



ACTION PLAN FOR PREVENTION OF SOIL, AIR AND WATER ON DANUBE RIVER IN CROSS BORDER REGION NEGOTIN –MONTANA

**Project CB007.2.32.150 „Sustainable eco friendly region ", financed under the
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THEME

Action plan for prevention of soil, air and water on Danube river in cross border region Negotin –Montana

The proposed actions complement and build on already on-going activities in the Danube Region. The Strategic management requires an integrated approach - whilst improving transport infrastructure has a positive impact on elements such as the business environment, the attractiveness of cities and regions or the quality of life of citizens, it also has impacts on landscapes, biodiversity and air pollution. These cannot be taken in isolation, but have to be balanced against each other, in order to reach the most sustainable solution. Therefore, for the implementation of each priority area, it is important to identify the relevant of organizations and institutions, which can provide based on their specific area of expertise.

This Action Plan (AP) focuses on preserving biodiversity, landscapes and the quality of air, water and soils. The actions proposed will make a direct contribution to the Europe 2020 Strategy, specifically the goals of tackling climate change challenges, of developing sustainable use of resources (which include water, nature and land for instance) and of securing quality of life. Additionally, they will contribute to achieving the EU 2020 target and the 2050 Vision for Biodiversity and implementing the EU Biodiversity Strategy.

When it comes to preserving biodiversity or maintaining and improving the quality of soils and landscapes, coordination must be ensured between all actions overseen at national level. Full use should be made of the existing networking, coordination and cooperation instruments available.

BACKGROUND

Sturgeon species of the Danube basin have been well known as an ancient and highly valuable species, which have a strong economic and social impact on the life of the human population along the Danube River and the remaining rivers of the Black Sea Basin. From the middle of XX century the volume of the annual catches of sturgeons in the Lower Danube River has steadily decreased and this has been a clear signal of the unfavourable status of these populations (Bacalbasa-Dobrovici, 1997; Bacalbasa-Dobrovici and Patriche, 1999; Reinartz, 2002; Paraschiv and Sucio, 2006). Nowadays all sturgeon species in Bulgarian waters have drastically decreased in number (Vassilev and Pehlivanov, 2003; Bloesch at al., 2006) and two of them *A. sturio* and *A. nudiventris* seemed to be extinct (Bacalbasa-Dobrovic i and Holčik, 2000).

The reasons for this situation are well known. First of all, sturgeons' life history is characterized by a long-live span, late maturity, intermittent spawning frequencies and long migratory movements. On the other hand, negative human impact such as long-standing over-fishing, increased fishing pressure, destruction of the migration routes and water pollution resulted in drastic decrease of their number.

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CURRENT CONDITION AND CAUSE

Most aquatic ecosystems have the ability to cope with external stresses, but lately in some cases received signals (massive loss of biodiversity, the decline of fish stocks, etc.) are indicated that their natural resistance threshold was exceeded. Anadromous species are the ones that support transition from one environment to another (sea – river and vice versa), having the ability to accommodate fast pressure variations caused by environmental change, which is a decisive factor in the migration process. The migration route of sturgeons and even their final target, spawning is in constant dependence with aquatic environment and is defined by hydrodynamic parameters⁴. The environmental conditions changes can bring important modification on the way the sturgeon swims during its migration, that depend on one side on climatic factors (temperature, wind, precipitation), and on the other side on the transformations resulted of natural or anthropogenic hydrological processes⁵.

The destruction of spawning habitats and ways to access them due to human activities like poaching and hydraulic works on the water or natural factors through the formation of sandbanks. In this context, CITES (1973) promotes the development of recovery plans for endangered species, such as sturgeons⁸. Applying the principles of prevention and protection of the environment and natural habitats,

As the final predators in aquatic trophic chains, sturgeons are highly exposed to high levels of pollutant bioaccumulation in sediments (Poleksic et al., 2010). Their susceptibility to environmental contaminants comes from the high lipid content in their bodies and their specific life history, such as an extended time to maturity, prominent longevity and benthivorous diet (Kruse and Scarnecchia, 2002; Stanic et al., 2006; Webb et al., 2006). Pollution has been recognised as one of the key threats to survival of the sturgeon species (Williot et al., 2002; Agusa et al., 2004; Pikitch et al., 2005). It is believed that the main threat to sturgeons in the Upper Danube comes from habitat degradation, in the Middle Danube from the disruption of their migration routes by dam construction, whereas pollution and over-fishing are the major threats in the Lower Danube and the Black Sea (Bloesch, 2006). Political, social and economic changes in the LDR have also influenced sturgeon fisheries by the lack of strict fishing controls, which has resulted in increased pressure on sturgeons (Nikčević et al., 2004).

The most common types of impact, which are the cause for failure to achieve good environmental status in all River Basin Directorates (RBDs) are pollution by nutrients resulting in increased levels of nitrogen and phosphorus compounds and in the eutrophication of waters, and pollution by specific substances from industrial emitters. The main causes for such pollution are the discharge of untreated or insufficiently treated municipal wastewater, the discharge in insufficiently treated industrial wastewater,

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farming activities etc. A specific type of pressure for Danube RBDs is the pollution from old mining facilities, which results in higher concentrations of specific and priority substances in surface water bodies. The failure to achieve “good chemical status” for WBs assessed in all RBMPs is caused by the excess concentrations of priority substances from industrial sources and/or old pollution. For the Danube River Basin District, “good chemical status” could not be achieved due to the pollution of specific WBs by heavy metals: nickel, cadmium and trichloromethane. In the Danube River Basin District, the pollutants identified as having concentrations that exceed established quality standards are nitrates, phosphates, ammonium, chromium, iron, and manganese. The main sources emitting nutrient pollution of groundwaters are agriculture, settlements without waste water collecting systems, municipal landfills, illegal dumpsites; old contamination from past activities. Significant sources of heavy metal contamination (iron, chromium, manganese) for groundwaters are mainly industrial plants, mining facilities /tailings, landfills/dumps. In 2011, the average annual concentration of Particulate Matter (PM) PM10 at the RIEW-Montana station was 59.6 µg / m³ - 1.5 times above the norm for the average concentration limit. The exceedances are markedly seasonal - almost all registered exceedances are during the winter period - from October to April. The analysis of the results shows that the source with the most significant contribution to the formation of the high immission values of PM10 is the domestic heating, which for the most part is carried out on solid fuel. No excess of nitric oxide and sulfur dioxide were registered during this period. All other controlled atmospheric pollutants - nickel and polycyclic aromatic hydrocarbons are significantly below the respective maximum allowable concentrations and there are no lasting tendencies to increase their content in the atmospheric air. In the large municipalities of Montana, Lom and Berkovitsa, air pollution is affected by the activities of larger industrial sites. The technological equipment, including the dust collection systems, is morally and physically obsolete and cannot ensure the observance of the emission norms.

Almost the entire road infrastructure needs reconstructions or repairs. This contributes to a further increase in emissions of dust and harmful gases from transportation.

In connection with the implementation of Art. 27 of the SAA and Art. Art. 30 and 31 of Ordinance № 7 (SG, issue 45/1999) the Municipality of Montana has prepared Programs for reduction of the emissions and achievement of the established norms of harmful substances in the atmospheric air within the term, regulated in art. 31, para. 3 of the above-cited ordinance. The program for reducing the levels of PM10 and reaching the established norms for its content in the atmospheric air in the municipality of Montana for the period 2011 - 2014 was adopted by Decision of the Municipal Council - Montana № 629 with Protocol № 53 / 28.04.2011. The action plan to the program sets out a broad package of measures with the relevant codes, deadlines and responsibilities. The implementation of the measures set in the action plan to the municipal program continues.

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The protection, rational use and management of water resources is of paramount importance for sustainable development, both for the district and for the whole country. The implementation of the project for the Municipal Wastewater Treatment Plant of the city of Montana contributes to resolving some of the commitments under the Convention on Cooperation, Protection and Sustainable Use of the Danube River. Significant efforts are focused on building the water supply and sewerage network, which is a prerequisite for improving the quality of natural waters. There is a tendency to stop the deterioration of surface waters, stabilize the situation and slightly improve in some river sections. However, the area lags far behind in the construction of the sewerage network and the necessary treatment plants. No soil contamination with plant protection products has been detected in the Montana area. Soil pollution with persistent organic pollutants, incl. petroleum products is severely limited. Soil samples taken to determine soil contamination with heavy metals and metalloids do not show such. In recent years, there has been an increasing trend to reduce land and soil pollution. The limited use of pesticides and fertilizers in agriculture, organic farming and animal programs lead to a reduction in land and soil degradation.

Montana District has a share of protected areas - 1.87% - much smaller than the average (5.11%) for the country. The district has a much smaller share than the average level for the North-West region - 4.47%. Among the protected areas, natural parks predominate - 1.56% and protected areas - 0.23%. The other categories separately are below 0.1%. We believe that reserves for increasing the protected areas in terms of number and area exist mostly in protected areas and to some extent in natural landmarks. The protected areas cover approximately the same area as the entire NEM in the area. This is due to the fact that protected areas of Natura 2000 almost entirely fall into protected areas of NEM. The total protected areas in the district of Montana make up 39.48% of the total territory. Protected areas of The Habitats Directive, which occupies 31.40% of the district's territory predominate over the protected areas under the Birds Directive, accounting for 27.76%.

Climate change is mainly affected by global planetary change. In the Montana area, however, there are a number of local sources that contribute to increasing greenhouse gases in the atmosphere and climate change. Climate change is intensifying the processes of desertification. The tendencies in the change of the air temperatures are in the direction of slight warming and are well expressed in the direction of the northwest. It was found that the Western Stara Planina forms a barrier to the northeast, from which the warming in the Montana region begins with a change of 2.05, passes successively through 2.1, 2.15 and reaches over 2.2 oC in the northeastern parts of the district (up to Danube). There is a general increase in temperatures in summer and frequent warming in winter, leading to unstable snow cover. Floods are generated in the Bulgarian territory due to intensive snowmelt combined with rainfall in spring. Flash floods caused by relatively isolated heavy rainfalls in summer or high flows with long duration, which might affect the stability of the levees and subsequent flooding (this is an issue only along the Danube). The flood protection practices in Bulgaria comprise range of activities, more or less intensive in different regions, depending on the flood hazard level. Significant changes in the speed regime of the Danube

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River after the construction of the hydraulic complex "Iron Gate" in the Bulgarian sector have not been established. In terms of the content of heavy metals in the particles dissolved in the water, the Danube can be classified as polluted due to the fact that more than one third of the tested samples show higher than the permissible values. Fish, in turn, accumulate heavy metals both directly from water and through food. Accumulated amounts increase with age. This dependence is especially important for sturgeons in which this process of accumulation of heavy metals lasts for decades. Usually, the heavy metals contained in fish tissues are tens time more than in the surrounding water. Unfortunately, there is no data on the content of heavy metals in the tissues of sturgeon.

The Bulgarian-Romanian section of the Danube represents the richest in biodiversity as part of the largest European river. It is only in this part of the river where there are no river partition facilities to prevent the natural development of ecosystems. For the same reason, it is only at this lower section of the river where four sturgeon species can still be found and (although highly endangered) they still multiply (Raykova et al, 2004).

In the long term it is necessary to plan activities to ensure the adaptation of the area to climate change and reduce natural risks to acceptable levels, as well as to stimulate research to predict the regional and local impact of climate change. Protecting the banks and soils along the Danube from erosion and strengthening landslides are particularly important in preventing disasters in the Montana region. The activities set in the Regional Development Strategy of Montana district, that are planned to be implemented are aimed at:

- Creation and continuous updating of a database of risk areas and contaminated areas, construction of early warning systems for emerging hazards from floods, fires, activation of landslide areas;
- Cleaning of riverbeds and construction of protective facilities;
- Construction of facilities for erosion control, afforestation of deforested areas, sustainable land use;
- Carrying out anti-erosion measures, incl. creation of forests through afforestation and improving the quality of forest crops as factors for counteracting floods and the harmful effects of climate change;
- Modernization, strengthening and completion of protective facilities for the high waters of the Danube.

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STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREADS
<ul style="list-style-type: none"> • The Bulgarian section of the Danube represents the richest in biodiversity • Last mature population of sturgeons is still mating in the lower section of the Danube river • the Municipality of Montana has prepared Programs for reduction of the emissions and achievement of the established norms of harmful substances in the atmospheric air • Activities for disaster prevention are reflected in the Regional Development Strategy of Montana district • Ecological assessment for all Municipalities in the district were elaborated 	<ul style="list-style-type: none"> • The area lags far behind in the construction of the sewerage network and the necessary treatment plants • For the Danube River Basin District, “good chemical status” could not be achieved due to the pollution of specific WBs by heavy metals: nickel, cadmium and trichloromethane. • No unit at municipal level is having control on the reports submission and they are not submitted by the deadline • Montana District has a share of protected areas - 1.87% - much smaller than the average (5.11%) for the country. • Montana district geography and climate characteristics are predisposition for 	<ul style="list-style-type: none"> • To conduct on-going research, inventory and monitoring activities in regard to sturgeon species and habitats • Development of ambitious programs and concepts for reduction of pesticides and obsolete chemicals in general or in specific areas as well as on the initiation of hot spot management or restrictions for their application by establishing buffer strips or compensating areas. • To build capacities of local authorities in the environment-related matters • Implement guidance document to improve understanding of the key sector of EU nature legislation • Establishment of an expert 	<ul style="list-style-type: none"> • The poor social and economic condition of Montana district is prerequisite for taking ecology measures confined to basic needs of the local population of sewage, plumbing and ecological fuel stoves • Although Bulgaria is a member state in all international Conventions and officially adopted EU Action plans and Management strategies concerning the sturgeon population and habitats, no reflection into the Bulgarian legislation has been pursued. • No update to the Sturgeons Action plan in Bulgaria has been elaborated, which is another heavy gap in their preservation.

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	<p>vulnerability caused by climate change and anthropogenic impact</p>	<p>group to help regions and cities resolving various problems and a CB network for exchange of good practices.</p> <ul style="list-style-type: none"> • Improvement of cooperation with key sectors using implemented guidance document on EU nature legislation. 	<ul style="list-style-type: none"> • In sturgeons as long-lived species, the process of accumulation of heavy metals lasts for decades; • In the Montana area a number of local sources contribute to increasing greenhouse gases in the atmosphere and climate change • Delayed ecological assessment reports by the separated municipalities in the region would cause delayed and untimely measures in solving the problems of climate change and anthropogenic impacts, and the CB area is highly endangered by these factors.
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BUILD ON STRENGTHS	OVERCOMING WEAKNESS	USE OF OPPORTUNITIES	PROTECTION FROM THREADS
<ul style="list-style-type: none"> • On-going mapping and securing habitats, enabling sturgeon migration, whilst harmonization of Monitoring Programmes; • Science-based cross-border monitoring and management of sturgeons through facilitating stakeholder collaboration (especially between enforcement agencies and nature conservation institutions) for coordinated implementation of measures for preventing and tackling illegal killings and securing critical habitats. • To ensure capacity building regarding the development of Strategic Environmental Assessments and their use in decision making processes 	<ul style="list-style-type: none"> • To complete the establishment of the Natura 2000 network and ensure good management implementation of the Pan-European action plan for sturgeon conservation through enforcement of the sturgeon catch moratoriums / restrictions across borders, preparing the governance and funding framework for ex-situ conservation measures • To study various issues related to the state and use of land and soils in the Danube Region, incl. land and soil availability and quality, land and soil-related risks and the preservation and restoration of above and belowground ecosystems and biodiversity 	<ul style="list-style-type: none"> • Encouraging elaboration of projects concerning sturgeons and their ecological requirements and more active participation of public authorities, NGOs and science organizations in such initiatives in the CB area. • To identify modern approaches of habitat restoration of endangered species from soil, water and air pollution and to design strategic and planned activities for implementation of these approaches to the affected CB areas by bringing together the efforts of public authorities, scientists, NGOs by applying international experience in these areas and sustainable cooperation 	<ul style="list-style-type: none"> • To include special section in the RBMP for measures and obligatory actions for preservation of sturgeon species in the Danube river as well as habitats preservation and restoration not only in the Danube river but also at other sturgeons' historical sites in the CB area; • Integrated waste management systems should be established and implemented on national, regional and local level. The development of waste management centers for municipal and non-hazardous waste is needed, as well as rehabilitation and closure of incompliant landfills and highly polluted and contaminated sites and

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<ul style="list-style-type: none"> • To enhance the flow of ecosystem services and prepare the restoration activities, with an emphasis on those that require trans-border restoration and/or cooperation and those involving economic stakeholders • 	<ul style="list-style-type: none"> • In order to achieve the sustainable use of pesticides, a framework for the Community action must be established, countries of the CB Region should use efficiently the possibilities of the Pesticide Framework Directive (PFD) • • • 	<p>within these organizations</p> <ul style="list-style-type: none"> • To create green infrastructure in the CB area, which will develop the economy and will improve life condition of the population in the area but also will provide platform for future joint initiatives interlinking the experience and the potential of all stakeholders in the region. 	<p>wild dumps.</p> <ul style="list-style-type: none"> • Scientific research on sturgeons' ecology and consequences from heavy metals and other chemicals on their status must be elaborated and included in updated Sturgeon Action Plan • At local level, measures are required to control diffuse emission sources from domestic heating and traffic, accompanied by structural and behavior changes. • To create regional control groups for tracing all legal documents, reports ect. are prepared and submitted within the deadline
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TARGET CONDITION

Proposed Process Diagram, Countermeasures, Measurable Targets
Achieve the management objectives set out in the Danube River Basin Management Plan
Reduce the nutrient levels in the Danube River to allow the recovery of the Black Sea ecosystems to conditions similar to the ones present in 1960s
Elaborate a Danube Analysis Report as a step towards completion of the Management Plan
Secure sustainable populations of Danube sturgeon species
Elaborate, adopt and implement the sub-basin management plans,
By 2030 strengthen the work on halting the deterioration in the status of all species and habitats covered by EU nature legislation in order to achieve a significant and measurable improvement, adapted to the special needs of the respective species and habitats in the Danube Region
Enhance the work on establishing green infrastructure and the process of restoration of at least 15% of degraded ecosystems (including soil), in order to enhance and maintain ecosystems and their services by 2030 in the Danube Region and to improve air quality
Continue the ongoing work and efforts to secure viable populations of Danube sturgeon species and other indigenous fish species by 2030

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IMPLEMENTATION PLAN

WHAT?	To contribute to the 2050 EU vision and 2020 EU target for biodiversity	To manage Natura 2000 sites and other protected areas effectively	To protect and restore most valuable ecosystems and endangered animal species	To develop green infrastructure in order to connect different biogeographic regions and habitats	To decrease the input of pesticides into the environment of the Danube Region To remove safely obsolete pesticides and other obsolete chemicals in the area of Danube Region	To prepare and implement transnational spatial planning and development policies for functional geographical areas (river basins, mountain ranges etc.)	To ensure appropriate treatment of solid waste	To raise awareness about soil protection	To decrease air pollutants	To raise awareness of the general public, by acknowledging and promoting the potentials of natural assets as drivers of sustainable regional development To educate children and young people	To build capacities of local authorities in the environment-related matters
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WHO?	<p>Person Responsible</p> <p>The CB project partners, ensure the implementation of the AP on policy level (e.g. by agreeing on planning, with targets, indicators and timetables, and by ensuring wide contacts between project promoters, programmes and funding sources, and by providing technical assistance and advice). Their work is trans-national, inter-sectorial and inter-institutional. However, involvement of executives, stakeholders and their networking connections with different organizations (Civil Society, NGO's, Scientific Community, Policy level) at different levels (local, regional, national, EU) is one of the basic principles of the implementation of project idea. Stakeholder involvement is reflected mainly by their participation, composition and organisation of the CB Task Force (TF). The Task Forces are generally open to any stakeholder interested in the topic and willing to contribute to the implementation of the respective work programme. In the past period, wide and organised stakeholder networks have been growing, mainly through the Task Force works. Currently, following Task Forces are established and active:</p> <ul style="list-style-type: none"> • Danube Sturgeon Task Force (DSTF) • Danube Region Invasive Alien Species Network (DIAS) • Danubeparks - Network of protected areas • Soil Strategy Network in the Danube Region (SONDAR) • Task Force on Air Quality (TFAQ) • Task Force on pesticides and chemicals (TFPC) • Working Group Masterplan Bavarian Danube (WGMPBD) <p>The composition of the Task Forces can generally be seen as a positive experience, as in many cases for the first time executives from civil society, the scientific community and policy level from different regions and countries come together to jointly work on a common issue. The existing need to connect NGO's and stakeholders from nature protection and biodiversity to the policy level has been the main driver of process implementation and provides a solid ground to further develop concrete activities and project proposals.</p>
WHEN?	<p>All actions deadlines are a subject of mutual agreement between project partners and related stakeholders and organizations. They are planned to start immediately in consistency ensuring overlap of activities and full utilization of the capacity of the project participants</p>

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WHERE?	The Action Plan covers the Lower Danube River at the cross-border area Montana-Negotin and is not limited in applying the results to other cross-border regions in the Danube Basin.
COST	According to conducted financial analysis of implementation of the AP



	PLAN	RESULTS
FOLLOW-UP	<ul style="list-style-type: none"> ➤ Implementation Report- at completion of each action ➤ Annual report – with analysis of the results, needs and challenges ➤ Final report 	<ul style="list-style-type: none"> • actions that require or could strongly benefit from transnational and/or (trans)regional cooperation in their implementation; • actions that go beyond existing national obligations, but add certain value by bringing more countries into the development and/or implementation process and have an impact on the regional level; • actions that ensure consistency, sustainability and more targeted use of EU funding streams (or pooling the resources available on national level); • actions that could help to mainstream new global and European processes related to environmental and nature conservation, thus fostering cohesion on the regional level; • strengthening the cooperation with other EUSDR PAs (especially Pillar II PAs) and macro-regional strategies in order to identify stronger synergies and avoid duplication of work.

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
To manage Natura 2000 sites and other protected areas effectively	Halting the deterioration in the status of all species and habitats covered by EU nature legislation	Research, inventory and monitoring activities (especially, in regard to sturgeon species and habitats of European and national importance), as well as addressing the conflicts with humans and illegal trade with wild animals. Activities resulting in enhanced protection of the remaining natural ecosystems (such as the Lower Danube), wetlands restoration, afforestation of non-arable land, protection of marginal forests and bioremediation of highly impacted areas	<p>Achievement a significant and measurable improvement, adapted to the special needs of the Sturgeon species and habitats in the Danube Region;</p> <p>Contributing to the 2050 EU vision and 2020 EU target for biodiversity</p> <p>Raising awareness of the general public, by acknowledging and promoting the potentials of natural assets as drivers of sustainable regional development</p>	HIGH	CB TF MoEW, NAFA, MAFF NGOs Scientific organizations	12/2025	OPEN
	Assessment of Lower Danube Region according to assessment of conservation status and effectiveness of measures (management framework of Natura 2000 sites)	Based on initiatives of WWF, IAD and other NGOs and networks, a long-term strategy on the conservation of Sturgeon Species in the Lower Danube to be developed. Member States must report every six years about the progress made with the implementation of the Habitats Directive. Mapping and securing habitats, enabling sturgeon migration, and harmonization of Monitoring Programmes; Science-based cross-border monitoring and management of large carnivores, in particular	Monitoring and reporting under the Directive is focusing on maintaining and/or restoring a favourable conservation status for habitat types and species of community interest. Though this is a national obligation regulated by national legislation, this action could help ensure consistency and sustainability in monitoring, reporting and further use of collected data. Furthermore, it could facilitate better management of trans-boundary Natura 2000 sites and/or identification of more suitable conservation measures that	HIGH	CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations	12/2023	OPEN

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		through facilitating stakeholder collaboration (especially between enforcement agencies and nature conservation institutions) for coordinated implementation of measures for preventing and tackling illegal killings and securing critical habitats.	are specific to the Lower Danube region and/or need to be implemented on a regional scale. Providing perfect platform for identification of consistent and sustainable priority actions that could help ensure sturgeon conservation in the Lower Danube Region, but also enables more targeted use of EU funding streams and pooling of available resources. Networking and cooperation between different stakeholders (mostly public authorities and environmental NGOs) helps to strengthen their capacities and to make more impact at the decision making and policy level.				
	Elaboration of River Basin Management Plan concerned in sturgeon preservation	To implement fully the Danube River Basin Management Plan concerning sturgeons in the CB area To continue to invest in and support the information collection systems already developed local and international authorities, To support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyse and identify the best response to flood risk (including “green infrastructure”).	To strengthen general awareness and facilitate exchange of good practice in integrated water management issues in the Danube Basin among decision-makers at all levels and among the population of the Region, Ensure adequate financing of Natura 2000 sites Improve and streamline monitoring and reporting.	HIGH	CB TF MoEW, NAFA, MAFF and other public authorities NGOs	06/2021	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		To complete the establishment of the Natura 2000 network and ensure good management implementation of the Pan-European action plan for sturgeon conservation through enforcement of the sturgeon catch moratoriums / restrictions across borders, preparing the governance and funding framework for ex-situ conservation measures					
To develop green infrastructure in order to connect different biogeographic regions and habitats prepare and implement transnational spatial planning	To assess opportunities for connecting sturgeon habitats in the CB area	Scientific research to find new ways for connecting habitats, consultations with relevant communities and stakeholders, careful and integrated spatial planning to develop and apply practices and technologies for economic investments and infrastructural development benefiting biodiversity	<p>Identification of (general, common) activities and their implementation on the (trans)regional level would help ensure consistency and sustainability of deployment of green infrastructure in urban and rural areas of the Lower Danube Region, as well as more targeted use of EU funding streams.</p> <p>Perfect platform for identification of consistent and sustainable priority activities needed to promote and enable the implementation of green corridors which would benefit the nature conservation on a larger (trans-/regional) scale.</p>	MEDIUM	CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations	12/2023	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
	To develop policies for functional geographical areas (river basins, mountain ranges etc.)	<p>To develop coordinated spatial planning policies focusing on the protection and at the same time sustainable development of the functional geographical areas, based on its strengths and potential.</p> <p>To contribute to the 2050 EU vision and 2020 EU target for biodiversity, To manage Natura 2000 sites and other protected areas effectively,</p> <p>To protect and restore most valuable ecosystems and endangered animal species,</p> <p>To develop green infrastructure in order to connect different bio-geographic regions and habitats</p>	<p>Providing good example of integrated management of protected areas and natural assets in a transnational context. Both the approach and accumulated knowledge could be transferred to other parts of the Danube Region.</p> <p>Conservation of ecosystems and natural assets, along with the assertion of a sustainable growth perspective would contribute to the enhancement of the quality of life and employment opportunities for local population benefit from regional approach. Collaboration would help avoid the duplication of work, but also ensure consistency, sustainability, relevant stakeholder involvement and more targeted use of EU funding streams.</p> <p>Further collaboration should be maintained, while the opportunity for stronger interlinkage is addressed, particularly with those that feature similar (synergized) objectives deriving from EU 2020 biodiversity strategy - e.g. regarding Natura 2000 network,</p>	MEDIUM	Public authorities NGOs Scientific organizations	06/2021	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
			green infrastructure, restoration of degraded ecosystems, invasive alien species management etc				
	Elaboration on green corridor for sturgeons at the CB area	<p>Integrated spatial development and conservation planning, i.e. better communication, knowledge and data sharing between environmental, transport and spatial planning sectors.</p> <p>Green infrastructure is recognised as a great potential for mainstreaming biodiversity into other sectors and must be included in national Ops.</p> <p>To maintain and restore critical Green and Blue Infrastructure elements through integrated spatial, development and conservation activities</p> <p>Proposed aim of this action would be to:</p> <ul style="list-style-type: none"> map key cross-country blue and 	<p>In order to develop consistent and sustainable network of ecological (green) corridors through implementation of Green and/or Blue-Green infrastructure, transregional cooperation with EUSALP, EUSAIR and EUSBSR is imperative. Moreover, this action relates to the work of GIIR – Green Infrastructure Implementation and Restoration working group Prioritisation Framework - WG GI-RPF), since main objectives of the WG are: to support the implementation of actions of the GI Strategy, to provide a platform for sharing best practices on GI deployment, and to address the linkages between the restoration of degraded ecosystems</p>	HIGH	<p>CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations Concerned International organizations, executives and other stakeholders</p>	12/2025	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		<p>green infrastructure elements in the region and facilitate agreement on management targets;</p> <ul style="list-style-type: none"> • improve the communication, knowledge and data sharing between environmental, transport and spatial planning sectors; • ensure capacity building regarding the development of Strategic Environmental Assessments and their use in decision making processes; identify (map) the areas that need to be restored in order to enhance the flow of ecosystem services and prepare the restoration activities, with an emphasis on those that require trans-border restoration and/or cooperation and those involving economic stakeholders 	<p>and the deployment of GI. There is also a link and potential for cooperation with the European Green Belt Association that aims to restore and/or conserve natural heritage and function as an ecological network connecting high-value natural and cultural landscapes, whilst respecting the economic, social and cultural needs of local communities</p> <p>At the same time, taking into account climate change predictions, there are some opportunities worth exploring, i.e. a possibility to complement this action by including some of the activities related to other Nature-based Solutions (e.g. Ecosystem-based Climate Change Adaptation, Ecosystem-based Disaster Risk Reduction etc.), that would also warrant stronger cooperation</p>				
To preserve soil, air and water on Danube river in the CB region	To decrease the input of pesticides and chemicals into the environment of the Lower Danube	This action should especially be focused on the development of ambitious programs and concepts for reduction of pesticides and obsolete chemicals in general or in specific areas as well as on the initiation of hot spot management or restrictions for their application by	Though Danube River Countries are already obligated to control the input of pesticides into the environment and certain monitoring and reduction protocols (projects) are set up on the national level, (trans) regional approach could help ensure consistency,	HIGH	CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations Concerned International organizations, executives and other stakeholders	12/2023	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
	Region and to	<p>establishing buffer strips or compensating areas.</p> <p>Enhancement of the work on establishing green infrastructure and the process of restoration of at least 15% of degraded ecosystems, including soil, in order to maintain and enhance ecosystems and their services by 2020 in the Danube Region and to improve air quality</p> <p>In order to achieve the sustainable use of pesticides, i.e. establish a framework for the Community action, countries of the CB Region should use efficiently the possibilities of the Pesticide Framework Directive (PFD) to study various issues related to the state and use of land and soils in the Danube Region, incl. land and soil availability and quality, land and soil-related risks and the preservation and restoration of above- and belowground ecosystems and biodiversity by:</p> <ul style="list-style-type: none"> • identifying relevant sites; • to identify locations with obsolete pesticide and similar chemical remains and to prepare a remediation plan and a risk management plan in the case of 	<p>sustainability, stakeholder involvement and more targeted use of EU funding streams.</p> <p>Furthermore, follow up on activities and projects related to input of pesticides and chemicals into the environment of the Lower Danube Region could help distinguish further actions that are related (specific) to the region and/or need to be implemented on a regional scale</p> <p>Provides an excellent platform to bring together various regional executives, stakeholders and their networks from different branches. Stronger synergies with other organizations are warranted to decrease the input of pesticides and chemicals into the environment, avoid duplication of the work and ensure more targeted use of EU funding streams.</p> <p>. At the same time, decreased input of pesticides into the environment would certainly contribute to other targets, especially to strengthen the work on halting the deterioration in the status of all species and</p>				

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		<p>environmental accidents</p> <ul style="list-style-type: none"> • preparing a risk management, intervention and remediation plans in order to safely destroy OPCs and restore degraded ecosystems; • to ensure a cross-border collaboration in case of accidents on OPC contaminated sites; • to foster stakeholder involvement, education and flow of information on the local and regional level, but also more targeted use of EU funding streams and/or pooling of available resources. 	<p>habitats covered by EU nature legislation in order to achieve a significant and measurable improvement, adapted to the special needs of the respective species and habitats in the Danube Region</p> <p>Communication and cooperation between project partners should be fostered, as well as further collaboration with ICPDR Nutrients Task Group and projects related to input of pesticides into the environment.</p> <p>Resolution on Improvement of health through sound management of obsolete pesticides and other obsolete chemicals, adopted at the 63rd World Health Assembly (WHA; May 2010 in Geneva).</p> <p>Identification of (general, common) activities and their implementation on the (trans)regional level would help ensure consistency and sustainability of sound management and removal of obsolete pesticides and other</p>				

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
			<p>obsolete chemicals in the Danube Region, as well as more targeted use of EU funding streams and/or pooling of available resources.</p> <p>Furthermore, action is related to several conventions: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Stockholm Convention on Persistent Organic Pollutants, as well as to the Geneva Statement on the Sound Management of Chemicals and Waste communication and cooperation between the TF and those conventions should be fostered, as well as further collaboration with JRC's Danube land and soil nexus (DLSN), a flagship cluster which aims to study various issues related to the state and use of land and soils in the Danube Region, including land and soil availability and quality, land and soil-related risks and the preservation and restoration of</p>				

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
			above- and belowground ecosystems and biodiversity.				
	To ensure appropriate treatment of solid waste	<p>Integrated waste management systems should be established and implemented on national, regional and local level. The development of waste management centers for municipal and non-hazardous waste is needed, as well as rehabilitation and closure of incompliant landfills and highly polluted and contaminated sites and wild dumps. The action should also include awareness-raising about the needs of reducing and recycling waste.</p> <p>At the same time, it is related to restoration and maintaining the quality of waters (regarding the treatment of hazardous substances and contaminated sludge with the newest and best available technology)</p> <p>Avoiding overlaps and the creation of parallel structures is a key principle that must be followed in</p>	<p>: Enhance the work on establishing green infrastructure and the process of restoration of at least 15% of degraded ecosystems, including soil, in order to maintain and enhance ecosystems and their services by 2030 in the Lower Danube Region and to improve air quality.</p> <p>To support the competitiveness of enterprises, including cluster development.</p> <p>Cross-border collaboration for establishment of efficient system for municipal and industrial waste treatment on the basis of their sorting could have provided some recommendations on enhancing the treatment efficiency and open possibilities for future (interdisciplinary) collaborations and knowledge transfer in the</p>	HIGH	<p>CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations Concerned International organizations, executives and other stakeholders</p> <p>Close cooperation with the ICPDR with its experience and mandate in water management is very important and should be maintained.</p>	12/2022	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		<p>the cooperation between both countries. To achieve this and to ensure an efficient information flow, a joint document must be developed. This document should characterize particular mandates, responsibilities, tasks and modus operandi for complimentary and joint activities.</p>	<p>Region (latest trends, state-of-the-art information, best practices).</p> <p>Although all Danube Region Countries have their own procedures and legislation regarding the solid waste management, CB regional strategies could help to provide some recommendations, distinguish priority activities specific to the Lower Danube region and/or further actions (projects) that need to be implemented on a CB regional scale.</p> <p>Furthermore, they could enable more targeted use of EU funding streams, pooling of available resources and future (interdisciplinary) collaborations and knowledge transfer in the Region (latest trends, state-of-the-art information, best practices). EUSDR strengthens cooperative frameworks and supports existing institutions that help CB partners to implement EU legislation. Close cooperation with the ICPDR with its experience and mandate in</p>				

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
			<p>water management is therefore very important.</p> <p>CB areas must coordinate their activities to utilise synergies concerning Water Quality and environmental risks</p>				
	To raise awareness about soil, air and water protection	<p>To raise awareness of the general public, by acknowledging and promoting the potentials of natural assets as drivers of sustainable regional development by:</p> <ul style="list-style-type: none"> extending the results from cross-border projects to a transnational level; distinguishing further priority actions that are related (specific) to the Lower Danube region and/or need to be implemented on a regional scale; bringing together various regional executives, stakeholders and their networks from different branches; fostering stakeholder involvement, education and flow of information on the local and regional level; pooling available resources. 	<p>Enhance the work on establishing green infrastructure and the process of restoration of at least 15% of degraded ecosystems, including soil, in order to maintain and enhance ecosystems and their services by 2025 in the Lower Danube Region and to improve air quality.</p> <p>Predicted output is a continuous promotion and awareness raising activities in the field of soil protection and sustainable development in the Lower Danube Region</p> <p>Public awareness-raising activities could benefit from the regional approach (as an umbrella approach) that would ensure visibility, multiplication and the sustainability of the planned</p>	MEDIUM	<p>CB TF MoEW, NAFA, MAFF and other public authorities NGOs Scientific organizations Concerned International organizations, executives and other stakeholders</p> <p>This action could be achieved in cooperation with the European Land and Soil Alliance (ELSA), while further partnerships in the Lower Danube Region should be initiated on communal level and in the educational domains.</p>	06/2021	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		<p>Collaboration would provide a platform for addressing new topics, such as shelter belts as Biotope Network Systems, soil fertility, development of the Soil Map for the Lower Danube Region, micro-farming, climate change adaptation. Moreover, it is related</p> <ul style="list-style-type: none"> raising the awareness of general public by acknowledging and promoting the potentials of natural assets as drivers of sustainable regional development and education of children and young people. To strengthen general awareness and facilitate exchange of good practice in integrated water management issues in the Lower Danube Basin among decision-makers at all levels and among the population of the Region To increase stakeholder awareness and involvement and improve enforcement according 	<p>activities aimed at the promotion of soil, air and water protection.</p> <p>This overlapping of actions could help to ensure consistency, sustainability, stakeholder involvement and more targeted use of EU funding streams.</p> <p>It could also result in some new collaborations and/or identification of further actions related to the soil, air and water protection and sustainable development in the Lower Danube region that need to be implemented on a regional scale.</p> <p>Active participation in knowledge sharing activities (e.g. seminars and workshops) and discussions with colleagues from different countries and/or sectors open possibilities for future (interdisciplinary) collaborations and knowledge transfer in the Region (latest trends, state-of-the-art information, best practices).</p> <p>International and transnational network of NGOs in the Danube Region is a prerequisite for joint</p>				

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		<p>to the EU Biodiversity Strategy 2020.</p> <ul style="list-style-type: none"> To increase the perception of preserved nature as a valuable asset. To promote green, soft and eco-tourism as a part of this action. 	<p>activities and cooperation on project development. This would ensure better knowledge transfer, focused on issues relevant to the Danube Region Countries (latest trends, state-of-the-art information, best practices).</p>				
	To decrease air pollutants	<p>Due to the complexities in air quality related issues in Danube region (different kind of sources, technologies and fuels used across region resulting in different levels of emissions; different levels of implementation of environmental policies, etc.) coordinated actions at different levels: local, regional, national, European and international are needed. It is essential to involve all the relevant executives to assess possible interactions between sectorial policies in order to improve the effectiveness of the measures.</p> <p>CB partners will promote the dialogue and collaboration between different actors such as experts, authorities, health professionals, scientific and non-governmental organizations.</p>	<p>To strengthen the work on halting the deterioration in the status of all species and habitats covered by EU nature legislation in order to achieve a significant and measurable improvement, adapted to the special needs of the respective species and habitats in the Danube Region.</p> <p>Transposing this concept into the Danube strategy would imply better coordination among the relevant priority areas on this topic taking advantage of the more interdisciplinary working approach would help to better identify and monitor possible positive or negative consequences of their work plans on air quality.</p> <p>Relating this action to the all</p>	HIGH	<p>CB TF MoEW, NAFA, MAFF and other public authorities NGOs Concerned International organizations, executives and other stakeholders</p>	12/2030	OPEN ED

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		<p>At the local level, measures are required to control diffuse emission sources from domestic heating and traffic. In these sectors the impact of technological measures (substitution of fleet vehicles and the use of efficient stoves) is uncertain. Such measures are likely to be insufficient to bring emissions to acceptable levels and should therefore, be accompanied by structural and behavior changes. Reducing ammonia emissions in the agriculture sector would be an efficient step forward.</p> <p>To reduce the impact of the long-range transport of pollutants in the Lower Danube macro-region, reinforcing international cooperation within the framework of the Convention on Long-range Transboundary Air Pollution (CLRTAP) and the United Nations Framework Convention on Climate Change (UNFCCC) would help to advance the implementation of air quality and climate change.</p> <p>Better integration of sectorial policies in the Lower Danube region would improve the effectiveness of the measures. Since the impact of</p>	<p>targets of the EU clean air policy package will set out objectives for reducing the health and environmental impacts of air pollution by 2030, and elaborating legislative proposals to implement stricter standards for emissions and air pollution.</p> <p>Since the Danube Region Countries are signatures to Convention on long-range transboundary air pollution, this action should concentrate on data collection on the level of air pollutants in the region and reduction measures.</p> <p>Strengthening links with Institutional capacity and cooperation would help to raise awareness of this topic among public and private managers.</p>				

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		air pollution is greater in urban areas, where the majority of the population resides, initiatives like the Partnership on Air Quality in the EU Urban Agenda, could help to involve relevant stakeholders, access funding and achieve consensus for future actions					
	To build capacities of local authorities in the environment-related matters	Local authorities are primarily responsible for the implementation of environment related matters (such as waste or protected areas management), but they often lack knowledge and capacities to develop projects in the environmental area. Thus, main aim of this action is to provide the training for the local authorities, but also to establish an expert group helping regions and cities resolving problems and a network for exchange of good practices. To build capacities of local authorities in the environment-related matters Implement guidance document to improve understanding of the key sector of EU nature legislation On-going, following the development guidance documents on EU nature legislation and its value	To strengthen the work on halting the deterioration in the status of all species and habitats covered by EU nature legislation in order to achieve a significant and measurable improvement, adapted to the special needs of the respective species and habitats in the Lower Danube Region. Increase stakeholder awareness and involvement and improve enforcement of the EU Biodiversity Strategy 2020. This will improve cooperation with key sectors and continue to develop guidance documents to improve their understanding of the requirements of EU nature legislation and its value in promoting economic. Providing a perfect platform that could help to ensure visibility, multiplication and the	HIGH	CB TF Ministry of Environment Protection, NAFA, NAFF and other public authorities NGOs Concerned International organizations	06/2021	OPEN ED

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Action	Milestones	Description of activities	Added value	Priority	Party responsible	Deadline	Status
		Establishment of an expert group to help regions and cities resolving various problems and a network for exchange of good practices.	<p>sustainability of the planned activities - provision of training for local authorities,</p> <p>Improvement of cooperation with key sectors using implemented guidance document on EU nature legislation.</p> <p>Stronger synergies with other organizations could help avoid duplication of the work and ensure more targeted use of EU funding streams.</p>				



Abbreviations:

AP	Action Plan
CB	Cross-border
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLRTAP	Convention on Long-range Transboundary Air Pollution
DIAS	Danube Region Invasive Alien Species Network
DLSN	Danube land and soil nexus
DSTF	Danube Sturgeon Task Force
ELSA	European Land and Soil Alliance
EU	European Union
EUSAIR	EU Strategy for the Adriatic and Ionian Region
EUSALP	EU Strategy for the Alpine Region
EUSBSR PA	EU Strategy for the Baltic Sea Region
EUSDR	EU Strategy for the Danube Region
GIIR	Green Infrastructure Implementation and Restoration working group
IAD	Initiative Africaine pour le Développement - International
ICPDR	International Commission for the Protection of the Danube River
LDR	Lower Danube River
NGO	Non-government organisation
OPC	obsolete pesticides and chemicals
PFD	Pesticide Framework Directive

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PM	Particulate Matter
RBD	Regional Basin Directorates
RBMP	Regional Basin Management Plan
SONDAR	Soil Strategy Network in the Danube Region
TF	Task Force
TFAQ	Task Force on Air Quality
TFPC	Task Force on pesticides and chemicals
UNFCCC	United Nations Framework Convention on Climate Change
WB	Water body
WG GI-RPF	Green Infrastructure Restoration working group Prioritisation Framework
WGMPBD	Working Group Masterplan Bavarian Danube
WHA	World Health Assembly
WWF	World Wild life fund

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