown above. Some criteria can be found in different governance models, and the distribution of these criteria, within each cluster (as reported in Tab. 3), defines the prevailing characteristics of the model.

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 ANNEX 1), 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, Maritime-Mercantour EGCT). The policy sectors involved depend on specific cooperation themes (cf. activities in ANNEX 1).

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.

1.4 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 4 presents four models and considers governance features, opportunities and challenges, along with some examples for each model (cf. also ANNEX 1).

Table 4: NPA models: governance features, opportunities and challenges

NPA models	Criteria combination (cluster)	Opportunities	Challenges
<p>MODEL 1 - NPAs established in the framework of agreements or conventions with a wider perspective</p> <p><i>Example:</i> ALPARC CNPA OSPAR HELCOM SPAMIs BPAN</p>	<p>Existence 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 geographically specific area; participates in institutional decision-making processes at the EU/Transnational/National/Local level; involves PAs and territorial authorities.</p> <p>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;</p> <p>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;</p> <p>Improving the possibility of influencing directly the activation of economic processes on a local scale while maintaining its links to broader strategies;</p> <p>Encouraging partnerships among PAs to implement pilot projects; developing innovative tools and agreements</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><i>Example:</i> DANUBEPARKS MAIA SAPA</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 geographically specific area</p> <p>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;</p> <p>The NPA can strengthen partnerships among PAs, sharing common environmental challenges;</p> <p>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;</p> <p>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>MODEL 3 - Territorial networks: NPAs for the management of specific physiographic units</p> <p><i>Example:</i> EGTC Alpi Marittimo/Marittimo MAB Biosphere Reserve</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</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 (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</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>
<p>MODEL 4 - NPAs as platforms addressing different topics and aiming at exchanging experiences</p> <p><i>Example:</i> EUROPARK MedPAN 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 elaboration, 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 1. This means that PAs are free to take part in or act within the NPA to which they belong (See Ch. 3 below).

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

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. 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. 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 components¹, where PAs (under different categories of preservation, cf. Ch. 1) are included as core elements. In addition to the conservation dimension aspect (which provides a particular ecological connectivity²), 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: the Emerald network; the EU's Natura 2000 network, the Council of Europe's Pan European Ecological Network (PEEN, under Pan-European Biological and Landscape Diversity Strategy - PEBLDS)³. To date, these are all the European protected areas that have been established nationally and regionally. Since NPAs at different levels are part of GI⁴, they

¹ **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).

² "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).

³ 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.

⁴ 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),

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 recognized as only 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 the NPAs have been assigned within each context. The LinkPAs project has allowed for a country-by-country analysis that could reveal which type of legal status each of the NPAs under scrutiny has been assigned within the institutional setup for development policy⁵. The analysis has concentrated on the database provided by the Biodiversity Information System for Europe⁶. An essential preliminary distinction has been found between countries that include Ecological networks and Green Infrastructure (PEEN and GI initiative), as part of their legislation, and those that don't. 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 function is that the NPAs make up 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 instruments (e.g. Estonia); other countries adopt different planning tools for environmental and development issues (e.g. Greece).

In a number of other cases (21 countries⁷), there emerges a National Strategy on Biodiversity that always refers to the NPAs as core areas for developing national, regional and local plans, although 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 urbanised areas, the role of the NPAs in relation to territorial development may be substantial. However, the effectiveness of the NPA's role depend on the efficiency of the planning system and institutional actors on 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

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.

⁵ Detailed results of this analysis can be found in the Scientific Report of this Targeted Analysis.

⁶ Cf. <https://biodiversity.europa.eu/>. Also, cf. the Scientific Report for a detailed explanation on how this source has been used.

⁷ Austria Belgium, Croatia Czech Rep., Finland France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Sweden, United Kingdom

via specific Conventions. Among the networks considered in this study, the components 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 and representing the network at the European level. They work in different fields “where solutions depend on a transnationally coherent strategy”⁸. 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”⁹ 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.

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 second case, the spatial planning concentrates on the socio-economic interaction between established protected areas and the territorial contexts. In this case, the 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;
- 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 opportunity 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.

⁸ www.danubeparks.org: River Morphology and Revitalization; Floodplain Management and Habitat Network; Conservation of Danube Flagship Species; Monitoring and Natura 2000; Nature Tourism.

⁹Baumgartner and Blumer 2012

In the first case described above, the NPAs work mainly to ensure conservation, environmental protection, and landscape development and facilitate the transition towards sustainability; in the second case, NPAs can help to preserve the identity of protected areas, often linked to resident communities. Both approaches can be seen in the cases of NPAs considered in this study (Ch. 1).

As for mountain regions, the role of the NPAs in territorial development appears particularly strategic, 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 standpoint¹⁰, and for this reason protected areas play a strategic role in promoting a more balanced development model.

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, and in the fields of 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 thus 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.

¹⁰ 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)

- 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 of homogenization 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).

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 consideration¹¹ The effects on regional development and the importance of NPAs in territorial development processes have been

¹¹ The complete list of documents is provided in the Annex 2.

qualitatively assessed¹² in relation to the presence/absence of positive links with the issues considered (Table 5).

Table 5: Summary of effects of selected NPAs on regional development and territorial planning

Effects on regional development				
+ = indicated directly	ALPARC	Alpi Marittime	Abruzzo	Razlog
(+) indicated indirectly		Mercantour	Region	
- = not indicated				
Economic effects				
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	+	+	-	-
Involvement of NPAs in territorial development process				
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

2.1 Determination of sector policies that NPAs impact on

A preliminary account of the sector policies impacted by NPAs can be provided by examining the sector policies identified as connected to the GI policy and inserted in related mainstream policies of European countries, which can be found in the already mentioned 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.

¹² 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?

Table 6: Sector policies impacted by NPAs

Sector policies NPAs impact on	Policy Objectives	Case studies				
		ALPARC	Alpi Marittime-	Abruzzo	Region	Razlog
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 renewables			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 labour productivity	X				
Health and well-being	Improving air quality and noise regulations					X
	Improving accessibility to exercise areas and amenities	X		X		
	Improving health and social conditions	X				
Tourism and recreation	Making destinations more attractive	X	X	X		X
	Increasing range and capacity of recreational opportunities	X	X	X		X
Transport	Encouraging sustainable travel (multimodal links & integration of systems)	X	X	X		
Education	Creating teaching resources and 'natural laboratories'	X	X	X		X
Ecoservices accounting	Resilience	X		X		X

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

According to EU current policy on the green economy¹³, 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 2014-2020¹⁴.

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 the international and EU level¹⁵. This means that now, within these PAs, it is possible to reconcile the production of goods and biodiversity conservation, thus helping to move towards a more integrated development model (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. Considering the GI policy areas listed above and drawing on the work of the Commission regarding the key benefits for Green Infrastructure (COM2013) 149¹⁶, which identified detailed policy objectives, the LinkPAs project has compiled a list of the potential policy sectors NPAs have an impact on (Table 6).

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 linkages 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 5 above); LinkPAs has also interacted with the local stakeholders involved.

Table 6 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 those PAs closely related to the surrounding territories.

¹³ EC (2015), Closing the loop - an EU action plan for the circular economy

¹⁴ 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.

¹⁵ Such as the Environmental Quality Certification (under ISO Standards 14:000 and 64:000 series; Eco-Labels; EMAS Audit scheme, etc.)

¹⁶ COMMISSION STAFF WORKING DOCUMENT Technical information on Green Infrastructure (GI) (SWD 2013) 155 Accompanying the document (COM2013)149

3 Possible ways of integrating the management of NPAs into sectoral development strategies

The four models of NPAs identified and their governance (cfn. Chapter 1) 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. 2, 3, 4) 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 direct 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-ups have been observed (legislative set-up) (Tab. 1): 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:

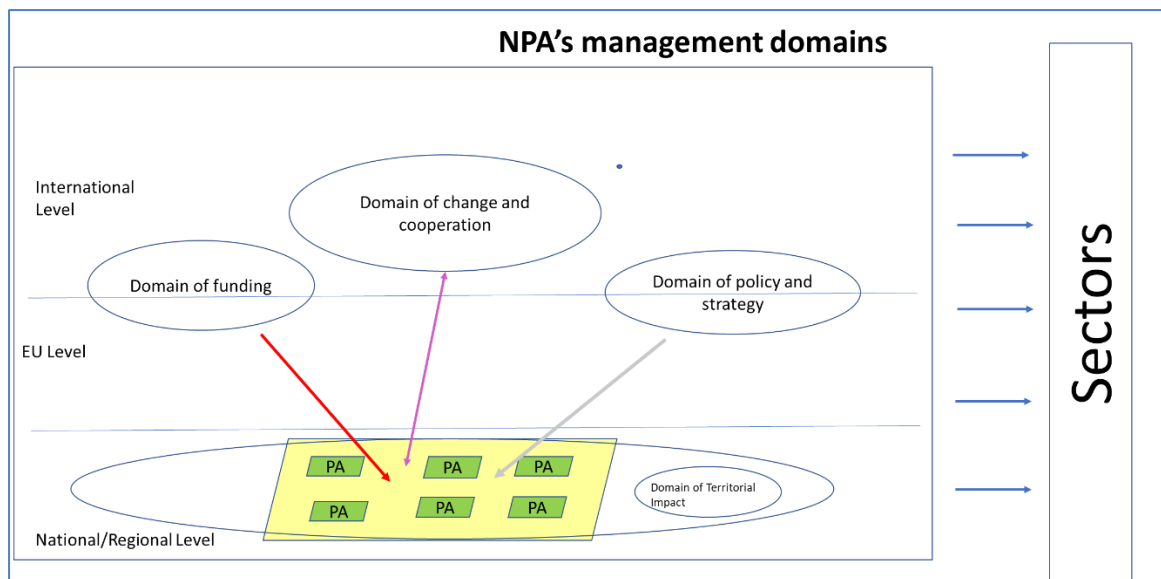
- influencing the domain of policy through participation or lobbying (indirect impact on the ground);
- influencing the domain of funding instruments (e.g. by consulting on broad directions of funding programmes) (indirect impact);
- influencing the domain of territorial impact directly:
 - by implementing 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.

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. 1, may be proposed.

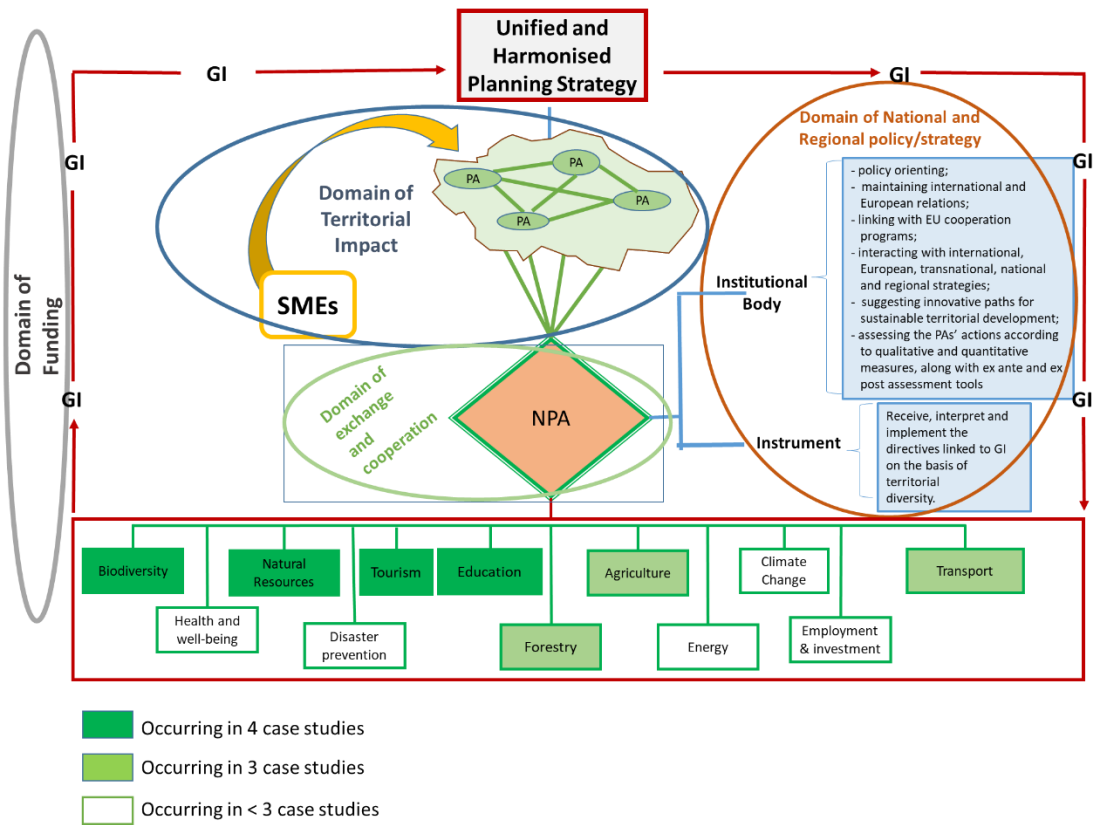
Fig. 1: NPA's management domains



Source: LinkPAs project elaboration, 2018

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 2 includes a generic NPA structure according to a unified and harmonised planning strategy framework, which also considers the sectors NPAs impact on.

Fig. 2: The NPA structure according to a unified and harmonised planning strategy framework



Legend: For specific occurrence in case studies see Table 6.

Source: LinkPAs project elaboration, 2018

4 Actions and policies needed in the stakeholder territories to ensure a sustainable and integrated management of natural resources in their mountain regions

The analysis of the case studies from four different regions highlights the numerous functions and contributions that NPAs may respectively have and make regarding territorial development and natural resource management.

In recent years, the tasks of protected areas and networks have broadened as a response to a more sustainable and holistic approach, with the addition of social and economic perspectives. Thus, activities supporting local businesses are often part of the agenda, with a focus mainly on tourism, conservation, green infrastructures, education and, to some extent, forestry and agriculture. The analysis of the case studies revealed that the existing NPAs, at all levels, are still working on a rather sectoral level, due to their limited power in terms of involvement in territorial planning processes or business development. In the past, they mainly acted either as coordinating bodies/knowledge exchange platforms, or interest groups for conservation or implementing bodies for specific projects or strategies.

Table 7: Overview of the case studies and the key factors that influence their impact on territorial development & NRM

Gaps	Governance body	Legal mandate	Funding	Policy alignment/support	Level of project activities
Abruzzo	2 administrative bodies (Italian Ministry for the Environment - & Region)	Public administration with formal tasks	Secured for administration, no explicit funding for network	Sectoral (conservation), territorial within PAs	Implementation within PA territory
ALPARC	Association	Formal, non-governmental, transboundary body with no administrative tasks	Secured basic funding + projects	Sectoral with broad involvement in related topics	Implementation, networking & strategies at transboundary level
Alpi-Marittime-Mercantour	Formal cooperative body	Formally established body within public administration	secured	Sectoral and territorial	Implementation, integrated planning within greater territory
Razlog	NP Directorates	Public administration with implementation tasks	Secured for administration	Sectoral and territorial within PA	Implementation and planning within PA boundaries

Source: LinkPAs project elaboration, 2018

The shift towards a network perspective in order to respond to a more integrated demand (e.g. green infrastructure development, ecological connectivity, a shift towards a more sustainable development focus and natural resources management) has forced the networks to broaden their thematic scope. This development is clearly visible at the strategic level as well (EUSALP, EUSDR, European GI Strategy, N2000 Action Plan for Europe) and is reflected in the strategies of the networks (cf. for instance the main pillars of ALPARC, specific sections on rural

development in Pirin and Rila NP Management Planning documents) or the broad activities in Abruzzo region.

The following sections describe the current situation in the individual stakeholder territories with regard to their achievement of an integrated and sustainable management of natural resources. For each case study /stakeholder territory, their needs and the current gaps in addressing NRM are explored and recommendations for concrete actions to proceed towards a more integrated territorial development & NRM are provided. This chapter concludes with a set of general recommendations for protected area networks that may help them to implement Natural Resources Management (NRM), as well as a synthesis of the case study / stakeholder regions analysed in this report.

4.1 ALPARC

Context & background

ALPARC is a **well-regarded** and well-established NPA, addressing **transboundary** challenges in the Alpine countries. ALPARC is an international **voluntary network** with a certain degree of institutionalization within the Alpine Convention (i.e. Memorandum of Cooperation, 2013; and financial resources from contracting parties in the framework of the implementation of the AC and its Protocols).

ALPARC mainly acts at the **strategic level** by means of **co-decision-making** procedures in the international arena (as an observer in the AC, expert institution in Eusalp) along with increasing lobbying activity in specific fields of action (EC, policy recommendations, and other non-binding statements). In the field of sustainable territorial planning, ALPARC mainly contributes to the definition of the international framework for the implementation of the Protocol for Nature Protection of the Alpine Convention¹⁷. Moreover, it actively participates in all related activities performed by the AC, including the Ministerial Declaration on Sustainable Spatial Development (2016) and several technical reports approved by national governments.

The three main goals of ALPARC have been identified as follows: 1) Contributing to an 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, elaborating EU projects with PAs and enhancing communication on PAs and ensuring that the goals of AC and EUSALP are reached. Collecting funds is to be seen as a necessary element for effectively achieving these goals.

Challenges and opportunities regarding NRM & territorial impact

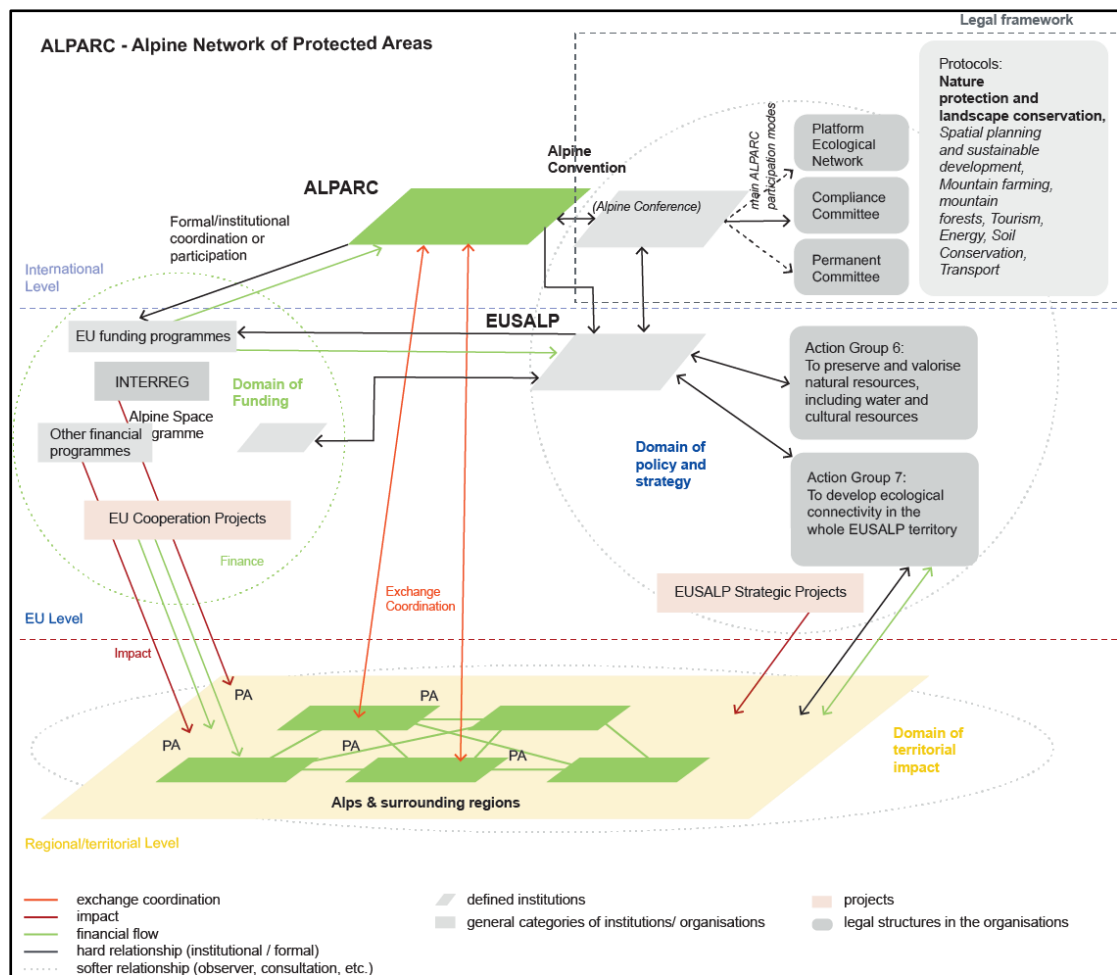
Challenges: As ALPARC is working mainly at a transnational strategic level, its **direct impact on territorial planning is limited** or rather, indirect.

¹⁷ ALPARC also contributes to the implementation of other AC Protocols such as those on Spatial planning and sustainable development, Mountain farming, Mountain forests, Tourism and others.

The performed analysis also indicates a scattered and **non-continuous dialogue with the business sector** in the Alpine region, both at the NPA and single PA level – no formal strategies for addressing businesses in general or SMEs’ expectations exist. Only a few projects developed by ALPARC or some member PAs envisage the participation of local companies and that mainly in the tourist (e.g. European Charter for Sustainable Tourism) and organic food sectors.

Participatory level of activities linked to **“business networking” and “investment” is low**, and mostly occasional. A general 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.

Fig.3: NPA management system in ALPARC



Source: LinkPAs project elaboration, 2018

Opportunities: ALPARC clearly qualifies as an institutionalized and recognized network with a **clear mandate and governing body**, officers and staff. ALPARC’s impact at the international level, especially regarding its core business linked to “ecological connectivity”, has increased

significantly through **lobbying** and its efforts to influence strategic decision-making at the transnational level, presenting itself as a **provider of expertise**.

Its unique status puts ALPARC in a position to act at least four **different levels** (local, regional, EU, Alpine), interacting with bodies that have skills in other sectors, which in turn allow **PA managers** to participate in decision-making processes and enable PAs to become **implementing bodies** for wider territorial policies.

A questionnaire distributed amongst ALPARC partners (N=13) underscores 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-competencies include NRM, R&D, education and climate change.

Recommendations

According to the ToR, ALPARC intends to strengthen its role in sharing experiences amongst PAs and regional and local bodies in charge of environmental policies. It seeks inputs for the development of pilot actions at the PAN-Alpine Level for its main platforms (Platform Ecological Networks of the Alpine Convention and the EUSALP Action Plan).

Table 8: Proposed activities for ALPARC

Activity	Description	Type	Outreach	Stakeholders	NPA capabilities exploited
GI -oriented planning competences for PA managers	Spreading knowledge about and innovative policy processes for EU GIs targeted to the capabilities, resources and competencies of its member PAs, e.g. by organizing training courses and initiatives	Training / exchange of experiences	Inside NPA	PA managers Experts/consultants EU institutions NPA officers	Exchange of experiences, Education & Training, Communication
International / Regional working groups on joint strategies for sustainable territorial development and integration of PA management into spatial planning	Promoting regional/international working groups to set up proposals for joint innovative strategies to enhance sustainable territorial development. WGs could support authorities responsible for regional spatial planning (e.g. regional governments) in developing new territorial plans	Multi-stakeholder working groups	Outside NPA	PA managers Regional and local authorities, Experts / consultants NPA officers	Existing multi-stakeholder partnerships
Creation of sustainable business competence centres / hubs at regional/PA level	By leveraging on previous experience, participating in institutional bodies and projects on the green economy (e.g. AC Boards) and directly linked to sustainable territorial growth (e.g. EUSALP), setting up of sustainable business competence centres / hubs providing expert services to SMEs and PA managers on strategies for business development in PAs	Setting up of "green business" competence centres	Outside NPA	PA managers Regional and local authorities, Experts / consultants NPA officers, Chambers of Commerce, Industrial associations, SMEs	Participation in: the Alpine Convention; Green Economy Board; EU processes; EUSALP; projects dealing with SMEs and the private sector

Source: LinkPAs project elaboration, 2018

NPAs should align with plans for individual parks, UNESCO WHL, Natura2000, but also with the EGTC, regional landscape plans and Alpine Convention Protocols. Key recommendations for ALPARC are:

- Strengthen investment in key competencies: lobbying at the EU, international and sub-national level.
- Further develop knowledge exchange at the subnational level by cooperating with subnational/national and transboundary networks
- Increase knowledge exchange with EGTC to learn from exiting territorial experiences
- Extend implementing capacities to enhance GI-Infrastructure

The table 8 provides more details about the proposed activities.

4.2 Alpi-Maritime Mercantour

Context & background

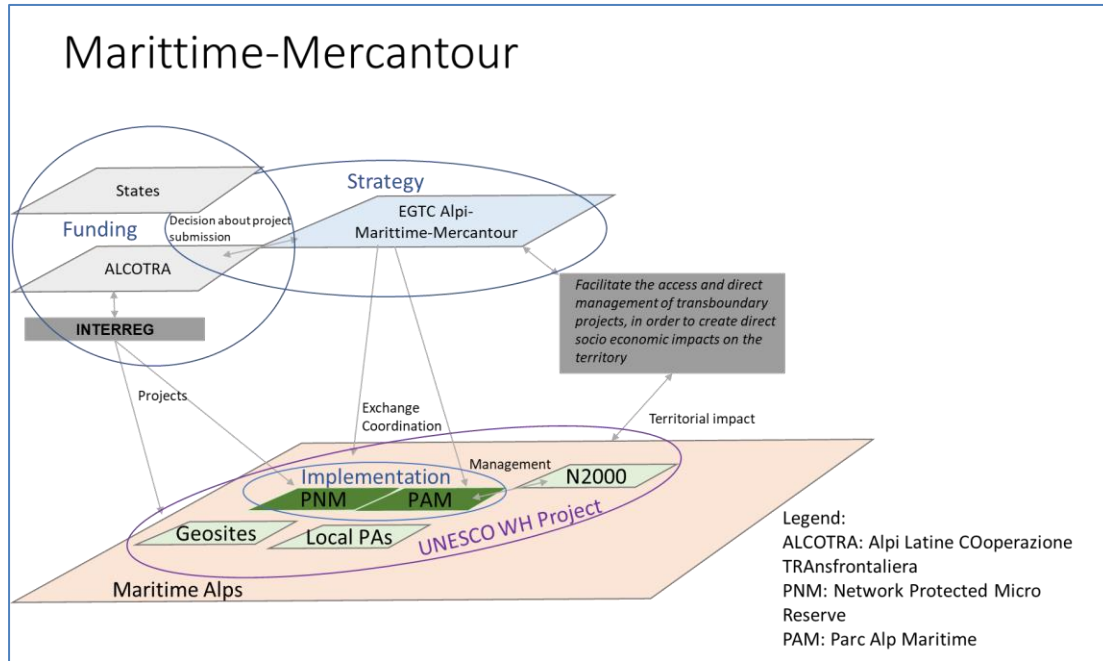
Sharing a common natural and cultural heritage in adjacent territories, the Alpi Maritime Nature Park and Mercantour NP represents an NPA of about 1,000 km² on the French/Italian border. This informal partnership was originally motivated by the need for a joint management of the wildlife in this area. 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. The six priorities for the territory of the Maritime-Mercantour Park include the protection of its natural and cultural heritage, territorial management and planning, environmental education, sustainable tourism and sustainable mobility.

Challenges and opportunities regarding NRM & territorial impact

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 territories, common standards and power relations are required. 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.

Fig. 4: NPA management system in Alpi-Maritime-Mercantour



Source: LinkPAs project elaboration, 2018

Opportunities Links between the 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 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.

According to a legally binding document, the European Grouping of Territorial Cooperation (EGTC) has **decision-making power** regarding policies directly related to the NPA. This document establishes that the PA directors and local politicians shall work together to decide on the NPA’s transboundary actions. Even though national and territorial decisions remain the responsibility of the individual park, all transboundary decisions are taken by the EGTC.

“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 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. The Maritime-Mercantour NPA further acts as a main support of **transboundary projects**, including, for example, the project for a "salt road" from Limone to Upega. Transboundary projects may enhance the area's tourism potential, thereby leading to economic benefits for the municipalities concerned. **European funding** is expected to free up more credit for cross-border projects than for individual sites.

Recommendations

The Alpe-Maritime Mercantour European Park intends to strengthen its use of the EGTC and further develop transboundary cooperation. Furthermore, the administrative body responsible for the Maritime-Alps expects to strengthen the dialogue among protected areas and territories particularly at the local level and identify effective strategies to implement existing policies concerning nature conservation. Based on the analysis of key challenges regarding NRM and the underlying problems, recommendations for concrete activities were proposed in Table 9.

Table 9: Proposed activities for Alpe-Maritime Mercantour

Challenges	Underlying problems	Recommendations
Weak link between the economic and ecological network	Separate network, no legal mandate, differing interests	Establish an intersectoral platform to coordinate the economic and ecological network
Decreasing public budgets for PAs	National policy	Exploit EU project funding sources; streamline activities with implementation of national strategies
Expanding the existing network (UNESCO nomination)	Current network optimized for 2 key partners	Facilitate a process to carefully expand the network; adapting structures
Raising awareness of the role of the NPA in territorial development	No clear mission and mandate on the part of the network	Enhance the role of the network by awareness-raising campaigns and definition of role in statutes
Harmonising standards in common fields	Established administrative structures and local political interests	Awareness-raising campaigns and PR for higher local acceptance; starting a pilot project on the participatory development of common tourism standards (e.g. within the UNESCO procedure)

Source: LinkPAs project elaboration, 2018

To sum up, the key recommendations for Alps-Maritime Mercantour are:

- Carefully develop a plan to ensure the extension of the network. Use UNESCO Nomination as an opportunity.
- Consider ALPARC as a model and start an exchange/consultation process with ALPARC to carefully develop the extension of EGTC and related potential changes in the organizational structure.

- Place more emphasis on public relations at regional level to communicate the achievements and benefits of the Alpe-Maritime Mercantour European Park Model, strengthen it and increase regional acceptance.

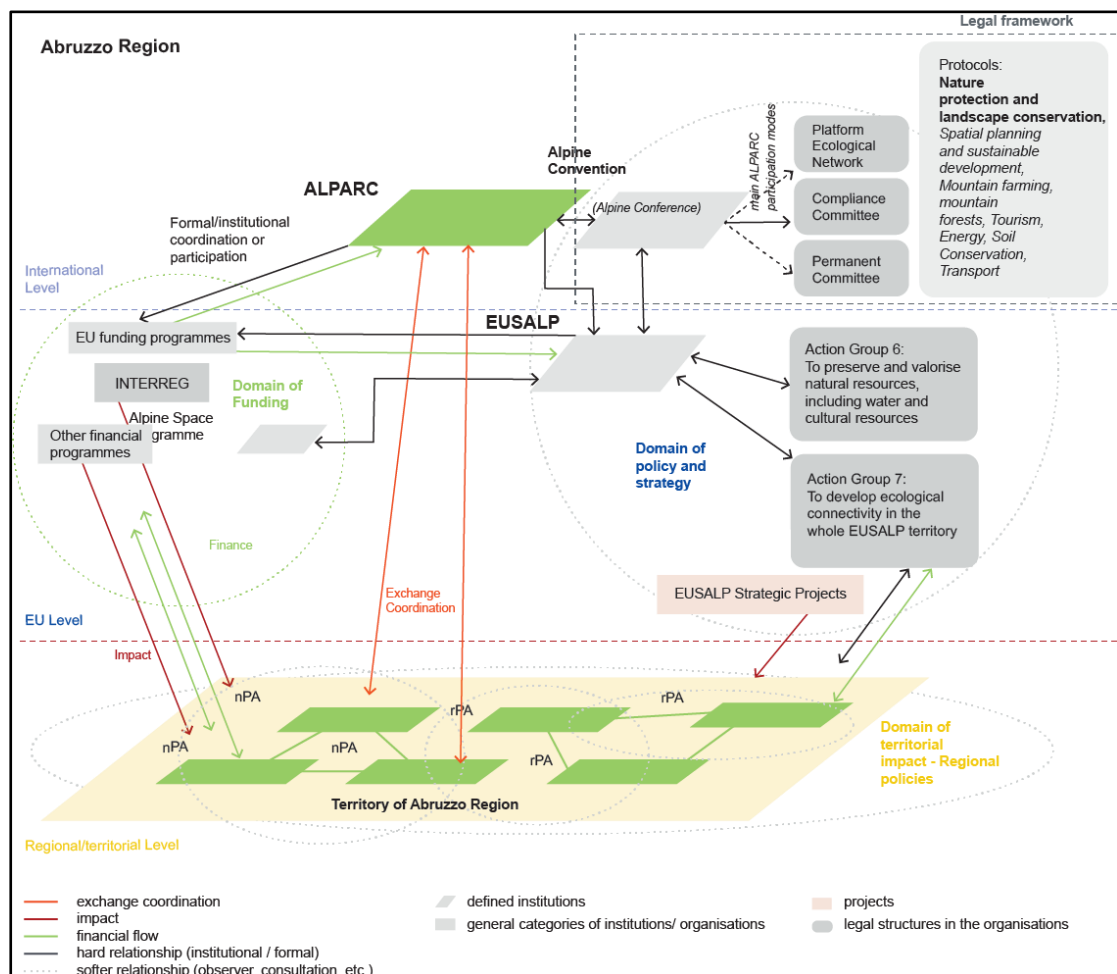
4.3 Abruzzo Region

Context & background

Abruzzo is a mostly mountainous region and one third of its territory is included in protected areas. Its three national parks, 1 regional park, 1 marine protected area, 14 national nature reserves, 25 regional nature reserves, 59 Natura 2000 sites and 6 general protected areas are valuable assets of this region. The system of PAs in Abruzzo is managed by the Italian Ministry for the Environment (National protected areas) and the Abruzzo Region (Regional protected areas).

Within the territory of Abruzzo, PAs are clustered into two major NPAs: the network of regional PAs - under Regional Law 38/1996 – and the network of national PAs under National Law 394/1991. Besides these NPAs, many PAs are active members of local NPAs (e.g. network of nature reserves) and but also operate at the international level (e.g. AdriaPAN, a sub-network of the MedPAN dedicated to the PA along the Adriatic Sea).

Fig.5: NPA management system in the Abruzzo Region



Source: LinkPAs project elaboration, 2018

Challenges and opportunities regarding NRM & territorial impact

Challenges: The **lack of funding** is a major drawback for the NPAs in Abruzzo. However, the Apennine Convention initiative for a network of protected areas in the Apennine Mountains is an exception in this sense, as it was launched thanks to a specific project financed by the Italian Ministry for the Environment. Another major problem is the **PAs' rather weak position within decision-making** processes relating to the development of regional plans and strategies in the field of natural resource management. Protected areas are supposed to implement rather than decide and develop. Stakeholders from the region emphasize the importance of a stronger involvement of NPAs in strategy development and decision-making but fall short on pressing for a coordinated and involving effort.

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).

Opportunities: The Abruzzo Region has the **legal mandate** to develop regional policies and strategies by addressing the sustainable development of its entire territory. In the field of natural resource management (NRM), Abruzzo has the mandate to establish regional protected areas, coordinate the development of management plans for Natura2000 sites, and integrate and harmonize national PAs actions established by the Italian Ministry within its own planning activities. At the local level, municipalities play a crucial role in the management of natural resources since they are managing bodies for regional nature reserves and Natura 2000 sites. There are **funding instruments** available for the implementation of pilot projects (e.g. EAFRD, 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 in Abruzzo are thus involved in these kinds of **pilot projects**, seeking to implement national strategies.

Knowledge exchange. Networks share relevant solutions when facing similar challenges, provide approaches to improving governance efficiency and design jointly developed projects with the aim of obtaining additional funding.

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 **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.

Recommendations

The Abruzzo Region seeks support to implement national strategies on the green economy at the regional and local levels, measure territorial impacts of existing strategies for mountain areas (e.g. Italian Strategy for Inner Areas) and develop pilot actions in the Apennine area. The concrete recommendations for the Abruzzo Region and its NPAs are:

- Enhance coordination between all stakeholders involved in the management of natural resources (particularly tourism, water management, spatial planning, agriculture and forestry).
- Provide protected areas (or a coordinating body/association) with a legal mandate to be involved in NRM-related planning strategies.
- Develop a joint integrated strategy for tourism applicable to the NPA and encompassing the whole region; the European Charter of Sustainability label could be used to this end.
- Develop a regional investment strategy for green innovation (for example, support the agri-food sector in Abruzzo; enhance ecotourism).
- Develop and promote quality labels as tools that PAs can adopt to market their resources.
- Use funding already allocated to fight climate change, enhance development and implement adaptation strategies; exploit actions targeting the existing areas in the vicinity.

Table 10: Proposed activities for Abruzzo Region

Challenge	Underlying problems	Recommendations
Low coordination of PAs at the regional level	Legal separation between regional and national protected areas	Create an operative body (e.g. informal agency or association of parks; cf. ALPARC). Hold regular meetings to create a regional platform of all stakeholders involved in NRM (e.g. one conference per year)
The tourism potential of the PAs and the region is not sufficiently developed	Lack of a regional tourism strategy; individual initiatives with no intersectoral approach	Develop a tourism-related strategy (potentially led by an NPA) Develop a regional brand with PAs working as a Unique Selling Point Develop common quality standards
Lacking funding mechanism for a coordinating body	Lack of a funding strategy to make use of existing funding sources	A funding strategy should be part of the setting-up process when establishing an NPA; if already in place, the NPA should be formally included in the administrative structure.
Limited involvement in developing strategic documents	Missing legal mandate/ lack of coordinating or lobbying body	Establish a coordinating body as a stakeholder in strategy development processes. Establish a legally binding mandate allowing PAs to develop planning strategies; alternatively, make sure that the NPA can act as an "Observer" within the Alpine Convention. Use key themes or climate actions as a starting point for intersectoral cooperation (e.g. climate action or tourism)

Source: LinkPAs project elaboration, 2018

4.4 Razlog Municipality

Context & background

The Municipality of Razlog in Bulgaria covers an area of 440 km² and is located within an ecologically significant region. It is the most dynamic and fast-developing municipality in the Blagoevgrad region. Razlog Municipality covers large parts of National Park "Rila" and smaller areas of National Park "Pirin". 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.

Challenges and opportunities regarding NRM & territorial impact

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). The **role of NPAs** in 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) needs to be strengthened. Regional territorial strategies are geared toward turning Razlog into a local, urban and tourism hub. This approach underscores the increased necessity for integrated NRM and spatial planning.

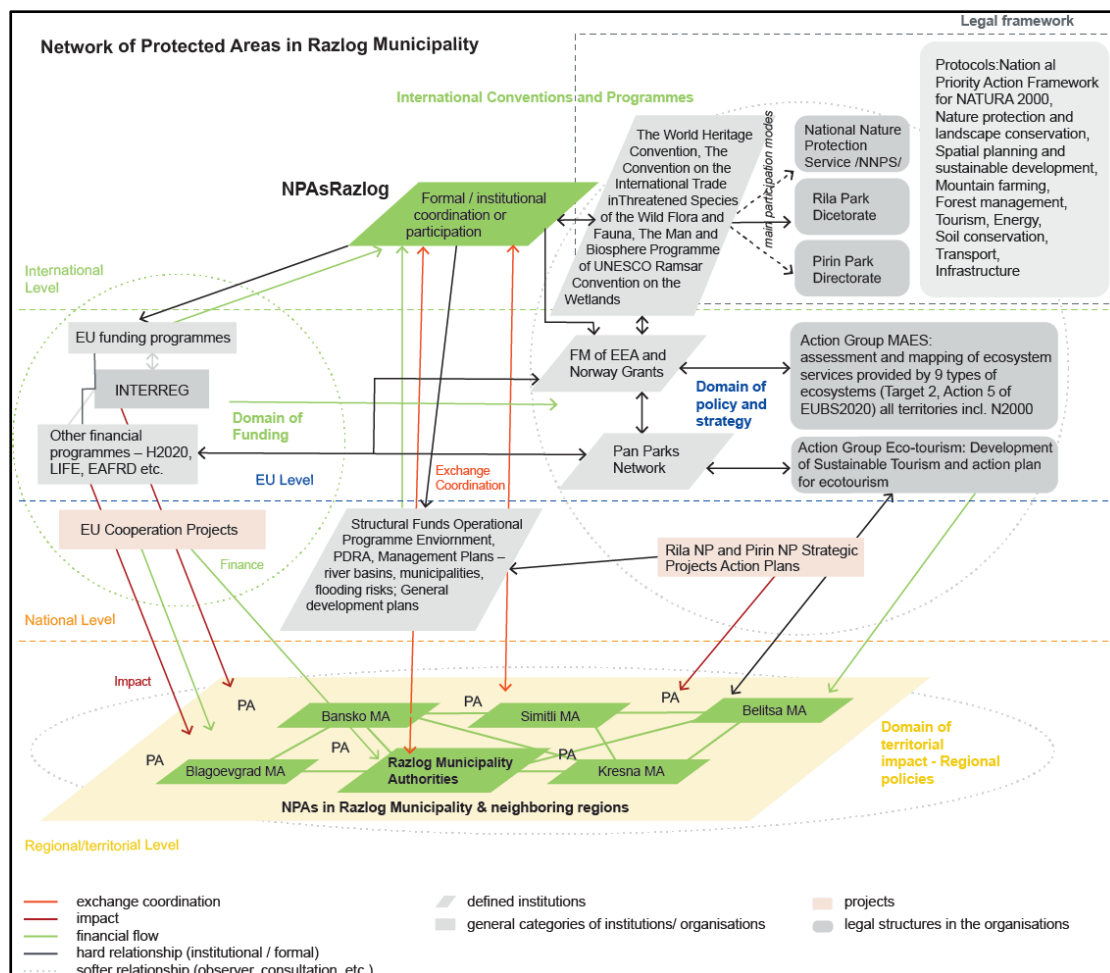
Other challenges are linked to the fact the NPA does not **interact sufficiently** at the local level; moreover, a better **integration of other sectors**, such as tourism, education, climate change and waste management, into the management plans is certainly needed.

Opportunities: 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.

Fig.6: NPA management system in Razlog Municipality



Source: LinkPAs project elaboration

Recommendations

Razlog Municipality seeks to improve the development of strategies based on good practices, particularly in the **tourism sector** and the **management of biodiversity**. Furthermore, potential ways to strengthen the role of its national parks Pirin and Rila in **international networks** such as the Network of Emblematic Mediterranean Mountains) are envisaged.

In light of the challenges and opportunities outlined above, this report's recommendations are the following:

- **Strategic tourism development.** Develop a tourism strategy that promotes the distinctive native cultural and natural characteristics of the area and attracts the attention of managerial bodies, especially considering that the local administration is seeking to make the Municipality of Razlog a tourism-driven area.

- **Envisage cooperation** between experienced NGOs/civil-society organizations and local SMEs in order to improve access to funding for the implementation of local projects, develop funding systems and encourage mechanisms to grant local SMEs' easy access to funding. Targeted actions also include improving the experts' skills and providing them with assistance in submitting applications, as well as contributing to successful management and reporting on large projects, since at the moment this kind of expertise is limited.
- Improve **informal exchanges** among LAG, NPA representatives (National Park directorates) and the Municipality. This could be done by means of thematic regional platforms (e.g. on tourism development).
- Reinforce the role of NPA representatives in creating territorial development strategies relating to NRM and landscape planning within the municipality.
- Involve regional economic stakeholders in the planning and management processes of the national parks. In turn, this may help resolve the conflicts that arise during the development of the existing plan.
- Consider concepts such as **Payment for Ecosystem Services (PES)**, since NPAs are service providers supporting local tourism. To this end, a natural capital mapping and assessment is highly recommended. Payments could be made to maintain the natural capital (such as the protective function of forests) and protect it against fires, illegal logging, illegal landfills, waste treatment; actions could also include the protection of regional water resources.
- Use existing **EU funding** (e.g. INTERREG BIO2CARE) to strengthen links between the NPA administration and local administration.
- Develop a clear **communication and awareness strategy** to mitigate existing conflicts between stakeholders and the Rila and Pirin NP managing body.

Table 11: Proposed activities for Razlog

Challenges	Underlying problems	Recommendations
Inadequate protection of natural heritage	Lack of awareness regarding potential benefits; regional economic interests prevailing over other actions	Develop a communication and awareness-raising campaign Develop PES-model to valorise conservation activities
Increased pressure on the environment due to urbanization and growth of tourism	Weak intersectoral cooperation and exchange; the NPA is not involved in the development of regional strategies	Establish advisory or formal body with a mandate to involve NPAs in regional planning (in the field of NRM) Seek cooperation with the tourism sector and local administrations to develop a joint tourism strategy
Lack of adequate expertise to implement projects	Lack of professional experience in project management	Capacity-building measures or promotion of twinning partnerships involving experienced NGOs or firms and local SMEs
Management plans rejected at regional level	No stakeholders' involvement when choosing themes; conflict of interest	Set-up intersectoral working groups to revise management plans

Source: LinkPAs project elaboration 2018

4.5 Synthesis

The case studies analysed here provide an overview of the challenges to be addressed in order to ensure appropriate management of natural resources. The extensive experience of NPAs in the sustainable management of natural resources explains their drive to secure their involvement in the development of territorial strategies and plans. However, since NPAs come out of a very territorially defined space, with a traditionally clear mission for meeting conservation objectives, their role frequently lacks a clear definition. NPAs or PAs often lack structure, links and a formal foundation to contribute to NRM at a broader level, which goes beyond the local level.

Table 12: The role of NPA in NRM

Concerning NPAs	Addressing policy makers
NPAs are essential for the implementation of Green Infrastructures as they often include stepping stones and nodes with the GI-networks. NPAs should stress this role in order to be considered by policy makers as implementers of these strategies.	NPAs often have no territorial mandate that extends beyond their individual territories. A clear definition of the role, mandate and function is therefore essential for all NPAs. If policy makers intend to strengthen the role of NPAs, the latter's formal involvement (e.g. through statutes, assigned observers, recognition as stakeholder) has to be clearly stated (as Observers, Working Groups Leaders, Managers of Macroregional Strategies or Regional Strategies). This can in turn improve the overall strategic framework used.
NPAs should make use of joint projects to enhance identity formation and build new partnerships with other sectors	If NPAs are part of a public administration, they should explore options to establish advisory boards involving regional stakeholders (at the local or regional level). This is an effective means to improve intersectoral communication.
NPAs should strengthen their role as agents to promote sustainable/green economic sectors, particularly their core sectors, ecological connectivity and knowledge exchange.	NPAs can play an important role in defining common standards for tourism, hiking, green labels, Natura 2000 management. Stakeholder territories should make use of their NPAs to create strong sustainable and regional tourism brands in line with their own territorial objectives.
	Trans/International EU funded projects are amongst the most efficient instruments for implementation projects involving NPAs. Calls or programmes with an intersectoral focus, explicitly addressing NPAs or addressing specific natural spaces (e.g. Forests, wetlands) would strengthen NPAs substantially. These calls could also be linked with the macroregional strategies (e.g. EUSALP, EUSDR). In transboundary areas with similar natural challenges, NPAs are a promising tool for transcending administrative boundaries and are often the only option for developing joint transboundary standards.

Source: LinkPAs project elaboration 2018

Considering the role of NPA in NRM, NPAs can fulfil three main functions:

NPAs as instruments for mainstreaming NRM and green topics

NPAs can potentially play an important role in raising awareness of “green topics” such as Green Infrastructure and lobbying for them in policy processes. NPAs have 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,

- planning strategies should formally include PAs and NPAs **as parties involved in decision-making processes (or at least as consulting bodies)**; they should be able to participate in shaping policies, especially in those sectors in which they are particularly skilled and have significant knowledge-based expertise;

NPAs as instruments for implementing NRM and green topics

NPAs with a specific territorial scope, such as EGTC or the Abruzzo Region, can be given the role of implementers (of projects), which in turn serve to implement strategies. In particular, if strategies are created to operationalize the core topics of NPAs (conservation, ecological connectivity, sustainable land-use, tourism, climate action), these networks can become valuable partners for their effective implementation. Thus,

- **planning strategies should consider NPAs as “implementing bodies” of government policies** especially through the performance of those actions they have sufficient experience in carrying out (such as the ones listed above)
- moreover, this would envision **(some) funding being assigned by governments to NPAs** to develop those actions in the area of their expertise (perhaps doing so more efficiently and effectively than other organisations or offices).

NPAs as instruments for knowledge exchange

Successful NPAs (e.g. ALPARC) often work on a voluntary basis and have contributed to gathering dispersed knowledge and skills, making them available to the whole network (sometimes getting support from governments via funding at a second stage). They are often the only bodies able to transfer best-practices from one area to another. This is particularly significant for NRM topics and successful models for the green sector. This function will only gain importance in the future as territorial strategies tend to focus on integrated and macroregional areas (e.g. GI-Strategy, river basin or watershed-based strategies).

Actions and recommendations

The table 12 summarizes the recommendations for strengthening the role of NPAs in NRM.

5 NPAs and the mobilization of private sector for sustainable territorial development. The policy potential for SMEs involvement

5.1 Policy analysis

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.

Different approaches for addressing territorial development through policies currently coexist in the stakeholder regions. Their level of integration depends on the governance structure of the territorial bodies of government, as highlighted by the case-study analysis (Chapter 4). 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 expressly mention some economic sectors or industries they address - mainly tourism, forestry, agriculture, and transport. Rather, 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 2) and listed below have been gathered in Table 13 (where “Biodiversity” and “Conservation benefits” have been merged since no significant differences could be ascertained in the impact of the respective policies on SMEs).

Aiming at identifying a list of SMEs (by industry) included in the primary policy sectors for LinkPAs’ stakeholder regions (Chapter 2), we consider three categories:

1. SMEs expressly targeted or referred to by the regional policies under scrutiny:
“Directly targeted”
2. SMEs with a direct thematic link to the identified policy sectors: *“Thematically targeted”*

3. SMEs with an indirect link to the identified policy sectors, defined according to the relationship between existing regional policies and distinctive regional assets:
“Indirectly targeted”

Tables 14a and 14b summarise the results drawn from the analysis of the policies collected in the stakeholder regions under the eight primary policy sectors identified according to the LinkPAs framework.

Table 13: 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 benefits	Protection of natural heritage	Marittime/Mercantour
Biodiversity/Conservation benefits	Implementation of regional plans, strategies in programs in the field of natural resource management by PAs (not NPA)	Abruzzo
Biodiversity/Conservation benefits	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 benefits	Management plans for both Rila NP and Pirin NP: conservation, preservation and management of natural resources and natural heritage	Razlog
Biodiversity/Conservation benefits	Municipal Development Plan for Razlog Municipality explicitly addressing environmental protection	Razlog
Biodiversity/Conservation benefits	Participation in the definition of the international framework for implementation of the Protocol Nature Protection of the AC	Alparc
Biodiversity/Conservation benefits	Promotion of “ecological connectivity”	Alparc
Biodiversity/Conservation benefits	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 & recreation	Sustainable tourism also through European Economic Interest Grouping (EEIG) “EUROCIN, le Alpi del mare, les Alpes de la mer” not recalling SMEs	Marittime/Mercantour
Tourism & recreation	Municipal Development Plan for Razlog Municipality explicitly addressing tourism & particularly eco-tourism	Razlog
Tourism & 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) “EUROCIN, 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	Alparc

	development (2016)	
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

It is widely recognised 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, Hanson et al. 2012). Hence, 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.

Table 14a: SMEs (by industry), ecosystem-dependency and synthetic assessment of related ecosystem risks & opportunities

SMEs (by industry)	Policy sector interested	Dependency	Synthetic Assessment of risks and opportunities for the industry (SME)
Construction & building materials	Biodiversity, Conservation benefits, Tourism & Recreation	I	Most significant risks include licenses to expand operations or exploit land (legal), insecurity of supply for some raw materials such as timber (operational), relation with regulators and spatial planners and liability for environmental impacts. Opportunities refer to the possibility to get licenses to expand operations for products in line with new legal standards (regulatory & legal), reach new markets for sustainable materials and projects, complying to green public procurement (GPP) standards and involvement in their definition (operations and markets); development of new brands or improved brand and new goods/services (reputation), increase in sales and reaching of new markets through certifications (access to markets), access to finance from "green investment funds" or banks (finance)
Electricity	Biodiversity, Conservation benefits, Ecoservices	I	Most significant risks include limited or no access to land or long time to get permits (legal), reputation, insecurity of supply for 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 for non-compliance with supply standards (markets and operations), compromised relations with regulators (non-compliance with standards), liabilities for environmental impacts. Opportunities refer to the possibility to access clean, flowing, cool water (power industry's dependence on ecosystem services, ESs) which translates in cost advantages (e.g. inexpensive form of transport for coal-fired plants; power source for hydropower). Significant unexploited potential can derive from new ecosystem markets (e.g. carbon sequestration, air & water purification - e.g. nutrients) with effects on property value of land provisioning ESs.
Mining	Biodiversity, Conservation benefits, Ecoservices	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).
Oil & Gas	Biodiversity, Conservation benefits, Ecoservices	I	Main risks include: access to land / permits time, 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 are of different types (reputational /legal) e.g. for programmes for low-impact operations on NRS in partnership with NGOs or scientific institutions
Utilities	Biodiversity, Conservation benefits, Ecoservices	I	Risks include: access to land / permits time, reputation, relation with regulators (non-compliance), 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.)
Chemicals	Biodiversity, Conservation benefits, Ecoservices	I	Risks include: access and security of supply of inputs (for biochemicals), reputation, relation with regulators, liabilities
Pharmaceuticals & Biotech	Biodiversity, Conservation benefits, Ecoservices	I	Risks include: the loss of wild genetic resources used as inputs to production. 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

Source: LinkPAs project elaboration 2018 based on COWI 2010, EUROSIF 2009, F&C 2004, TEEB 2012

Table 14b: SMEs (by industry), ecosystem-dependency and synthetic assessment of related ecosystem risks & opportunities

SMEs (by industry)	Policy sector interested	Dependency	Synthetic Assessment of risks and opportunities for the industry (SME)
General retailers	Biodiversity, Cons. benefits, Ecoservices	I	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
Financial services	Biodiversity, Cons. benefits, Ecoservices	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 insurers are increasingly sensitive to risks associated with biodiversity loss and ecosystem degradation). 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
Food & Drugs Retailers	Biodiversity, Cons. benefits, Tourism and Recreation	I	Main risks include: reputation, security of supply, relation with regulators (non-compliance)
Beverages	Biodiversity, Cons. benefits, Ecoservices	T/I	Risks include: access to land (springs), security of supply of inputs (water) / permits time, reputation, relation with regulators, liabilities
Household Goods & Textiles	Biodiversity, Cons. benefits, Ecoservices	I	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
Personal Care & Household Products	Biodiversity, Cons. benefits, Ecoservices	T/I	Risks include: shortage of organic ingredients from biodiversity loss or limitation in access. Opportunities include: growing markets for natural and organic cosmetics, using fair trade to guarantee long-term supply of organic ingredients
Food producers and processors	Biodiversity, Tourism and Recreation, Agric. & Forestry	T/I	Main risks include: reputation, access to markets (procurement standards), security of supply, relation with regulators (non-compliance), liabilities (for environmental impacts). Opportunities have been found in the evolution of consumers' preferences: organic foods, traceability, ethical sourcing/fair trade, sustainability, corporate social responsibility (CSR) policies
Forestry & Paper	Biodiversity, Tourism and Recreation, Agric. & Forestry Transport	T/I	Main risks include: access to land / permits time, access to markets (procurement standards), security of supply, relation with regulators (non-compliance). Opportunities include: consumers' preference for products derived from sustainably managed forests, Forest management certification is becoming an important requirement to access the EU market,
Fisheries	Biodiversity, Cons. benefits, Ecoservices	T/I	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)
Tourism (Leisure & Hotels)	Tourism and Recreation, Biodiversity, Cons. benefits,	D	Main risks include: access to land / permits time, reputation, access to markets (procurement standards), security of supply. 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, 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.

Source: LinkPAs project elaboration 2018 based on COWI 2010, EUROSIF 2009, F&C 2004, TEEB 2012

In order to identify the “*indirectly targeted*” SMEs or industries as defined above, we focus on those industries: a) for which an impact significantly depending on ecosystems (i.e. business risks and/or opportunities) has 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 on assets and ecosystems localised in or stemming from PAs; c) where a significant number of SMEs can be found at national or regional level (European Commission 2017); and d) whose presence in areas covered by NPAs can be verified.

Table 14a and 14b contain the SMEs (by industry) being *directly (D)*, *thematically (T)* and *indirectly (I)* affected by regional policies under the identified policy sectors. It also summarizes the main risks and opportunities identified for each *indirectly* affected industry as found in the literature regarding ecosystem services (COWI 2010, EUROSIF 2009, F&C 2004, TEEB 2012, WBCSD 2011). Few categories of SMEs 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) whereas the remainder are indirectly affected (I). The indirect relationship (I) has been based on factors such as the dependencies, risks and opportunities of each industry relating to ecosystem goods and services typically found in PAs. A certain degree of overlapping is obviously unescapable, since the same category of SMEs is targeted simultaneously by more policies, often through different instruments.

Investment and finance for Green Infrastructure: supporting NPAs in mobilizing 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, fighting 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 situation and the need for a change in the interpretation of the role of PAs and NPAs in territorial development across Europe, the most suitable paradigm to steer a more concrete role of NPAs in European regional policies is the one proposed by the Green Infrastructure (GI) Strategy.

According to the European 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 EU provides several opportunities to support initiatives by EU countries and regions enhancing GI through funding. Structural, cohesion, maritime and fisheries, rural development, LIFE+, EFSI, Horizon 2020 and Nature based solutions funds and programmes can be used. GI is also financed through the Natural Capital Financing Facility, jointly managed by the EC and the EIB. 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 EC, 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. GI is potentially valuable for private investors too. 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 concentrated in some primary policy sectors. Specific natural and “governance” characteristics of NPAs make possible to clarify their future role in attracting and spending financial resources. Surely, they 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 to play a role of coordination in the elaboration of project proposals to be financed through the financial sources mentioned.

5.2 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 exist, several *policy instruments* can be used. These tools have been described in the relevant literature and applied to practical cases. They can be clustered according to the classification already adopted for SMEs and the three groups based on their targets (i.e. *direct*, *thematic* and *indirect* policy targets).

We have focused on those policy instruments commonly adopted in the field of environmental and biodiversity management (Stephenson 2012). Their design and implementation are likely to demand some governance capacity, which can be found in different types of organisations involved in public policy actions (including PAs and NPAs). We have tried to assess to what extent the NPAs under scrutiny can be said to have and exert such a capacity – by taking into account the four governance models identified during the LinkPAs targeted analysis (Ch. 1). All

eleven criteria used to evaluate the four NPA governance types have been numbered in ascending order (from 1 to 11¹⁸).

Policy instruments can be analysed on the basis of their scope and targets. At regional level, their scope of application is a relevant variable since it determines the territorial units addressed by policies and allows for finding the specific components that exist within a given environment. The targets of policy instruments can be analysed according to their capacity to address direct SMEs needs, wider thematic domains, or specific phenomena or objects (e.g. resources, asset, etc.). As for their scope, the policy instruments investigated here are those relating to the “external business environment” of the different categories of SMEs listed above, i.e. what environmental factors influence the SMEs decision-making process and strategies (Worthington & Britton 2009). In particular, we have focussed on policy instruments that more directly address SMEs operating in PAs or surrounding areas. Consequently, these SMEs become part of a special business environment, where assets and resources mostly found in PAs play a primary role. This scenario can be named as a “PA business environment”.

As for their targets, policy instruments can be clustered according to the classification already adopted for SMEs in para. 5.4 (cf. Table 14a and 14b) and the three groups based on their targets (i.e. *direct*, *thematic* and *indirect* policy targets). In Table 16, each group is described in relation to different types of policy instruments; moreover, examples from EU experiences are provided along with a brief description of the instruments, the targeted policy sectors and SMEs with the investigated NPAs. 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. examples in Table 15):

1. regulatory instruments: directly setting behavioural standards
2. economic instruments: promoting new kinds of behaviour
3. information & other instruments: typically aiming to overcome information & coordination problems (Stephenson 2012).

Table 15: Examples of policy instruments (by category)

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

Source: LinkPAs project elaboration 2018 based on Stephenson 2012

¹⁸ Criteria used to define NPA governance categories (in ascending order) in Ch.1: 1. Existence of a shared action plan or programme identifying priorities and actions to be taken by/within the NPA; 2. The PAs activities are coordinated consistently; 3. The NPA has been legitimated via a formal strategic/institutional agreement; 4. The NPA cooperates with other NPAs; 5. Funds (from any source) have been earmarked to the NPAs management or its activities; 6. The NPA has a formal role in institutional decision-making processes at EU / Transnational/ National/ Local level; 7. The NPA holds decision-making capacity on behalf of the PAs; 8. The NPA involves PAs as well as other institutions; 9. The NPA involves PAs as well as other stakeholders (non institutional) 10. The NPA applies to a specific geographical area; 11. The NPA focuses on topics shared by the member PAs

Directly targeted policies include regulatory (permits and quotas, etc.), economic (subsidies, funding), as well as information instruments (labelling and certification, voluntary agreements). Thematically targeted policies include regulatory (zoning, protected areas, limitations on use), economic (Agricultural and other subsidies, CAP and rural development funds) and information (promotional tools, labels, etc.) instruments. Finally, indirectly targeted policies include also instruments from the same three categories (regulatory, economic, information). Those policies aim to make the benefits from ESs and PAs to SMEs visible and encourage investors and entrepreneurs to choose PAs or other surrounding areas as suitable business locations.

Table 16. Categories of EU policy instruments and their relationship to SMEs (direct, thematic, indirect) and sectors

Policy Instruments in Relations to SMEs	Policy instruments	Description	Relevant examples in EU	Targeted policy sectors	Targeted SMEs (by industry) in NPAs
Directly targeted (D)	Subsidies, funding, labelling and certification, voluntary agreements, permits and quotas, etc.	Directly aiming at promoting and enhancing SMEs and entrepreneurship with no strict links 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.	Small Business Act (SBA) for EU (2008), Entrepreneurship 2020 Action Plan (2013), Guidebooks on how to support SME policy using structural funds (at regional level), etc.	Agriculture & forestry Employment and Investment Tourism & recreation Transport	Tourism (Leisure & Hotels)
Thematically targeted (T)	Agricultural and other subsidies, CAP and rural development funds, infrastructure, promotional instruments, labels, permits quotas, etc.	Addressing thematic issues, fully or in part relating to policy sectors; they can target SMEs or industries according to policy sectors. They tackle sectors within which SMEs conduct their business operations. They usually pursue broader aims than promoting entrepreneurship or SMEs (that are instrumental to the achievement of sectoral policy targets).	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 ¹⁹	Agriculture & forestry Biodiversity /Cons. benefits Ecoservices Cross-cutting policies	Food producers and processors Forestry & Paper Beverages Personal Care & Household Products Fisheries
Indirectly targeted (I)	Zoning, spatial planning regulations, PES, prohibitions on use, permits and quotas, etc.	Addressing policy sectors, assets or other aspects not immediately linked to SMEs or economic territorial development. However, they can support phenomena which indirectly contribute to sustainable territorial development. For instance, they can ease access to or allow innovative uses of regional resources; they can offer benefits to	EU biodiversity strategy (2011), Business-Biodiversity, Green Infrastructure	Biodiversity / Cons. benefits Ecoservices Education	Construction & building materials Electricity Food & Drugs Retailers Mining Oil & Gas Utilities Chemicals Financial services General retailers Household Goods & Textiles Pharmaceuticals & Biotech

¹⁹ Relevance has to be intended for all eight priority policy sectors identified for this LinkPAs targeted analysis.

		SMEs through the provision of high quality assets or services, often stemming from specific ecosystems (i.e. ecosystem services).			Food producers and processors Forestry & Paper Beverages Personal Care & Household Products Fisheries
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Source: LinkPAs project elaboration 2018 based on Stephenson 2012, COWI 2010, TEEB 2012, WBCSD 2011.

To this end, some policies (or policy instruments) can better suit specific industries, as shown in Table 16. The third category of instruments indirectly targeting SMEs is particularly significant in the study of NPAs, since these policy instruments gather target assets classically stored in PAs or 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 services, green infrastructure and territorial resilience. The analysis performed by LinkPAs in the stakeholder regions has shown that all NPAs hold distinctive competences 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 investigation of the literature and practical applications across PAs has shown that: ecosystem degradation has a material impact on companies; new business opportunities are emerging, and they aim at restoring and managing ecosystems in a sustainable way; that communities, NGOs, customers, consumers and shareholders are becoming increasingly conscious of the interrelationship between business operations and the state of the ecosystems. The current regulatory and legal context requires that companies minimize and mitigate their impact on the ecosystem; compensation cases for damages caused by companies on the ecosystem have increased (WBCSD 2011, Hanson et al. 2012). Therefore, 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 scientific and operational background of PAs and NPAs on biodiversity, NRM and nature-based economic activities can thus be exploited to support SMEs mobilization and encourage growth in the regions where NPAs are currently found. Prospective analysis could investigate how the distinctive governance competences of NPAs at regional level can be fruitfully exploited in relation to the wide range of policy instruments available to tackle the purposes mentioned above, and particularly those addressing biodiversity and natural resources.

5.3 Role of NPAs in policy design and implementation for sustainable territorial development

Table 16 shows that a range of policy instruments are available to support the involvement of SMEs in territorial development. Most of them do not openly consider PAs or NPAs as suitable players in their definition or implementation processes and do not establish any direct connection with them. As a consequence, the role played by NPAs is extremely limited especially when directly and thematically targeted policy instruments are employed.

Nonetheless, a significant degree of awareness on the following facts concerning European NPAs can be detected:

- 1) NPAs 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 1) demonstrates;
- 3) some of the sampled NPAs in the stakeholder regions already participate, albeit indirectly, in policy design and implementation processes at different levels (Chapter 3).

Based on this information, the governance needs demanded by the three categories of policy instruments in Tables 15 and 16 can be matched with those identified for alternative governance models. This has to be done in order to formulate any possible recommendations seeking to integrate NPAs in sustainable territorial development, especially when this involves the SMEs existing in those areas. In Table 17, governance models for NPAs and their distinctive competences are based on the typology reported in Chapter 1. Drawing on the analysis of the “governance capacities” of alternative NPA governance models, policy instruments listed in Table 16 have been associated to a set of capacities typically found in different models of NPAs.

Table 17: Governance needs for design and implementation of policy instruments and NPA governance capacities for governance models

Category of policy instruments	Governance needs to manage policy instruments	NPA models with higher presence of suitable governance criteria <u>for policy design</u>	NPA models with higher presence of suitable governance criteria <u>for policy implementation</u>
Regulatory instruments (command & control)	assuring compliance and enforcement of rules, effective PA management and financing effective monitoring on enforcement, knowledge on local communities and issues, know-how on stakeholder consultations	Models 2, 3, 4	Models 2, 3, 1
Economic instruments	mechanisms for knowledge sharing, information on resource endowment, information on tax bases (potential), shared database for environmental, ecosystem and assets information	Models 3, 2, 1	Models 3, 2, 4
Information	shared database for environmental, ecosystem and assets information, available knowledge on green consumerism / green	Models 2, 4, 1	Models 4, 3, 2

	marketing, availability of good institutional relationships (vertical governance e.g. for GPP), availability of good business relationships (horizontal governance), knowledge and trade-off management		
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Source: LinkPAs project elaboration 2018

The instruments clustered under the categories as in Table 15 affect either directly or indirectly the behaviour of consumers, businesses (including SMEs) and public administrations on the local, regional and national level. Particularly they incentivise stakeholders to choose PAs and highly natural areas as suitable locations for their distinctive activities – including economic and production ones (as the list of business sectors in Table 14 shows). This is likely to make investing in well-circumscribed areas where special measures apply, such as PAs and their groupings (e.g. NPAs), relatively more convenient (e.g. because of subsidies or tax reliefs) for SMEs and private investors coherently with some standards or behavioural measures usually set through regulatory instruments. Often, information instruments help disclose a sustainable practice or a particular feature of goods or services provided by organisations located in highly natural sites such as PAs. In such a context, NPAs – as in Table 17 – show different and complementary governance capacities that may support the implementation of such instruments and help involve local economic stakeholders.

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 4, further defined below:

- 1) **participation in policy design**: supporting 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 in or attributable to the identified policy sectors.

As a consequence, some models seem more suitable to address one of the two purposes outlined above, while others can ideally address both. Table 17 summarizes the findings from this analysis.

5.4 Summary of main outcomes of the analysis

We acknowledge that NPAs and their members hold special knowledge and expertise in managing biodiversity, natural resources and economic activities relating to a few categories of SMEs. Moreover, the NPAs action seems to influence a limited set of policy sectors, due to the fact that these NPAs have been playing a major role (ranging from environmental education to transport). We also acknowledge that NPAs have special governance capacities that have been lumped into four types of NPA governance models. We also acknowledge that some categories

of SMEs can be associated to the policy sectors on which NPAs exert some influence (defined as direct, thematic or indirect). We furthermore acknowledge that the range of policy instruments available to policy makers to support SMEs can be referred to the same three types used for classifying policies: direct, thematic and indirect. However, until recently, PAs and NPAs have played a minor role and shown little interest in designing or implementing territorial policies targeting sectors other than biodiversity, natural resource management and few nature-dependent economic sectors. This is probably due to the PAs and NPAs lack of institutional capacities and significant decision-making power; however, NPAs have an unexploited potential that could be profitably focused on regional territorial development. In order to investigate how such an unexploited potential can be turned into actions of regional governance, we set out to find whether the cause for this can be an inadequate matching between the governance capacities needed to design and implement policy instruments and the governance capacities NPAs can offer. By doing this, we have sought to explain the reason why the involvement of NPAs in sustainable territorial development at regional level in Europe is still very limited. Thus, we have considered what competences are normally required for designing and implementing the policy instruments discussed above (demand) and what competences are available within the NPAs under scrutiny (supply). This has been done by looking at four governance models (cf. Chapter 1); the analysis has shown that different models can be used to foster the NPAs involvement in the design of policy instruments, or in the implementation of these instruments and related policies. Some NPAs governance models display greater coherence in terms of NPAs governance capacities and the governance needs associated to the design and implementation of each policy instrument. However, these preliminary findings need to be investigated further, aiming particularly at analysing these governance needs and capacities. Most importantly, it is advisable to find the appropriate institutional approach to involve those NPAs seemingly in line with the more suitable governance models for the design and implementation of the three categories of policy instruments discussed above. In particular, consider supporting: a greater involvement of NPAs as per governance **model 2** (NPAs that voluntarily choose to cooperate in order to address shared and concrete ecological and/or environmental issues) in designing and implementing *regulatory instruments*; a greater involvement of NPAs as per governance **model 3** (networks typically characterised by a limited geographical scope, and able to affect territorial development policies) in designing *economic instruments* and in their implementation; and the NPAs involvement as per **model 2** in designing *information instruments* and as per **models 2, 3 or 4** (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 existing PA) in their implementation. Also, appropriate support could be required to fill in the gap in the requirements for policy design and implementation by developing the missing governance capacities, especially for the most

effective NPAs' governance models in addressing economic and information instruments, where wider gaps are still detectable²⁰.

²⁰ See the extended scientific report for a detailed discussion on governance needs

6 Policy recommendations for integrating NPAs into territorial and sectoral development strategies

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 model²¹, 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.

²¹ LinkPAs project wishes that the Apennine Region will arrange as EGTC in implementing the recent Chart on Climate Change mitigation signed on 22nd 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.

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Annex 1: Overview NPAs

Note: 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"> - Providing guidelines on the criteria for sites nomination - Providing indications on the implementation of management, monitoring and reporting measures - Developing the Emerald sites database
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"> - Providing documents containing guidelines on the management of Natura 2000 sites - 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.) - Scoping study and case studies collection linking Natura 2000 and cultural heritage (examples of successful integrated management) - Developing the N2000 database

N.	Network	Territorial level	Legal Framework	Geographical /Administrative area	Bodies/authorities involved	Management aspects	Sectoral/multisectoral	Objectives	Activities
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"> - Developing research and projects on biodiversity and ecological connectivity, regional development and enhancing life quality - Fostering mountain cooperation and partnerships among protected areas - Educational activities; raising awareness on biodiversity and ecological networks
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"> - Fostering closer cooperation among Carpathian protected areas, including monitoring large carnivores, forest management, developing sustainable tourism and habitat conservation - Making recommendations and enhancing capacity building within protected areas - Exchange of experience, skills, knowledge and data among network members, including through the CNPA working groups

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"> - Assessing the ecological coherence and management of MPAs based on OSPAR principles for an ecologically coherent network of MPAs - Developing a OSPAR database - Developing periodic Status report for MAPs, increasing the OSPAR MPA database, developing tools for MPAs
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 ² , of which 90% (49,107 km ²) 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"> - Providing guidelines on the criteria for sites nomination - Providing indications on implementation of management, monitoring and reporting measures - Developing the HELCOM MPA database
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"> - Providing criteria for choosing protected marine and coastal areas that could be included in the SPAMIs List - Providing criteria about the procedure and the stages to be followed with the view of including an area in the List - Developing the SPAMIs database

N.	Network	Territorial level	Legal Framework	Geographical /Administrative area	Bodies/authorities involved	Management aspects	Sectoral/multisectoral	Objectives	Activities
8	DANUBEP ARKS 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"> - Developing pilot projects; implementing common plans locally and across the Danube River - Improving nature protection and strengthening cooperation - Making more efficient use of national and local resources and enhancing capacity building in the management of protected areas
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"> - Developing recommendations for strengthening the Protected Area Network in the Barents Region - Developing regional pilot projects on threatened high conservation value areas - Communication and awareness raising
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"> - Promoting the sharing of experience and approaches - Compiling and analysing data relating to MPA management - Involving the stakeholders in MPA designation and management processes - Establishing indicators for MPAs and monitoring strategies.

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"> - Developing methods for the sustainable management of natural resources and establishing a new relation between people and the environment - Developing methods to support local employment initiatives - Monitoring biodiversity
12	European Park Maritime - Mercantour	T	European Group for Territorial Cooperation established in 2013	Transboundary area of the European Park Maritime - 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"> - Monitoring and protection of biodiversity - Restoration and enhancement of natural and cultural landscapes - Environmental education and bilingualism - Sustainable mobility - Agriculture and sustainable tourism
13	EUROPA RC 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"> - Strengthening cooperation and fostering experience exchange among PAs and responsible authorities across Europe - Developing guidelines, reports and tools fostering the effectiveness of management of PAs - Developing initiatives in the fields of sustainable tourism in PAs and Natura 2000 sites (e.g. the European Chart of Sustainable Tourism - ECST)

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"> - Encouraging protected areas to participate in European and local projects - Reporting on the status of MPAs in the Mediterranean - Developing MAPAMED, the database of Mediterranean Marine Protected Areas, in collaboration with RAC/SPA - Facilitating experience exchange among managers (e.g. workshops, exchange visits, trainings)
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"> - Implementing the Protocols of the Alpine Convention in the Italian Alpine Region - Promoting studies, actions, data collection and data sharing within the Italian Alps - Strengthening cooperation among Italian alpine protected areas, fostering their participation in international networks

N.	Network	Territorial level	Legal Framework	Geographical /Administrative area	Bodies/authorities involved	Management aspects	Sectoral /multisectoral	Objectives	Activities
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"> - Promoting geotourism as a driver for economic development and job creation - Contributing to the informal and formal education of visitors of all ages by sharing existing scientific, historical and cultural knowledge, skills and values - Promoting the development of geology - Combining the protection and promotion of the geological heritage with sustainable local development

Annex 2: 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

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

Alpine Convention - Mandate Platform Ecological Network available at http://www.alpconv.org/en/organization/groups/WGEEcologicalNetwork/Documents/ECONET2017-2018_EN.pdf

EUSALP - 3rd Thematic Policy Area "Environment and Energy"- Action Group 7 “To develop ecological connectivity in the whole EUSALP territory” <https://www.alpine-region.eu/action-group-7>

EGCT Alpi Marittime/Le Mercantour

Statute of EGCT “Parc européen/Parco europeo Alpi Marittime Mercantour” (2013) - Statuto - Gruppo europeo di cooperazione territoriale “Parc européen/Parco europeo Alpi Marittime Mercantour” Statuto – available at <http://fr.marittimemercantour.eu/media/380b48f1.pdf>

Constitutive Convention of of EGCT “Parc européen/Parco europeo Alpi Marittime Mercantour” (2013) - Convenzione Costitutiva - Gruppo europeo di cooperazione territoriale “Parc européen/Parco europeo Alpi Marittime Mercantour” available at <http://fr.marittimemercantour.eu/media/2ea922ed.pdf>

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> <http://it.marittimemercantour.eu/progetti/alcotra-2007-2013-progetto-turismo>

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.agenziacoessione.gov.it/opencms/export/sites/dps/it/documentazione/servizi/materiali_uval/Documenti/MUVAL_31_Aree_interne_ENG.pdf

Abruzzo Landscape Plan – Preliminary document (2004) - PIANO PAESAGGISTICO DLgs n. 42 del 22 gennaio 2004 e ssmm Artt. 142 e 143 RAPPORTO PRELIMINARE D.Lgs152 e ssmm e i, art 13, available at https://www.regione.abruzzo.it/system/files/urbanistica-territorio/PPR/RapportoPreliminare27_10.pdf

Abruzzo Regional Energy Plan (2009) - Piano Energetico Regionale della regione Abruzzo available at <https://www.regione.abruzzo.it/content/pianificazione-energetica>

Ecological Impact assessment of Regional Waste management Plan on Natura 2000 sites (2017) - Adeguamento del Piano Regionale di Gestione dei rifiuti. Studio di incidenza sui siti della rete natura 2000, Dgr. n. 4345/2001 e Dgr n. VII/14106/2003 available at http://www.regione.abruzzo.it/xAmbiente/asp/redirectApprofondimenti.asp?pdfDoc=xAmbiente/docs/rifiuti/505/8Studio_Incidenza_Ecologica_072017.pdf

Guidelines for elaborating Management plans of Natura 2000 sites (2002) - Linee Guida per la redazione dei Piani di Gestione dei siti Natura 2000 nella Regione Abruzzo, available at http://www.regione.abruzzo.it/xAmbiente/docs/zpsSic/LG_PianiGestSICabruzzo.pdf

Guidelines for planning Wind power plants in Abruzzo Region (2007) - Linee Guida atte a disciplinare la Realizzazione e la Valutazione di Parchi Eolici nel territorio abruzzese approved with D.G.R. n. 754 del 30 Luglio 2007 available at <https://www.regione.abruzzo.it/content/pianificazione-energetica>

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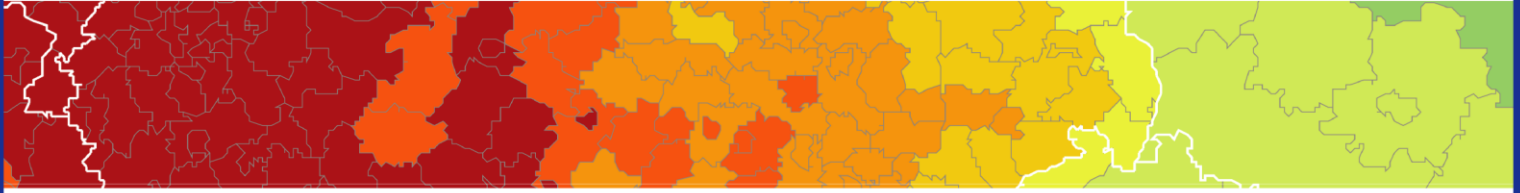
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