



Annex AG E

SEA mitigation measures and indicators and other environmental aspects

Please identify the corresponding type of action approached by your operation, and:

- check the avoidance and reduction measures proposed to be considered during the project implementation. When developing your application, please consider these measures and include them into your activities
- check the SEA indicators you have to report after the project implementation and plan the way you will approach them
- check the specific requirements set by the national competent authorities.

All these shall be check during the assessment process by the Assessment Committee and followed during the project implementation by the Programme structures.

The Bulgarian partners must also consider the mandatory requirements, in line with the national provisions (see pages 12-13).

Priority	Specific objective	Code	Action
P1. A well-connected region	3.2. Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including	A1.	Actions enhancing rail connectivity and mobility across the Danube Elaboration of feasibility studies for the electrification and digitalization of the railway infrastructure; Designing and implementing sustainable transport tools and solutions for better connectivity and mobility in the cross-border area, for the railway transport, including, but not limited to: safety, territorial deployment, reliability, efficiency, real-time knowledge of schedules, traffic and ticketing etc.; Identifying and addressing the missing links and bottlenecks in rail and river crossing infrastructure: studies, strategies, joint solutions, joint tools etc.;





	improved access to TEN-T and cross-border mobility		 Improving and expanding rail transport: studies regarding traffic safety, awareness campaigns, connectivity/mobility studies for understanding freight and passenger flows, commuting etc.; Designing and implementing integrated solutions for supporting mobility and connectivity in time of crisis; Designing and implementing sustainable transport solutions for better connectivity and mobility in the area; Modernization, upgrading and expanding the rail infrastructure: Works for railway modernization (including electrification of the railway lines and introduction of the ERTMS / ETCS railway signalling system); Works for modernization, reconstruction and construction of railway stops and stations.
		A2.	Actions improving the navigation conditions and safety on the Danube and Black Sea in order to enhance the mobility and connectivity in the cross-border area
			 Reducing administrative burden and other types of bottlenecks: studies, analyses, solutions, tools; Developing and implementing joint co-ordinated strategies, tools and pilot applications to improve the navigation conditions on Danube and Black Sea (e. g, joint feasibility studies, engineering planning documents, morphological and hydrodynamic studies in establishing the sediment accumulation conditions etc.);
			Developing and implementing integrated measures to improve the navigation conditions for the common sector of the Danube and the Black Sea in the cross-border area (e.g. integrating the marking systems on Danube, equipment, signaling etc.).
P2. A greener region	2.4. Promoting climate change adaptation and disaster risk	А3.	The disaster risk prevention and resilience taking into account ecosystem-based approaches Improving risk prevention and intervention capacity in the cross-border region, by developing joint operational centers and joint intervention plans,





prevention, resilience, taking into account ecosystem- based approaches		 Increasing the capacity of intervention and reaction through investments in equipment and vehicles, IT systems etc. Developing common training curricula and deployment of joint exercises, including the voluntary response services. Improving cross-border coordination and capacity for adaptation to climate change and its associated risks (floods, fires, hydrological droughts, pollution). Developing joint methodologies for risk assessment and risk monitoring in the cross-border area (risk of floods, including torrential floods, risk of drought).
	A4.	Climate change adaptation actions (Ecosystem-based disaster risk reduction (Eco-DRR) solutions)
		 Supporting behavioral change, by raising awareness, building networks of communities and stakeholders and implementing educational activities on how to adapt to the negative effect of the climate change, especially among the local communities, tourists and forest owners; Developing joint methods and tools to improve the planning, decision-making and intervention capacity of relevant stakeholders, including public engagement, in the adaptation to climate change (e.g. identification, assessment of needs, designing and implementing joint cross-border strategies, action plans, procedures, methodologies, policies, tools, monitoring systems etc.); Developing methods and tools to support adaptation planning and decision-making on climate change adaptation measures; Identifying, assessing and reducing the negative implications of climate change on socio-economic activities in the area (e.g. development and implementation of joint strategies, tools, plans, solutions, joint support activity); Implementing joint ecosystem-based measures for climate change adaptation, for example: Reforestation, conservation and forest protection measures, including implementing community-based forest monitoring systems related to climate change;





		 Preventing and reversing desertification through integrated management of land and water (e.g. protecting the vegetative cover, planting trees, establishing seed banks, enriching the soil with nutrients, reintroducing selected species, building green "buffer areas"); Supporting water and land management through green solutions (for example: swales, creek restoration and nature scaping, green solutions for drainage systems, naturalized storm-water ponds, etc.).
	A5.	Reducing all types of pollution by supporting investments in monitoring and data collection on air, soil and water pollution
2.7. Enhancing protection and preservation of		Improving pollution control by supporting investments in monitoring and data collection on air, soil and water pollution, particularly in urban areas, including through setting up tools for measuring the air, soil and water quality and providing real-time data (e.g., networks of sensors and applications and platforms to allow reporting by the public).
nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution	A6.	Supporting the development of green infrastructures, including by developing and protecting green areas in human settlements and raising awareness of the benefits of green spaces Protection and restoration of nature and biodiversity, located within and near settlements through appropriate joint solutions, including through the creation of ecological corridors, green bridges, eco- passages, green infrastructure, ecoducts, etc. to reconnect artificially fragmented natural areas; Developing green infrastructures and supporting biodiversity and protecting nature in human settlements, including by: roofing and facade greening, gardening, promoting green ecofriendly solutions for replacing pesticides and herbicides in urban areas etc.; Developing green areas, including connections between green spaces (urban parks, green sport facilities, forests, riverbank greens).





	,	A7.	Enhancing biodiversity conservation, recovery and sustainable use and protection of natural heritage, including Natura 2000 and RAMSAR sites
			 Promoting, facilitating and encouraging citizens engagement in protecting biodiversity, including its conservation and sustainable use; Conservation of biodiversity and habitats through application of best practices from government agencies, research institutes, non-governmental organizations, as well as active participation of civil society; Supporting data collection and information sharing in respect to biodiversity between the two sides of the border; Joint evaluation, enhancement and promotion of ecosystem services on local and regional level in a cross-border context; Developing ecosystem services to support biodiversity and reduce pollution; Sharing good practices and implementing eco-friendly and innovative solutions that address invasive alien species and strengthen sustainable environment management practices (e.g., pollinator-friendly management, management of water bodies, forests etc.); Supporting the establishment of seed banks, restocking of soil organic matter and organisms that promote higher plant establishment and growth, and reintroduction of selected species; Raising awareness of the benefits of green spaces, including in urban areas, encouraging local actions for greener settlements and rehabilitation of brownfields, driving behavioural change in respect to enhancing nature and biodiversity protection and preservation, and reducing pollution.
P3. An educated region	4.2. Improving equal access to inclusive and quality services in education, training, and lifelong learning	A8.	 Development of extensive and structured language-learning schemes, as a vector for building trust across the border, for creating the basis for future exchanges and also as an employment-boosting factor; Development of joint cross-border education and training schemes - on-site in areas where accessibility is not a hindrance or online, using digitised learning tools and methods, if physical presence is not an option.





through developing accessible infrastructure, including by fostering resilience for distance and on- line education and training	A9.	Development of cross-border internship or placements and student exchange programmes for young graduates/students; Development of joint initiatives supporting adult education and learning (LLL), including facilitating learning mobility; Development of partnerships between secondary and higher education establishments and businesses, in order to improve the market orientation and the quality aspect of education and offer young students the possibility to train and/or study on the other side of the border. Long-term exchanges are particularly envisaged. Development of partnerships between education and training institutions and stakeholders, at all education levels (early to tertiary), to support mutual learning and exchange of practices between teachers and trainers on both sides of the border; Development of joint initiatives and actions to support access to quality inclusive education and training, including LLL, to vulnerable or marginalized groups, including disabled persons, SEN ('Special educational needs' is a legal definition and refers to children with learning problems or disabilities that make it harder for them to learn than most children the same age), Roma ethnic group etc.
	A11.	Joint measures for improving the link between the labour market and the education and training system. Investments in the infrastructure of educational facilities (e.g., learning spaces such as classrooms, labs, libraries, workshops, gyms, outdoor learning spaces but also other facilities) for all education levels and educational activities (including remedial and after-school), technical and vocational training and LLL etc.; special attention will be given to promoting accessible and inclusive learning for all persons; Investments in ensuring proper endowment for joint learning facilities with focus on digitalization: equipment, tools, etc., especially those that support the development of practical and/or digital skills and remote learning, such as computers, videoconferencing/distance education equipment VR learning etc.





	A12.	Developing the Eurovelo 6 cycling route
P4. An integrated region integrated region inclusive economic environment local developed culture, heritage sustainat ourism security areas ot	Developing the necessary cycling infrastructure, including safety service points, signalling etc. Priority will be given to projects ensure attractions - cultural, natural heritage sites and to other means infrastructure (incl. new, reconstruction or modernization of relevences infrastructure (incl. new, reconstruction or modernization of relevences and in line with the list of operating the integrated and inclusive social, economic and environmental local development, culture, natural heritage, sustainable tourism and security, in areas other than urban areas. A13. Supporting tourism activities, connected sectors and industries Investments in economic competitiveness of local businesses inclusing sites, other open-air attractions etc; Supporting sites with tourist potential: construction, modernization	with standards related to traffic signalling systems and/or additional development of infrastructure dedicated to cyclists and pedestrians, such as tunnels, bypasses, bridges, overpasses and walkways and protected cycling paths; Ensuring effective connections with and access to and from other means of transport, including ports and rail stations - adapting infrastructure; Ensuring availability of public transportation in connection to the cycling route; Ensuring appropriate services along the EuroVelo Route, such as: accommodation, food, drink and rest and recreation areas, services including Bike Pit-Stops, information, bookable offers, other assistance; Ensuring communication and information, online and along the route, including mobile/e-
urban ar		Supporting tourism activities, connected sectors and industries
		construction/ modernisation of productive facilities; supply of relevant equipment; adoption of digital technologies etc; Set-up of natural sites for economic use: trails / paths, waste disposal, security, signalling,







	libraries, art collections/galleries, exhibitions places, wineries, agro-farms (e.g.; lavender farms/fields; roses farms/fields, traditional oil factories, sheepfolds), adventure parks, open air attractions etc; Creating common historical, natural and cultural heritage products and services, expanding and improving services, targeting new markets and creating jobs in the cross-border area, including by setting up on-site and on-line shops, especially for traditional / local products (local food, bread, wine, cheese, rose, lavender, honey etc.), including the related tourist infrastructure, access and links to the tourist sites; Support for local and regional actors to valorise potentially valuable touristic objectives /sites / experiences, including by creating sustainable tourism trails, or developing quality labels for excellence in services, promoting and marketing the touristic offer etc. taking advantage of social media trends - such as "insta-tourism", is also encouraged; Training of staff, particularly digital skills.
A14	 Support for implementing the integrated territorial strategy Developing the stakeholders 'capacity to implement the integrated territorial strategy; Support for implementing and monitoring the integrated territorial strategy





Avoidance and reduction measures

Code	Environmental objective ¹	Significance of identified effects	Measure	Addressability of measures ³
M1	REO 1	Nonsignificant negative	All projects aimed at modernizing railway infrastructure will implement solutions designed to avoid / reduce the impact on biodiversity. Solutions should include: reducing the risk of wildlife collision with train sets, maintaining / restoring ecological connectivity, controlling invasive species, reducing the risk of collision and / or electric shock to birds with railway electrical infrastructure, reducing noise and ensuring lighting systems which does not disturb the activity of wildlife.	A1
M2	REO 1	Nonsignificant negative	The Danube River and the Black Sea include sensitive ecosystems that host many protected habitats and species. Projects aimed at improving the navigation conditions will be based on environmental analysis to assess the impact of different implementation options on biodiversity components, especially protected habitats and species as well as migratory species if the legal provisions request such analysis. In the case of Natura 2000 sites, the assessment will be based on the requirements of the Conservation Objectives specific to each of the potentially affected sites.	A2
M3	REO 1	Nonsignificant negative	Prior to the start of renovation works on the existing buildings, in the earliest stage, an identification of the possible presence of bats and birds as well as the presence of their shelters and	A1 and A13, optional for A3 and A11

 $^{^{\}rm 1}$ The name of the relevant environmental objective has been abbreviated.

² See section 7.2.5 of the SEA Report

³ Code of actions under which the measures will be implemented







Code	Environmental objective ¹	Significance of identified effects	Measure	Addressability of measures ³
			nests will be identified, in line with the legal provisions. The activities will be carried out by certified experts (Register of certified experts for the elaboration of environmental studies - Types of studies: Monitoring of biodiversity "MB"). If the presence of certain species is identified, the decision will be taken to postpone the interventions until the end of the nesting / rearing, hibernation period or to relocate the individuals in compliance with the legal requirements in force (obtaining a derogation according to national legislation1). In the case of buildings where shelters / nests have been decommissioned, solutions for the installation of artificial shelters / nests will be adopted, preferably using durable solutions (long life) such as built-in shelters ⁴ . It is recommended that the measure of installing artificial shelters be considered in the case of new buildings built with financial support from the Program.	
M4	REO 1	Nonsignificant negative	Avoiding implementing new constructions related to Eurovelo 6 cycling route development that may affect Natura 2000 habitats and species.	A12
M5	REO 4	Nonsignificant negative	Projects aimed at construction and landscaping will ensure the implementation of those project alternatives that ensure the minimum level of artificialization of soil surfaces and the	A1, A3, A12 and A13

⁴ Integrated solutions in construction such as bird nests and bat shelters. Some illustrative examples can be viewed here https://www.wildcare.co.uk/wildlife-nest-boxes.html





Code	Environmental objective ¹	Significance of identified effects	Measure	Addressability of measures ³
			maximum level of maintenance / development of green areas, including ensuring ecological connectivity between parks / green areas and suburban areas, as well as providing the opportunity for maintenance of pollinators ⁵ . A minimum level of artificial tillage should be defined during construction.	
M6	REO 6	Nonsignificant negative	Consideration of the inclusion of charging stations for electric vehicles in projects aimed at arranging sites with tourist potential to facilitate the transport of electricity to these destinations.	A13
M7	REO 14	Nonsignificant negative	Elaboration at the level of each project of a waste management plan to ensure the compliance of the waste hierarchy and the integration of the principles of the circular economy, in accordance with Circular economy action plan ⁶ . In order to ensure proper management of construction and demolition waste, which are generated during the implementation of subsequent projects, supporting documents will be required on waste traceability (handing them over to entities authorized by law to manage this type of waste).	A1, A12 și A13
M8	REO 1	Nonsignificant positive	All projects that provide for the planting of grass, shrub or arboreal species will consider the exclusive use of non-invasive native species, characteristic of the natural habitat types in the	A4, A6

⁵ Minimum level of artificialization = minimum footprint of the buildings, platforms, internal roads.

⁶ https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en





Code	Environmental objective ¹	Significance of identified effects	Measure	Addressability of measures ³
			implementation areas, including taking into account available and / or possible (park) fauna.	
M9	REO 12	Nonsignificant positive	Projects aimed at the rehabilitation of existing buildings and / or the construction of new buildings will consider the implementation of solutions to improve energy efficiency as well as the use of renewable sources of electricity / heat and will include solutions for external vertical landscaping of buildings or structures for the purpose of providing ecosystem services, such as pollinator habitat, mitigation and carbon sequestration.	mainly A1 and A3

The following requirements must be respected by **the Bulgarian partners**, in line with the national provisions, at the implementation of the Programme's subsequent projects (proposed by the Ministry of Environment and Water, River Basin Directorates - Bulgaria and Regional Inspectorate of Environment and Water - Veliko Tarnovo):

- 1. The implementation of projects and intentions that provide for the use and / or abstraction of surface and groundwater resulting from the implementation of the Programme to be agreed on eligibility for environmental objectives and planned measures to achieve good water status in the River Basin Management Plans, as well as the objectives of flood risk management and the measures provided for in the Flood Risk Management Plans for the relevant period of action.
- 2. The activities arising from the implementation of the Programme shall comply with the restrictions and prohibitions regulated in (Bulgarian legislation):
 - Ordinance № 3 from 16.10.2000 for the conditions and the order for research, design, approval and operation of sanitary protection zones around the water sources and the facilities for drinking and household water supply and around the water sources of mineral waters, used for medical, prophylactic, drinking and hygienic needs.





- Art. 118a from the Water Ac for conservation of the ground water from pollution, direct and indirect discharge of pollutants into groundwater is prohibited.
- In accordance with the provisions of Article 116 of the Water Act, all waters and water bodies should be protected from pollution and damage. When implementing the Programme to provide measures to prevent deterioration of surface and groundwater.
- Art. 131 of the Water Act in case of emergency, creating preconditions for water pollution, the owner or the person operating the site source of pollution, including tailings, sludge and embankments, is obliged to take the necessary measures to limit or eliminate the consequences of pollution, according to a pre-prepared emergency plan and immediately notify the basin directorates.
- According to Art. 7, para 1 of the Water Act, except a principle in relations related to the ownership of water bodies is the exercise of property without violating the integrity and unity of the hydrological cycle and the natural water system
- The requirements of Article 134 of the Water Act to prohibit the construction of farm and residential buildings and the disposal, storage and treatment of waste in coastal floodplains and lands belonging to reservoirs.
- The requirements of Art. 143, according to which in order to protect against the harmful effects of water it is prohibited to disturb the natural condition of beds, river banks and coastal floodplains, reduce the conductivity of river beds, use river beds as landfills, land and rock masses, as well as construction over covered river sections.
- The prohibitions of Art. 146 of the Water Act for construction in the flooded terraces of the rivers and the easement of the hydrotechnical facilities;
- The requirements of Art. 125 of the Water Act that the inclusion of new quantities of wastewater should take into account the capacity and efficiency of the existing sewerage system;
- In the absence of a sewerage system, given Art. 132 of the Water Act, the persons from the economic activity of which wastewater is formed, are obliged to build treatment facilities in accordance with the requirements for discharge into a water body;





- The requirements of Art. 44 and Art. 46 of the Water Act, in case of water abstraction and / or use of a water body, including art. 46, para 4 with regard to the discharge of domestic and faecal waters.
- For activities located in properties bordering or close to the Black Sea coast, it is necessary to comply with the relevant prohibitions and restrictions arising from the Black Sea Coast Development Act on wastewater discharge. Do not obstruct the free access to the water body the Black Sea.
- The prohibitions and restrictions of art. 11, para. 2 and Art. 10, para 2 of the Black Sea Coast Development Act;
- For activities in certain areas with a significant potential risk of flooding in the floodplain, measures should be taken to protect against the harmful effects of water. The National Catalog of Flood Risk Management Measures can be used when planning measures
- The requirements of Art. 156e of the Law.
- 3. The activities and measures under the Programme related to the construction of infrastructure sites need to comply with the existing enterprises with high / low risk potential on the territory of the Republic of Bulgaria, within the scope of the programme.
- 4. Investment projects / project proposals under the Cross-border Cooperation Program INTERREG VI-A Romania Bulgaria 2021-2027, outlining a framework for future development of investment proposals / plans, programs or projects for which an EIA / SEA procedure is required (in accordance with the Environmental Protection Act) and / or the procedure for Appropriate Assessment with the subject and objectives of protection in protected areas (under the Biodiversity Act), to be selected only after ruling by an act for coordination by the competent environmental authorities and with the conditions and measures in the respective act.
- 5. Under Specific Objective 2.7 the funding activities shall be made in accordance with the Bulgarian National Framework for Natura 2000 Priority Actions 2021-2027 (where the case).
- 6. Where applicable, when implementing projects within activity A2, to conduct a procedure for the need to apply exceptions under Art. 4.7. of Directive 2000/60 / EC.





7. Projects falling in certain areas with a significant potential risk of flooding in the area of inundation must provide for measures to protect against the harmful effects of water. The national catalog of flood risk management measures should be used when planning measures.

Proposed indicators for monitoring the effects of the programme

Environmental objective	Indicator		Actions to be monitored	Target	Unit of measurement	Observations
General	MON1	The share of environmental measures costs in the total value of projects	All actions, particularly A1	> 0 %	Percentage	Environmental measures represent M1-M9 (see Table 9-1 above)
REO 1 Biodiversity	MON2	Number of environmental analyses to assess the impact of different options for the implementation of navigability project	A2	> 0	Number	To ensure that any decision is based on an environmental analysis
	MON3	Share of rehabilitated buildings for which the presence of nests / shelters of birds and bats was previously verified	A1, A13, optional A3 and A11	100 %	Percentage	Applies only to the projects started after the programme approval
	MON4	Number of situations in which it was necessary to protect / relocate nests	-	> 0	Number	-





Environmental objective	Indicator		Actions to be monitored	Target	Unit of measurement	Observations
		/ shelters of birds and bats and / or to install artificial shelters / nests				
REO 4 Soil	MON5	Total soil area lost as a result of the implementation of the proposed actions	A1, A3, A12 and A13	As small as possible	Square meters	It is equal with the total new constructed area
	MON6	The total area of newly created green spaces as a result of the implementation of the proposed actions		As large as possible	Square meters	It is equal with the total area with vegetation inside each project site
REO 6 Air	MON7	Number of charging stations for electric vehicles carried out within the projects aimed at arranging sites with tourist potential	A13	> 0	Number	-
REO 14 Circular economy	MON 8	Share of projects in which Waste Management Plans have been developed	A1, A12 and A13	> 0 %	Percentage	From the total number of projects containing construction works