



**Joint co-operation strategy  
on climate change and security in  
the Shar/Šara Mountains and  
Korab Massif Area**

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Publishers:	The Organization for Security and Co-operation in Europe (OSCE) Wallnerstrasse 6 1010 Vienna, Austria +43 1 514 360 pm@osce.org <a href="http://www.osce.org">http://www.osce.org</a> adelphi research gemeinnützige GmbH Alt-Moabit 91 10559 Berlin, Germany +49 (030) 8900068-0 office@adelphi.de <a href="http://www.adelphi.de">www.adelphi.de</a>
Project Management:	Esra Buttanri, Patrizia Albrecht and Kateryna Robul (OSCE)
Facilitators:	Beatrice Mosello, Alina Viehoff, Pia van Ackern, Adrian Foong and Lukas Rüttinger (adelphi)
Reviewers:	Esra Buttanri, Frosina Pandurska-Dramikjanin, Daniel Bogner and Nikola Nikolov
Photo credits:	Cover image: OSCE/Shila Bandilli
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# JOINT CO-OPERATION STRATEGY

on climate change and security  
in the Shar/Šara Mountains and Korab Massif Area

## Acknowledgements

We wish to thank all stakeholders who participated in the workshop “Climate Change and Security in the Shar/Šara Mountains and Korab Massif Area: Developing a joint co-operation/adaptation strategy and an implementation plan” (2-3 November 2022 in Hotel Radika, Mavrovo) for their valuable contributions which have informed this strategy paper. We would especially like to thank Afrodita Fetahu, Alben Hana, Albert Flores Herrera, Armir Ziba, Bilal Sejrani, Daniel Bogner, Elena Swartz, Elton Qendro, Fadil Bajraktar, Faruk Dermaku, Fatmir Zylfijaj, Frosina Pandurska-Dramikjanin, Giovannino Di Persio, Hisen Xhemaili, Jeton Lika, Kristina Jovanova, Mariana Roibu, Meghan McCormack, Mjellma Hapciu-Alijaj, Nikola Nikolov, Selim Selimovski, Senad Shajkovci, Shila Bandilli, Sofian Jaupaj, Suad Salkic, Teodora Obradovic Grncarovska, and Vlatko Trpeski for their co-ordination, facilitation, expert input and support in organizing the workshop.

## 1. Introduction

The Shar/Šara Mountains and Korab Massif Area is a biodiversity hotspot with outstanding natural value. Comprising four protected areas (i.e., Korab-Koritnik, Mavrovo, Shar Mountain, and Sharri/Šara), the area has a coverage of more than 240,000 ha, making it one of the largest contiguous protected areas in Europe (see Figure 2). Natural resources in the area provide economic opportunities for local communities, and are therefore important for safeguarding rural livelihood security and well-being.

Climate change poses a threat to the natural and economic values of the Shar/Šara Mountains and Korab Massif area. Combined with unsustainable and illegal human activities, the impacts of climate change threaten the area’s rich biodiversity and key economic sectors, all of which would affect livelihoods and feed into the security risks faced by local communities. Given the area’s inter-connectivity, these security risks would very likely be shared across the four protected areas.<sup>1</sup>

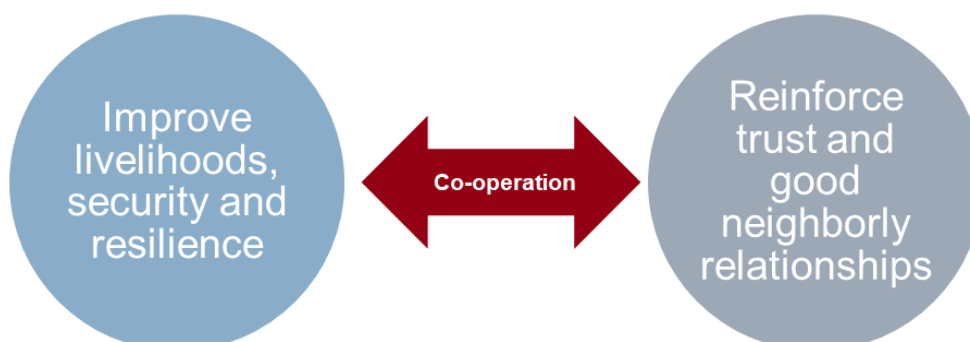
Strengthened and targeted co-operation between the management of the protected areas and their communities is therefore of paramount importance as it offers opportunities to address these risks in a holistic and sustainable manner. On the one hand, co-operation activities would serve to improve the livelihoods, security and resilience of communities in the protected areas in the context of a changing climate. On the other hand, they would reinforce trust and good neighborly relationships in the area (see Figure 1).<sup>2</sup>

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<sup>1</sup> For more information, see Rüttinger et al. 2021: <https://www.osce.org/secretariat/484148>

<sup>2</sup> For more information, see van Ackern et al. 2023: <https://www.osce.org/oceea/539354>

**Figure 1: Purpose of co-operation addressing climate-related security risks.**



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## 1.1 Project background

This document proposes a joint co-operation strategy to address climate-related security risks in the Shar/Šara Mountains and Korab Massif Area. It is an output of the extra-budgetary project *Strengthening responses to security risks from climate change in South-Eastern Europe, Eastern Europe, the South Caucasus and Central Asia* (#1102151), implemented by the Organization for Security and Co-operation in Europe (OSCE), in partnership with the Berlin-based think-tank adelphi.<sup>3</sup>

The project aims to:

1. Enhance the understanding of how climate-related security risks impact in South-Eastern Europe, South Caucasus, Central Asia, and Eastern Europe.
2. Increase co-operation among regional stakeholders to jointly address climate-related security risks.
3. Increase awareness and capacities for an integrated approach on climate change and security among main stakeholders.

The Shar/Šara Mountains and Korab Massif Area, consisting of the four protected areas (1) **Korab-Koritnik**, (2) **Mavrovo**, (3) **Shar Mountain**, and (4) **Sharri/Šara**, is the central focus region in South Eastern Europe within the project and for this strategy.

## 1.2 Strategy and methodology

The main objective of the joint co-operation strategy is to strengthen co-operation between protected areas in the Shar/Šara Mountains and Korab Massif Area to address climate-related security risks. To develop this strategy, the following activities were conducted:

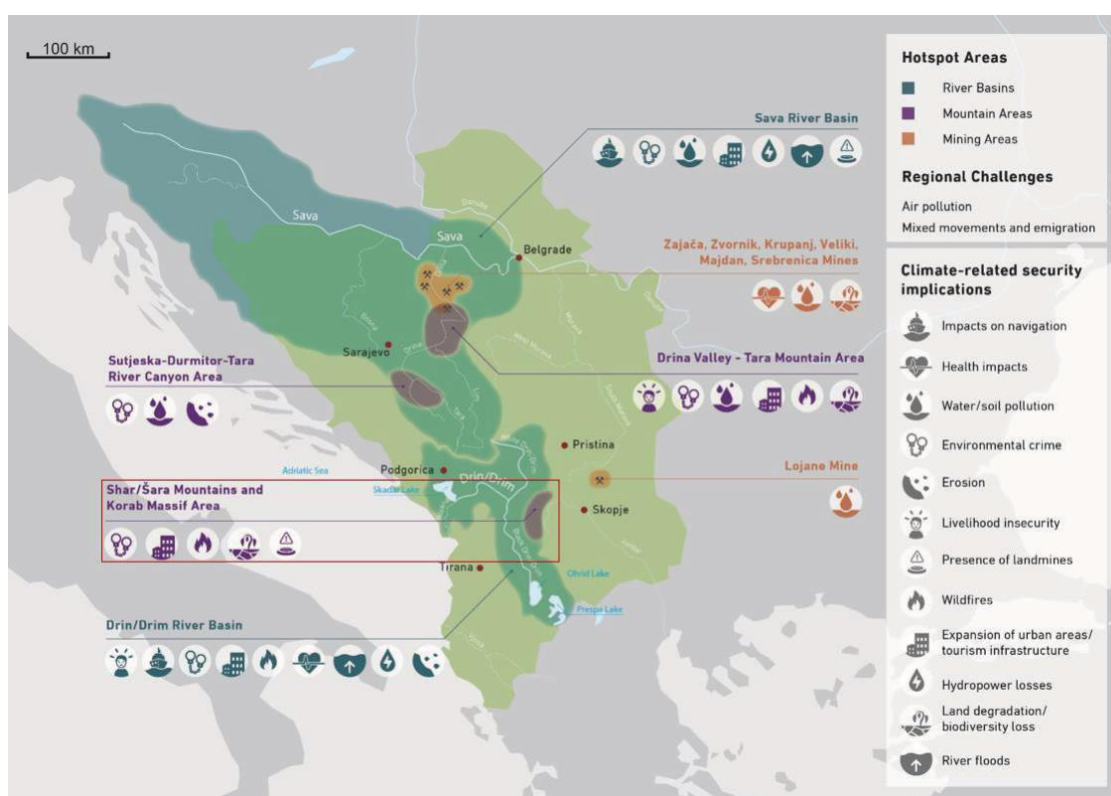
1. The strategy is primarily based on the outcome of the **workshop** “*Climate Change and Security in the Shar/Šara Mountains and Korab Massif Area: Developing a joint co-operation/adaptation strategy and an implementation plan*” which was organized by the OSCE in partnership with adelphi and took place on 2-3 November 2022 in Mavrovo. The workshop was attended by the representatives of relevant ministries, respective park management authorities, municipalities, and local Civil Society Organizations (CSOs), as well as experts from the region, international partners and the OSCE Field Operators in South-Eastern Europe. The participants **prioritized topics for co-operation, identified and developed project concepts** for joint risk reduction

<sup>3</sup> For more information on the project, see: <https://www.osce.org/node/521965>.

measures in synergy with other local, regional and international initiatives, and **explored how to strengthen co-operation** among the four protected areas.<sup>4</sup>

2. The participants of the workshop were briefed in advance based on findings from the **scoping study** *“Co-operation in the Shar/Šara Mountains and Korab Massif Area: Scoping study on addressing shared climate-related security challenges and strengthening resilience”*, which draws heavily on insights from stakeholder consultations that involved site visits, online meetings, and interviews. During the workshop, participants validated and refined the areas for co-operation identified in the study.
3. The scoping study, in turn, was based on the findings of the **2021 OSCE-adelphi report** *“Regional Assessment for South-Eastern Europe: Security implications of climate change”* as well as follow-up **stakeholder consultations** conducted in 2021-2022, which identified the Shar/Šara Mountains and Korab Massif area as a priority hotspot for co-operation in South-Eastern Europe (see Figure 1).

**Figure 2: Climate-security hotspots identified in the 2021 OSCE-adelphi regional assessment for South-Eastern Europe.**



Note: The priority hotspot Shar/Šara Mountains and Korab Massif Area is framed in red. © adelphi

<sup>4</sup> From this collection of ideas, the most promising were selected and further developed as possible pilot project concepts.

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### 1.3 Aim and Content

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The main objective of this joint co-operation strategy is to strengthen co-operation between the four protected areas (1) **Korab-Koritnik**, (2) **Mavrovo**, (3) **Shar Mountain**, and (4) **Sharri/Šara** to address climate-related security risks. The strategy consists of three main parts:

First, it outlines **priorities for co-operation** on:

- Illegal logging and hunting
- Fire management
- Local livelihoods and cultural heritage
- Sustainable tourism
- Nature conservation and pasture management
- Waste, water management, and construction

Second, it presents ways to **strengthen co-operation among the four protected areas**.

Third, it includes an **implementation plan** in the form of eight initial joint project concepts involving stakeholders across the different protected areas. These serve as a starting point for developing more specific concrete actions and for the implementation of pilot activities.

## 2. Priorities for co-operation

The following topics have been identified as priorities for addressing climate-related security risks through improved co-operation between the protected areas of Korab-Koritnik, Mavrovo, Shar Mountain, and Sharri/Šara.

### 2.1 Illegal logging and hunting



Deforestation and illegal logging affect all four protected areas. These are largely driven by organized criminal groups and networks as well as unsustainable logging practices, spurred by the difficult socio-economic conditions of the rural populations. All four protected areas are also affected by uncontrolled hunting. These challenges add to the impacts of climate change to threaten biodiversity and livelihood security.

Opportunities for co-operation to jointly tackle these challenges include:

- Assessing the current institutional and legal systems to identify and address regulatory loopholes, and where law enforcement would need to be harmonised and improved;
- Intensifying co-operation between park management and police in the prosecution of illegal activities (e.g. to prevent smuggling), including enhancing technical capacities to deter, detect, and prosecute through joint trainings;
- Sharing information and best practices on how to address illegal logging and hunting as well as related issues, including:
  - Sharing data and statistics on types and number of animal and plant species in the parks and developing a census of protected species towards establishing a joint baseline and inventory, building on what has already been done in the framework of existing protection initiatives;<sup>5</sup>
  - Sharing information and best practices between park authorities, e.g. on dealing with corruption over land use, construction, use of natural resources, etc. in protected areas;
- Linking up with other projects that support the authorities in their efforts to address illegal logging and hunting, e.g. through activities such as the establishment of high-tech monitoring systems;<sup>6</sup>
- Promoting alternative energy resources in urban and lowland areas surrounding the protected areas, including photovoltaic systems or wind farms to replace fire wood.

🔗 Find the corresponding project concept "[Support the co-operation between park authorities and enforcement bodies in preventing illegal logging, illegal hunting, and smuggling of wildlife](#)" in the Implementation Plan.

<sup>5</sup> For example, the United Nations Environmental Programme's (UNEP) is implementing the project "Achieving biodiversity conservation through the creation and effective management of Protected Areas and mainstreaming biodiversity into land use planning", with a focus on the Shar/Šara Mountains, among other areas. The project aims to support the expansion of protected areas and the effective management of biodiversity conservation efforts. As part of its activities towards expanding the protected area network, it has prepared a valorisation study for the Shar Mountains, and compiled red lists for reptiles and amphibians, and a priority list for vascular plants. For more information, see: <https://www.unep.org/regions/europe/our-projects/leveling-national-biodiversity-conservation-north-macedonia>.

<sup>6</sup> For example, Global Conservation is funding and implementing the "Protecting the Heart of the Balkans" project, which aims at enhancing environmental protection in the Shar/Šara Mountains, e.g. by providing equipment and capacity training for patrolling. For more information, see: <https://globalconservation.org/projects/shar-mountains-national-park/>. In addition, the Prespa Ohrid Nature Trust's (PONT) programme, in co-operation with Albanian Local Capacity Development Foundation (ALCDF), is working to formalize joint patrol groups and activities, and establish a surveillance network to improve monitoring in selected protected areas. For more information, see: <https://www.pont.org/programme/>.



## 2.2 Fire management



All four protected areas are threatened by fires, many of which are caused by human activities. Higher temperatures and increased arid conditions resulting from climate change increase the risk of forest fires. This, in turn, contributes to the destruction of carbon sinks and releases large amounts of CO<sub>2</sub> into the atmosphere, thereby exacerbating global warming.

Opportunities for co-operation to jointly tackle these challenges include:

- Sharing knowledge and raising awareness among the population about forest fires and how to prevent them, including through:
  - improved fuel management at household and community level;
  - prescribed burning of pasture and agricultural crop residue;
- Supporting capacity-building on landscape fire management across the four protected areas, exploring synergies with existing efforts, such as those in the framework of the Landscape Fire Management in the Western Balkans (LFMWB) program<sup>7</sup> and the regional engagement of the Global Fire Monitoring Center (GFMC);<sup>8</sup>
- Developing community-based landscape fire management capacities;
- Providing the competent authorities with adequate vehicles, equipment and proper training to combat forest fires;
- Addressing the impact of illegal logging on the occurrence of forest fires, which entails tackling the following issues:
  - the use of arson in forest areas that are not designated for logging to provide cheap wood from burned areas;
  - the use of arson to 'hide' illegally logged trees, stumps, and forest areas;
  - the use of arson to divert forest and fire management resources for fire suppression in one area, which enables illegal logging in other areas.

🔗 Find the corresponding project concept "[Fire Resilient Protected Areas: Shar/Šara Mountains and Korab Massif Area](#)" in the Implementation Plan.

<sup>7</sup> The program aims to facilitate inclusive, cross-regional co-operation and knowledge exchange to strengthen the capacities for landscape fire management (LFM) in the region by contributing to establishing strong and fully operational local and regional networks for LFM, conducting multi-stakeholder policy dialogues, fostering better cooperation and strengthening the capacities in the region. Its first 3-years phase was launched in 2022 and is funded by the Swiss Agency for Development and Cooperation (SDC) and implemented by the Regional Fire Monitoring Center (RFMC) and the regional executing agency Farmahem in Skopje, with backstopping support from the Global Fire Monitoring Center (GFMC) and Helvetas Swiss Intercooperation.

For more information, see: <https://www.eda.admin.ch/deza/en/home/themes-sdc/climate-change/forest-land-use.html/content/dezaprojects/SDC/en/2019/7F10341/phase1?oldPagePath=/content/deza/en/home/themen/klimawandel/wald-und-landnutzung.html>.

<sup>8</sup> The GFMC has been supporting the development of landscape fire management capabilities in South-Eastern Europe since 2004 through the establishment of the RFMC and the Regional Wildland Fire Network of South East Europe and the South Caucasus, see: [https://gfmcc.org/globalnetworks/seeurope/SEEurope\\_1.html](https://gfmcc.org/globalnetworks/seeurope/SEEurope_1.html)

### 2.3 Local livelihoods and cultural heritage



The local population is largely dependent on extensive agriculture and herding as their main livelihood sources. However, these sectors are threatened by rural out-migration and the subsequent abandonment of traditional land use practices that have been essential in preserving the biodiversity of open landscapes. Climate change further strains the agricultural sector and related livelihoods. Women, in particular, bear the brunt of these impacts. For example, a large number of unemployed youths in the region are women, and women's participation in decision-making processes remains limited.

Opportunities for co-operation to jointly tackle these challenges include:

- Regional co-operation on the certification of organic products, ideally through activities conducted with park management, e.g. joint workshops drawing from existing certification experiences such as those conducted in the [municipality of Istog/Istok in co-operation with the association Organika in the beekeeping sector](#);
- Creating a joint brand for local products from the four protected areas (e.g. locally produced cheese and honey), highlighting their geographic origin; using opportunities offered by regional and local fairs to present and promote the products and showcase the region's cultural and natural values, thereby also fostering networking between local producers;
- Creating cooperatives of local producers and supporting family businesses with training and equipment for secondary processing of wild or cultivated forest products such as blueberries, medicinal plants and mushrooms, similar to the work of the [Agricultural Cooperative Red Gold<sup>9</sup>](#) or [CARE's initiative on the development of new agricultural cooperatives<sup>10</sup>](#)
- Promoting awareness raising, training and standardization of practices for the collection of wild forest products, in particular medicinal plants, including:
  - educational components regarding the sustainable collection and use of plants;
  - creating standards or certification to avoid unsustainable picking practices and illegal activities across the four protected areas;
- Supporting knowledge transfer on cheese production and improving the conditions of livestock breeders (for example through domestic and/or international subsidies), e.g. in the framework of the support provided by the EU's IPARD program;<sup>11</sup>
- Promoting agritourism focusing on local livelihoods and cultural heritage, including by:
  - Compiling an inventory of cultural monuments and values across the protected areas;
  - Training local guides on the local cultural heritage;
  - Packaging and offering cultural experiences to tourists, e.g. picking and learning with mountain guides and education on traditional practices and cultural heritage;
  - Categorizing and promoting tourist accommodation that offer traditional ambience and food;

<sup>9</sup> The Agricultural Cooperative Red Gold adopts innovative and sustainable methods for growing berries. It was established as part of the project focusing on Sustainable and Inclusive Rural Economic Development (SIREd) implemented by CARITAS Switzerland between 2020 and 2023. For more information about the project, see: <https://www.entwicklung.at/en/projects/detail-en/sustainable-and-inclusive-rural-economic-development-sired-kosovo>.

<sup>10</sup> CARE's project "Support to Development of Agricultural Cooperatives in Northern Macedonia" aims to establish cooperatives as a sustainable business model for agricultural development by improving income opportunities of farmers through joining resources for greater efficiency, and contributing to the economic revitalization of agricultural sector. For more information, see: <https://care-balkan.org/care-project-support-to-development-of-agricultural-cooperatives-in-northern-macedonia-marked-the-international-day-of-cooperatives/>

<sup>11</sup> The EU "Instrument for Pre-accession Assistance for Rural Development" (IPARD) provides beneficiaries in the process of joining the EU with financial and technical help to improve the sustainability of agricultural sectors and rural areas and aligning policies with the EU's common agricultural policy. For more information, see: [https://agriculture.ec.europa.eu/international/international-cooperation/enlargement/pre-accession-assistance/overview\\_en](https://agriculture.ec.europa.eu/international/international-cooperation/enlargement/pre-accession-assistance/overview_en).

- Exploring synergies with existing rural development initiatives, e.g. the [SEDRA II project](#)<sup>12</sup> to ensure that all the activities conducted in the region to increase employment and income complement, rather than duplicate, each other.

🔗 Find the corresponding project concepts “[Handcrafted bridges across the Shar/Šara Mountains and Korab Massif Area](#)” and “[Cultural incubator – BLOOM](#)” in the Implementation Plan.

## 2.4 Sustainable tourism



Because of the region’s geological and natural wealth, tourism is becoming an increasingly important sector for its economic development. However, unsustainable tourism can also threaten the environment of the four protected areas. Additionally, the impacts of climate change can affect the tourism sector, and especially winter activities in mountain areas. This could lead to further out-migration and abandonment of traditional land use practices, push local communities towards unsustainable livelihood practices, and shrink the revenue and capacities of local municipalities to provide adequate infrastructure.

Opportunities for co-operation to jointly tackle these challenges include:

- Offering small non-refundable grants for income generation projects to small businesses and services in rural areas;
- Establishing tourist offices in each protected area, which are all connected to each other so that they can exchange relevant information (e.g. on tourist arrivals, meteorological conditions, etc.) in real time;
- Creating a website providing tourist information for all four protected areas, including:
  - information on trails and maps for hiking and biking across the four protected areas, similar to the [High Scardus Trail](#)<sup>13</sup>;
  - an online space for marketing local products, services (including accommodation), and events;
  - support for digital access and literacy of producers and businesses;
  - dissemination of other relevant news and information;
- Organizing rotating regional fairs or festivals to promote local products, similar to the [Dibra festival](#)<sup>14</sup> and annually hosting a special day of cultural and nature-related activities promoting the protected areas;
- Organizing meetings and workshops for tourism representatives and businesses and relevant ministries across the four protected areas to facilitate information sharing, knowledge exchange and joint planning in the tourism sector (once or twice per year);
- Offering hiking tours across all four protected areas, with tourism businesses and operators providing local goods and services to tourists;

<sup>12</sup> The German Federal Ministry for Economic Cooperation and Development (BMZ) project “Support to Economic Diversification of Rural Areas in Southeast Europe (SEDRA II), implemented by the Standing Working Group for Regional Rural Development in South Eastern Europe (SWG RRD) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), seeks to strengthen the potentials for increasing employment and incomes in the rural areas in South-Eastern Europe. For more information, see: [https://seerural.org/news/project-promotion-of-economic-diversification-in-rural-areas-of-south-eastern-europe-sedra-ii-in-see-value-chain-capacity-building-on-agriculture-and-rural-tourism-to-promote-rura/?doing\\_wp\\_cron=1676893304.5236320495605468750000](https://seerural.org/news/project-promotion-of-economic-diversification-in-rural-areas-of-south-eastern-europe-sedra-ii-in-see-value-chain-capacity-building-on-agriculture-and-rural-tourism-to-promote-rura/?doing_wp_cron=1676893304.5236320495605468750000)

<sup>13</sup> The High Scardus Trail is a new long-distance hiking and mountain biking trail in South-Eastern Europe that passes through the Shar/Šara Mountains and Korab Massif area. This adventure tourism offer is the result of the project “[Future Prospects through Mountain Tourism](#)”, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in 2017. The project included trail marking, identification of accommodation, catering facilities, cultural and natural heritage sites along the trail, and capacity building activities in rural tourism. For more information, see: <https://highscardustrail.com/>

<sup>14</sup> The annual Oda Dibrane Festival is a folklore festival in Dibra/Dibër/Debar celebrating the regional cultural heritage by performing traditional songs and dancing. For more information, see: <http://fidafalbania.al/en/oda-dibrane-festival/>

- Harmonizing legislation to facilitate the crossing between different protected areas, particularly for hikers, to encourage tourism across the protected areas;
- Improving, developing and managing marked trails in the protected areas in combination with mobile applications for hiking, and installing information boards along the trails about the protected areas and various nature-related themes;
- Establishing shared emergency services for tourists across the four protected areas, such as an ‘SOS button’ which sends the sender’s co-ordinates to the relevant tourism office when in danger;
- Establishing action plans to support youth integration in tourism-related sectors;
- Exploring the potential for new eco-tourism products such as wildlife observation and zip-lining, as well as sustainable winter activities such as ski and snowmobile touring across regions, also building on the experience of other European countries;
- Upgrading existing tourism infrastructure in a sustainable manner, e.g. use of natural materials such as wood and stones for mountain infrastructure in remote areas.

🔗 Find the corresponding project concept [“Digital Promotion of Tourism in the Protected Areas”](#) and [“Visit Us and Recognize our Values”](#) in the Implementation Plan.

## 2.5 Nature conservation and pasture management



The decline and abandonment of traditional land use practices have led to the overgrowth of pastures, subsequent conversion of habitats, and decrease in biological diversity. In some areas, biodiversity is also negatively affected by unsustainable grazing management, and especially overgrazing. The intensive commercial collection of wild plants, herbs and fruits is leading to further decline in biodiversity, while affecting livelihood security. These risks are compounded by the impacts of climate change. Specifically, projections of rising temperatures, drier conditions, and higher probabilities of fires could accelerate biodiversity and habitat loss in the region.

Opportunities for co-operation to jointly tackle these challenges include:

- Harmonizing and connecting park management plans, especially regarding the collection of medicinal and aromatic plants, and the need to address the risk of exploitation, including by:
  - carrying out an inventory of medicinal and aromatic plants;
  - training collectors on sustainable picking and processing of medicinal and aromatic plants;
  - promoting license and control systems for collectors of medicinal and aromatic plants to establish more control and prevent overuse of such plants in protected areas;
  - exploring possible synergies with similar initiatives aimed at promoting the sustainable use of natural resources across the four protected areas, such as the [PONT-CNVP project](#);<sup>15</sup>
- Promoting activities for the conservation and management of selected species of endemic and endangered fauna (e.g. bear, chamois, black woodpecker, *Parnassius apollo*, *Rosalia alpina* and *Vipera ursinii*), including by:
  - creating a shared knowledge/data base of these species, with inputs from experts from all the protected areas;

<sup>15</sup> Funded by PONT and implemented by Connecting Natural Values and People (CNVP), the three-year project “Sustainable use of natural resources for transboundary socio-economic development of protected area” (2022-2025) aims to promote sustainable use of resources, especially Non-Timber Forest Products (NTFPs) and medicinal aromatic plants, through provision and support to local communities for creating a better socio-economic life in harmony with nature, e.g. through nature-based tourism For more information, see: <http://www.cnvp-eu.org/eng/project.php?mv=10&id=1426>.

- establishing a joint management plan and monitoring system across the protected areas with harmonized approaches and protocols for data collection and conservation and management of selected species;
  - involving relevant stakeholders from institutions as well as rangers, farmers, shepherds, and hunters in activities aimed at protecting endangered species in the four protected areas;
  - implementing awareness raising on the protection needs of endangered species, including in schools;
  - Exploring synergies with already existing protection initiatives such as that of UNEP;<sup>16</sup>
  - Improving sustainable management of pastures, including by:
    - carrying out an inventory of pastures across the four protected areas, with details such as the number of active farms, the size of livestock (particularly sheep) and the extent of overgrazing;
    - cleaning pastures from overgrowth (with junipers);
    - improving waste management on pastures and sheepfolds;
    - addressing the problem of burning of pastures, which may result in forest fires;
    - improving existing infrastructure, such as for fresh water supply, roads and facilities to produce quality dairy products with modern hygienic standards – this should be done in synergy with the EU's [Cross-Border Cooperation \(CBC\)](#) program;<sup>17</sup>
    - enhancing the livelihoods of local farmers, e.g. through financing schemes to support upgrades to the farming infrastructure (e.g. barns) and by providing incentives and to attract private investments in these localities;
    - training of farmers and shepherds on different topics, e.g. dairy production, biodiversity and tourism;
  - Linking conservation with organic farming and tourism, e.g. by organizing photography tours on medicinal and aromatic plants.
- 🔗 Find the corresponding project concept "[Joint conservation of endemic and endangered animal species in the Shar/Šara Mountains and Korab Massif Area](#)" in the Implementation Plan.

<sup>16</sup> The United Nations Environmental Programme's (UNEP) project "[Achieving biodiversity conservation through the creation and effective management of Protected Areas and mainstreaming biodiversity into land use planning](#)" aims to support the expansion of protected areas and the effective management of biodiversity conservation efforts.

<sup>17</sup> The EU's "Cross-Border Cooperation" program promotes local economic, social, environmental and cultural development in the region and encourage good neighborly cooperation especially at the community level in South Eastern Europe. For more information, see: <https://webalkans.eu/en/themes/regional-cooperation/cross-border-cooperation/>.

## 2.6 Waste and water management and construction



Waste and water infrastructures are relatively limited in the region. Infrastructural development plans can help address these gaps – however, they can also threaten the ecological integrity of the protected areas. For example, while small hydropower plants have addressed some of the area's energy needs, they have a significant impact on river ecosystems and flow regimes. Climate change is likely to aggravate these challenges, for example by straining water availability.

Opportunities for co-operation to jointly tackle these challenges include:

- Fostering local municipalities to secure local communities' access to Water, Sanitation and Hygiene (WASH), e.g. by organizing joint consultations with communities to understand their demands, as well as lobbying local and central authorities and raising their awareness about the need for improved and accessible WASH services;
- Improving regional co-operation to reduce waste pollution in shared river systems, e.g. by developing joint water resources management plans in the protected areas (backed with necessary legislation and sufficient resources to ensure their effective implementation), or by creating the conditions for joint management of water resources between relevant enterprises that are run by local administration units and public-private partnerships (PPPs);
- Introducing standardized waste separation systems (including accumulating bins, containers and stations) for organic, solid, liquid, glass or metal material to address regional waste issues;
- Removing illegal dumps and installing warning signs and educational explanations on how to properly treat waste in parks;
- Promoting 'reduce, reuse, recycle' mindset in communities, such as through joint clean-up activities (e.g. with students from schools or 'Ecoclubs') and awareness raising activities on the harmful effects of water, air and land pollution;
- Monitoring water quality and quantity and water flows during different seasons, and preventing wastewater leakages to protect water reservoirs and fountains;
- Critically evaluating the construction of small hydropower plants to ensure the potential negative impacts on environment and communities living in the area are accounted for, and reviewing the environmental certificates of existing plants in line with EU Environmental Impact Assessment requirements;<sup>18</sup>
- Sharing lessons learned on flood risk management, e.g. those generated in the context of [UNDP's initiative](#) to improve resilience to floods in the Polog region;<sup>19</sup>
- Rehabilitating water sources, e.g. through the renaturation of flood plains by removing human interventions such as dykes and dams where these have been found to have harmed river ecosystems.

🔗 Find the corresponding project concept "[Promoting joint ZERO waste principles and practices within the four protected Areas](#)" in the Implementation Plan.

<sup>18</sup> The EU's Environmental Impact Assessment (EIA) Directive states that major building or development projects in the EU must first be assessed for their impact on the environment before starting the project. For more information, see: [https://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment\\_en](https://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment_en).

<sup>19</sup> UNDP's project "Improving resilience to floods in the Polog region" (2017-2023) aims to improve the region's capacity for flood risk management by enhancing regional authorities' and other stakeholders' understanding of and ability to manage flood risks. For more information, see: <https://www.undp.org/north-macedonia/projects/improving-resilience-floods-polog-region>

### 3. Improving co-operation formats between stakeholder groups

In addition to the priority topics above, stakeholders that took part in the process leading to this joint strategy document have identified a number of ways to improve co-operation across the four protected areas in the Shar/Šara Mountains and Korab Massif area to address climate-related security risks. The following section outlines practical ways on how to improve communication, exchange and institutional mechanisms for improved co-operation among the different stakeholder groups. These are general suggestions that emerged from the workshop, and are meant to be used as a guideline to develop more concrete co-operative actions between the concerned stakeholders.

#### Park Management

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- Establishing regular communication mechanisms between park directors, e.g. a Viber group using Google Translate to overcome language barriers, as well as between other staff of the park management at different levels, and between park management and other relevant institutions and CSOs;
- Expanding or creating different types of exchange opportunities among park management staff at different levels, focusing specifically on sharing experiences, concerns, and best practices, as well as outlining ways to enhance co-ordination to address shared climate-related security risks. Such exchanges could consist of:
  - regular meetings of the park management of all protected areas;
  - regular site visits of the park management to all protected areas as well as joint trainings and study trips abroad, e.g. to protected areas in Austria and Italy;
  - regular joint meetings of the park management with relevant ministries in Skopje, Tirana and Pristina;
  - regular joint meetings of the park management with the municipalities in the protected areas;
  - regular joint meetings of the park management with CSOs involved in environmental protection and conservation, as well as other topics of relevance to the protected areas;
- Improving interpersonal relationships between park management staff across the protected areas through team building and social activities;
- Developing a joint strategy for collaboration and activities between parks, e.g. on sustainable tourism, nature conservation, fire management and preventing illegal logging and hunting;
- Organizing a joint training for (small scale) project applications;
- Preparing a shared strategy for donor engagement to get access to funding for cross-regional initiatives, especially in the context of addressing climate-related and environmental challenges, and invite donors to joint meetings to realize the strategy's objectives.

#### Civil Society Organizations (CSOs)

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- Creating networking opportunities such as in the context of workshops or trainings with a focus on climate-related and environmental challenges, as well as other topics of relevance to CSO's activities in the protected areas, to familiarize all stakeholders and organizations with current and future challenges, and to encourage trust-building, knowledge exchange and capacities building for joint monitoring and reporting practices;
- Establishing a mentoring program: larger CSOs with more experience can act as mentors in the region and work with smaller CSOs on issues such as project management, project language and financial and narrative reporting to donors;
- Supporting networks of women's organizations across the region, for example through capacity-building and trainings on relevant topics, project management and donors' relations, and encouraging

exchange of experiences between organizations across regions, as well as, where relevant, within the EU and internationally;

- Organizing joint applications for EU funds to tackle the climate-related security challenges identified above across the protected areas and to create synergies between the different activities of the CSOs at an early stage to maximize the impact of funded interventions;
- Carrying out joint activities for environmental protection to increase public awareness of challenges and opportunities for co-operation in all protected areas, with a particular focus on the youth;
- Including Local Action Groups (LAGs) into work of CSOs, e.g. Friends of Shar, LAG Sharri, and LAG Korab-Koritnik, for further co-operation.

### **Ministries**

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- Organizing bi-annual meetings and peer-to-peer site visits to establish regular contact between relevant Ministries and other stakeholders with a view to improve mutual understanding of climate-related security challenges in the protected areas and dialogue towards identifying cross-sectoral co-operation opportunities to tackle them;
- Improving communication:
  - Establishing a joint platform (website) in partnership with municipalities to exchange information and create opportunities for follow ups and future implementation of co-operation activities;
  - Appointing focal points to co-ordinate regular exchanges between the relevant ministries that have responsibilities for the protection and management of the protected areas;
- Establishing a commission for consideration of climate-related security issues and their impacts in the protected areas between the relevant decision-making authorities at the highest level; this could be done, for example, through the signing of a Memorandum of Understanding that sets out the terms and mandate for such commission to function as a motor of co-operation for addressing these challenges;
- Establishing a joint inventory of relevant activities tackling climate-related security issues in the protected areas – this could be managed by the abovementioned tri-party commission, for example.

### **Municipalities**

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- Organizing regular meetings between municipalities in the protected areas (involving, when possible, local communities), including, for example:
  - Joint conferences with park management to establish and consolidate relationships, discuss shared climate-related security challenges, and create a framework for co-operation (e.g. through Memorandums of Understanding) to address them;
  - Ad-hoc and regular thematic meetings to discuss common challenges and identify joint solutions; these could bring in experts e.g. from the academia to discuss specific scientific/technical aspects, and to provide different perspectives and solutions to the problems at hand;
- Organizing joint cultural activities in co-operation with park management such as fairs and festivals, which would help boost local economies by attracting tourism and provide additional economic opportunities for climate-sensitive livelihoods;
- Jointly identifying the institutional and legal challenges that hinder co-operation between municipalities and other stakeholders of the four protected areas, e.g. different legal frameworks, as a first step towards addressing them;
- Establishing direct communication channels in protected areas to readily share and discuss common challenges as they occur, for example, in cases of fires or illegal activities.



## 4. Implementation plan

The main objective of this strategy is to strengthen co-operation between protected areas in the Shar/Šara Mountains and Korab Massif Area to address climate-related security risks. Contributing to this objective is the strategy's implementation plan, which includes **eight initial joint project concepts involving stakeholders across all four protected areas**. These result from the OSCE-adelphi November 2022 workshop in Mavrovo, during which participants took the identified priorities for co-operation (see section 3) as a basis to define initial project outlines for joint risk reduction measures.

In this section, each project idea is structured as follows: (1) a working title, (2) expected results, (3) main activities, (4) target groups, (5) envisaged co-operation benefits, including how such co-operation could help address climate-related security risks, and (6) gender considerations. The descriptions are kept at a general level, as they are intended to act as a **starting point for more detailed project concept notes** to be developed for bilateral, regional and international donors and organizations for their funding and implementation. In addition, each project concept includes a rough estimate of the respective timeframes, costs, and key sectors to be included, the details of which could be further spelled out and adapted based on donors' interests and resource availability.

### Overview of project concepts:

1. Support the co-operation between park authorities and enforcement bodies for the prevention of illegal logging, illegal hunting and the smuggling of wildlife (illegal logging and hunting)
2. Fire Resilient Protected Areas: Shar/Šara Mountains and Korab Massif Area (fire management)
3. Handcrafted bridges across the Shar/Šara Mountains and Korab Massif Area (local livelihoods and cultural heritage)
4. Cultural incubator – BLOOM (local livelihoods and cultural heritage)
5. Digital Promotion of Tourism in the Protected Areas (sustainable tourism)
6. Visit Us and Recognize our Values (sustainable tourism)
7. Joint conservation of endemic and endangered animal species in the Shar/Šara Mountains and Korab Massif Area (nature conservation)
8. Promoting joint ZERO waste principles and practices within the four protected areas (water and waste management and construction)

#### 4.1 Project: Support the co-operation between park authorities and enforcement bodies for the prevention of illegal logging, illegal hunting and the smuggling of wildlife

illegal logging and hunting

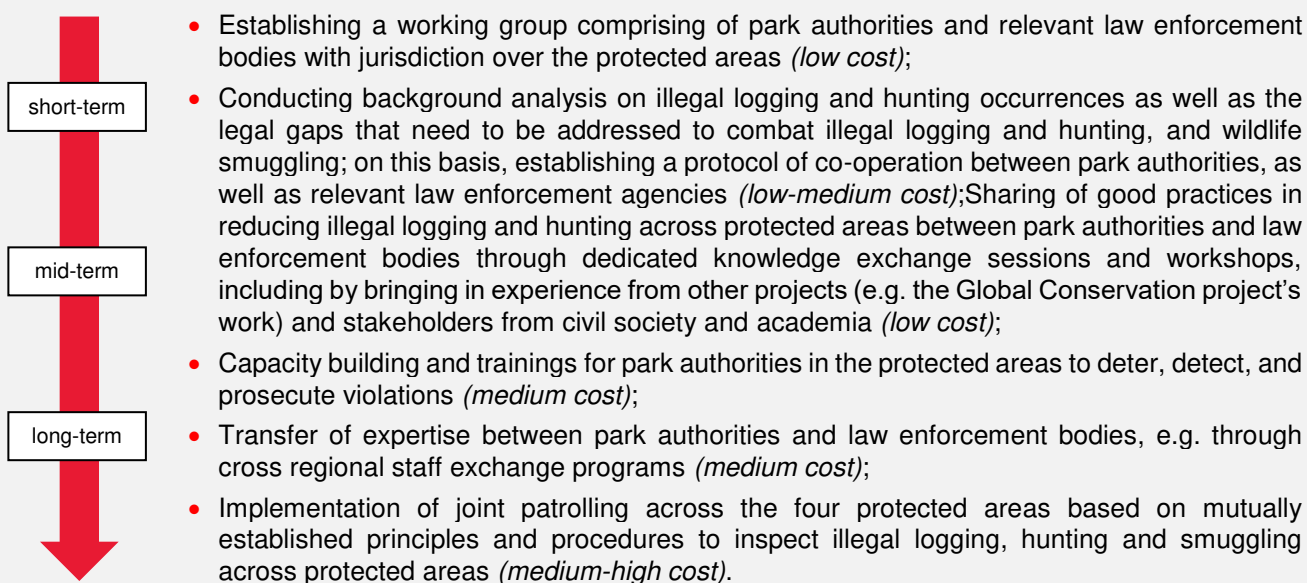
environmental protection

rule of law

##### Expected results:

1. Enhanced dialog and joint action to address illegal logging and hunting between park authorities and relevant law enforcement bodies with jurisdiction over the protected areas;
2. Reduction of illegal logging and hunting as well as wildlife smuggling in the protected areas.

##### Main activities:



##### Target group:

Park authorities, rangers, forest administration and guards, municipal officials, law enforcement bodies, such as inspectorates and police at local/municipal level in the protected areas, and CSOs working on awareness-raising, policy advocacy, and research on environmental issues.

##### Co-operation:

The project will improve co-operation by establishing regular contacts and increasing knowledge exchange and joint action among park authorities, municipal authorities, and enforcement bodies. In doing so, the project addresses the shared security challenges stemming from the combined impacts of climate change and illegal activities on forests, biodiversity and livelihoods in the protected areas.

##### Gender:

The project will ensure that project activities and outcomes are gender balanced and encourage the engagement of women in the capacity building and training component of the project.

## 4.2 Project: Fire Resilient Protected Areas: Shar/Šara Mountains and Korab Massif Area

fire management

prevention

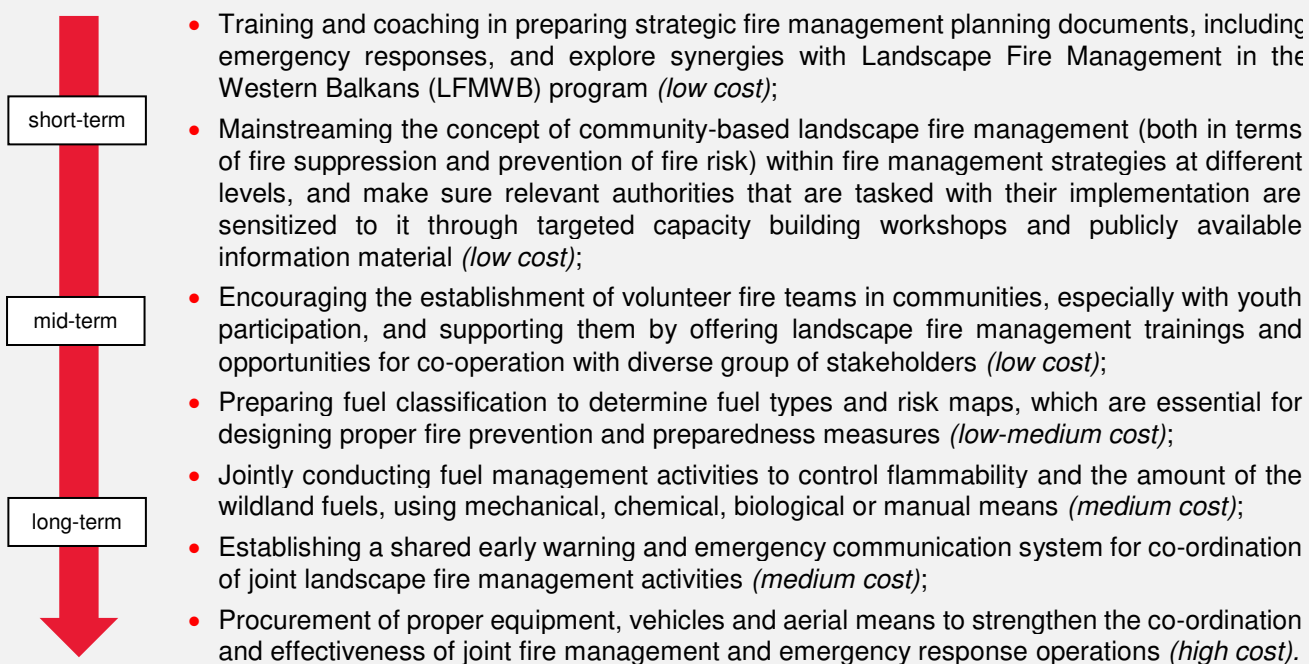
disaster risk management

community-based solutions

### Expected results:

1. Strengthened fire prevention and preparedness capacities;
2. Improved landscape fire management through community involvement;
3. Increased resilience to landscape fire and climate change.

### Main activities:



### Target group:

Staff of park management, local communities living in the protected areas, youth, local self-governance units (including municipalities and village unit representatives), relevant ministries, Regional Fire Monitoring Center (RFMC), emergency services, environmental associations, CSOs, and others.

### Co-operation:

The project will strengthen co-operation and exchange of human resources, knowledge and information, and equipment for fire management between the protected areas. With climate change expected to create conditions that are more conducive to the spread and severity of fires, the project also addresses the growing security risks presented by fires on local communities and ecosystems.

### Gender:

Attention will be paid to ensuring that project's beneficiaries include both women and men; participation of women in volunteer fire brigades will be encouraged; targeted, gender-sensitive training will be provided to all participants.

### 4.3 Project: Handcrafted bridges across the Shar/Šara Mountains and Korab Massif Area

local livelihoods

cultural heritage

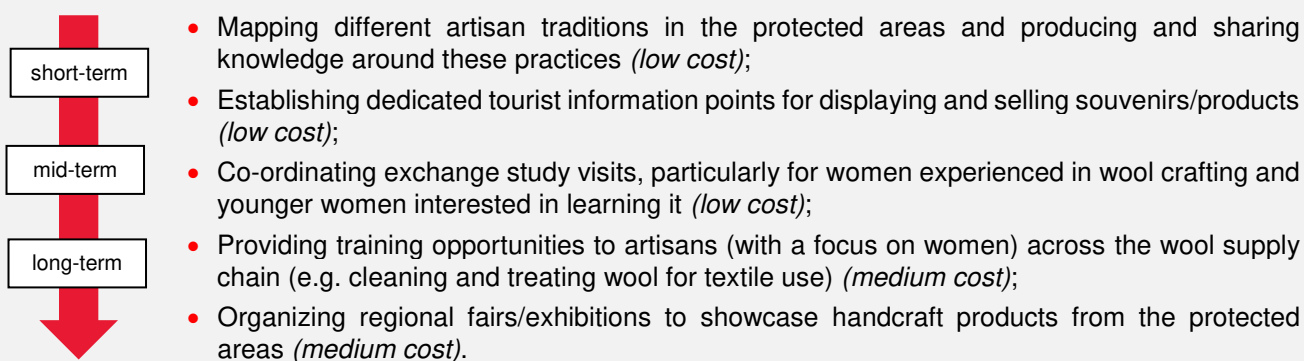
rural development

economic empowerment

#### Expected results:

1. Knowledge transfer for traditional handcrafted wool products (carpets, jewelry, socks and other clothing) across generations of women in protected areas;
2. Increased tourism potential in the protected areas linked to the production and commercialization of local and/or traditional souvenirs and products from the region;
3. Increased income opportunities for rural women, including young women;
4. Increased attractiveness of sustainable clothing for local producers, including in light of its potential to generate revenue from local and international tourism.

#### Main activities:



#### Target group:

Experienced rural women will primarily transfer the knowledge to younger women or in general women that are interested in this sector in the protected areas; however, interested men will also be encouraged to get involved. Young students in design and fashion industry will be invited to take part in the project's activities with a view to learn about the process and contribute new ideas to the range of traditional souvenirs produced. The tourism sector and guest houses will be involved in the last phase of the project to potentially sell and/or buy the products. Municipalities will also benefit from the project through increased tourism and tourism-related revenues.

#### Co-operation:

The project enhances the co-operation among women in the protected areas. The activities build up cultural bridges for future co-operation. At the same time, the focus on women ensures that those who are disproportionately impacted by climate-related security risks are given the support they need to strengthen climate resilience.

#### Gender:

The project will focus on promoting women's employment in the protected areas, especially on cultural and natural heritage and in education. It explicitly plans to reach women through rural networks of women's organizations, guest houses, peace corps volunteers, village representatives, municipalities, and local NGOs.

#### 4.4 Project: Cultural incubator – BLOOM

local livelihoods

cultural heritage

rural development

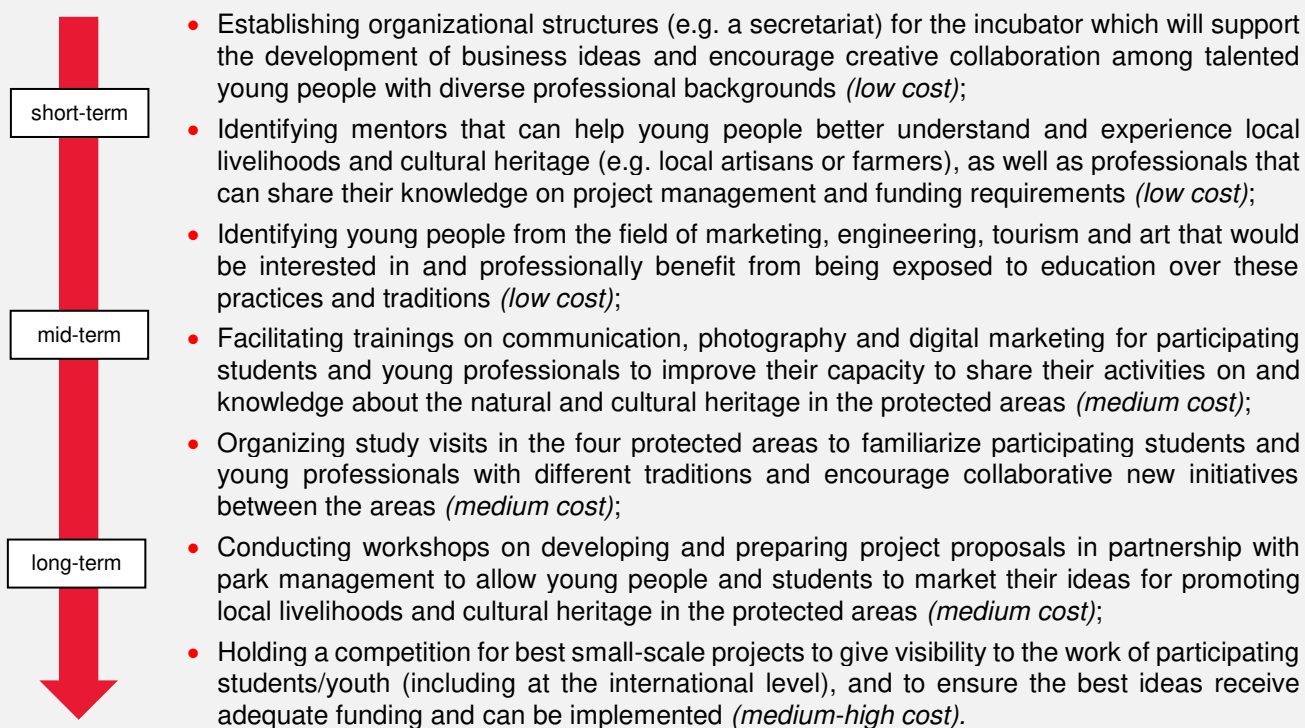
intergenerational exchange

social inclusion

##### Expected results:

1. Increased awareness of natural and cultural heritage in the Shar/Šara Mountains and Korab Massif Area among young population;
2. Increased practical and professional opportunities for young students and early graduates;
3. Trained young participants who can develop, fundraise for and implement small-scale projects aimed at promoting local livelihoods and cultural heritage in the protected areas;
4. Promotion and increased awareness of the cultural and interethnic diversity that characterizes the four protected areas.

##### Main activities:



##### Target group:

Students, young graduates, unemployed people from urban and rural areas from the protected areas; secondary target group includes local NGOs, municipalities and park management.

##### Co-operation:

The project will initiate co-operation among young professionals in the region; the network of mentors can also enhance future co-operation. The project can improve the image of the protected areas among young people and inspire them to contribute to their socio-economic and sustainable development. Through its focus on the youth, the project could provide an important entry point for stronger collaboration among the youth across the region to address common challenges arising from climate-related impacts.

##### Gender:

The project aims at targeting small teams of 3-5 young people from each protected area, including at least two women per team to ensure adequate gender diversity in the final composition of the project's beneficiaries.

#### 4.5 Project: Digital Promotion of Tourism in the Protected Areas

sustainable tourism

rural development

digitalisation

marketing

networking

##### Expected results:

1. Promotion of local products and services, businesses and cultural heritage of the protected areas and increased attention from tourists, including internationally;
2. Development of a joint website for promoting sustainable tourism in the four protected areas;
3. Increased income from the sale of local products and services, as well as events and activities organized in the protected areas.

##### Main activities:



##### Target group:

Local population, local, regional and international tourists, business owners and business customers.

##### Co-operation:

The project presents opportunities for mutual co-operation, exchange of experience and information, implementation of joint activities and meetings, as well as a unified representation of the protected areas to the public. Furthermore, by promoting the tourism sector and providing economic opportunities to local communities, the project offers alternative livelihood sources thereby strengthening local resilience to climate-related risks.

##### Gender:

The project will ensure the employment and involvement of women and youth in business opportunities and the promotion of women through network association in the protected areas.

<sup>20</sup> Building on previous activities in the area such as the [High Scardus Trail](#), a long-distance hiking and mountain biking trail in the West Balkans that passes through the Shar/Sara Mountains and Korab Massif area or the PONT-funded Green Build Coalition in the protected areas which aims, among other things, to establish an online GIS platform to support eco-tourism activities while at the same time collect biodiversity data (information from representative of PONT).

#### 4.6 Project: Visit Us and Recognize our Values

sustainable tourism

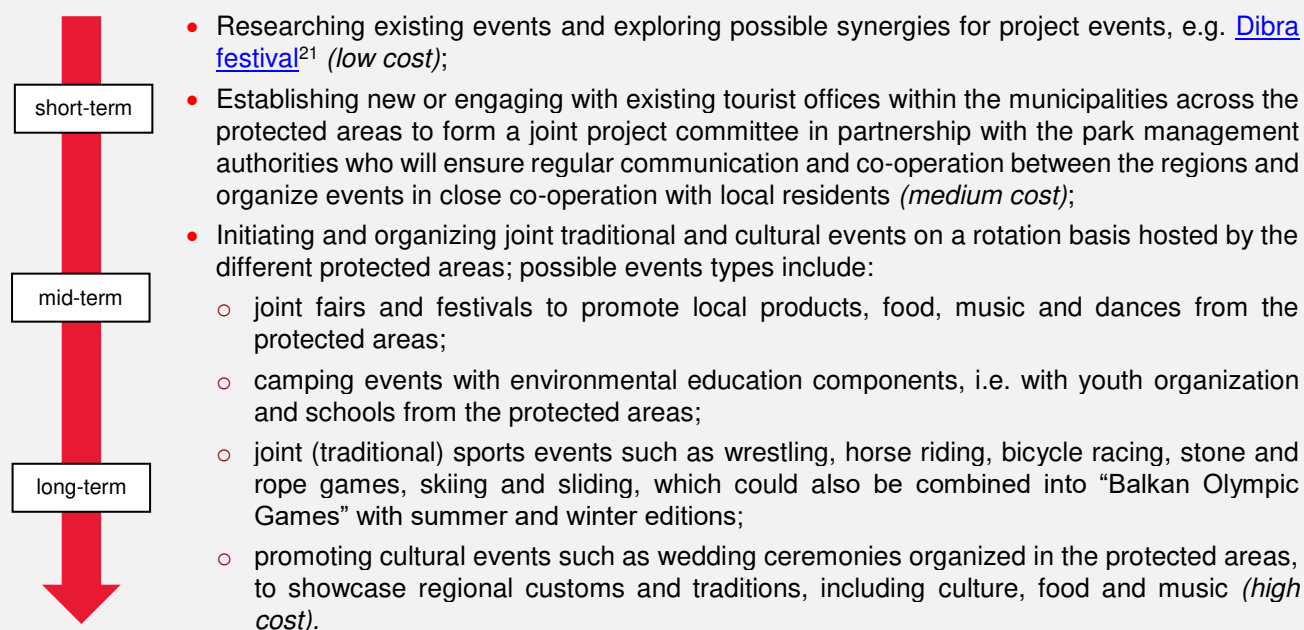
cultural heritage

intercultural exchange

##### Expected results:

1. Promotion of tourism and cultural heritage in the protected areas;
2. Increased income for local catering and business;
3. Increased involvement of women and youth in the promotion of cultural events and in doing business.

##### Main activities:



##### Target group:

Municipalities, including organizing committees, local residents, artists and businesses as well as tourists and visitors.

##### Co-operation:

The project will increase co-operation and exchange between the protected areas by jointly organizing and promoting traditional and cultural events as well as greater awareness of shared traditions, customs and culture in the region. By building co-operation and a sense of cultural attachment and connectivity between communities, the project could provide an important entry point for further collaboration to address other risks stemming from climate impacts.

##### Gender:

Promotion and inclusion of women and youth as producers of local goods and services, potential business opportunities and cultural activities.

<sup>21</sup> The annual [Oda Dibrane Festival](#) is a folklore festival celebrating the regional cultural heritage by performing traditional songs and dancing.

#### 4.7 Project: Joint conservation of endemic and endangered animal species in the Shar/Šara Mountains and Korab Massif Area

nature conservation

biodiversity

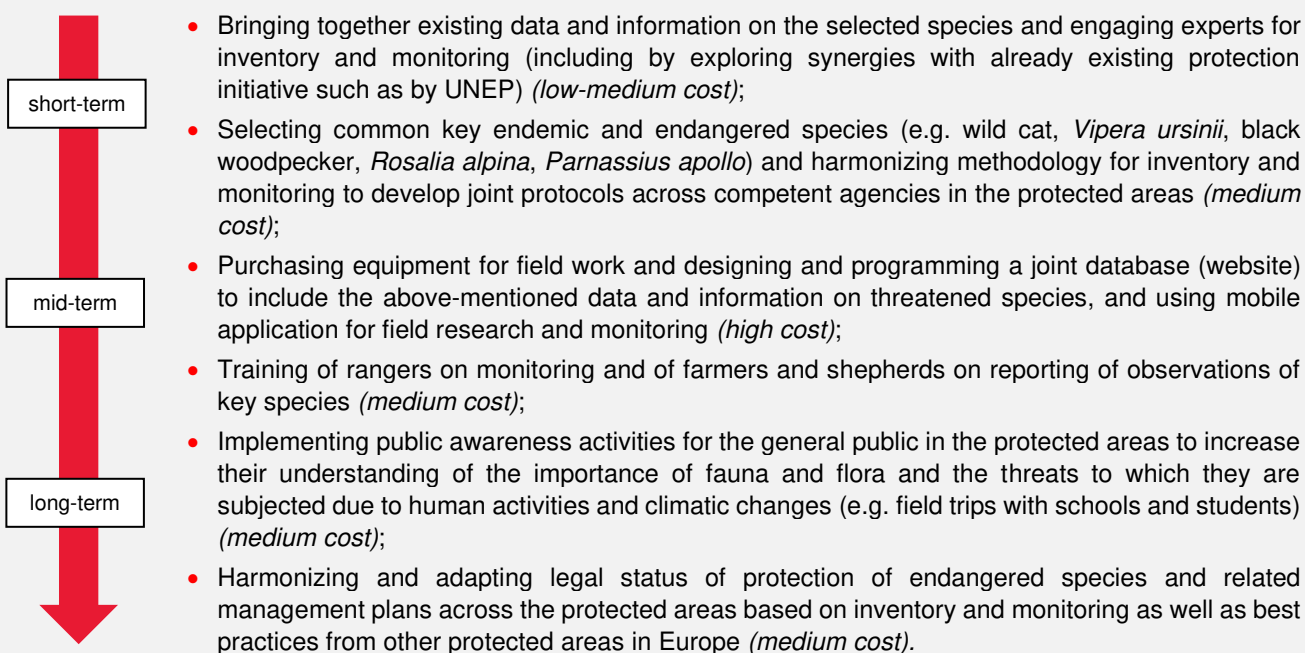
environmental protection

environmental education

##### Expected results:

1. Shared monitoring protocols and improved capacities of monitoring personnel, including rangers, in and across the protected areas;
2. Evidence of presence and distribution of endangered species;
3. Better knowledge about the impact of human activities and climate change on endangered species; adequate conservation measures developed on this basis;
4. Increased public awareness related to conservation, including taking into account the current and projected impacts of climate change;
5. Harmonized legal base of protection status across the protected areas.

##### Main activities:



##### Target group:

Park management, relevant ministries/administration of nature protection and inspectorates, environmental/ nature protection experts, municipalities, NGOs, general public/local population (especially farmers), hunting associations and schools in the protected areas.

##### Co-operation:

The project will improve co-operation between park management and other institutions through harmonized joint conservation actions in the protected areas. As such, the project empowers park management and other key stakeholders to collectively address both human- and climate-related risks that threaten local biodiversity, and consequently strengthen the resilience of local communities that are dependent on ecosystem services.

##### Gender:

Engagement of female researchers and trainers throughout all project's activities; involvement of women from local population in public awareness activities.



#### 4.8 Project: Promoting joint ZERO waste principles and practices within the four protected areas

water management

waste management

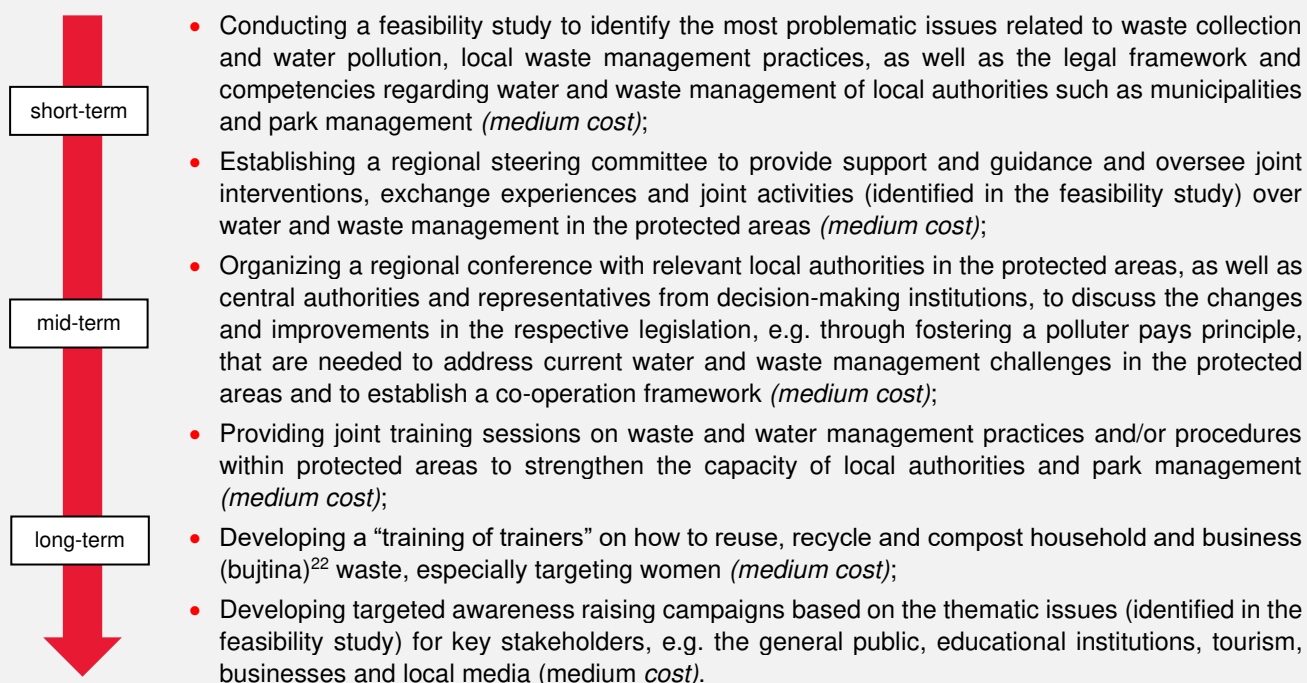
environmental protection

environmental education

##### Expected results:

1. Community and local authorities are better equipped with knowledge about the concept and practice of reuse, recycle and composting of waste;
2. Communities and local authorities embrace opportunities for co-operation and exchange best practices on how to reduce waste;
3. Waste is reduced by approximately 10-30% in the four protected areas, which will have concrete impacts in terms of reducing surface water pollution.

##### Main activities:



##### Target group:

Community at large, municipalities, local authorities, park management, educational institutions, local media, local businesses and tourism sector (e.g. tour operators and hotel owners).

##### Co-operation:

Jointly establishing regional practices to reduce waste will strengthen co-operation particularly between local authorities and park management across the four protected areas. Simultaneously, it could also enable local authorities and park management to collectively address the environmental risks associated with waste management.

##### Gender:

The project aims to have equal representation of women and men among the implementers and beneficiaries. The project will deliver targeted awareness raising campaigns for women and will strive to have equal representation in the steering committee. Also, through the “training of trainers” on household waste management, the project will ensure that women, who are often the main household caretakers (and, in some cases, house owners) in the region, can contribute directly to better waste management and train others within their community.

<sup>22</sup> Bujtina refers to traditional family-owned houses or establishments that have been repurposed for tourism accommodation and dining.