



## Output 6.2. Strategies for management of natural resources

### Policy Analysis and Recommendations for Strategic Actions

**Towards improving governance and strengthening of environmentally  
sustainable operations in LENA Project sectors of interest\*, in the  
Danube Basin**

\*Note: Protected area management, agriculture, fisheries, forestry, non-timber  
forests products harvesting and tourism including e-mobility





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## **I. 1. List of acronyms used in the text of the report**

- ASC - Aquaculture Stewardship Council
- EMMF- European Maritime and Fisheries Funds
- FSC- Forest Stewardship Council
- IAS - Invasive Alien Species
- LPR - Landscape Management Directive in Baden Wurttemberg  
Land Germany (Landschaftspflegerichtlinie)
- NTFP - Non-Timber Forest Products
- SPA - Special Protection Area
- SCI – Site of Community Importance
- SAC - Special Areas of Conservation<sup>1</sup>



## I. 2. Introduction

This document has been elaborated as an output in the [LENA project](#), funded by Danube Transnational Programme.

The LENA project's approach calls for an increased recognition of the fact that management of protected areas does not solely result in firmer regulatory conditions for development projects and activities within local communities, but also generates positive socio-economic implications at local level. In the Danube basin region (EU and Accession countries alike), there are many examples for the positive mutual relationships between protected areas/ biodiversity conservation, on one hand and enabling conditions for sustainable local socio-economic development, which translates among others in employment and business opportunities. The policy analysis has been carried out as part of Work-Package 6 in the project and is related mainly to the third specific objective, which refers to: "Improve framework conditions for sustainable use of protected areas".

The main objectives of the policy analysis are:

- to enhance the level of understanding on the underlying aspects for assessment of the positive socio-economic effects of well-preserved biodiversity/ protected areas on local communities; the main such positive socio-economic effects considered in the context of the 11 pilot sites included in LENA, being nature-based businesses and jobs;
- to provide decision makers in LENA countries with important information on the integration of the key concepts, namely nature-based jobs and businesses in policy-making at regional, national and local levels; moreover, it is important for decision-makers to know whether such policies that are recognising the importance of nature-based jobs and activities are having real positive economic, environmental, social and other impacts.

Further to the initial data collection from LENA countries, the policy assessment has been carried out in a sequence of five steps, as defined below:

- 1** Literature review conducted based upon a number of predetermined sub-topics for defining most relevant policy questions to be approached; the study questions included the following:
  - the extent to which nature-based employment is pursued on policy agenda, as socio-economic benefits derived from the designation and proper management of protected areas/ Natura 2000 network;
  - whether the nature-based activities/ businesses carried out within certain economic sectors of relevance for LENA (tourism, agriculture, etc), as the main source for nature-based jobs, are defined upon explicit criteria, that are possibly related to wider concepts and definitions– such as ecosystem

services, organic farming, ecotourism, etc; moreover, such criteria for defining environmentally friendly activities could be subject to certification and/ or other formal systems of verification;

- what are the policies' effects for the development of the „green segment” of labour market.

Elaborating the methodology for conducting the analysis, including the definition of nature-based businesses and a common classification system of nature-based jobs, to be applicable in the national/ regional/ local contexts of all LENA pilot sites for further data collection.

**2** Processing the data collected from LENA Partners (through the policy assessment templates); as such, the analysis has as starting premises the data collection carried out by WWF Romania within WP6, starting with January 2018. Based on a methodological approach developed by Kettunen et al. (2014), the previous data collection has mainly focused on the uptake of nature-based business and jobs at different stages of the policy cycle at regional level (Danube region) as well as national level, in LENA countries – namely conceptual, operational and implementation stages.

**3** Acquiring more in-depth qualitative (wherever possible quantitative) data through the network of LENA partners, by electronic communications and semi-structured interviews for understanding the relative significance/ dimension of nature-based jobs opportunities in the local context of each pilot site.

**4** Summarizing assessments on the current level of integration of the two key concepts: nature-based jobs and nature-based businesses in the analysed policies at regional level and for each country.

**5** Formulate main conclusions and recommendations on further policy development, for qualitative and quantitative promotion of nature-based businesses and employment within the local economies of communities/ administrative units located in the proximity of Natura 2000 and other protected areas.

### **I. 3. Methodology for conducting the assessment and key definitions**

In the overall context of LENA project, the analysis was mainly concerned with jobs created and maintained in connection to the sustainable use of ecosystems services and biodiversity conservation – and thus such a definition would need to integrate explicitly relevant aspects in that respect.





Building upon the concept of ecosystem services and their positive contributions to the local economies, the most appropriate definition has been formulated, as one of the key terms for the thematic focus of the assessment in the framework of LENA project as follows:

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**Nature-based businesses - as the main source for nature-based employment - refers to: "socio-economic activities generally oriented towards profit-making, driven by the recognition of the added value of ecosystem services, natural landscape features and biodiversity and carried out in a manner that ensures their long-term preservation"; in case they are located within or in the proximity of nature protected areas, they must be fully aligned with the conservation priorities/ requirements of the respective areas.**

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The definition has been derived from the one proposed by C. O'Driscoll et al, in the report: "Are nature-based businesses really innovative? An assessment of European entrepreneurial initiatives" (C. O'Driscoll, 2017) published in 2017.

A two-tiers common classification has been devised in line with the adopted definition of nature-based businesses, to cover nature-based employment opportunities most likely to occur in the relevant local, national and regional contexts for LENA project. Jobs linked with the actual nature protected areas' management and planning and execution of green infrastructure (habitat restoration) has been added as an important source for employment (see below).

<b>Tier 1 Main category of nature-based jobs</b>	<b>Indicative type of institutions linked with respective main category of employment</b>	<b>Tier 2<sup>1</sup> Specific categories of nature-based jobs</b>	<b>Exemplifications</b>
<b>1. Jobs with a focus on biodiversity</b>	Park administrations, custodian of	1A - Recurrent management and monitoring	Management planners, communications specialists, administrators, policy

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<sup>1</sup> The second tier has been intended to confirm at an appropriate level of detail, within the main categories under Tier 1, the connection with socio-economic activities which are consistent with the definition of nature-based businesses or with the biodiversity conservation sector.



<b>conservation/ protected area management</b>	protected areas  NGOs, consultancies, engineering firms research organisations		officers, ecological advisors and consultants, GIS specialists, support services  Site managers, wardens, site and species protection officers, monitoring specialists, rangers.
		1B - One off services explicitly linked with conservation needs	Employees of firms involved in preparation of management plans, communication plan, etc.
		1C - One off habitat restoration and/ or conservation management infrastructures -capital works	Habitat restoration specialists, environmental and water engineers, builders, farmers, foresters, ecological advisors and consultants, IAS (Invasive Alien Species) control specialists.
<b>2. Jobs with a direct impact on natural resources which contribute to biodiversity conservation, if practiced in a sustainable manner</b>	Self-employed farmers, agriculture production companies, etc.	2A - Organic certified farming	Staff of companies producing organic crops or livestock products  Farmers  Crop harvesters
		2B - Farming based on voluntary adopted agro-environmental measures	Staff of companies  Farmers  Crop harvesters
		2C - Other environmentally friendly traditional animal breeding and agricultural operations	Agricultural companies;  Farmers,  Crop harvesters
	Departments of	2D – Forestry,	Foresters/ firms'



	Forestry, Private firms Private companies for wood processing etc.	NTFP(Non-Timber Forest Products) harvesting and wood processing certified under FSC(Forest Stewardship Council), either for forest or supply chain management	employees involved in production. Individual NTFP harvesters
	Private firms and landowners	2E - Forestry operations under management contracts supporting biodiversity	Foresters/ firms' employees involved in production.
	Private companies	2F - Aquaculture activities receiving EMMF Funding funds for environmental services or ASC (Aquaculture Stewardship Council) - certified	Employees involved in primary production
	Private or state bodies involved in sturgeon farming	2G - Fish farming that lessens the pressures on endangered wild populations	Workers in companies' primary production
	Self-employed fishermen	2H - Individual fishing carried out in full compliance with legal norms and biodiversity conservation requirements	Self-employed fishermen
<b>3. Jobs focused on the provision of goods and services derived from</b>	Eco-tourism operators	3A - Eco-labelled tourism facilities	Employees of eco-tourism hotels/ facilities



<b>biodiversity and ecosystem services but are not directly involved in the management of biodiversity</b>		3B - Other forms of responsible tourism in the proximity/ within the boundaries of protected areas	Employees of tourism facilities Staff of outdoor equipment renting firms
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Table 1. Common classification of Nature-based jobs types of relevance for LENA Sectors and countries.

On the basis of the afore-given definition of nature-based businesses and of the common typology of nature-based jobs, it has been possible to examine the relevant policy documents (strategies, plans, programmes, etc.) identified with the local support of LENA partners. The examination has been conducted in terms of explicit or implicit inclusion of any type of nature-based jobs from the above-mentioned common classification.

The simple usage of wording of: "green", "biodiversity", "environmentally friendly" or "nature-based" (and the corresponding expression in national languages) in the text of a given policy text was not considered as a sufficient argument for concluding that the respective policy ensures at a certain level the integration of nature-based jobs and businesses.

<b>Tier 1 - Levels of integration (at what extent are the key concepts dealt with, in the policy)</b>	<b>Tier 2 - Levels (how explicitly and comprehensively are the concepts of nature-based jobs and business integrated in the policy)</b>	
<b>Absent</b>	<b>Absent</b>	There is not even a broad, indirect reference to the positive relationship between biodiversity/ natural landscapes and local economy.
<b>Conceptual</b> The key	<b>Conceptual - Implicit</b>	The policy broadly refers to the relationship between environmentally sustainable

<p>concepts of nature-based jobs and business (within the broader scope of socio-economic benefits of nature/ conservation and in connection with the need for sustainable use of natural resources/ ecosystem services) are acknowledged</p>		<p>activities and local economies (in terms of incomes/ sources of livelihoods/ jobs).</p>
	<p><b>Conceptual - Explicit but not comprehensive</b></p>	<p>The policy does explicitly deals with only few certain aspects of sustainable use of ecosystem services within the relevant sector and their importance for the maintenance &amp; generation of jobs / incomes for local economies.</p>
	<p><b>Conceptual - Explicit and comprehensive</b></p>	<p>The policy distinguishes activities which are using ecosystem services sustainably (also coupled with generating incomes and job opportunities for local economies) from those that do not.</p>
<p><b>Operational</b> At this level of policy making, clearly formulated objectives and/ or specific measures are designed for promoting nature-based jobs and business)</p>	<p><b>Operational - Explicit but not comprehensive</b></p>	<p>The formulated objectives/ measures specifically address only with a few aspects of sustainable use of ecosystem services within the relevant sector as underpinning factors for socio-economic welfare, without necessarily focusing on maintaining and growth of employment opportunities, livelihoods and incomes for local economies.</p>
	<p><b>Operational - Explicit and comprehensive</b></p>	<p>The formulated objectives/ measures specifically address most relevant aspects of sustainable use of ecosystem services within the relevant sector as underpinning factors for socio-economic welfare (mainly of local communities), while at the same time highlighting the maintaining and growth of employment opportunities, livelihoods and incomes for local economies.</p>

<p><b>Implementation level</b></p> <p>Nature based jobs are stimulated through various policy implementation instruments, institutional set-ups and activities on the ground to achieve objectives and measures established at earlier level</p>	<p><b>Implementation - Concrete</b></p>	<p>This third level of integration of foreseen to cover the final stage of the integration process, i.e. where concrete measures achieve integration on the ground in the actual policy - and decision-making situations (through mobilization of financial resources, regulating/ influencing the market, providing decision support and information management, etc.).</p>
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Table 2. Assessment scale of the levels of uptake of the two key concepts – “nature-based” jobs and businesses into the reviewed policies

#### I. 4. LENA pilot sites and policy settings for nature conservation at regional and national levels

The [Local Economy and Nature Conservation in the Danube Region](#) (LENA) project worked with 13 partners from 7 Danube countries (BG, DE, HU, HR, RO, RS and SI) and 11 protected areas and more than 15 Natura 2000 sites. The geographic scope of LENA’s project activities is defined mainly in connection to territorial administrative units overlapping with the 11 pilot protected sites proposed by LENA project partners: Junge Donau Landscape Park - Germany, Baden -Wurttemberg Land; Triglav National - Park Slovenia; Dunav Vukovar SCI – Croatia; Nature Reserves "Deliblato Sand", “Gornje Podunavlje” and National Park Fruška Gora - Serbia, Autonomous Province of Vojvodina; Szatmár-Bereg Nature Park - LENA pilot site in Hungary; Persina and Rusenski Lom Nature Parks- Bulgaria; Comana Nature Park and ROSPA0021<sup>2</sup> Ciocănești Dunăre – Romania.

<sup>2</sup> Special Protection Area for birds



## **II. Assessment of the current level of integration of nature-based businesses and jobs into relevant policies for LENA countries and sectors**

### **II. 1. Overview of reviewed policies**

The LENA project has established a multi-stakeholder partnership, with the active involvement of representatives from 7 countries: Germany (Baden -Wuerttemberg Land), Slovenia, Croatia, Serbia (Vojvodina Autonomous Province), Bulgaria, Hungary, Romania. This diversity has been also reflected in the multitude of legal-administrative frameworks and institutional set-ups for protected area management, and for the governance of priority economic sectors, namely: agriculture, fisheries, forestry and NTFP harvesting and tourism including e-mobility.

The assessment followed a top-down approach, from EU level to the national and local ones, due to the fact that policies made by European Union decision making bodies (e.g. programming of funds allocation under the 2014-2020 Multiannual Financial Framework, EC Directives and Regulations, etc.) are ultimately affecting a wide range of stakeholders across the LENA region (including Serbia as an Accession Country). Whereas subsidiarity is a general principle for EU law and policy making, thus involving the sharing of decision-making powers with the Member States, most important policy developments for nature conservation and for integration of biodiversity concerns in the planning and reforming of key economic sectors are originating at EU level. Therefore, this assessment will firstly present the situation of relevant EU policies/ funding programs – outlining the level of uptake for nature-based businesses and jobs and then analyse how the provided initiatives and opportunities are reflected in the formulation and implementation of policies in LENA countries or in the given regions of proposed pilot sites.

The assessment took into consideration the administrative framework of each country and region peculiarities (for example the regional identity has been revealed to be more important especially in the case of Germany – Baden Wurttemberg Land and Serbia – Autonomous Province of Vojvodina).

A number of 51 different policy documents from the 7 countries involved in the project, have been selected and analysed with the support of LENA partners, based on their expected contribution to nature-based activities.

The analysed policies are having various thematic focuses and have been considered to potentially contribute to different types of jobs defined within the common classification system (see figure below):

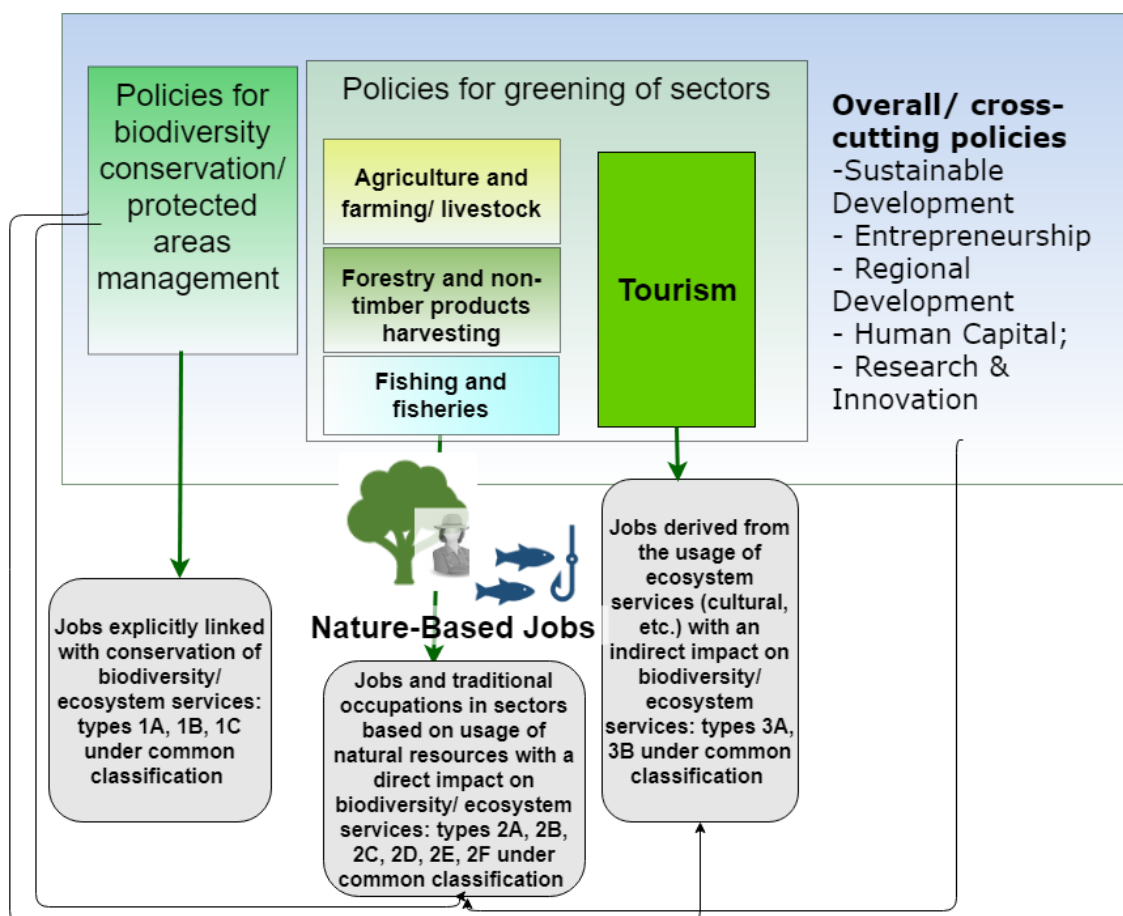


Figure 1 Main type of policies assessed depending on thematic focus

## II. 2. Nature based jobs related to policies directly linked with biodiversity conservation/ nature conservation

Employment opportunities in the conservation management sector are regularly found in state bodies, but also in private ones and NGOs who are getting involved as stewards (custodians) of protected sites. On the other hand, Natura 2000 designation, through the access to funding for elaboration and implementation of conservation measures, has opened up a wide range of employment opportunities at local and national levels. New jobs arise in connection with implementing ecological rehabilitation measures and green infrastructure works (for example afforestation, wetlands and grassland rehabilitation funded under LIOP 2014-2020 in Romania, specific objective 4.1) for professionals with a background in natural and social sciences and engineering or unskilled workers under categories 1B - One off services explicitly linked with conservation needs and 1C - One off habitat restoration and/ or conservation management infrastructures.

The main findings of the assessment concerning the level of integration of nature-based jobs and businesses into reviewed policies are presented by





applying the hierarchical 2 tiers scale and corresponding four colour codes introduced in the first chapter.

### Prioritised Action Frameworks for the EU Multiannual Financing Period 2014-2020 (PAFs)

PAFs are key instruments developed under the EC guidance<sup>3</sup>, for ensuring strategic allocation of funding and adequate management of NATURA 2000 sites at national/ regional level.

In addition to matching the measures for implementation of Natura 2000 network with their financing needs, PAFs are also instrumental for complementing “pure conservation” priorities with the ones that aim to contribute to broader socio-economic objectives, stimulate employment and foster cooperation with local stakeholders, in the proximity of Natura 2000 sites. As such, according to the provisions of EU Habitats Directive, the measures to be identified in the PAFs shall be designed *"to maintain and restore, at a favourable conservation status, natural habitats and species of EU importance, whilst taking account of economic, social and cultural requirements and regional and local characteristics"*.

An important remark refers to the explicit conceptual integration of nature-based jobs into the EC template document for current PAFs; as such, through section F, Member states are required to define links between investments priorities in Natura 2000 implementation and ensuring favourable prospects for the development of “green tourism and jobs”. Also, by elaborating on section G2b of the document, Member states are encouraged to adopt “priority measures for promoting sustainable tourism and employment”.

In the LENA project have been available and considered for the analysis the PAFs 2014-2020 for the following countries: Germany, Slovenia, Hungary, Bulgaria and Romania. Up to the now, Croatia has experienced significant delays in developing its own Priority Action Framework for implementation of Natura 2000. The analysed showed that the PAFs in most countries are in an **Operational level of integration** of researched concepts and countries like Germany, Bulgaria and Hungary have better prioritized some conservation measures regarding the

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<sup>3</sup> Although an updated format of PAF has been approved at the meeting of the Expert Group on the Birds and Habitats Directives (NADEG) on the 22 May 2018, the assessment considered the previous format of the document, on the basis which current national PAFs have been developed.



nature protection. Thus, we can consider them as examples of good practice for other countries.

### **Other national policies and funding programs for protected areas management and biodiversity conservation**

For Germany, Slovenia, Croatia, Serbia, Hungary and Romania other national policies and funding programs were also analysed, such as: LIOP<sup>4</sup> for Romania, KEHOP 2014-2020<sup>5</sup> for Hungary, the Nature Conservation Initiative 2020 for Germany, the Decree on the management plan for the Triglav National Park 2016–2025 for Slovenia, the Regional Spatial Plan of the Autonomous Province of Vojvodina until 2020 for Serbia, the Strategy and Action Plan for the Conservation of Biodiversity for Germany, Romania and Croatia, etc.

The management plan for the Triglav National Park 2016–2025 (TNP MP 2016-2025) for Slovenia have concrete measures and exemplifies the potential for nature-based jobs creation and maintenance mainly in the conservation sector and can be seen as a good practice example.

## **II. 3. Nature-based jobs and businesses promoted through agricultural, forestry (including non-timber forest products) and fisheries policies.**

### **Programmes for implementation of Common Agricultural Policy at national level**

The Common Agricultural Policy (CAP) is the EU strategic framework for allocation financial resources for agriculture and rural development in the Member States, with a view to secure the viable production of food, the sustainable management of natural resources and to support rural vitality. With its two pillars, the CAP is a policy that not only affects farmers and food producers, but also has a powerful impact on the intensity of cropland tenure and forested areas and ultimately on many types of semi-natural habitats and wild flora and fauna species. Both CAP Pillars<sup>6</sup> are of particular relevance with regards to farming/ agricultural models for this assessment.

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<sup>4</sup> The Large Infrastructure Operational Programme for 2014-2020

<sup>5</sup> Environment and Energy Efficiency Operational Programme for 2014-2020

<sup>6</sup> The 1<sup>st</sup> CAP Pillar Direct payments from European Agricultural Guarantee Fund (EAGF) and The 2<sup>nd</sup> CAP Pillar Rural development payments from the European Agricultural Fund for Rural Development (EAFRD).



For Germany, the document analysed is the Direct Payments and Greening (CAP) Pillar 1 on the implementation of the EU agricultural reform. The conclusion is that it integrates concrete measures at the **Implementation level**, based on the fact that the policy document clearly defines incentives for nature-based business in agricultural sector, and provides a comprehensive overview on “greening” procedures and rules for direct payments and the resulting benefits from these payments.

Also, the Rural Development Programmes for 2014-2020 Germany, Croatia, Hungary, Bulgaria and Romania have been also analysed, with the purpose to assess the role of nature-based jobs and businesses promoted through agricultural, forestry (including non-timber forest products) and fisheries policies. The results were promising, with a level of integration of key concepts as **Concrete Implementation**.

### **Policies for promotion of organic agriculture**

Some countries such as Croatia, Serbia and Bulgaria have Actions Plans for the Development of Ecological Agriculture with concrete measures, especially Bulgaria and Croatia being considered good examples in terms of **Implementation**.

Other policies supporting extensive, traditional agricultural and forestry practices embedded in sustainable rural development were analysed for Romania (the RDP) and for Germany (the Programme on the German agri-food sector and export). Following the assessment, the integration for the RDP was considered **Operational-explicit and comprehensive**, while the Programme on the German agri-food sector and export, even if it mentions the creations of new markets in the agricultural and agri-food sector that will help to maintain existing jobs and to create new ones on the long-term, it is not taking into account aspects such as environmental impacts or sustainability criteria, and for this reason, the integration was considered “**Absent**”.

### ***Nature conservation policies encouraging sustainable agricultural, forestry, non-timber forest products harvesting practices***

It is important to mention that for Germany, Bulgaria and Hungary, the PAFs were also analysed from the perspective of agriculture beside the conservation policies. The level of integration of nature based jobs and businesses in all three PAFs can be considered **Operational - explicit and comprehensive**.

For Germany, the National Strategy on Biological Diversity that highlights the potential to create new employment opportunities in a variety of sectors and activities areas linked with protected areas management: agriculture and forestry, tourism, fisheries, recreation, trade, research and education was analysed. However, there are no specific objectives or measures formulated in that regard.



## Fisheries and aquaculture

The following policies were analysed for the fisheries and aquaculture sector: the National Strategy on Fisheries in Germany, the National Strategic Plan for Development of Fisheries in Croatia and European Maritime and Fisheries Fund: Operational Programme for Romania for 2014-2020 version 6.1 (POPAM 2014-2020). Both the German and Romanian policies have an implementation – concrete level of integration on these policies.

## II. 4. Nature-based businesses and jobs in the tourism sector

One of the key aspects used for differentiating between nature-based businesses and jobs in the tourism sector and other forms of tourism with adverse impacts on the natural heritage of Danube Basin, consists in the attention given by entrepreneurs/ representatives of tourism investors and operators to minimise the negative impacts on biodiversity at different stages of facilities development and operation.

The following two key terms are of utmost importance for the part of the policy assessment which pertains to tourism.

- Sustainable tourism: Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.
- Nature-based tourism: All forms of tourism that use natural resources in a wild or undeveloped form - including species, habitat, landscape, scenery and salt and fresh-water features. Nature based tourism is travel for the purpose of enjoying undeveloped natural areas or wildlife.
- Ecotourism: Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education.

Thus, the adherence of key national strategies and policies for tourism development to above-mentioned aspects of environmental sustainability has been one important element in assessing their potential for generating nature-based businesses and jobs in the context of LENA project.

### Main tourism policies analysed

The tourism policies that were taken into account in the assessment were: the Tourism Concept for Baden-Württemberg Land and Tourism political Concept Bavaria for Germany, Tourism Development Strategy of the Republic for Croatia, National strategy for sustainable development program for Bulgarian tourism for 2014-2030 - updated version and last but not least the Masterplan for tourism investments approved by Governmental Decree 558/ 2017, for Romania. From all



these policies the best level of integration of researched concepts was found in the Tourism Concept for Baden-Württemberg Land, with an approach that gives priority to the qualitative growth of touristic services over the quantitative one. The specific objectives for promoting sustainable tourism translate into an increased number of eco-certified accommodations and the expansion of soft infrastructure for outdoor activities (bicycle lanes, hiking trails); in parallel, the marketing of natural landscapes and large protected areas is encouraged. A best-practice example is the KONUS guest card<sup>7</sup> in the Black forest region.

### ***Nature conservation policies (including landscape management) encouraging environmentally responsible tourism***

The PAFs were also analysed from the point of view of the environmentally responsible tourism in Germania, Slovenia and Hungary. The level of integration of the key concepts can be considered **Operational** in all three cases, based on the fact that all three policies have certain strategic priorities and specific objectives, regarding ecotourism and the creation of jobs in relation to Natura 2000 sites management.

Beside the policies mention above were also analysed other sectorial policies influencing tourism such as: the Economic Development and Innovation Operational Program for 2014-2020 Economic Development and Innovation OP (GINOP) for Hungary and the Regional Operational Programme for 2014-2020 for Romania. For the GINOP, it was confirmed a good implementation of the specific measures, especially in well preserved natural areas.

## **II. 5. Other cross-cutting and framework policies for generating nature-based jobs and businesses**

In this section, the National Sustainable Development Strategy for 2030 was analysed for Romania. Although the strategy has set targets for 2030, which can contribute to the institutional strengthening of the conservation sector, the strategy does not sufficiently emphasize the positive effects of such actions/ investments in terms of demands on labour market for nature conservation/ habitat restoration specialists.

### **Partnership agreements**

In Romania, the Partnership agreement for the programming period 2014-2020 (RoPA) was analysed. The need for a “integrative deployment” of Green Infrastructure is briefly mentioned, however, there are no relevant measures in this respect in its action planning part. Also, no links are made between protected

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<sup>7</sup> Gives you free transport on buses and trains within the Black Forest. For further information: <https://www.blackforest-tourism.com/info/KONUS>



areas, natural ecosystem services, on one hand and traditional household incomes and sustainable businesses, on the other.

### **Policies on employment and human capital development**

For the employment and human capital development sector, there were analysed policies in the following countries: Germany - the National Reform Programme 2017; Croatia - the Guidelines for the Development and Implementation of Active Employment Policy, 2015-2017; Bulgaria – the National Strategy for Promotion of Employment for the period 2013 – 2020 and Romania - the National Strategy and action plan for promotion of green jobs for 2018-2025. No good practice examples were found in these policies because none of the analysed policies has a good integration in terms of biodiversity conservation and their ecosystems services.

### **Regional Development Policies**

The Regional Development policies from the following countries were analysed: Germany - the Operational Programme "Regional Competitiveness and Employment" as part of the ERDF in Baden-Württemberg for the period 2007-2013, Croatia - the Regional Development Strategy up to 2020, Bulgaria - the Regions in Growth Program (OPRD 2014-2020) and Hungary - the Local Development Strategy 2014-2020 (Szatmár LEADER Közhasznú Egyesület). There are a few references or none to nature-based businesses and jobs in the policies mentioned above.

### **Innovation and Support SME Competitiveness**

In Germany and in Bulgaria, the policies from the innovation and support SME competitiveness sector were also analysed (Regio WIN - Innovation und Energiewende, Operational Program for Baden-Württemberg for Regional competitiveness through innovation and energy efficiency for 2014-2020, Germany and Innovation and competitiveness Programme for 2014-2020, Bulgaria - OPIC 2014-2020). In these policies, no reference was found in relation to nature-based business and jobs.

### **Land-use planning and other policies**

The Danube Delta Strategy for Integrated Sustainable Development in Romania (approved through Governmental Decree 602/2016), and the Land Development Programme of the Federal State Baden-Württemberg - in Germany, were also analysed. In the Romanian case, the policy did not formulate strategic actions regarding the mutually supporting elements of natural capital and sustainable economic development of Danube Delta's local communities. Regarding the German policy, there are no references in terms of integration of nature-based businesses and jobs.



## Nature-based businesses and jobs in the context of European Union Strategy for the Danube Region (EUSDR)

The European Union Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - European Union Strategy for Danube Region - COM(2010) 715 and accompanying document Action Plan were also analysed. The EUSDR is a macro-regional strategy that seeks to reinforce policy coordination among 16 European countries in the Danube basin in certain inter-related domains, which are grouped in four pillars and twelve priority areas. EUSDR is “financially neutral”, meaning that it does not foresee additional allocation of EU and/ or national funds but rather it aims to ensure a more efficient and coordinated use of existing EU instruments and funds for the programming period of 2014-2020 (as well as other existing resources and financial instruments) with a view to ensure an enhanced socio-economic and territorial cohesion of the Danube Basin Region in EU.

The 6th EUSDR Priority Area aims to preserve biodiversity, landscapes and the quality of air and soils. Certain measures listed the 6th Priority areas that refer to Action - “To manage Natura 2000 sites and other protected areas effectively”- include exchange of experience and capacity building for protected areas/ Natura 2000 sites administrations; community involvement; visitor management and tourism development.

In terms of researched concepts: nature conservation integration is achieved at **Operational level** (explicit and comprehensive integration). The concepts of green jobs and green businesses are not mentioned directly (only jobs and businesses in general), however, the combination of the main objectives of the Strategy and priority areas in the Action Plan, if properly implemented can lead to the creation of green jobs and businesses (integration can be considered **Implicit and incomprehensive**).

### III. Main findings and recommendations on enhanced understanding of and support to nature-based businesses and employment opportunities

The policy analysis which focused on EU-driven strategies and on country/ regional specific policies resulted in emphasizing three areas of policy-making and related topics, which shall require more efforts on the part of national and regional/ local decision makers and of key-stakeholders alike. The recommended policy changes could firstly enable an increased understanding of, and support for environmentally sustainable activities in the proximity of, or inside protected areas; moreover, upon more in-depth and explicit integration of nature-based business and jobs into various relevant policies, conditions can be created on long





term to maintain and grow the positive socio-economic effects of adequately managed protected areas (including Natura 2000 sites) on local communities.

### **III.1. Strengthening the knowledge base knowledge base for integration of biodiversity conservation with targeted economic sectors: agriculture, forestry/ NTFP harvesting, fisheries and tourism including e-mobility**

**This set of recommendations do not necessarily refer to a particularly analysed policy but are dealing with ensuring the necessary knowledge/ data, the mutually reinforcing connections between well-preserved ecosystems/ biodiversity and wealthy local economies, that is needed as an evidence base for formulating new policies or amending old ones.**

- The National Statistics offices in the Danube countries should jointly set up sound indicators on a statistical database on the Danube Region labour market, including data on specific labour market demands, workforce flows, drivers and barriers of transnational labour mobility, working conditions, etc. The joints statistics database should follow the Structural business statistics (SBS) approach; the SBS describes the economies (defined at the scale of relevant administrative units, from national to county and local level) by observing the units engaged in certain relevant economic activities.
- In case of Slovenia, within the framework of Triglav National Park Management plans - research activities should be initiated on the carrying capacity of various areas/ ecosystems in relation with tourism activities.
- For Hungary, in line with the measure M29 within the framework of PAF 2014-2020 - Monitoring the effects of farming and forestry conducted in Natura 2000 sites on species and habitats of Community interest, yielded research results shall be disseminated nationally and with European Commission, and built-in in the planning baseline for elaboration of CAP 2021- 2027 National Strategic Plans.
- For Bulgaria - The updated National Strategy for Sustainable Development of Agriculture in Bulgaria (following the period 2011-2017), should consider consolidation of the knowledge base (education, research and innovation) on the links between healthy, functional agro-ecosystems and the quality of products and furthermore, on their marketability in correlation with consumer trends (domestic and international) for healthy, organic-certified food.
- In case of Romania for the next programming period, EARDP financial support should be specifically directed towards carrying out research and monitoring of positive effects of farming and forestry activities on in





compliance with environmental conditionalities (SMR, GAEC) on species and habitats, especially within Natura 2000 sites; clear provisions shall be made for the involvement of the country’s agricultural research system (under the coordination of the Romanian Academy of Agricultural Sciences) and of Advisory Services system.

### **III. 2. Promote nature-based employment opportunities through proper policy formulation and implementation**

**This set of recommendations are concerned with:**

- a) enhancing the uptake of nature-based businesses and jobs in the form of well-articulated policy goals**
- b) designing an appropriate mix of incentives, funding programs, planning instruments and other type of arrangements for stimulating the actual delivery on the ground of growth opportunities of nature -based business sector and related employment**

Depending on the changes in the current status-quo and impacts pursued by the desirable policy interventions, the recommendations are further grouped in the following four sub-categories:

1. Support environmentally sustainable sectors as a source of nature-based employment
2. Strengthen the nature conservation sector, based on integrative approaches for the management of protected areas (including Natura 2000 sites), that take into account local socio-economic interest and favour income generation from controlled tourism, etc.
3. Strengthen qualitatively and quantitatively the labour force underpinning the nature conservation sector and the nature-based economic activity sectors through human potential development, regional territorial development and other cross-cutting policy interventions.
4. Influencing market and other external factors with a view to create a favourable framework for sustainable growth of local economies.

Hereinafter, examples of possible policy improvements for each of the above-mentioned subcategory are provided in a table-based format.

<b>Policy intervention</b>	<b>Examples of relevant targeted sectorial policies and policy makers</b>
1) Support environmentally	<b>The Bulgarian Ministry of Agriculture</b> shall consider designing a special financial support to continue the



sustainable sectors as a source of nature-based employment

Rescue program of Small-scale farming/ agricultural units/ households, especially for the producers and entrepreneurs that can also contribute to the development/ maintenance of environmentally friendly tourism destinations, events or products, in the proximity of protected areas.

**Romania** (Ministry of Environment, Ministry of Waters and Forests, Ministry of Agriculture and Rural Development) should recognise and give higher priority to achieving positive mutually reinforcing effects between protected areas management and investments in green infrastructure (including soft tourism and e-mobility infrastructure) on one hand and conversion to sustainable, extensive agriculture, aquaculture, eco-tourism sectoral practices on the other; key defining features of biodiversity- friendly operations within the respective economic sectors should be defined on the basis of legally binding guidelines and followed through within the OPs logical frameworks; likewise, the concept of nature-based jobs and business should be considered within the broader scope of “green economy” and the need for a transversal study on such “nature-based” jobs created with ESIF interventions in Romania (across all OPs and CAP/ RDP) shall be explicitly mentioned.

**For Bulgarian Ministry of Tourism**, with regards NSSDT (2014-2030), the Master Plan for the implementation of the strategy should make special provisions to encourage tourism operators, especially those operating in the proximity of protected areas: a) to adopt Environmental management standards/ join ecotourism certification schemes as part of their business strategy, b) developing criteria on a comparative basis between touristic destinations (both fully utilised or not) which have to include the added value brought by cultural ecosystem services of the areas; such criteria should not only be used for inventory of natural/ historical sites but also provide the basis for development of new combined touristic products (e.g. “Wine and nature”, “Cycling trail in



	Danube floodplains”, etc.).
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For **Bulgarian Ministries of Tourism and Ministry of Regional Development and Public Works** with regards the **OPRD Program 2021-2027** the strategic focus on Regionally balanced development of tourism infrastructure (similar to the current PA6) shall be maintained. Under the SWOT Analysis of key destinations for the new OPDR , aspects/ indicators related to cultural ecosystem services and position in relation to protected areas shall be included, with a view to formulate an Investment measure/ allocation for eco-tourism facilities and responsible tourism activities in the proximity of protected areas. Indicators pertaining to fair allocation of economic benefits towards the well-being of host communities, and to prevention/ minimization of negative environmental impacts shall be included in the Programme indicators.

The **Romanian Ministry of Tourism** needs to reform the Master Plan for Tourism Investments based on a proper, comprehensive analysis of the natural potential of existing tourism destinations – in connection with the ecological sensitivity of nearby protected areas, and to incorporate modern concepts related to soft infrastructure and environmentally responsible tourism. Further raise the concepts of ecosystem services and natural capital accounting on the EU and countries priority lists reflected in the national strategies, based on the clear recognition that socio-economic welfare is underpinned by its natural capital, including biodiversity and diverse ecosystems that provide essential goods and services for key sectors: agriculture, forestry, fisheries and tourism, while at the same time offering clean environment to citizens.

Moreover, local authorities from Germany - Baden- Wurttemberg Land, which have been involved in setting up the Landscape Junge Donau Landscape Park shall develop new policies (voluntary and/ or market based) for stimulating nature-based activities, on clearly defined quantitative basis, mainly in relation to tourism development.

<b>Policy intervention</b>	<b>Examples of relevant targeted sectoral policies and policy makers</b>
2) Strengthen the nature conservation sector, based on integrative approaches for the management of protected areas (including Natura 2000 sites), that take into	<p><b>For all EU member countries participating in LENA projects – Ministries of Environment/ Nature conservation.</b></p> <p>The responsible authorities should strive to conduct a systematic and comprehensive assessment (in qualitative and quantitative terms) of the currently existing and of the necessary human resources, for putting into practice the measures for site-related</p>



account local socio-economic interest and favour income generation from controlled tourism, etc.

maintenance and restoration, within and beyond Natura 2000, despite the format proposed by the EU for the PAF 2021-2027 does not specifically indicate such a requirement. The availability of relevant University programs and of vocational training in this regard shall be mapped out.

With regards PUN 2021-2027, **the Slovenian Ministry of Environment**, should more clearly point to the human resources required for the implementation of revised/ updated priority conservation measures; should the Institute of the Republic of Slovenia for Nature Conservation (IRSNC) continue to have a central role in elaboration of management plans and biodiversity monitoring, a mechanism for allocation of sufficient funds to cover a minimum level of its staffing should be developed. A new impetuous should be given to the elaboration of management plans for the Natura 2000 sites within the TNP, through well formulated measures in PUN 2021-2027.

**The Deputy State Secretariat for Nature Protection is part of the Ministry of Agriculture in Hungary** shall ensure speeding up of the process of elaboration of management plans within the territory of Hortobagy National Park and of transposing their provisions in legally binding forms.

**The Romanian Ministry of European Funds and Ministry of Environment** should cooperate in the programming of LIOP 2021-2027, for securing appropriate allocation of funds for following -up/ implementing management plans being currently elaborated. Eligibility conditions and guidelines should encourage applicants (protected areas managers) to consider income-generation activities mainly from well -managed tourism in combination with investment measures for setting-up of management infrastructure and visiting/ interpretation infrastructure. Good practice models shall be defined for the organizational structure and number of hired personnel for Administration of National, Natural parks, Natura 2000 sites in



	accordance with the level of complexity of ecological and geographical conditions.
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<b>Policy intervention</b>	<b>Examples of relevant targeted sectorial policies and policy makers</b>
<p>3) Strengthen in qualitative and quantitative terms the labour force underpinning the nature conservation sector and the nature-based economic activity sectors through human potential development, regional territorial development and other cross-cutting policy interventions.</p>	<p>Ministries of Labor and Social Justice from all participating countries should consider, also in connection with Human Capital Operational Programs to be funded from European Social Fund in the period 2021-2027 various forms of vocational training for forming skilled personal to be employed the following environmentally friendly sectors: agriculture, tourism and forestry and non-timber products harvesting.</p> <p>Moreover, efforts should be made to revise the National Nomenclators of Occupations (COR) in the respective countries in line and beyond ESCO (EU classification of European Skills, Competencies, Qualifications and Occupations), so that certain nature-based jobs are clearly recognised in terms of their contribution to biodiversity conservation/ sustainable use of natural resources and ecosystem services. As mentioned, a wide range of vocational training programs shall be developed with funding from ESIF and other sources for acquiring the competencies established for the respective occupations.</p>

<b>Policy intervention</b>	<b>Examples of relevant targeted sectorial policies and policy makers</b>
<p>4) Influencing market and other external factors with a view to create a favourable framework for</p>	<p>For all <b>Ministries of Agriculture/ Fisheries and Aquaculture</b> and Forestry in the participating countries. Promote visibility and presence on the market of local agricultural and fishery products, which are grown extensively in the proximity of</p>



<p>sustainable growth of local economies.</p>	<p>protected areas and promote distribution channels that ensure local generation of a substantial added-value. Short-chains could comprise individual kiosks and local markets with tasting session, established in the rural communities, direct sales, etc.</p> <p>Addressing <b>the Serbian Ministry of Agriculture</b>, with regards the next version of Serbia's National Rural Development, clear objectives should be formulated for promotion of organic agriculture with a view to enhance the market potential of organically grown products and for maintaining of other forms of small-scale/ traditional, environmentally friendly agriculture; in connection with the strategic direction for maintaining the attraction and the identity of rural areas, the attractiveness of respective rural areas for rural tourism should be analysed.</p>
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## IV. Recommendations for strategic actions towards strengthening of environmentally sustainable operations in LENA project sectors of interest<sup>8</sup>, in the Danube Basin

### IV. 1. About the recommendations

The LENA project's approach calls for an increased recognition of the fact that management of protected areas does not solely result in firmer regulatory conditions for development projects and activities within local communities, but also generates positive socio-economic implications at the local level. In the EU and Accession countries from the Danube region there are many cases for the positive mutually reinforcing relationships between biodiversity conservation on one side and the employment and business opportunities, on the other side. Being developed within the project's 6<sup>th</sup> Work-Package, these recommendations bring a complementary contribution towards its third specific objective, regarding: "the improvement of framework conditions for sustainable use of protected areas".

These recommendations are highlighting general, enabling conditions that ensure the effectiveness of protected areas management in the Danube region and development in an environmentally responsible manner of agriculture, the

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<sup>8</sup> Biodiversity conservation/management of protected areas, agriculture, fisheries and aquaculture, non-timber forest products harvesting and tourism sectors



fisheries and aquaculture sectors, the harvesting of non-timber forest products and the tourism sector. This, in turn, results in a significant contribution to the creation of new nature-based business opportunities and jobs in rural areas.

These recommendations have been formulated in such a manner that they:

1. Have an impact at the Danube regional level and clearly reflect the interests and views of LENA partners and other stakeholders involved (most of them were initiated and discussed during the Policy workshop organised within the project by WWF Romania on 17 April 2019 in Bucharest and during the consultations organized at the national level with relevant authorities);
2. Take into account and reinforce the broader defined priorities of existing EU policies, especially pertaining to the ESIF for the next programming period;
3. Clearly identify what has to be done by the most relevant decision and policy-makers and other stakeholders at the EU, regional and national level, that are best placed to contribute to putting the respective actions into practice in order to achieve tangible improvements.

The recommendations for strategic actions are presented below, grouped according to the five priority sectors of LENA project:

## **IV. 2. Biodiversity conservation/ management of protected areas**

### **1. Develop a harmonised, region-wide, effective framework for ensuring effective management of protected areas - including Natura 2000 sites**

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**The challenges and opportunities:** Natural protected areas (including Natura 2000 sites) ensure a vital contribution to the provision of services by natural and semi-natural ecosystems. Still, the resulting socio-economic benefits (especially those which are not reflected in natural resources/ raw materials) are often overlooked both by central governments and local stakeholders. With regards to the natural protected areas, including Natura 2000 sites in the Danube region, the pace for elaboration and implementation of management plans (and alternatively of management measures) is rather slow; furthermore, there is a patchy mix of statutory arrangements and administrative procedures for elaboration of the management plans. National and local authorities are seemingly following a trial and error approach, without focusing on singling out certain key performance aspects and indicators for measuring and comparing the effectiveness of protected sites' management; information on the necessary budgets for the management of these sites is fragmented and the data currently available concerning costs are insufficient in terms of estimating





management effectiveness.

The existing guidance provided by EC DG Environment<sup>9</sup> is out-dated and insufficient and there are no management models promoted across the region, with a view to comply with certain strategic principles and deal with several key aspects; as such, insufficient emphasis has been laid on applying the ecosystem services concept at the core of the management plans. The elaboration of management plans is undertaken without properly taking into account the local socio-economic context of neighbouring communities, which results in poor support for the conservation goals, due to the fact that management regulations are perceived as too restrictive and unjust.

In many of the Danube countries, the above-mentioned factors are hindering the strategic allocation of sufficient funds towards protected areas management; for nationally designated protected areas and for Natura 2000 sites alike, the scarce financial resources are among the most significant obstacles for achievements of conservation objectives (which in the case of Natura 200 sites refer to maintaining the favourable conservation status of species and habitats). In addition, incorporation in the site-administration model of mechanisms for revenue generation and self-financing is often not encouraged, despite the fact that tourist activities can become an important source of economic revenues for the protected area and for local communities.

**Action:** Develop an appropriate guidance framework with a view of exchanging good practices and organizational models for the management of natural protected areas across the Danube region. The guidance should focus on a number of crucial concepts and aspects related to the elaboration and implementation of management plans, such as:

- the use of the Ecosystem approach for outlining the socio-economic benefits achieved through the allocation of funds to/ investments in the conservation of species and habitats;
- the emphasis given to mapping out relevant socio-economic information for each protected area in the process of management plan elaboration (the so-called „social” side of a protected area);

engagement of SMEs/ private sector in conservation, by establishing partnerships founded on the recognition of the links between benefits/ returns of ecosystem services for certain economic sectors and conservation measures; certain

**Key actors:** the EC DG Environment, EUSDR (Priority Area 6<sup>th</sup>), Ministries of environment, Governmental bodies responsible for nature conservation/ biodiversity, Administrations of protected areas and other organisations involved in the

<sup>9</sup> Managing Natura 2000 Sites The Provisions of Article 6 of The 'Habitats' Directive 92/43/CEE (2000)





<p>management objectives/ measures could be targeted on capitalising on the natural values (ecosystems) which are important in sustaining local livelihoods, given that they are not contravening the main conservation objectives.</p> <ul style="list-style-type: none"> <li>- the incorporation of “ancillary” measures and investments, for income-generation, especially from tourism activities that are not conflicting with main conservation requirements.</li> <li>- the assessment in an adequate manner of the necessary institutional capacity of PA managers (number and qualifications of staff, frequency of field surveys/ observations, logistics and equipment), in direct correlation with the ecological complexity and with natural and social characteristics (total area, accessibility of territory, etc.) of the site, so that resources are matching real, customised needs for fluently carrying out all the necessary activities.</li> </ul> <p>Such a guidance framework can only be developed within the framework of multi-disciplinary and multi-institutional partnerships, established at a relevant scale for the Danube Region.</p> <p><b>Further impact:</b> As good organizational models and procedures pertaining to site management planning shall be launched and/ or reviewed in each Danube country, it is foreseen that governance of protected areas will continue to shift from the currently dominant ‘top-down’ model, favouring instead the spread of other forms of management, such as collaborative management, partnership arrangements, delegated authority, while maintaining a sufficient level of control on the effectiveness of investments made in protected areas/ Natura 2000 sites, mainly within the post 2020 ERDF/CF and Life Programme.</p> <p>Moreover, synergies should be built with relevant EU-wide initiatives such as the European Charter for Sustainable Tourism in Protected Area (<a href="https://www.europarc.org/library/europarc-events-and-programmes/european-charter-for-sustainable-tourism">https://www.europarc.org/library/europarc-events-and-programmes/european-charter-for-sustainable-tourism</a>), developed by the EUROPARC Federation as a practical tool for linking biodiversity conservation with well-managed sustainable tourism.</p>	<p>management of protected areas,</p> <p>Local authorities,</p> <p>Specialised conservation NGOs,</p> <p>Research organizations and consultancies</p>
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## 2. Increase action on ensuring adequate application of wilderness and connectivity concepts in the management planning of protected areas and Natura 2000 sites in accordance with the European Wilderness Quality Standard

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**The challenges and opportunities:** In the wake of the “European Parliament Resolution on Wilderness” adopted in 2009, all EU countries have been called on to exchange ‘best practices’ in managing wilderness; in the context of Natura 2000 sites designation and management planning, it has been recognised that many conservation objectives for certain habitats and species considered of “Community Interest” under the EU Acquis for Nature Conservation, can be achieved simply through non-intervention, allowing natural processes/ inter-actions to predominate. Recognising the value of wilderness areas in achieving the objectives of the Habitats and Birds Directives, and of the wider EU 2020 Biodiversity Strategy, the Commission has prepared a guidance document on how best to ensure the conservation of these valuable areas within the context of the Natura 2000 Network. In this framework, wilderness is defined as follows: Natural processes govern wilderness core zones meeting the European Wilderness Quality Standard and Audit System. They are composed of native habitats and species, and large enough for the effective ecological functioning of natural processes. They are unmodified or only slightly modified and without intrusive or extractive human activity, settlements, infrastructure or visual disturbance.”

The application of the EU Wilderness quality standard for protected areas in the Danube region is limited. Insufficient emphasis has been laid in the national legal frameworks of most countries on internal zoning process of sufficiently large protected areas under different IUCN Categories or Natura 2000 sites, to allow delineation of areas compatible with the above-mentioned Wilderness definition, which need to be protected from being used for tourism or for other purposes.

Moreover, valuable ecological corridors of the Carpathian and other mountain ranges of the Danube region are already impeded or threatened by linear transport infrastructure, agriculture, forestry, water management, etc. not sufficiently planned in a way to maintain ecological connectivity and flow of multiple ecosystem services that green infrastructure elements provide. Mitigation measures such as green bridges are often missing or dysfunctional because of inadequate design and inappropriate management of surrounding land use by e.g. agriculture or forestry. The impacts are traffic-kills and lowered reproductive success of key species dependent on functional corridors.



**Action:** Develop a thorough, systematic assessment, based on the use of GIS technology of the protected areas (including Natura 2000 sites) in the Danube basin likely to include wilderness areas – namely undisturbed, natural habitats, where natural processes predominate, are sufficiently large and lack infrastructure. The assessment shall be carried out in accordance with Bronze, Silver, Gold or Platinum Standards under the European Wilderness Quality Standard and Audit System.

The respective areas should be subject to particular zoning approaches within the process of elaboration and implementation of protected areas management plans as well as designation of ecological corridors maintaining connectivity in the Danube basin by integrated planning and adequate use and management of the land (linear transport infrastructure, agriculture, forestry, water management, etc.), that will guarantee restrictions impacting activities. In addition, significant research shall be carried out regarding the impact of invasive species on the respective zones.

**Further impact:** The responsible authorities and managers of protected areas should ensure adequate funding for monitoring biodiversity in the wilderness areas, based on a thorough understanding of natural ecological processes. Monitoring the impact of the different implemented mitigation measures will help learning and allow for the elaboration of further measures.

**Key actors:**

EUSDR, Ministries of environment and other relevant ministries (territorial development, agriculture, transport, etc.)  
Governmental bodies/ agencies responsible for nature conservation/ biodiversity,  
Administration of National Parks and other organisations involved in the management of protected areas,  
Local authorities,  
Specialised conservation NGOs, Academic sectors

### IV. 3. Environmentally sustainable agriculture

**3. Increase action for enhancing the knowledge base concerning the effectiveness of voluntary agri-environment-climate measures with a view of enhancing their results in the post 2020 CAP, especially within the boundaries of Natura 2000 sites and other protected areas.**

**The challenges and opportunities:** Within the CAP 2014-2020, agri-environment measures (AES) have been developed under the National Rural Development Programme with specific environmental objectives such as: the protection or enhancement of biodiversity, soil, water, landscape, or air quality, or climate change mitigation or adaptation. Examples of measures supported through AES include organic farming; integrated production; reducing inputs of fertilisers and/or pesticides; crop rotation; enhancing habitats for wildlife; introducing buffer strips; managing livestock to provide the right grazing pressure on grassland species and avoiding the risk of soil erosion. Such measures have been of particular importance for preventing further biodiversity losses in those Natura 2000 sites, which are characterised by a large share of their territory being occupied by crop-fields and pastures. It is important to have an accurate, quantitative assessment across the Danube region of the actual of AES effects on biodiversity in Natura 2000, comprising manifold key aspects such as:

- effects of AES on marginal farmland (many marginal areas with limited land productivity can provide suitable habitats for threatened species), as compared to those obtained on intensively cultivated areas;
- effects acquired in terms of species richness as compared to improvements of overall ecosystem characteristics or services;
- the effects on the conservation status of particular target species (birds, butterflies, etc.).

Such schemes – named voluntary agri-environment-climate measures (AECMs) will continue to play a major role in the green architecture of the post 2020 CAP reform (to be particularly reflected in the Regulation on CAP strategic plans developed at the level of Member States/ regions). They will continue to be the most important policy instrument (mandatory for national and regional administrations, but voluntary for farmers) at the disposal of farmers for counteracting pressures on biodiversity stemming from agricultural intensification and abandonment of marginal farmland.

Moreover, it is important to assess the importance of building specific training and advisory services within the deployment mechanism of AES, since it is admitted that farmers have less specific knowledge/ education in environmental management.



<p><b>Action:</b> Develop a regional and/or national framework and partnership for data collection geared towards measuring the achieved results of voluntary agri-environment-climate measures under the current CAP-Pillar 2, chiefly for agricultural lands located within the boundaries of Natura 2000 sites and other protected areas. Stimulate the know-how transfer from researchers out to advisors and farmers. Appropriate methods for disseminating relevant information should be adapted at the farm/ community level, since the layperson terminology and direct face-to-face communication channels are most appropriate for achieving an impact on farmers/ agricultural workers/ household owners. Specific data/ knowledge needs to be gathered with regards to outstanding ecosystem services, such as pollination (drawing upon the “Bee guidance” produced by EFSA) and a feedback-loop initiated in the context of the CAP reform (initiate an exchange of this new data regarding the effectiveness of agri-environment measures in order to adjust the policy initiatives).</p> <p><b>Further impact:</b> This action needs to be urgently initiated, in connection with on-going negotiations between EC and Member States and forthcoming preparation of CAP national strategic plans (for example with regards to inclusion of a AECM targeted at pollinators).</p>	<p><b>Key actors:</b> EC DG Agri, National Ministries of Agriculture and Management authorities of CAP national strategic plans, National payment agencies, farmers, Research bodies, Environmental NGOs, Apiculture associations</p>
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**4. Promote marketing approaches for increasing the added value to local agriculture and fishery products originating from nature-based operations**

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**The challenges and opportunities:** The production of agricultural and fishery products are often underpinned by a spectrum of knowledge, practices and cultural assets which are specific to local communities; such local knowledge can be associated with the perceived quality of the respective products. Furthermore, the availability of such quality products can become an important part of a “territorial identity” – which refers to the perceived link between territory, local know-how and product quality by consumers. The advantage of communities located in the proximity of protected areas is that the territorial identity of the respective communities also comprises the aesthetic value of “unspoiled nature”, which can be easily related to healthy food products. Based on a well-established territorial identity, the market profitability of local products is increased. For a



more effective marketing of the local territorial identity and of its underpinning values, different logos or brand labels and various marketing approaches can be used. A strong positive local territorial identity enables an enhanced marketability of agriculture and products which are grown in an environmentally responsible manner; in addition, it is important for local producers and entrepreneurs to combine their efforts in order to generate an added value for such local products.

There are sufficient examples in EU countries, of well managed protected areas – especially of national parks, which have contributed to the promotion of a local identity, by assigning their own quality symbol to local products and services, based on protocols and regulations for ensuring that their production/ delivery is compatible with the park’s objectives. Such a logo of a national park transmits the message that local producers are committed to preserve nature/ biodiversity and local cultural heritage. In the Danube region there are more untapped opportunities for testing and replicating marketing approaches that are centred on communicating nature values and on retaining a certain added value of products grown in an environmentally responsible manner, within local communities. Moreover, new initiatives are needed to test most suitable/ regionally tailored methods for gaining and maintaining consumers trust.

**Action:** Promote visibility and presence on the market of local agricultural and fishery products, which are grown extensively in the proximity of protected areas and promote distribution channels that ensure local generation of a substantial added-value. Short-chains could comprise individual kiosks and local markets with tasting sessions, established in the rural communities, direct sales, etc. Encourage collective mechanisms for gaining a better position in relation to whole-sale buyers. Regional associations of producers can more easily launch and control an origin-designating brand.

Provide the necessary vocational training to first-level (advisory services) and to farmers with regards to pros and cons of organic production. Conduct systematic, representative assessments of the investment needs in storage and delivery infrastructure (including ITC)

**Further impact:** This action needs to obtain sufficient financial support, through formulation of specific measures/ funding priorities within the post 2020 CAP – Pillar 2.

**Key actors:** DG Agri, the Ministries of Agriculture and Rural Development, Ministries/ Central Governmental Bodies for Fisheries and Aquaculture, Local authorities, Local Action Groups established within NRDPs, EMMF, Farmers and their associations, NGOs working on local development; Market research consultancies, Etc.



**5. Ensure a sound foundation for planning of measures supporting organic farming conversion (and other agro-environmental measures) within the CAP 2021-2027 National Strategic Plans, based on an in-depth understanding of the current level of knowledge and motivation among farmers/ rural communities.**

**The challenges and opportunities:** Despite the dynamism of the market for organic products, triggered by an overall increase in the socio-economic level of wealth (revealed by statistics on average earnings), its potential remains largely untapped especially in Eastern countries, mainly due to slow pace of conversion to organic production. A certain category of farmers have been the firsts to make the conversion to organic production, while others continue to follow “last years” business scenario. It is important to understand the main motivational factors which are common amongst early adopters – these could include pure financial ones, technical concerns regarding soil fertility, self-oriented interests (family health), the stewardship for clean environment, healthy food, etc. These motivational factors have been sufficiently strong, to counteract certain constraints and challenges, such as the steep learning curve with which farmers were confronted in the process of certification for organic production. By understanding of these motivational factors and based on the experiences of early adopters, more enabling conditions can be created (including through customised technical support) for accelerating the adoption of organic methods by other farmers. Moreover, many EU countries (such as Romania) followed a static scenario logic in the estimation of the funding allocation within EAFRD/ NRDP 2014-2020 towards M11. The organic farming support measure (M11) resulted in a low amount being earmarked on the basis of funds absorbed in the previous programming period (2007-2013). Still, it is more likely that early adopters were motivated more by the positive financial perspectives (getting premium prices, while also cutting costs on chemical treatments) than by subsistence farming. The size and particular features of the farm and the views of informal leaders are also key determining factors. By relying on the same scenarios of allocating Funds from post 2020 CAP and without a systematic understanding of key motivational factors for organic conversion, in different the socio-cultural contexts of the Danube region, it is hard to guarantee an increase of organic agriculture in terms of the number of farms/ operations, the certified crop area and quantity of organic products.

**Action:** Launch new partnership-based projects and socio-economic research initiatives focused on understanding the main motivational factors amongst farmers and land-owners for:

**Key actors:**  
DG Agri,  
Agriculture





<p>a) conversion to organic farming, b) maintaining the status quo of intensive production, based on continuous and heavy use of synthetic fertilisers and other hazardous chemicals.</p> <p><b>Further impact:</b> The findings of such sociological research could provide the basis for testing new training approaches and advisory services for speeding up the diffusion of organic practices into rural communities located in the proximity of protected areas, but also important changes in the way funding will be allocated (conventional versus organic). Experienced farmers that received funding / compensations under M11 from EAFRD 2014-2020 shall be involved in practical workshops for encouraging others to start the conversion.</p>	<p>Authorities, the academic and research sector, local action groups, cultural and environmental NGOs, agricultural advisory services</p>
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#### IV. 4. Environmentally sustainable NTFP (Non-timber forest products) harvesting

##### 6. Increase action on the overall transparency pertaining to NTFP collection rights through new legally binding regulations

#### The challenges and opportunities:

Non-timber forest products is a term that encompasses all useful substances, materials obtained from forests, without involving the logging of trees, such as: nuts, seeds, berries, mushrooms, oils, foliage, pollarding, medicinal herbs or plants used for cosmetics (alternative, frequently used terms are: non-wood forest products or alternative and secondary forest products). Besides supporting local livelihoods in rural communities and expressing their cultural values and traditional knowledge, NTFPs can be considered as important commodities for rural incomes and markets. As certain Flagship projects and EU-wide networking initiatives – such as EU FP7 StarTree<sup>10</sup> project - have indicated that, in addition to the formal market, a significant share of harvested NTFPs are exploited through informal and non-market activities. Such activities can have a substantial contribution to the well-being of rural communities located in the proximity of protected areas, as well as to promote the local identity of the respective places as a tourist destination. On the other hand, such poorly regulated activities can have a heavy impact on biodiversity, including through the over-exploitation of targeted species and unintended effects on other species. As the production, trade, and consumption of NTFPs goes inadequately reported in many countries, mainly due to poor licensing and enforcement, there is lack of knowledge

<sup>10</sup> For more details visit the project website <https://star-tree.eu>





concerning the proportion of informal, non-commercial and illegal harvesting within the overall picture of the NTFP sector in Europe. Few reliable information sources currently exist with regards to the number of people involved and volumes extracted, since most frequently seasonal, “quasi-formal” employment is used by specialised firms, which in some cases, are taking advantage of marginalised communities and social or ethnic minorities among the population. In turn, this generates an obstacle for NTFP sustainable management as a key component of both sustainable forestry plans and biodiversity conservation strategies.

**Action:** Drawing upon relevant EU guidance (see EU FP 7 Star-tree project<sup>11</sup>), develop appropriate national regulations and adjust administrative set-ups accordingly with regards to licensing of collection rights and reporting on collection activities; such regulations shall focus on exposing and further preventing (through legally based penalties, adequate communication and enforcement) the informal/ non-commercial NTFP harvesting practices, which result in the most damaging effects on biodiversity, not only within the boundaries of protected areas. Such regulations should strive to accommodate harvesting for own consumption in order to avoid hitting vulnerable communities the hardest. Furthermore, such well-articulated and communicated regulations shall establish conflict resolution mechanisms, with regards to the conflicts occurring between private landowners and licensees (harvesting rights owners). It is important to highlight that effective government regulations and policies can create an enabling environment for the sustainable use and trade in wild plants in the Danube Region. Tools like the FairWild Standard<sup>12</sup> can be applied to improve existing wild harvesting management practices and provide a framework for better policies.

**Further impact:** Complementing measures aimed at defining the scope of „biodiversity compatible” NTFP harvesting operations (see next action), this action will enable prioritisation of the NTFP sector and related value chains for funding within the CAP post 2020. Likewise, an increased level of awareness amongst policy-makers pertaining to specific needs of the NTFP sector will be

**Key actors:**

EUSDR, Central governments and relevant ministries (such as environment/forests), state forest management companies, bodies and agencies (such as Hrvatske šume llc in Croatia, RomSilva in Romania), Inspection bodies for forest and game management, Research and academic bodies, forest owners, NGOs

<sup>11</sup> For more details visit the project website <https://star-tree.eu>

<sup>12</sup> <https://www.fairwild.org/the-fairwild-standard>



<p>achieved in the long-run. While traditional lifestyles and subsistence economies depending on the NTFP could be maintained, new innovative grant-based projects shall be developed for strengthening the link between the NTFP sector on one hand and the management planning of protected sites, new trends for organic production and nature-based solutions, on the other.</p>	
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**7. Ensure know-how exchange and guidance for enhancing the definition of the scope of „biodiversity compatible” NTFP harvesting and for increasing the marketability and profitability of such products.**

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<p><b>The challenges and opportunities:</b> The findings of previous EU Flagship projects such as EU FP7 StarTree reconfirmed the importance of NTFP for strengthening and diversifying local rural economies. Despite the fact that NTFPs constitute an important segment of renewable goods provided by forest ecosystems, there is an insufficient understanding of the ecological requirements of species producing berries, mushrooms, cork, pine kernels, medicinal herbs, chestnuts, resin, etc. These are often neglected in harvesting activities. Considering the diversity of products and corresponding conditions for ensuring a good ecological status of the productive species, new technical guidance and innovative approaches (including on classification and certification schemes) are needed to ensure sustainable provision, marketability and ultimate profitability of NTFP.</p>	
<p><b>Action:</b> Elaboration of guidelines for enhancing the integration of ecological/ biodiversity criteria and conditions within the general conditions applied to NTFPs harvesting activities at national and EU level; in addition, knowledge related to good practices for development of the NTFPs market potential, based on adequate recognition of their socio-economic importance NTFPs shall be disseminated among key stakeholders. This does not solely imply putting in place new regulations and tracking systems to monitor the commercial use of certain products, but also the provision of technical support for the specialised SMEs and other forest management companies, to adopt nature-based business models, which fully take into</p>	<p><b>Key actors: SMEs in NTFP harvesting,</b> Regional and national relevant authorities, State forest management companies, bodies and agencies (such as Hrvatske šume, Ilc in Croatia, RomSilva in Romania), Inspection bodies for forest and game</p>



<p>account the support capacity of forest eco-systems.</p> <p><b>Further impact:</b> Such guidelines are likely to enable further formulation of hard and soft regulation instruments at the national level in the Danube region, with a positive impact on the sector’s sustainability, which could in turn result in significant contribution to the creation of new nature-based business opportunities and jobs in rural areas.</p>	<p>management, Conservation NGOs, Organizations responsible for protected areas management, Research and academic bodies.</p>
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## IV. 5. Environmentally sustainable fisheries and aquaculture

### 8. Ensure adequate financial support and science-based technical guidance for stimulating development of environmentally friendly aquaculture operations

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**The challenge or opportunity:** In most countries from the Danube basin, aquaculture practices in the natural environment are equally an expression of the everyday way of life of rural communities and a part of their history and local cultural identity. Through prominent networking initiatives of professional associations in the sector at EU level, such as the Federation of European Aquaculture Producers<sup>13</sup>, the aquaculture sector in EU countries has taken important steps to improve its environmental performance, including through the setting of codes of conduct. The members of FEAP voluntarily agreed to its Code of Conduct and to the principles of environmental sustainability outlined in the declaration “Streaming Sustainability – European aquaculture for the next generation”. Such environmental sound principles cover manifold aspects of aquaculture site selection, design and management; as such, aquaculture sites and operations which are environmentally sustainable in the long-term have to ensure: their harmonious integration into the natural surroundings/ landscapes and ecosystems, careful disposal of dead fish and disinfectants and other therapeutic agents, reducing the numbers of escapes, etc. Many SMEs managers lack not only the starting capital for investment but also the knowledge of available technologies and procedures, for minimisation adverse environmental impacts of fish farming. Moreover, soft measures and green-infrastructure for restoring river connectivity or wetlands can also be considered as alternative solutions for redressing low productivity fish farms, which have been affected by the invasive development of reeds (*Phragmites* sp.) with negative effects on water quality and the reproduction habitats of certain fish species.

<sup>13</sup> See more information on the organizational website: <http://feap.info/>

There is room within the EMFF for the next programming period to allocate funding not only for compensations for (insufficiently understood) environmental services of aquaculture, but to provide grant-based co-financing on a competitive basis for necessary investments. Such well targeted financing priorities should be coupled with know-how dissemination on technologies and management techniques (e.g. improvement of feed efficiency, reduction of escapes, closed circulation systems etc.) and on certain practices that help maintain biological diversity.

**Action:** Include a funding priority in the EMFF post 2020 for co-financing investments in environmentally sustainable aquaculture operations, based on a well-articulated, science-based technical guidance on key required conditions pertaining to site suitability, design and management. Moreover, financial resources shall be earmarked from EMFF post 2020 and other sources for targeted research focused on assessing the environmental benefits of freshwater extensive fish farming.

**Further impact:** A realistic approach to achieving a fully sustainable sector needs to take production-related investments into account. With adequate financing, mainly in connection to the post 2020 EMFF, sustainable aquaculture fresh-water operations will contribute to various environmental goals (water quality, wetlands restoration), of high importance in the context of conservation management planning (measures for maintaining freshwater habitats within the boundaries of Natura 2000 sites with a favourable conservation status). At the same time, it will continue to serve as a viable alternative to commercial fishing and reduce the selective pressures on certain highly valued target species (sturgeons).

**Key actors:**  
 EC DG Mare,  
 National Ministries preparing the National Fishery Programmes Management, Fisheries Local Action Groups (FLAGs), Aquaculture SMEs, NGOs.

## IV. 6. Environmentally sustainable tourism including e-mobility

### 9. Enhance the knowledge base for “environmentally-sustainable” tourism based on a new enhanced framework for statistical data management at an appropriate spatial scale

**The challenges and opportunities:** The linkages between the need to conserve natural unique landscapes and features, through designation of protected areas



and the appreciation of their aesthetic values, which turned them into tourist attractions, have a long history. Over the last two decades, the importance given to environmentally sustainable tourism by national governments, EU institutions and international organizations alike has been steadily increasing with numerous strategic initiatives being launched aiming to promote eco-tourism and cultural heritage tourism. Still, there is a lack of sufficiently specific criteria for appraising the environmental impact of tourism at the level of destination and individual facilities; furthermore it is difficult to elaborate and implement such strategies for the tourism sector aimed at fostering economic growth, social inclusiveness, protection of cultural and natural assets at the same time, due to lack of appropriate data on the benefits of sustainable tourism in comparison with various forms of mass tourism. The World Tourism Organization (UNWTO), with the support of the United Nations Statistics Division (UNSD), launched in 2017<sup>14</sup> the Measuring Sustainable Tourism (MST) project to develop an international statistical framework for measuring tourism’s role in sustainable development. Beyond economic statistics, the MST has been extended to cover key environmental policy aspects, such as: environmental impacts of tourism: emissions, solid waste, wastewater, disruption of ecosystems and biodiversity; dependency of tourism on the environment: water and energy requirements, healthy and good quality ecosystems (beaches, reefs, forests); necessary expenditures for controlling adverse impacts; socio-economic benefits and dependencies mainly related to employment. However, the above-mentioned framework MST has limited application at sub-national level, whereas there is a need for central and regional governmental bodies, and local authorities to understand and compare the current status quo and future potential for tourism sustainability at a lower geographical scale, related to the actual zones marketed as destinations (or that are likely to become such marketed destinations). There are other EU relevant frameworks for data management and measuring tourism impacts such as the ETIS (European Tourism Indicator Scheme<sup>15</sup>), but the type of data and the scale of their aggregation is not adequate. Thus, a common and robust set of data is highly needed for public authorities and stakeholders to design and implement effective sustainable tourism policies, also in correlation with nature-protection/ biodiversity considerations, especially for destinations situated within or in the proximity of protected areas.

<p><b>Action:</b> On the basis of a harmonized understanding of key concepts related to environmentally sustainable tourism, develop a set of concrete criteria, that can be used in</p>	<p><b>Key actors:</b> EUSDR, National Statistic Offices,</p>
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<sup>14</sup> On the occasion of the International Year of Sustainable Tourism for Development 2017, the Government of the Philippines and the World Tourism Organization (UNWTO) organized the 6th International Conference on Tourism Statistics held in Manila from 21 to 24 June 2017  
<sup>15</sup> [https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators\\_en](https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators_en)



guiding environmentally friendly development and management both at the level of tourism destination and tourism facility/ operation. Developed in the framework of multi-disciplinary partnerships within EUSDR, these criteria shall be common for all Danube Countries. They shall be underpinned by an appropriate statistics and data management framework, set up at the central/ regional level, but aggregating data at the local administrative levels. Such a framework shall secure a sound decision-support basis for central, regional and local authorities in elaborating realistic strategies and plans aimed at well-defined, measurable targets.

**Further impact:** Thus, a data management platform should be available in the long run, based on which the scope of “environmentally-friendly” tourism could be defined in a credible, harmonized manner across the entire Danube region; the above-mentioned framework/ platform shall provide the basis for setting concrete targets for specialised Eco-Tourism Strategies and also be used as a reference in the design of Funding (allocation of grants and/ or subsidies) for catalysing the efforts and interest of SMEs and managers of tourism facilities towards promotion of environmentally friendly tourism.

EU European Commission, UNWTO, National and regional/ local tourism development governmental bodies, research and academic sectors, professional organizations – especially those promoting ecotourism, Tourism Networking organisations/ Regional Development Agencies, Local authorities

### 10. Promote an increased adoption of environmentally friendly soft -infrastructure for tourist destinations located in the proximity of protected areas or within their boundaries

**The challenges and opportunities:** Among other factors, such as physical accessibility and existence of natural landscape features, infrastructure is also a key determinant for the attractiveness of a touristic destination. It encompasses all facilities and related services designed to meet tourists’ needs and increasing their satisfaction during their stay at the destination.

For touristic destinations located in the proximity of protected areas in the Danube Region, there is a need to dimension/ design the infrastructure, based on the concept of carrying capacity assessment. The respective concept/ tool is widely used to determine the ability of a region to withstand the maximum level



of tourist development. It consists mainly of an analysis of the physical environment<sup>16</sup> of the destination covering the natural environment – including biodiversity, cultural heritage and infrastructure and should result in a clear threshold / maximum acceptable values for a number of measurable phenomena: the congestion in various spatial units (trails, visiting centres, etc.), air, water and noise pollution, soil erosion, level of intensity of use for public services and facilities (sanitary, transport, etc.). There should be no such “acceptable values” for the degradation of natural habitats and biodiversity elements, especially of those which are subject to conservation measures.

**Action:** Develop guidance on soft/ environmentally friendly infrastructure, based on an assessment of carrying capacity of touristic destinations located in the proximity of protected areas; the guidance should be focused on a clear definition and classification of environmentally friendly infrastructure, that: can be tailored to the Danube Region, is sufficiently clear in order to be understood and adopted by politicians. Moreover, such full-scope guidelines must provide internationally useful definitions (including key design features to be observed in implementation) for certain types of infrastructure: cycle paths, hiking trails, cultural routes, etc.),

**Further impact:** The guidance shall be transposed either in legally binding methodologies and quality criteria or at least, in voluntary codes of conduct to be adopted by local authorities, investors in the tourism sector, management authorities of ERDF/ CF Operational Programs.

**Key actors:**  
European Commission/ EUSDR, Ministries of Tourism, local authorities, investors in the tourism sector, Management authorities of ERDF/ CF Operational Programs, NGOs

**11. Design and implement new incentives for determining a significant change of consumer choice in favour of e-mobility and other forms of sustainable mobility (cycling) in destinations located within or closely to natural protected areas**

**The challenges and opportunities:** While the uptake of e-mobility solutions in the Danube Region has witnessed a certain increase in urban areas, mainly due to sustainable urban mobility plans developed by local authorities with the support of ERDF/ CF, the deployment of e-mobility solutions is very limited in

<sup>16</sup> Tourism that hurts: The invisible and defamatory side of tourism, De Pericles Lytras, Athina Papageorgiou (2015)





smaller communities located in the proximity of protected areas. There is a significant gap between the level of development of charging infrastructure and services between Western EU countries and other EU and non-EU countries from the Eastern part of the Danube Basin. Still, e-mobility remains the primary solution for the decarbonisation of the transport sector, based on the switching from Internal Combustion Engines to electric-power technology for almost all forms/ vehicles used for personal and public transport. Up to now, there have been certain obstacles preventing the promotion of e-mobility as a mainstream solution for the personal mobility sector (electric vehicles accounted only 1.5% of all new car registrations in the EU 28 Member States for 2017): a) the insufficient density/ availability of charging infrastructure which is moreover marked by large discrepancies between Germany, Austria and most other countries in the Danube basin which is further combined with b) limited range of motion, depending on the battery capacity/ size, c) higher selling prices of electric vehicles – all these factors have resulted in a public perception of e-mobility as being still a futuristic topic. Aside from the general prohibitive factors against electric vehicles in general, there are obviously insufficiently tapped opportunities for the usage of two-wheeled e-vehicles (pedelecs<sup>17</sup> and e-bikes) and of bicycles as the most appropriate forms of mobility and leisure within the broader scope of environmentally friendly tourism approaches for destinations situated in the proximity of protected areas.

**Action:** EU ERDF/ CF co-financing for the next programming period and private investment sources have to be mobilised to deploy a network of charging stations covering the main routes from large cities to most popular touristic destinations related to well-managed protected areas. A geospatial approach for the development of such a network, shall ensure both a sufficient number and diverse types of charging stations and the need to install them near commercial retailers (grocery shops/ coffee-shops, restaurants, etc.) and educational objectives (visitor centres) located on the respective routes. In addition, sufficient funds should be especially earmarked towards investment-projects that extend the current biking infrastructure and cyclo-tourism facilities required for accessing touristic destinations in protected areas, which are well managed in terms of visitors' management. Moreover, central governmental authorities are recommended to continue and expand the financial and/ or fiscal incentives for stimulation of end-consumers to decide in favour of electric vehicles as alternatives to classic ones (powered by internal

**Key actors:** Management authorities responsible for the elaboration of Operational Programs under ERDF/ CF post 2020, Private investors, SMEs, Ministries of Transport and Ministries of Tourism, local tourism agencies and

<sup>17</sup> Pedal electric cycle meaning a bicycle with a small electric motor to assist the rider's pedaling





<p>combustion engines).</p> <p><b>Further impact:</b> Such funding will contribute in the long run to the growth of specialised SMEs in this environmentally friendly market of rental, maintenance and repairs, etc. and will consolidate the basis for the growth of cyclo-tourism.</p>	<p>operators, Local public administration</p>
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## Conclusions:

The strategic actions proposed in this document for the LENA sectors of interest<sup>18</sup> vary widely from the ones related to assessments of status quo and achieved results (including efficiency of previous EU Funding allocation) to those supporting the exchange of good practices, organizational models, know-how from researchers to advisors and farmers, new training approaches and advisory services, or to the ones on enhancing marketing support for sustainable agriculture and fishery products from protected areas. Very importantly, they also include policy recommendations for elaboration of specific regulations, guidelines and standards (for example, to ensure key required conditions pertaining to site suitability, design and management in aquaculture, the continued use and long-term survival of wild plant species in their habitats, or the environmentally friendly development and management both at the level of tourism destination and tourism facility/ operation). Last, but not least, the strategic actions include also prioritization of future EU funding for co-financing investments in the analysed sectors such as environmentally sustainable agriculture and aquaculture operations, or support for a network of e-mobility charging stations covering the main routes from large cities to most popular touristic destinations related to well-managed protected areas.

If properly funded<sup>19</sup> and implemented in the near future, these strategic actions can and will support the effective management of protected areas, but also the increase of sustainability of the current activities and future developments in the analysed sector, while delivering enhanced opportunities for jobs and businesses' creation in the Danube Region.

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<sup>18</sup> sectors such as agriculture and aquaculture, harvesting of non-timber forest products and tourism

<sup>19</sup> The Danube Transnational Programme remains the most important funding source for all Danube Region' countries