Preparation of Strategic Environmental Assessment Report for the Interreg VI-A IPA Croatia-Bosnia and Herzegovina-Montenegro

STRATEGIC ENVIRONMENTAL ASSESSMENT REPORT

-NON-TECHNICAL SUMMARY-

Volume II

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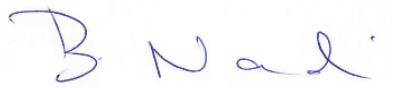

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1. INTRODUCTION

Strategic Environmental Assessment (SEA) is a procedure carried out with the purpose to assess the likely significant effects on the environment which may arise out of implementation of a strategy, plan and programme (SPP). The objective of the procedure is to optimize the development proposed by an SPP, i.e. resolve the issues of cumulative effects, large-scale impacts, intersectoral and indirect impacts, which otherwise cannot be foreseen within the EIA procedures.

The objective of the SEA Directive (Art. 1) is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. Through SEA, the decision-maker is informed about the degree of uncertainty of likely impacts, consistency of objectives (both SPPs and environmental protection), sensitivity of the current environment and the range of available alternatives of the SPP under consideration.

The SEA procedure for the Interreg VI-A IPA Croatia – Bosnia and Herzegovina - Montenegro (hereinafter referred to as the Programme) was initiated by the adoption of the Decision on the commencement of the SEA procedure (CLASS: 910-06/21-01/1; File No. 538-10-3-1-1/433-21-6) of 11 November 2021. In the screening procedure, the Decision was brought by the Croatian Ministry of Economy and Sustainable Development (hereinafter: MINGOR) that it was possible to exclude significant negative effect on the conservation targets and integrity of ecological network and that the Programme did not require Main Assessment as a part of the Appropriate Assessment (CLASS: UP/I 612-07/21-37/258, Reg. No.: 517-10-2-3-21-3 of 21 October 2021).

Scoping was conducted in the period from 11 November to 11 December 2021, with public consultations held on 29 November 2021 via Teams online platform. As a part of the scoping step, a scoping report was prepared and delivered to all the relevant participants in the SEA procedure. The results are documented in this SEA Report.

The Programme Proponent is Ministry of Regional Development and European Union Funds, while the SEA practitioner in this procedure is Eko Invest d.o.o. company from Zagreb, Croatia, that holds authorization by the Croatian Ministry of Economy and Sustainable Development for performance of environmental and nature protection tasks (**Annexes to Volume I**).

1.2 List of Stakeholders

The project is managed by several bodies formed for the purposes of review of the overall implementation of the project, management and control, providing assistance to stakeholders, auditing etc. and by National Authorities of the participating countries which are responsible for setting up and ensuring efficient functioning of the national control systems. National Authorities are also responsible for conducting the scoping step, and will later be involved in review of the SEA Report and carrying out public consultations. The list of persons participating in scoping is provided below:

Republic of Croatia	**Republic of Bosnia and Herzegovina**	**Republic of Montenegro**
National Authority: Ministry of Regional Development and EU Funds	National Authority: Directorate for European Integration of Bosnia and Herzegovina	National Authority: Government of Montenegro – Prime Minister's Office
Ministry of Economy and Sustainable Development	Ministry of Foreign Trade and Economic Relations of BiH	Ministry of Ecology, Spatial Planning and Urbanism of Montenegro
Ministry of Agriculture		
Ministry of Health		
Ministry of Labour, Pension System, Family and Social Policy		
Ministry of Tourism and Sport		
Ministry of Science and Education		
Ministry of Culture and Media		

According to Croatian regulations, the said authorities were invited to submit their opinions on the scope and level of detail to be elaborated in the SEA Report based on the draft Programme and the prepared Scoping report supplemented with a Questionnaire. National Authorities delivered their opinions on the Scoping report which regarded technical corrections.

All comments and opinions on the scoping report and the programme document were analysed and subsequently integrated in the Decision on the SEA Report contents enclosed in the SEA Report. The Decision on the SEA Report is the basis for the elaboration of this SEA Report. The full answers to the comments received are available at the Ministry of Regional Development and EU Funds.

2. OUTLINE OF INTERREG VI-A IPA CROATIA – BOSNIA AND HERZEGOVINA - MONTENEGRO

The Programme is an instrument to support cross-border cooperation between the participating countries in the upcoming programming period 2021-2027.

The proposed programme covers the territory of border areas between Croatia and Bosnia and Herzegovina, Croatia and Montenegro and between Montenegro and Bosnia and Herzegovina. Within programme area there is a tri-border area (Dubrovnik-Neretva County, Trebinje Municipality and Herceg Novi Municipality). The proposed programme area is identical to the one of the previous programming period 2014-2020. In other words, programme area covers 12 counties on the Croatian side, Brčko District of Bosnia and Herzegovina and 109 municipalities/cities on the side of Bosnia and Herzegovina and 11 municipalities on the side of Montenegrin border. This amounts to total of 87.453,95 km² of programme area with 5,587,836.00 inhabitants.

The programme area is large and heterogeneous and has significant potential and numerous advantages, but is also facing different common challenges resulting from climate change. The programme area is one of the most vulnerable areas in Europe, and the effects of climate change are already being felt through temperature extremes, droughts, floods etc. Such effects need to be prevented through mitigation and resilience building. Biodiversity preservation and management of cross-border areas should be improved, especially in areas which are affected by risks such as floods, wildfires and airborne pollution and climate change related risks in general.

The programme was developed in such a way that it promotes sustainable development to the fullest extent possible. At cross national level, the programme is in line with the European Strategy for the Danube Region' (EUSDR) in that it promotes culture and tourism, management of environmental risks, supports the competitiveness of enterprises and improving institutional capacities. The European Strategy for the Adriatic and Ionian Region' (EUSAIR) is integrated through addressing importance of transnational terrestrial habitats and biodiversity and diversification of tourism offer.

Figure 1. Programme territory

The programme has come up with a strategic programme objective/mission to foster smart, green and inclusive development of Croatia-Bosnia and Herzegovina-Montenegro cross-border region. The programme envisaged 4 key priorities for the upcoming period, that can also be seen as a sort of continuation of the previous programme with certain new elements and characteristics desired in the new financial framework. The programme will therefore focus on a limited set of objectives and policy areas, i.e. concentrate on those thematic key areas where joint actions have the potential for the biggest impact:

- Priority Axis 1- Smart investments in research, innovation and competitive entrepreneurship
- Priority Axis 2- Green investments in environmental protection and efficient risk management
- Priority Axis 3- Accessible and resilient health services
- Priority Axis 4- Sustainable and inclusive tourism and culture

The selected priority axes were translated into the following policy objectives or specific objectives:

Policy Objective 1 (SMARTER EUROPE): A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity

- SO 1.1 Developing and enhancing research and innovation capacities and the uptake of advanced technologies
- SO 1.3 Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments

Policy Objective 2 (GREENER EUROPE): A greener, low carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, risk prevention and management, and sustainable urban mobility

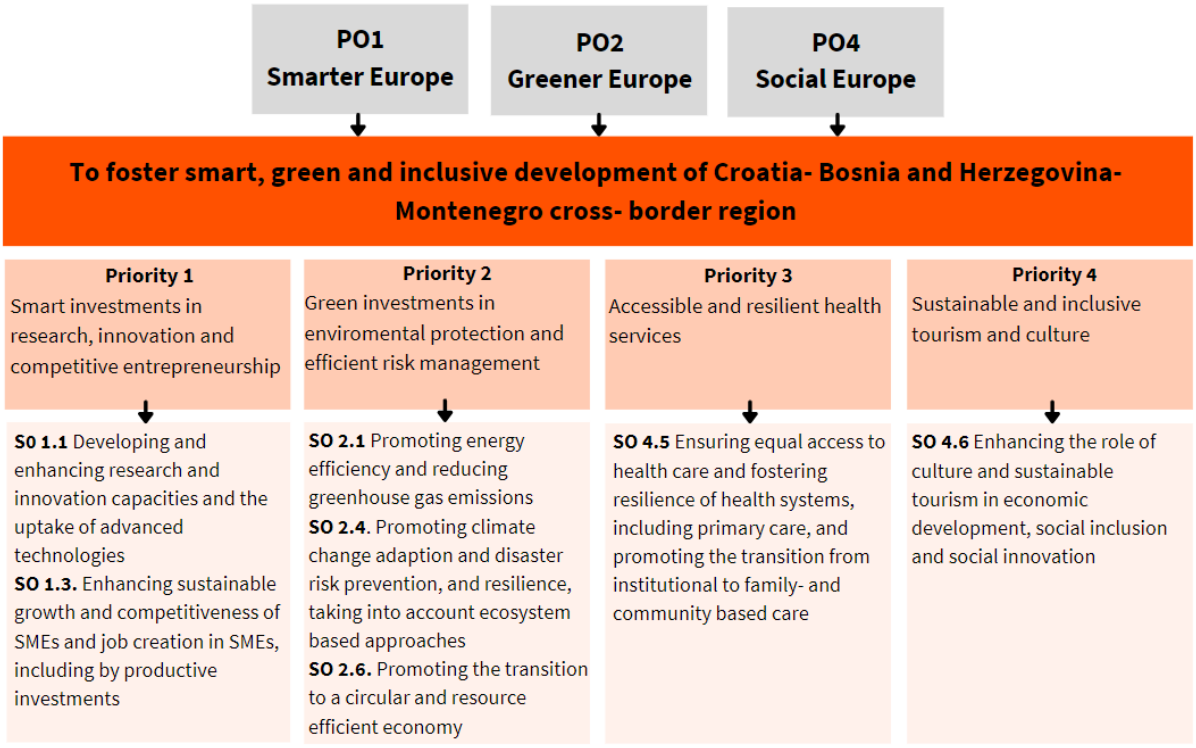
- SO 2.1 Promoting energy efficiency and reducing greenhouse gas emissions
- SO 2.4 Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system-based approaches
- SO 2.6 Promoting the transition to a circular and resource efficient economy

Policy Objective 4 (MORE SOCIAL EUROPE): A more social and inclusive Europe implementing the European Pillar of Social Rights

- SO 4.5 Ensuring equal access to health care and fostering resilience of health systems, including primary care, and promoting the transition from institutional to family-and community-based care
- SO 4.6 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation

The overall strategic framework is shown in the **Table 1** in the SEA Report (**Volume I**). The financial allocations appertaining to each programme priority represent a preliminary proposal only and are subject to change. They are used as potential indication of intensity of investment, i.e. intensity of likely impacts of a priority axis.

Table 1. Strategic Framework of the Interreg Programme



Source: Performance Framework Methodology – Interreg VI-A IPA Cooperation Programme Croatia-Bosnia and Herzegovina and Montenegro, January 2022.

3. RELATIONSHIP OF THE PROGRAMME WITH OTHER RELEVANT STRATEGIES PLANS AND PROGRAMMES

This chapter gives an overview of the legislation, policies, strategies, plans and programmes which have been considered for the purpose of preparation of the SEA Report, and for the assessment of internal compliance of the Programme with them.

The Strategic Environmental Assessment procedure is regulated by the Environmental Protection Act, Nature Protection Act, Regulation on Strategic Environmental Assessment, Regulation on information and participation of the public and public concerned in environmental matters of Croatia. In Bosnia and Herzegovina, environmental protection acts of both entities and DB represent the basis for establishment of the system from planning, management, information and financing, including the SEA, while in Montenegro, the SEA is regulated by the Environmental Protection Act, Act on Environmental Impact Assessment and Act on Strategic Environmental Assessment.

The relevant strategies, plans and programmes proposed in the scoping step have been analysed in order to establish compliance of the Programme with them and in order to determine SEA objectives. List of analysed documents:

- United Nations 2030 Agenda for Sustainable Development
- European Green Deal
- EU Climate and Energy Package
- EU Strategy on Adaptation to Climate Change
- EU Biodiversity Strategy for 2030
- European Strategy for the Danube Region (EUSDR)
- European Strategy for the Adriatic and Ionian Region (EUSAIR)
- National Development Strategy of the Republic of Croatia
- Development Strategy of the Federation of Bosnia and Herzegovina 2021-2027
- National Strategy for Sustainable Development until 2030 of Montenegro
- Maritime Development and Integrated Maritime Policy Strategy of the Republic of Croatia for the Period from 2014 to 2020
- River Basin Management Plan of the Republic of Croatia 2016-2021
- Water Management Plan for the Sava River Basin District in the Federation of Bosnia and Herzegovina
- Water Management Plan for the Adriatic River Basin District in the Federation of Bosnia and Herzegovina 2016-2021
- Flood Risk Management Plan in the Sava River Basin
- Sava River Basin Management Plan
- Low-Carbon Development Strategy of the Republic of Croatia until 2030 with an outlook to 2050
- Framework Energy Strategy for Bosnia and Herzegovina up to 2035
- Energy Development Strategy of the Republic of Montenegro until 2030
- Climate Change Adaptation Strategy in the Republic of Croatia for the period to 2040 with a view to 2070
- Climate Change Adaptation and Low Emission Development Strategy for Bosnia and Herzegovina
- National Climate Change Strategy of Montenegro (NCCS)

- Waste Management Strategy for the Republic of Croatia
- Waste Management Plan for the Republic of Croatia for the period 2017-2022
- Waste Management Plan of Montenegro
- Republic Waste Management Plan in Republic of Srpska

List of relevant international legislation taken into account for the purpose of establishing SEA objectives:

- United Nations Framework Convention on Climate Change (UNFCCC) (Rio de Janeiro, 1992)
- UNFCCC Kyoto Protocol (1997)
- Paris Agreement (Paris 2015)
- UN Convention on Biological Diversity (Rio de Janeiro, 1992)
- Convention on the Conservation of European Wildlife and Natural Habitats – Bern Convention (Bern, 1979)
- Convention on the Conservation of Migratory Species of Wild Animals – Bonn Convention (Bonn, 1979)
- Convention on Wetlands of International Importance especially as Waterfowl Habitat - Ramsar Convention (Ramsar, 1971)
- Council Directive 79/409/EEC on the conservation of wild birds (EU Birds Directive)
- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EU Habitat Directive)
- Directive 2000/60/EC of the European Parliament and of the Council of 20 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive)
- European Landscape Convention (Florence, 2000)
- Convention on Protection of the World Natural and Cultural Heritage (World Heritage Convention, Paris, 1972)
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992)
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Waste Framework Directive)
- Convention on Environmental Impact Assessment in a Transboundary Context (1991, Espoo)
- Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (Aarhus, 1998)

4. CURRENT STATE OF THE ENVIRONMENT

The current state of the environment in the Programme Area, with the aim of providing context for understanding the potential for the development of positive and negative effects that may arise from the implementation of the Programme, are described in detail in Chapter *4.1 Current state of the environment in the Programme territory* in Volume I.

Based on the analysis carries out in chapter *4. Current state of the Environment in the Programme Territory and Likely Evolution of the Environment without Implementation of the Programme* In Volume I., the following environmental problems and conflicts have been identified in **Table 2**.

Table 2. Existing environmental problems in the Programme area

Environmental topic	Environmental problem
Air and climate	Air pollution by particulate matter, as a result of heating practices and industries, especially in winter (microclimate characteristics)
Climate changes	Sea level rise – floodings in coastal area
	Increase in total average temperature and more extreme temperature days
	Risk increases as longer droughts and higher extreme temperatures become more common and causes wild forest fires
	Risk of flash floods
	Natural disasters – very frequent hail and extreme changes in meteorological conditions
Seismic activity	Risk of earthquakes hazards
Water status	Insufficient protection of water sources
	Pollution in Adriatic River Basin District from agriculture nonpoint discharges along the coast and the main rivers in the Adriatic basin
	Chemical and oil discharges from point sources such as industry and port wastes
	Solid waste pollution in coastal area which has transporting via rivers into sea
	Extremely mass bathing tourism
	Littoralization
	Insufficient drinking water quality
	Overexploitation of groundwater

Environmental topic	Environmental problem
	Uncontrolled discharge of municipal waste-water without connection to public sewer system
	Industry lacking appropriate sewerage and waste-water treatment
Biodiversity	Destruction of seminatural and natural habitats as a result of land reclamation schemes
	Habitat fragmentation due to the construction of transport infrastructure
	Changes in freshwater ecosystems due to the construction of hydroelectric power plants, hydro reservoirs, watercourse regulation and construction of drainage channels for irrigation
	Pollution of watercourses
	Abandonment of extensive agriculture
	Loss, fragmentation and degradation of seminatural and natural habitats due to the land use change
	Illegal landfills are a major environmental problem that most affects forests and speleological objects
	Spread of Invasive Alien Species (IAS)
	Loss of biodiversity due effects of climate change
Cultural heritage and landscape	Degradation of rural landscapes due to urbanisation and linear structure development, deruralisation and deagrarisation
	High pressures from tourist sector leading to loss of fundamental heritage and identity values from inappropriate construction Littoralisation and urbanisation on the coastline, inappropriate construction due to high tourism demand, loss of natural and landscape characteristics of specific coastline elements, degradation of visual and ambiental values
	Lack of knowledge and education about landscapes in professional and civil areas Lack of sustainable use of cultural heritage and landscapes as a resource

Environmental topic	**Environmental problem**
	Lack of implementation of key goals of European Landscape Convention in praxis from top to bottom
	Loss of historical rural and urban landscapes due to inappropriate construction
Human health	Insufficient connection of the population to the public water supply system
	Light pollution as a result of proximity to urbanized areas
	Elevated noise emissions due to transport
	Negative impact on air quality and noise emissions due to intense traffic
	Risk of earthquakes hazards
Waste Management	Recycling rates remain at a low level
	Poor management of hazardous wastes
	Lack of statistical information on special types of waste
	Lacking waste management infrastructure

5. SEA OBJECTIVES

SEA objectives have been established in order to assess environmental impacts, taking into consideration the requirements and objectives of relevant strategic documents and international treaties and agreements ratified by the participating countries, analysed in chapter *Relationship of the Programme with other relevant strategies plans and programmes* in Volume I. The selection of objectives was carried out on the basis of programme area, environmental baseline and current trends, and the effects the proposed actions of the programme are likely to have on the environment, as established by preliminary analysis performed during scoping.

Due to interconnectedness of the overall environment, the objectives were not formed per each environmental factor separately, rather an objective covers a group of environmental aspects. Every environmental protection objective is supported by several sub-objectives, based on the established environmental conflicts and registered problems acting as assessment criteria. The impact of the programme may be monitored through indicators, which because of the strategic nature of the programme are qualitative, rather than quantitative.

Table 3. Environmental protection objectives

Environmental protection objectives	Subobjectives	Environmental factors	Indicator
Improving water quality and reducing water and sea pollution	-Improvement of physical and chemical properties of water bodies -Increase in share of treated waste-water -Sustainable use of surface and groundwater -Protection of aquatic and water-dependent ecosystems -Reducing marine waste	Inland and coastal water Human health Biodiversity	-Status of surface and groundwater bodies -Bathing sea quality ratings -Connection on public sewerage systems -Number of newly constructed WWTPs -Water exploitation
Protection of biodiversity, ecosystems and wildlife	-reduction of environmental pollution -reducing impacts on climate -battling climate changes -awareness raising on importance of biodiversity - reducing impacts on marine species and habitats -prevention of invasive species spreading	Biodiversity Soil Inland and coastal water Climate and climate changes Landscape	- preserved favourable condition of protected species and habitats -involvement of the local community in protection and conservation activities -registered presence of newly introduced

Environmental protection objectives	Subobjectives	Environmental factors	Indicator
			invasive species or spread of already present alien species
Sustainable management of natural resources	-development of sustainable tourism -rational use of land and resources - increasing the use of energy derived from renewable energy -reducing pressure on natural resources by promoting circular economy	Biodiversity Soil Water Landscape Material assets Waste management	-tourist infrastructure in protected areas -number of energy-efficiency projects implemented -production of energy from RES -number of brownfield areas activated - biomass consumption
Protection of cultural heritage and landscape values	-preservation of cultural assets and archaeological localities -ensuring sustainable landscape management, protection and preservation	Cultural heritage Landscape	- number of plans or pilot projects involving cultural assets - number of implemented landscape character assessments - number of visitors in new tourist destinations - number of sustainable tourist projects and products in rural tourism with implementation of landscape and cultural heritage preservation

Environmental protection objectives	Subobjectives	Environmental factors	Indicator
Reducing impacts on air and climate	-Reduction of green-house gasses from energy sector -Improvement of energy efficiency -Development of RES projects -Improvement of air quality	Air Climate Human-health	- development of green infrastructure projects - emissions and carbon dioxide sink – CO_2 -SECAPs developed -Days of exceedance of air quality limits for PM particles
Strengthening resilience and disaster risk reduction	-Implementation of climate change adaptation measures in plans and projects -Protection and adaptation of infrastructure and population against extreme events (floods and fires)	Human health Material assets	- development of green infrastructure projects -SECAPs developed -number of developed fire alarm systems
Protection of human health and well-being	-increased connections to water utility services - reduced exposure to harmful emissions - reduced risk of flooding	Human health Water Air and Climate	- connections of households to the public water supply system -number projects developed according to BATs -noise protection measures integrated in strategies and physical plans -bathing water quality
Sustainable management of waste	-use of waste in circular economy -improving waste management infrastructure -rehabilitation and closure of illegal landfills	Waste management Biodiversity Air and Climate Human health Soil Water Landscape	-consumption of biomass as raw material -number of illegal landfills closed -waste statistics

Environmental protection objectives	Subobjectives	Environmental factors	Indicator
		Material assets	

6. ASSESSMENT OF LIKELY SIGNIFICANT IMPACTS ON THE ENVIRONMENT

The Programme will have few significant impacts on the environment, the great majority of which will be positive. This is because of the Programme's compliance with hierarchically higher documents/policies and its focus on "soft measures" which largely build on the already established systems and infrastructure and seek to make them more sustainable and to reduce the present pressures.

Some Specific Objectives regard improvements in sectors not related to environmental components, for which reason they have no impacts on the SEA objectives whatsoever. This regards SO 1.3. Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs including by productive investments and 4.5 Ensuring equal access to health care and fostering resilience of health systems, including primary care, and promoting the transition from institutional to family and community-based care.

In conformity with the Green Deal, the Programme seeks to equip the Programme territory in facing the challenges imposed by the ongoing climate change and making it more resilient both in terms of infrastructure and human resources educated across sectors, both public and businesses and at the same time to create benefits to the overall environment.

While some actions have been assessed to have significant positive impacts on SEA objectives, most effects will be moderate, either because of the legislative and institutional barriers or because of the level of development in the Programme territory. However, they are likewise important as they may prepare the system for actions planned in the future.

Even though such actions do not generate negative impacts, measures have been proposed to enhance their effects their likelihood of success.

The identified negative impacts result as a rule from construction actions, mostly regarding reduction of greenhouse gas emission (implementation of RES projects and plants, use of advanced biofuels), with application of the precaution principle, since the location, scope and details of such actions are presently unknown.

Even though SO 2.4 Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches, will benefit in making the area more resilient, certain actions may negatively affect biodiversity objectives, assessed also with the application of the precautionary principle. The potential negative impacts are also coming from SO 4.6. Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation because of the possible impact coming from water use and pollution from tourist activities and offers which is especially pronounced in the coastal area.

However, no impacts have been assessed as significantly negative, since the implementation of actions has to conform to physical planning documents in force and undergo environmental assessments at project level.

6.1 Cumulative impacts

The assessment was carried out at proposed action level, and even though the action list is not exhaustive, it allowed for identification of main causes of stress, impact paths, intensity of change, as well as capacity of environmental factors, i.e. SEA objective, to sustain such change. It is evident that the occurrence of cumulative impacts is more likely in locations where more projects will take place in a limited area or which cause parallel stress factors. The analysis of individual actions thus helped in assessing the likelihood that their implementation within the same time frame in the same area will bring about amplified positive or negative impacts, and to evaluate which SEA objectives will be under the greatest pressure (**Figure 2**).

As it can be seen from the graph below, the Programme has the potential to generate both positive and negative cumulative impacts on the environment, the greatest majority of which will be positive. It will strongly contribute to SEA objectives of Protection of human health and well-being, Strengthening resilience and disaster risk reduction, Reducing impacts on air and climate and Sustainable management of natural resources and Sustainable management of waste.

The positive impacts on the Protection of human health and well-being objective are also due to positive impacts on the Reducing impacts on air and climate. Specific objective 2.4. Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system base approaches, through actions such as Development and introduction of joint climate change adaptation, disaster prevention, Encouraging intersectoral/interstate cooperation in risk prevention and rapid response management, Establishment of joint emergency centres, including small-scale infrastructure, Integrating climate change aspects into water management strategies on local, regional and interregional level and Developing solutions for strengthening eco-system services for human health and wellbeing and specific objective 2.1. Promoting energy efficiency and reducing greenhouse gas emissions (Developing and implementing joint pilot and demonstration actions on innovative technologies, measures and solutions in the field of energy management, Investments in measures and actions that increase energy efficiency, Promoting the production and use of advanced biofuels etc.) will have positive impacts on reducing emissions and adapting to the climate resulting from the promotion and use of renewables. Furthermore, the implementation of actions related to the development and implementation of the system of response and defence against natural risks (floods, fires, earthquakes) will prevent possible negative impacts of hazards on infrastructure and population, which is why the above specific objectives also have a positive impact on SEA objectives of Protection of human health and well-being and Strengthening resilience and disaster risk reduction.

Positive impacts on SEA objective Sustainable management of waste will derive from specific objective SO 2.6 Promoting the transition to a circular and resource efficient economy, including action for Developing and implementing approaches and solutions for limiting landfilling of all types of waste, Improving waste management policies and competences of the public sector, including the prevention, processing and recycling of communal, Developing and testing solutions that support the recovery and reuse of raw materials etc.

Positive impacts of smaller intensity and scope regard Protection of biodiversity, ecosystems and wildlife, Protection of cultural heritage and landscape values, as a result of actions in specific objective S0 4.6 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation and.

Even though the Programme supports mainly non-structural actions, it may likewise generate cumulative negative impacts on SEA objectives, even though of a lesser intensity. Direct negative impacts on the Protection of biodiversity, ecosystems and wildlife directly may occur through implementation of RES projects, especially hydro and wind power exploitation, but also some adaptation measures. The effects can result in the loss, degradation and fragmentation of natural habitats and population of species that depend on these habitats for their existence, od as a direct threat from collision. The potential negative impacts on SEA objectives Improving water quality and reducing water and sea pollution are coming from specific objective SO 4.6. Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation because of the possible impact coming from water use and pollution from tourist activities and offers, which is especially pronounced in the coastal area, i.e. the sea.

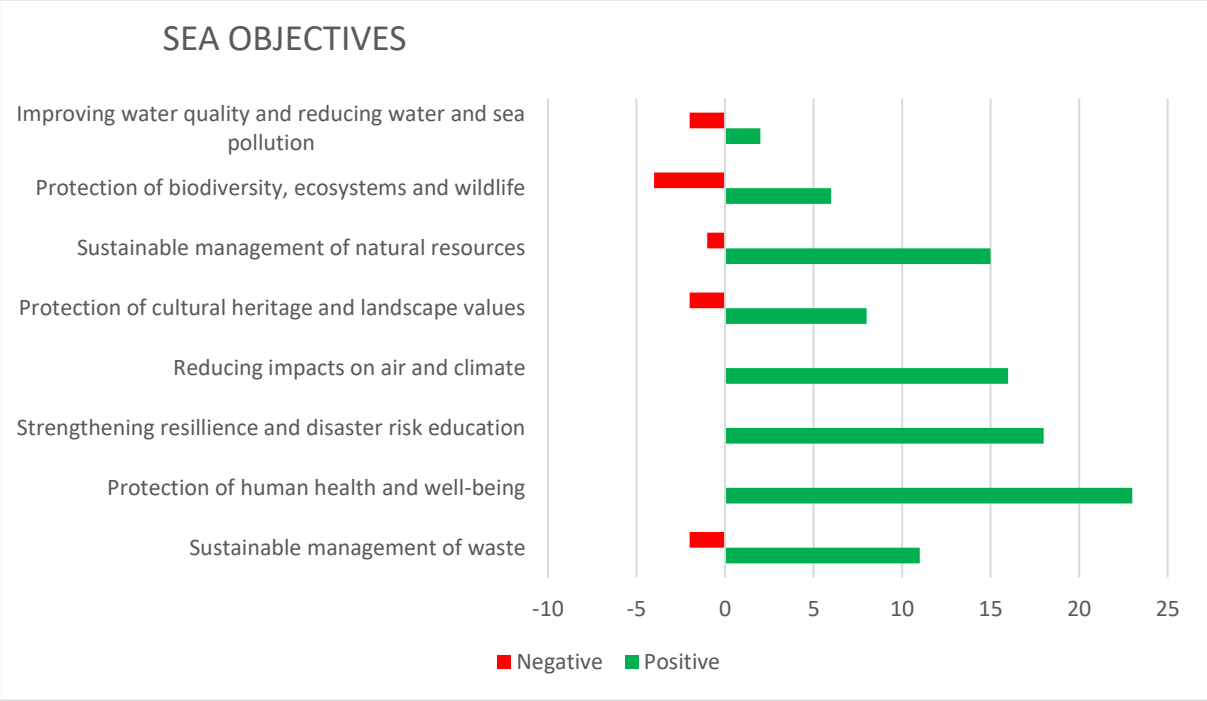


Figure 2. Presentation of quantified impacts of the Programme on environmental objectives

7. TRANSBOUNDARY IMPACTS

Taking into consideration that Interreg Programme is transboundary in nature and scope, aiming at achieving impacts on the cross-border region, the impacts were regarded as transboundary by default, with consultations being held in all participating countries.

As regards the likelihood of occurrence of impacts across borders of the Programme territory, taking into consideration the typology of proposed actions as well as their local spatial scope, the implementation of specific objectives proposed by the Programme are not expected to generate cross-border impacts on the neighbouring Slovenia, Albania, Kosovo and Serbia.

8. ENVIRONMENTAL PROTECTION AND ENHANCEMENT MEASURES

This Chapter describes measures for prevention, reduction and mitigation of likely negative impacts generated through implementation of the Programme, as assessed in chapter *9.2. Result of the assessment of the impact of the implementation of the Development Programme on environmental objectives* in Volume I.

Protection measures have been defined on the basis of identified negative individual and cumulative impacts and are designed to minimize or completely avoid them. Apart from measures proposed in response to identified negative impacts, the SEA Report also proposes integration of enhancement measures formed in response to observed opportunities to improve environmental state or to increase sustainability of the solutions proposed by the Programme.

Therefore, for better understanding and implementation, the proposed measures were divided into measures to be implemented at the Interreg Programme level and measures to be applied during tendering procedure at project screening level during further implementation of the Programme.

Table 4. Environmental protection and enhancement measures to be implemented at Programme level

Programme Priority	SPECIFIC OBJECTIVE	Proposed measure/guideline regarding the Interreg Programme	SEA OBJECTIVES
PA1 - Smart investments in research, innovation and competitive entrepreneurship	SO 1.1 - Developing and enhancing research and innovation capacities and the uptake of advanced technologies	1. The action should also emphasise bridging over research and commercialisation of the final product. (S.O 1.1 – 3) 2. Apart from building capacities, it is necessary also to include information, education and support to the public in use of e-services of public administration. (S.O 1.1 – 8)	Sustainable management of natural resources Protection of human health and well-being
	SO 1.3 - Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments	1. The Programme should consider reaching out to the underperforming SMEs in addition to supporting the already established persons (S.O 1.3 – 2) 2. The Programme should consider including simplification of legal and regulatory framework, accessible and easy finance, ensuring adequate infrastructure and education, and business support services (S.O 1.3 – 1)	Sustainable management of natural resources Protection of human health and well-being
PA2 - Green investments in environmental protection and efficient risk management	SO 2.1 - Promoting energy efficiency and reducing greenhouse gas emissions	1. The action should be completed with consideration of use of RES or clean mobility and transport (S.O. 2.1-2) 2. Strategic approach may wish to consider an energy hierarchy such as reduction of energy demand, ensuring efficient use of energy, generating energy needs from renewable sources (S.O 2.1 – 4)	Sustainable management of natural resources Protection of cultural heritage and landscape values

Programme Priority	SPECIFIC OBJECTIVE	Proposed measure/guideline regarding the Interreg Programme	SEA OBJECTIVES
	SO 2.4 - Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches	1. Proposed strategies should also include disaster prevention strategies as a way to minimise impact on climate change. Strategies should also focus on good standards and practices and implement them, e.g. green infrastructure. 2. Vulnerability assessments of adequate sectors should be carried out as preconditions for selecting adequate approach to climate proofing. (S.O. 2.4 10) 3. Water management should also include waste-water collection and treatment (9) 4. The action of integrating climate change aspects into water management should also include preservation of wetlands, reforestation and preservation of natural floodplains. (SO 2.4 – 9)	Strengthening resilience and disaster risk reduction
PA4 - Sustainable and inclusive tourism and culture	SO 4.6 - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation	1. Actions must be performed with precaution and taking into consideration environmental mitigation measures. (S.O. 4.6 -1) 2. Direct investments more towards the hinterland and continental parts of the Programme Area since those areas are less developed and in need for economic development and also to relieve the pressure on coastal areas (S.O 4.6 – 1)	Improving water quality and reducing water and sea pollution Sustainable management of natural resources Protection of cultural heritage and

Programme Priority	SPECIFIC OBJECTIVE	Proposed measure/guideline regarding the Interreg Programme	SEA OBJECTIVES
			landscape values

Table 5. Environmental protection and enhancement measures at project screening level

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
P1 - Smart investments in research, innovation and competitive entrepreneurship	SO 1.1 - Developing and enhancing research and innovation capacities and the uptake of advanced technologies	1. The proposed technologies will belong on the low carbon technology list and will include applications to minimize resource consumption in other sectors (agriculture, food production, manufacture etc.). (3) 2. Proven green solutions will include low carbon technology or will enable GHG emissions in other sectors by their implementation, use alternative fuels, generate or use renewable energy, and take into consideration transport emissions. (7)	DNSH DNSH
	SO 1.3 - Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments	1. Established schemes as “green-building” certifications or EU building regulations and standards may be used as alternative proof of eligibility (6)	DNSH

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
P2 - Green investments in environmental protection and efficient risk management	SO 2.1 - Promoting energy efficiency and reducing greenhouse gas emissions	1. Use bioenergetic crops that do not require the use of pesticides (S.O 2.1 – 8) 2. Protect forests from excessive logging for energy purposes (S.O 2.1 – 8) 3. In biomass production and use prioritise locations of degraded qualities such as brownfields, abandoned quarries, or locations along or within existing transportation or transmission corridors (S.O 2.1-8) 4. Negative impacts of RES projects mitigate through siting (selection of location), and protection measures proscribed at the project level in environmental impact assessment procedures. (S.O 2.1-8) 5. In order to support sustainable management of natural resources objective, it is proposed that former hydrocarbon drillholes are used for survey and geothermal energy exploitation purposes (S.O 2.1 – 8) 6. Involve the public in the planning processes of RES power plants (S.O 2.1 – 8) 7. At project level, include experts/conservationists in the project development stage to ensure minimal negative impact on cultural heritage. Ensure expert supervision in implementation stages of pilot projects when it comes to cultural heritage (S.O 2.1 – 6) 8. When implementing and developing actions and specific projects regarding wind power plants, the dimensions and layout of wind turbines must be adapted to specific location context and values, with a viewshed analysis and with a goal to minimise the impact on landscape and heritage values. Modifying wind power plants for landscape context should be done as seen in good global practices and R&D (S.O 2.1 – 8)	Protection of biodiversity, ecosystems and wildlife Sustainable management of natural resources Protection of cultural heritage and landscape values Sustainable management of waste DNSH

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
		9. Produce area sensitivity and suitability analyses for renewable energy plants (S.O 2.1 – 8)	
		10. As regards hydropower exploitation, future projects will involve change of technology, renovation and enhancement of the existing systems, while new hydropower plants are not supported by this Programme (S.O 2.1 – 8)	DNSH
		11. At project level, ensure that experts and skilled operatives are selected for work on traditional buildings/cultural heritage and are included in both project development and implementation phase (S.O 2.1 – 3)	DNSH
		12. Integration of traditional energy sources will not be supported. (2)	DNSH
		13. Green building certification is supported as alternative proof of eligibility of proposals. (2, 4, 6)	DNSH
		14. All emissions will be assessed within environmental assessment procedures and will not exceed limit values. (8)	DNSH
		15. Used biomass will not be derived from deforestation or forest degradation practices (8)	DNSH
		16. Biomass derived from waste since is not supported since any activity leading to significant increase in incineration is not considered as eligible, and harms circular economy, for which reason waste biomass has to be omitted from the action. (8)	DNSH
		17. Use of wind power will not include offshore generation as there are currently no applicable legal regulations or guidelines to be applied. (8)	DNSH
		18. Measures directed to reduce adverse impacts on water and protected habitats and species dependent on water to be applied regard ensuring of downstream and	DNSH

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
		upstream fish migration, minimum ecological flow and sediment flow, and habitat protection and enhancement measures. They are regularly identified and prescribed within Environmental Impact Assessments and Appropriate Assessments for developments at or near NATURA 2000 sites. (8) 19. Programme shall support reuse and use of secondary raw materials and reused components, design for high durability, recyclability, waste management that prioritises recycling over disposal and traceability of substances and materials used. (8)	DNSH
	SO 2.4 - Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches	1. Any plans involving cultural heritage should be implemented with cooperation with experts/conservationists in order to ensure preservation, protection and maintenance of structures (S.O 2.4 – 8) 2. Reduction of existing risks should be developed on flood risk maps aiming at reduction of adverse consequences for human health, the environment, cultural heritage and economic activities (S.O 2.4 – 5) 3. Ensure implementation of green infrastructure, green building principles and sustainable rainwater management, especially in urban areas (S.O 2.4 – 8) 4. Property occupants and users should be directly involved in development of emergency-response plans (S.O 2.4 – 8) 5. Strategies developed within this action (S.O 2.4 – 9) will contain specific measures and guidelines for implementation of green infrastructure for sustainable water management or incorporate pilot projects for the stated 6. In order to have full effects of the action, it should take into consideration urban, land-use and marine spatial	Protection of cultural heritage and landscape values Strengthening resilience and disaster risk reduction Protection of human health and well-being

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
		planning and to include by a wide range of specialists from ecologists, public health scientists and urban planners (S.O 2.4 – 11) 7. Include green infrastructure projects and activities for urban areas, as it can significantly improve environmental services that benefit human health physically and psychologically (S.O 2.4 – 11) 8. Activities planned with action – development and introduction of joint climate change adaptation, disaster prevention and first response plans, have to include education of the public, and regulation of behaviour, especially in the most affected areas and periods. 9. In order to identify physical climate risks, vulnerability assessment will be conducted through screening, vulnerability assessment and assessment of adaptation solutions that can reduce identified physical climate risks (1, 2, 5, 8, 9, 11) 10. Any discharges to natural receptors will be in accordance with national provisions and maximum permissible pollutant levels. (9)	DNSH DNSH DNSH
	SO 2.6 - Promoting the transition to a circular and resource efficient economy	1. Waste fractions will not be mixed in waste storages and transfer facilities with other waste or material of different properties and will be separately collected. (1, 3, 4) 2. Industrial waste within this programme will refer to industrial biodegradable waste. The action should also cover construction waste. (4)	DNSH DNSH

Programme Priority	SPECIFIC OBJECTIVES	Proposed measures and guidelines regarding further implementation of the Programme	SEA OBJECTIVES
P4 - Sustainable and inclusive tourism and culture	SO 4.6 - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation	1. Implementation of actions must be done with precaution and implemented mitigation measures regarding SEA objectives, especially regarding water quality, protection of biodiversity, landscape values and sustainable waste management (S.O 4.6 – 1) 2. Projects must include a preliminary site analysis – contextual environmental analysis that will ensure appropriate implementation of projects into the landscape and cultural heritage, a suitability assessment towards the environment, climate risk assessment and other expert documents as seen in good practice globally (S.O 4.6 – 1) 3. For each tourism product, a management plan for sustainable implementation should be developed to ensure sustainable use of resources, circular economy, minimal impact on environment, social contribution, etc (S.O 4.6 – 5) 4. Cooperation with conservationists should be ensured in creating project documentation and construction supervision over cultural heritage assets to minimise possible negative impacts (S.O 4.6 – 3) 5. The concepts, activities and standards should also include activities that address marine environment protection (e.g. pollution from tourism and traffic activities) (8) 6. The compliance with national legislation and waste management strategies and plans is a minimum requirement. (1, 3, 4, 5) 7. Adaptation measures should take into consideration physical strengthening to extreme weather events, and increase of safety, future increase of temperature, floods, monitoring and forecasting, waterproofing, and green infrastructure and green solutions in urban areas. (7)	Protection of biodiversity, ecosystems and wildlife Sustainable management of natural resources Protection of cultural heritage and landscape values DNSH DHNS

9. DESCRIPTION OF THE ENVISAGED MONITORING MEASURES

Monitoring the real impacts of the implementation of the Programme aims to verify that its implementation achieves the objectives set, then identify the negative impacts of implementation (anticipated and unforeseen), and to ensure that the environmental measures proposed by the strategic assessment are implemented.

In addition to the environmental monitoring systems already in place the results of which are considered essential for monitoring the impact of Program on the SEA objectives, i.e. the component and environmental pressures, the strategic assessment did not identify new environmental monitoring measures.