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CONTRACT

«TECHNICAL CONSULTANCY SUPPORT: REPORT FOR THE STRATEGIC
ENVIRONMENTAL ASSESSMENT OF
COOPERATION PROGRAMME INTERREG VI-A
GREECE-ITALY 2021-2027»



DELIVERABLE:

«STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) OF COOPERATION PROGRAMME
INTERREG VI-A 2021-2027 GREECE-ITALY 2021-2027»



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Acronyms

CF	COHESION FUND
E.O.	ENVIRONMENTAL OBJECTIVE
EAP	ENVIRONMENT ACTION PROGRAMME
EC	EUROPEAN COUNCIL
EEA	EUROPEAN ENVIRONMENT AGENCY
EMFF	EUROPEAN MARITIME AND FISHERIES FUND
EP	EUROPEAN PARLIAMENT
ERDF	EUROPEAN REGIONAL DEVELOPMENT FUND
ESB	EUROPEAN SOCIAL FUND
ESIF	EUROPEAN STRUCTURAL FUNDS AND INVESTMENT
ETC	EUROPEAN TERRITORIAL COOPERATION
EU	EUROPEAN UNION
EUSAIR	EU STRATEGY FOR THE ADRIATIC – IONIAN REGION
GDP	GROSS DOMESTIC PRODUCT
GHG	GREENHOUSE GASES
GR	GREECE
IBAS	IMPORTANT BIRD AREAS
ICT	INFORMATION AND COMMUNICATION TECHNOLOGIES
IT	ITALY
IUCN	INTERNATIONAL UNION FOR CONSERVATION OF NATURE
JMD	JOINT MINISTERIAL DECISION
JPC	JOINT PROGRAMMING COMMITTEE
MA	MANAGING AUTHORITY
MED	MEDITERRANEAN SPACE

MIBAS	MARINE IMPORTANT BIRD AREAS
MSFD	MARITIME STRATEGY FRAMEWORK DIRECTIVE
NEETS	NOT IN EDUCATION, EMPLOYMENT, OR TRAINING
NSRF	NATIONAL STRATEGIC REFERENCE FRAMEWORK
OP	OPERATIONAL PROGRAMME
PAF'S	PRIORITIZED ACTION FRAMEWORKS FOR NATURA 2000
PCGDP	GROSS DOMESTIC PRODUCT PER CAPITA
PD	PRESIDENTIAL DECREE
PO	POLICY OBJECTIVE
R&D	RESEARCH AND DEVELOPMENT
R&I	RESEARCH AND INNOVATION
RAE	REGULATORY AUTHORITY FOR ENERGY
RDP	RURAL DEVELOPMENT PROGRAMME
RES	RENEWABLE ENERGY SOURCES
RIS	RESEARCH AND INNOVATION STRATEGIES FOR SMART SPECIALIZATION
SAC	SPECIAL AREA OF CONSERVATION
SCI	SITES OF COMMUNITY IMPORTANCE
SEA	STRATEGIC ENVIRONMENTAL ASSESSMENT
SMES	SMALL AND MEDIUM ENTERPRISES
SO	SPECIFIC OBJECTIVE
SPA	SPECIAL PROTECTION AREA
TEN-E	TRANS-EUROPEAN ENERGY NETWORKS
TEN-T	TRANS-EUROPEAN TRANSPORT NETWORK
UNEP	UNITED NATIONS ENVIRONMENT PROGRAMME
UNFCCC	UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

1 NON TECHNICAL SUMMARY

The present Strategic Environmental Assessment Report (SEA) of the Cooperation Programme INTERREG VI-A Greece - Italy 2021-2027, is prepared in the context of the project "Technical Consultant Support: Report for the strategic environmental assessment of Cooperation Programme INTERREG VI-A Greece – Italy 2021-2027" and is in accordance with the contents of Directive 2001/42/EC for the environmental assessment of certain plans and programs. The Managing Authority of the European Territorial Cooperation Programmes, of MINISTRY OF DEVELOPMENT AND INVESTMENTS, assigned this project to EEO GROUP Independent consultancy.

1.1 The process of SEA

The Strategic Environmental Assessment (SEA) is an ex ante evaluation of the environmental effects of the Cooperation Programme INTERREG VI-A Greece - Italy 2021-2027. The SEA process includes the preparation of the Strategic Environmental Assessment Report (SEA Report), its submission, consultation, with authorities (which by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of the programme) and the public, its approval by the national authorities (after taking into account the environmental report and the results of the consultation) and the establishment of a monitoring and evaluation system during the implementation of the programme. It is an autonomous process in relation to the programme's design process and is performed in parallel, as a mandatory stage, according to Directive 2001/42/EC.

1.2 Aims and Objectives of the programme

The main aim of the programme is to ensure that it will contribute positively to achieve sustainable development on both countries, a high level of environmental protection, as well as social and economic development according to the provisions of Green Deal and the Sustainable Development Goals (SDGs) of UN's 2030 Agenda for Sustainable Development. The new programme supports the objectives and priorities of both Member States, Greece and Italy, with particular regard to the transition to a green and circular economy with low carbon emissions, with innovative initiatives for the entrepreneurship and sustainable development of the eligible area. The geographic morphology of the territories included in the programme area explains the difficulties in homogeneous economic development in an area characterised by the presence of islands, mountains and rural areas with low population density and difficulties in connections (transport and high-speed internet connection). This requires greater coordination of the INTERREG Greece-Italy Programme with national (Greek and Italian) and European policies on rural areas and islands.

1.3 Description of the programme

In order to achieve the objectives, the programme has chosen to intervene in four Priorities, with three Policy Objectives (PO) and one Interreg Specific Objective (ISO):

PO1: A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity.

PO2: 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 and risk prevention and management.

PO4: A more social and inclusive Europe implementing the European Pillar of Social Rights.

ISO1: A better cooperation governance

For each policy objective, one or more Specific Objectives (SO) are selected that best approach the achievement of the stated objective and are based on the needs and the potentials of the eligible area. The Priorities, the Policy Objectives and the Specific Objectives are shown in a tabular form on the following Table 1.1.

Table 1-1: Interreg Cross Border Cooperation Programme Greece- Italy 2021-2027

P1 - Enhanced cooperation for a more competitive and smarter GR-IT area			P2 - Enhanced cooperation for a greener and low carbon GR-IT area			P3 - Enhanced cooperation for a more social and inclusive GR-IT area			P4 - Enhanced governance for cooperation in the GR-IT area	
PO1 – A more competitive and smarter Europe by promoting innovative and smart economic transformation			PO2 – 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 and risk prevention and management			PO4 - A more social and inclusive Europe implementing the European Pillar of Social Rights			ISO1 – A better cooperation governance	
SO1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies	SO1.2: Reaping the benefits of digitisation for citizens, companies and governments	SO1.3 - Enhancing growth and competitiveness of SMEs and job creation in SMEs	SO2.4 - Promoting climate change adaptation and disaster risk prevention and resilience, taking into account ecosystem-based approaches	SO2.6- Promoting the transition to a circular and resource efficient economy	SO2.7- Enhancing protection and preservation of nature, biodiversity and green infrastructure, including urban areas, and reducing all forms of pollution.	SO4.2 - Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and online education and training	SO4.5 - 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	SO4.6 - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation	ISO1.1 - Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and all stakeholders	ISO1.4: Enhance institutional capacity of public authorities and stakeholders to implement macro-regional strategies and sea-basin strategies, as well as other territorial strategies

Overall, the **expected results** of the programme are (non-exhaustive list):

- Research and innovation for the application of advanced technologies for the smart economic transformation of the Programme area and in key fields.
- Enable the transfer of good practices and the access of SMEs to innovative research and technologies in key sectors, via cross-sector cooperation, technology transfer and coordination, making them more competitive
- Digitisation and the application of relevant technologies for the smart economic transformation of the Programme area in key fields.
- Enable the transfer of good practices among public authorities, businesses and business support organisations, as well as high education institutions and citizens, via cross-sectoral cooperation, knowledge transfer and coordination
- Resulting in more strengthened SMEs
- Contribute in more ecological resilience and less negative effects due to climate change
- Improve the adaptation and prevention measures with regard to risks linked to natural events
- Promote the enhanced cross-border research and innovation capacities
- Promote the uptake of advanced technologies in circular economy
- Result in more strengthened capacities for enhanced preservation and protection of the natural habitats and biodiversity
- Tackle high levels of unemployment as well as high levels of NEETs of the area and the consequences related to ageing population
- Result in more strengthened capacities and more resilient health systems in the Programme area in order to be able to operate efficiently and to react in possible future pandemics and not only
- Foster the role of culture and tourism for a more social and inclusive GR-IT area

1.4 Alternatives

Realistic alternatives are presented and evaluated, regarding their effects on the environment and sustainable development.

The selection of the suggested alternative is being done based on the environmental, economic and social criteria towards the Sustainable Development principles direction. The justification of the selection is being presented in chapter 5 of the present report. In accordance with the SEA Directive 2001/42/EC, the alternatives should be realistic, i.e they should be feasible and eligible based on the specific data and regulations of the programme framework.

The alternatives that are presented are:

- Zero alternative or “do nothing scenario”, in which the non- implementation of the programme is being examined consisting the zero scenario.
- Suggested alternative, which best integrates the requirements consisting the proposed solution.

1.5 Description of the current state of the environment

A key element of the cross-border area Greece - Italy is the maritime area of the Ionian and Adriatic Sea. This area along with the coastal area has a particularly significant biodiversity that concerns:

- Endemic animals and plants that thrive mainly in coastal areas.
- The birds using the area as a migratory path and as part of breeding and wintering grounds, especially the many and rich wetlands.
- Marine fauna, where for a number of endangered or vulnerable species the area is an important habitat. These species include the Mediterranean seal *monachus monachus*, the turtle *caretta caretta* and some fish species which are threatened by overfishing or by the pressures exerted by the man on the marine environment.
- The ecological landscape, which in combination with the Mediterranean climate and the geological history of the areas composes some unique ecological standards as those of Pindos, the peninsula of Gargano, Enos etc.
- The Mediterranean rural - lowland area, which is dominated by olives and vineyards.

The main factor shaping the above-mentioned, is the Mediterranean climate that dominates in the region and is characterized by mild winters and dry (but not arid) summers. The change of this climate is a major threat not only to the ecology of the area, but also to the economy and quality of life. Major threats are also the increase of the risk of forest fires and coastal erosion. Another important risk is associated with the high seismicity of the region, which has historical records, and other recent earthquakes.

Another important issue in the area concerns the management of inland waters. The problems are related to either quantitative or qualitative parameters and are mainly local problems (since there are

no transboundary river basin). In marine area, pollution is pointy localized and in some other areas despite the fact that most qualitative variables show a relatively good condition of the environment (much better than those of Northern Adriatic).

As for the issue of air pollution, despite the absence of large urban areas (more than 1 million inhabitants), urban pollution problems are identified primarily due to urban emission sources. Some of them concerns the atmospheric pollution caused by heating systems, car traffic and the pollution caused by ships in port cities.

Ecological status of rivers and lakes in the programme area is less than good only in less than 10% in Epirus, 10%-30% in Ionian Islands and Western Greece and 30%-50% in Puglia¹. In terms of protected areas Basilicata has a percentage of 22,8%, while Calabria 26,6%.

Greece is a top performer in the ecological status of transitional and coastal water, whereas Italy's performance is average². Regarding bathing coasts, Basilicata has a percentage of 90,8% and Calabria 85,3%.

In terms of resource efficiency, in 2015, Italy was 16% above the EU average and Greece 22% below. In comparison to 2011 the picture remains more or less the same consisting of a persistent joint challenge in this regard.

The potential climate change vulnerability of the regions is above the EU-median and Western Greece is the most affected region while Ionian Islands region belongs to the least vulnerable ones in the EU. In the case of Italy³ emissions of total GHGs show a decrease by the year 2035. This is the same case at national level for Greece. In the case of Italy, the sectors that contribute more to the total emissions is transport and energy industries, while in Greece is mostly the transport sector.

In terms of air quality in the case of Greece for the year 2020⁴, most of Ozone (O₃) and nitrogen dioxide (NO₂) is concentrated in the metropolitan areas and in Western Greece and more particularly the city of Patras. In the case of Puglia, the region shows high concentration especially with regard to Ozone (O₃). High-speed ferries and international shipping are responsible for significant air pollution too. In this frame, as also mentioned above, air quality is mostly affected by the transport sector in both countries. Air pollution is also the cause of monuments deterioration and buildings degradation and it affects visibility in many areas interested by tourism, therefore action on air pollution shall have benefits on health but also on economic activities related to fisheries and tourism.

Medium-to very high environmental sensitivity to climate change and therefore increased level of risks due to extreme weather conditions is noted in parts of Epirus, Western Greece and Ionian Islands. More specifically, out of 16.300 km of country's coastline, 1.000 km are areas highly vulnerable to climate change⁵. This vulnerability is associated with a rise in Greece's average sea level by an

¹ EC, 7th Report on economic, social and territorial cohesion, 2017

² COWI, Study on Macroregional Strategies and their links with Cohesion Policy, 2017

³ www.eea.europa.eu

⁴ <https://www.eea.europa.eu/themes/air/country-fact-sheets/2020-country-fact-sheets/greece>

⁵ https://www.bankofgreece.gr/RelatedDocuments/National_Adaptation_Strategy_Excerpts.pdf

estimated 0.2-2 m by the year 2100, which indicates a need to focus on sustainable coastal management.

With regard to the impact of COVID-19 in air quality, concentrations of nitrogen dioxide (NO₂) - a pollutant mainly emitted by road transport - have decreased in many European cities where lockdown measures have been implemented⁶. In Puglia, as well as Calabria and Basilicata regions, all cities showed a considerable decrease between March - August of 2020 when compared to the same months in 2019⁷. The city of Patras in Western Greece shows a considerable decrease only in the month of April that has increased again in the summer months.

In terms of recycling and waste management, the Programme area shows potential and at the same time faces challenges to a certain extent. Data at national level show that Greece puts a significantly higher share of waste into landfill (at 81%), while Italy at 21% (below EU average). Waste generation per capita in both countries is slightly above the EU average of 1.717 kg per capita⁸. In terms of recycling of municipal waste, Greece (at 17.2%) is substantially below the EU average of 45.8%, while Italy is in line, showing a disparity in this regard.

There is a great potential to exploit circular economy practices that may also build upon previous experience and enhanced cooperation between the regions. The role of the circular economy in the green economic transition is also highlighted by the Green Deal and the Territorial Agenda 2030:

- Italy's strategic positioning on circular economy (in line with the commitments adopted under the Paris Agreement, UN Agenda 2030, G7 Communiqué and within EU) is stipulated in the document entitled *"Towards a Model of Circular Economy for Italy - Overview and Strategic Framework"*. The document calls for a 'change of paradigm' for Italy's economy, for a new way to consume, produce and do business. There is a need for a new industrial policy aimed at sustainability and innovation capable of increasing the competitiveness of products and manufacturing.
- The transition to a low-carbon, resource efficient and circular economy is of paramount importance for Greece to ensure environmental protection but also to boost green growth, to create new jobs, fight unemployment and support innovation in production, consumption, value chain of materials, sharing use methods and reduction, reuse and recycling of waste, in order to extend the life cycle of products and optimise the resources, water and energy. The Greek government has set implementation of circular economy objectives in practice, through a Circular Transition Business Plan of Greece, as one of its key cross-sectoral priorities.

With regard to Natural Areas and Biodiversity, the Programme area shows a great potential. According to the European Environmental Agency (EEA), the natural and protected areas index in the Italy-Greece maritime border area is moderate to high, and particularly high in coastal areas. There is a large number of Natura 2000 sites and nationally protected areas, including several Ramsar (wetland) sites

⁶ <https://www.eea.europa.eu/themes/air/air-quality-and-covid19>

⁷ <https://www.eea.europa.eu/themes/air/air-quality-and-covid19>

⁸ Commission Orientation Paper, May 2019

and areas. However, there are no transboundary ecosystems among the programme's area regions. The area includes classified water bodies that are affected by point and/or diffuse pressures in rivers and lakes, and that have less than good ecological status. According to the report on bathing water quality for the year 2019 as published by EEA, at national level in Italy 88,4% of the bathing water is classified as excellent while the respective Greek percentage is 95,7%.

The area has a particularly important cultural capital certifying connection between the two individual sides. The history of the area is very rich and includes all historic and prehistoric periods, as was the first human colonization of the Parties in Europe. The emergence of cultural heritage is the main challenge for the competitiveness of a sustainable tourism product in the area. The main poles are: four World Heritage sites of UNESCO (Castle del Monte, Trulli Alberobello, the archaeological site of Olympia, the old town of Corfu) and numerous other archaeological sites such as Ancient Dodoni, the ancient temple of Canosa, the city of Lecce, Parga etc.

An analytical description of the current state of the environment of the eligible area, is presented in chapter 6 of the present report.

1.6 Assessment, Evaluation and Management of the environmental effects of the programme

The evaluation of the effects is based on the environmental parameters that are suggested through the Directive 2001/42/EC of the European Parliament as adapted by the JMD 107017/2006 of Greek Legislation, on the assessment of the effects of certain plans and programmes on the environment. Through this examination, which is presented analytically in chapter 7 of the present, all possible effects that may arise during the programme's implementation, are detected, estimated and evaluated. A correct selection of these parameters is vital in order for the Strategic Environmental Assessment to be substantial.

The parameters that have been selected are the following:

1. Biodiversity-fauna-flora
2. Population- Human health
3. Soil
4. Water
5. Air, Climate factors and climate change
6. Infrastructure-material assets
7. Cultural Heritage
8. Landscape
9. Noise
10. Sustainable development
11. Interrelationship

The evaluation of the environmental impacts is made according to the methodology of guiding questions. According to this methodology, a network of evaluating questions is being formed, taking into consideration the environmental aims of the study, in order to determine all the possible environmental impacts for each environmental parameter. The questions are formed in a way to get a yes or no answer.

The environmental impacts on each parameter will be examined per Priority and its Specific Objectives (SOs) using some selected criteria such as the probability, the scale, the duration, the reversibility, the cross-border dimension, the sequence of an impact and the interaction.

The assessment and evaluation of the effects of the proposed actions resulted in the following:

- The majority of the actions of the Programme will have a positive impact on the state of the environment both locally-regionally and (where possible) in a cross-border level.
- A significant part of the actions cover the financing needs of joint actions for achieving objectives of regional, national and European policy on the Environment and Sustainable Development.
- The positive effects concern both the artificial, and the natural environment, in particular the sustainable spatial development, the improvement of living conditions and environmental characteristics in urban centers, the water management, the management of protected areas, the achievement of climate change objectives and the promotion of blue and green growth.
- The integration of environmental dimension into the activities design is included in all the objectives of the programme and is not strictly limited to the measures (specific objectives) that are exclusively associated with protection.
- Any negative impacts, resulting from the project, are evaluated as local and of low impact. These impacts are associated with the construction phase of projects included in the programme area and have a short-term character. Overall, for these impacts of the programme appropriate measures for preventing or reducing their extent and intensity are proposed.

Based on the above-mentioned, it is estimated that the implementation of the programme will create a strong positive synergy with the objectives of environmental policy. In order, however, the degree of this synergy to be maximized and in order to avoid the identified negative impacts, some measures are taken to prevent and control the environmental effects as analytically described in chapter 8 of the present report.

1.7 The “Do no significant harm (DNSH)” principle

The Programme has been evaluated according to the “Do no significant harm (DNSH)” principle.

According to the **Taxonomy regulation**, *"The Funds should support activities that would respect the climate and environmental standards and priorities of the Union and would do no significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852 "*.

The evaluation of the programme following the "Do no significant harm" principle, is presented in detail in chapter 7.3 of the present report.

In order to implement the DNSH principle, the following environmental objectives have been examined, as defined in Article 17 of the Taxonomy Regulation 2020/852 (EU).

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. Circular economy
5. Pollution prevention and control
6. Protection and restoration of biodiversity and ecosystems.

According to the above mentioned examination, the Programme:

- The Programme is not expected to lead in significant GHG emissions and as a result it will not affect the climate change mitigation.
- The Programme is not expected to lead to an increased adverse impact of the current climate and the expected future climate, on the activity itself or on people, nature and assets. As a result it will not act negatively to the climate change adaptation.
- The Programme is not going to be detrimental to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters. Consequently, it will not affect the sustainable use and protection of water and marine ecosystems.
- The Programme is not expected to lead to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources. In this way, it will not act against the principles of circular economy.
- The Programme does not significantly increase the generation, incineration or disposal of waste and the long-term disposal of waste does not cause significant and long-term environmental harm. The programme will not act against waste prevention and recycling.
- The Programme is not expected to lead to a significant increase in emissions of pollutants into air, water or land. Consequently, it will not act against the pollution prevention and control of the aforementioned environmental parameters.

- The Programme is not going to be significantly detrimental to the good condition and resilience of ecosystems, or detrimental to the conservation status of habitats and species, including those of Union interest. As a result, it will not act against the protection and restoration of biodiversity and ecosystems.

Consequently, the programme has been designed in order not to harm any of the above aforementioned environmental objectives; it is in line with the "do no significant harm" principle.

1.8 Mitigation measures

The prevention, reduction and mitigation of environmental impacts of the programme is realized through two main mechanisms: a) the environmental permitting of projects and activities as it is in force and b) the creation of special provisions and / or conditions that will be applied in the implementation of the programme and will be integrated in the management processes (projects approvals etc).

a) Environmental permitting of projects and activities.

The impacts of each project are controlled by the environmental permitting process as it is in force in Europe acquis and is specialized on the implementation procedures of the institutional framework of the two countries. The approval of a project in the programme does not modify its requirements according to the Environmental Permitting, under which occur the specific terms and conditions of the execution. In relation to the main activities, through the relevant Environmental Impact Reports should be (not exclusively) referred the following issues:

- Compliance with the specific emission limit values of pollutant loads and concentrations for air, water and soil in accordance with the applicable provisions.
- The specific limit values of noise.
- Compliance with national or regional planning for the environment, such as waste management plan, the basin management plans of the WFD, etc.
- The suitability of locating in accordance with the approved land use plans and building restrictions.
- Taking into account all the necessary measures that are provided by the legislation in relation to the prevention and reduction of pollution of protected areas, sea and forest.
- Projects that are located in areas included in the Natura2000 network (as SCI or SPA), will have to comply with Article 6.3 of Habitats Directive 92/43/EEC, that is: *“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect on it, either individually or together*

with other projects, it is should be estimated regarding its impacts on the site by taking into account its conservation objectives”.

b) Specific measures in order to protect the environment.

- Proposals that finance enterprises (innovation - entrepreneurship - competitiveness) and that include (in addition to the mandatory rules of the environmental law) investment in "green infrastructure and technologies", bioclimatic principles and/or promote the reduction and reuse of materials (according to the principles of circular economy and the hierarchy of waste management), would be highly desirable to be primed during the project selection process.
- In the process of specifying and selecting clusters, it should be considered to include enterprises that manage products or waste that are produced throughout the value chain.
- The actions of tourism development or enhancement of natural resources within Natura 2000 areas should be consistent with the management plans of the areas. In cases, where the projects are listed in areas with Management Agency, its opinion is necessary. In any case, it should be documented that the increase of visiting the protected ecosystems for tourism or other purposes does not have impact on the conservation status.
- Appropriate measures should be taken for technical projects that are implemented within the coastal marine area and may cause either a water quality pollution or a disruption of benthic substrate. Such measures should prevent and reduce the potential pollution of waters and the sediment.

More specifically, the aforementioned mitigation measures should address all the environmental parameters that might be affected by the projects of the Programme, according to the assessment of the environmental effects.

The proposed measures are selected and presented in a tabular form for each environmental parameter in chapter 8 of the present.

1.9 Monitoring System

According to Article 10 of Directive 2001/42/EC, the monitoring system of the significant environmental effects of the implementation of the Programme is necessary, in order to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.

The present Report is a first attempt to identify the impact of a programme that has not yet been fully completed. The actions and the types of interventions that have been examined largely determine the nature of the expected impact, but may provide few opportunities for their intensity and therefore their acceptance or not. Thus, due to lack of specific data resulting from the gradual implementation and specialization of the programme, the Report primarily identifies in theory the

impacts of the programme. The Report has so far identified the negative impacts and has proposed measures to minimize them. The monitoring system, therefore, should initially validate or correct the theoretical results of the assessment of Report compared with actual environmental impacts resulting from the implementation, and secondly should assess whether the proposed measures have been effectively implemented.

The proposed Monitoring System includes all the relevant environmental indicators per environmental parameter (e.g. biodiversity, air quality and climate change, soil, water, landscape and culture, etc.) and identifies the authorities that carry out the monitoring as well as the frequency of monitoring.

Finally, throughout the monitoring system the identification of the environmental footprint of the programme is achieved; for instance, actions promoting the reduction of GHGs emissions would reduce the carbon footprint of the programme.

2 GENERAL INFORMATION

2.1 The subject of SEA

According to the contract, the subject of the SEA, that is prepared in the context of the project entitled **"Technical Consultancy Support: Report for the Strategic Environmental Assessment of INTERREG Cross Border Cooperation Programme Greece - Italy 2021-2027"**, is the Strategic Environmental Assessment (SEA) of the new Interreg programme "Greece - Italy 2021-2027".

This SEA estimates the potential environmental impacts from the programme as it is described in deliverable D.3, (version 1.1 as being delivered in 14.10.2021 by "TREK development") of the final Cooperation Programme that will be submitted to the members of the programming Committee for further comments, prior to the final submission to the EC. That deliverable presents the final version of the Cooperation Programme which includes all the chapters of the Cooperation Programme, taking into consideration the results of the first and the second round of Public Consultations as well as the decisions taken by the programming Committee and other processes.

The main deliverable of the SEA consists of an Environmental Report according to Directive 2001/42/EC as it is adapted by the Greek Legislation, specifically the Joint Ministerial Decree JMD 107017/2006.

The final SEA report will incorporate the answers by the authors of the SEA and relevant documentation needed on the issues and opinions raised during the public consultation by environmental and other relevant services and interested public as defined in Directive 2001/42/EC.

The overall objective of the SEA, composed for the Territorial Cooperation Programme Greece- Italy 2021-2027 is formed by the following guidelines:

- setting environmental parameters under which the programme will operate.
- identifying, describing and evaluating the likely significant environmental effects arising from the implementation of the programme.
- taking into account reasonable alternatives.

2.2 The contracting authority

The drafting authority of the programme is the Managing Authority of European Territorial Cooperation Programmes, Hellenic Ministry of Development and Investments, which acts on behalf of the Joint Planning Committee of the programme. The Greek and Italian authorities have agreed to establish a Joint Programming Committee (JPC) for the European Territorial Cooperation Programme Greece - Italy 2021 – 2027 and its mission is to prepare the programme for approval by the European Commission.

Based on the requirements of EU regulations, the Joint Programming Committee approved the publication of call for proposals. The Managing Authority of European Territorial Cooperation Programmes manages

and monitors INTERREG Programs that aim to address common cross-border and transnational challenges, support synergies through joint partnerships and establish strong partnerships with a view to balanced economic, social and spatial development at European level.

2.3 The contracting entities

The contracting entities of this SEA are the following:

- the Managing Authority of European Territorial Cooperation Programmes on behalf of Hellenic Ministry of Development and Investments, which assigned the SEA
- EEO group independent consultancy, which undertakes the assignment from the aforementioned authority and is carrying out the SEA of the proposed programme.

2.3.1 Project team

For the preparation of this deliverable, the project team consisted of the following scientists:

	Name	Qualifications	Role in the project
1	Ioannis Frantzis	Environmental Engineer, MSc	General Coordinator
2	Dimitrios Argyropoulos	Civil Engineer, Sanitary Engineer	Coordinator of the SEA team
3	Lazaros Ntoanidis	Environmental Engineer, MSc	Member of the SEA team
4	Ioanna Eleftheriou	Environmental, MSc	Member of the SEA team
5	Martsela Katsanevaki	Environmental Engineer	Member of the SEA team
6	Rebecca Batmanoglou	Chemist	Member of the SEA team
7	Konstantinos Pachygiannakis	Electrical Engineer, MSc	Member of the SEA team
8	Amani-Christiana Saint	Chemical Engineer, MSc, PhD	Member of the SEA team
9	Socrates Tsigardas	Environmental Engineer, MSc	Member of the SEA team
10	Angelos Tsakonas	Project Manager	Communications Support of the SEA team

3 AIMS AND OBJECTIVES OF THE PROGRAMME

In this Chapter, the aims of the programme and its wider objectives will be examined, as well as their connection and compatibility with the institutional framework and environmental objectives followed by the European countries. Finally, the relationship with other relevant programmes is going to be included in this chapter. The following issues will be analyzed, amongst others:

3.1 Aims and objectives of the INTERREG Cross Border Cooperation Programme GREECE-ITALY 2021-2027

The cross-border cooperation between Greece and Italy has formally begun in 2000. The three predecessors of the Interreg Greece-Italy 2021-2027 offer valuable experience upon which the current programme will build in addressing both pertaining and emerging challenges and trends. These challenges include megatrends such as climate change and digitisation, transformation towards an innovation-based economy, regional disparities and last but not least the impacts of the COVID19 pandemic. The design of Interreg Greece-Italy 2021-2027 embraces and addresses all these aspects.

In order to increase the impact of the Programme, emphasis is put on the capitalisation of project outputs and results, both from the current programming period as well as the previous one.

Cross-border cooperation is encouraged in order to build the resilience of the participating regions regarding the common challenges being among others economic transition, climate change, and digitisation. At the same time, cooperation will enable the regions to eliminate their economic and social disparities identified by the territorial analysis.

The Programme will bring together several types of actors including public authorities, high education centres, business support organisations, agencies and the civil society. Efficiency of the expected results will also depend on the capacity of the involved stakeholders in the frame of digitisation and the development of relevant skills.

To achieve the objectives, the programme has chosen to intervene in four Priorities:

Priority 1: Enhanced cooperation for a more competitive and smarter GR-IT area

Priority 2: Enhanced cooperation for a greener and low carbon GR-IT area

Priority 3: Enhanced cooperation for a more social and inclusive GR-IT area

Priority 4: Enhanced governance for cooperation in the GR-IT area.

Each priority consists of specific objectives as it will be analysed in chapter 4.

The programme is implemented between the two Member States of EU and its aim is to contribute to the achievement of environmental policy objectives set out both at European level and at the macro-Region level (referring either to the Adriatic – Ionian Region or in the wider Mediterranean Region).

The aim of the review of the environmental objectives of other policies, strategies and plans in the context of SEA is to ensure that the requirements, commitments and obligations arising from them, have been considered and taken into account in planning process. In addition, its aim is to understand how the Operational Programme is included in the framework for implementation of policies to protect the environment and if it sufficiently contributes to the achievement of environmental protection objectives. In addition, this review aims to identify the SEA Environmental Objectives on which the identification of areas and thematics will be based in order to evaluate the impact of the programme, as it will be analyzed in Chapter 7.

3.2 Institutional framework and environmental objectives

The framework, which this SEA is considering, consists in the European framework for environmental protection and sustainable development **UN 2030 strategy** as well as all the corrections and additions that have been made through this time. This strategy focuses on promoting a more resource efficient, greener and more competitive economy for Europe. In 2020, the strategy E2030 was supplemented by "**Territorial Agenda 2030**". This treaty has added a third dimension: the territorial cohesion to those of economic and social cohesion. The guidelines of this agenda are specified during the implementation of the Eighth Environment Action Programme (2021-2030). The proposal of the Eighth Environment Action Programme (EAP), and the relation to the above guidelines, is also included in the relevant framework. The 8th EAP proposal calls for active engagement of all stakeholders at all levels of governance, to ensure that EU climate and environment laws are effectively implemented.

The policies that must be taken into account and contain objectives related to the programme are presented in the following table; categorized by the issue.

Field	Title of Plan, programme and policy
Sustainable Development	The Agenda 2030 of UN and the 17 Sustainable Development Goals (SDGs)
	The EU Green Deal (" <i>Transforming the EU's economy for a sustainable future</i> ")
Biodiversity	UN Conventions on Biological Diversity and its protocols
	EU Biodiversity Strategy for 2030 COM (2020) 280 final
	<ul style="list-style-type: none"> • <i>Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna</i> • <i>Directive 2009/147/EC on the conservation of wild birds</i>

	<ul style="list-style-type: none"> • <i>PAF's 2014-2020 – Prioritized Action Frameworks for NATURA 2000 (per MS)</i>
Climate Change Mitigation and Adaptation/ Energy	United Nations Framework Convention on Climate Change – adaptation to climate change
	The Paris Agreement
	The Energy Roadmap 2050 (White Paper)
	Climate Target Plan, COM (2020) 562 final
	European Climate Law /Regulation (EU) 2021/1119
	EU Strategy on Adaptation to Climate Change, COM(2021) 82 final
	National Energy and Climate Plan
	National Strategy for adaptation to Climate Change
	Just Transition Development Law (Law 4872/2021)
	National Climate Law (under preparation, the consultation has been completed in 24/12/21)
	<ul style="list-style-type: none"> • <i>Directive 2012/27/EU on Energy Efficiency</i> • <i>Directive 2009/28/EC on the promotion of the use of energy from renewable sources - National Action Plan for Renewable Energy</i>
Protection-Management of Marine and Coastal Zone	Maritime Strategy Framework Directive (MSFD) 2008/56 / EC
	<ul style="list-style-type: none"> • <i>Maritime Strategy for the Adriatic and Ionian Seas COM(2012) 713</i>
	Integrated Coastal Zone Management (ICZM)
	Protocol on Integrated Coastal Zone Management in the Mediterranean (2008).
Territorial and urban development	Leipzig Charter on Sustainable Urban Development
Water	Water Framework Directive (WFD) 2000/60/EC
	Directive 2007/60/EC on the assessment and management of flood risks
Air Pollution-Noise	Directive 2008/50/EC on ambient air quality and cleaner air for Europe
	Directive 2002/49/EC relating on the assessment and management of environmental noise
Soil	Commission Communication entitled “Thematic Strategy for Soil Protection” (COM (2006) 231).
	Directive 2008/98/EC on waste management
	EU action plan for the Circular Economy, COM(2020)98 final

Circular Economy/ Waste	National Action Plan for Circular Economy
	National legislation (e.g Law 4042/2012, etc.)
	National Waste Management Plan
	National Waste Prevention Plan
Cultural heritage and landscape	European Landscape Convention (2004)

3.3 Special Framework for the Adriatic – Ionian Region

Moreover, of the aforementioned main institutional framework, special frameworks are going to be considered in the analysis of the SEA report, amongst others the following:

The Maritime Strategy Framework Directive (MSFD)

This directive establishes a framework within which Member States shall take the necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest.

The Maritime Strategy for the Adriatic and Ionian Seas (COM (2012) 713)

The European Commission presented a Communication on maritime strategy for the Adriatic and Ionian Seas, in an effort to assess the needs and potential of sea-related activities in this area and to set out a framework to move towards a coherent maritime strategy and corresponding Action Plan.

Integrated Coastal Zone Management - Protocol on Integrated Coastal Zone Management in the Mediterranean Sea

The International Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols, established a common framework for the integrated coastal zone management in the Mediterranean, which includes the necessary measures to strengthen regional cooperation for this purpose.

3.4 Relationship with other programmes

The programme area is covered by:

- (i) EU Macro-regional strategy: EUSAIR,

- (ii) Two Transnational Cooperation Programmes: ADRION⁹ and MED¹⁰,
- (iii) Two CBC Maritime Programmes: Italy-Croatia¹¹ and Greece-Italy¹² (and other land border Programmes in the area: Italy-Slovenia¹³ and Slovenia-Croatia¹⁴),
- (iv) Three IPA CBC Programmes with a maritime dimension: Croatia - Bosnia and Herzegovina - Montenegro¹⁵, Greece - Albania¹⁶ and Italy – Albania - Montenegro¹⁷, and
- (v) A multilateral CBC Programme: ENI CBC Med¹⁸.
- (vi) Erasmus for Young Entrepreneurs¹⁹, a cross border exchange programme for young entrepreneurs.

Complementarity and synergies with such funding programmes and instruments were taken into account during the consultation phase and in the process of programming future actions in the area in order to ensure alignment with the main axes and priorities based on the existing needs and challenges of the programme area. As the Commission's Orientation Paper²⁰ suggests, 2021-2027 Interreg Programmes around the Adriatic-Ionian area need to coordinate their actions at an early stage, including during the programming period. The recent (2019) reports on Blue Economy²¹ and Emissions Gap²² were also taken into account together with all the relevant results at national level as well as in relation to the Adriatic-Ionian area.

The macro-regional EU strategy for the Adriatic and Ionian Region (EUSAIR) was taken under consideration, based on four main pillars:

1. Blue growth

- To promote research, innovation and business opportunities in blue economy sectors, by facilitating the brain circulation between research and business communities and increasing their networking and clustering capacity.

⁹ <https://www.adrioninterreg.eu/>

¹⁰ <https://interreg-med.eu/>

¹¹ <https://www.italy-croatia.eu/>

¹² <https://greece-italy.eu/>

¹³ <https://www.ita-slo.eu/en>

¹⁴ <http://www.si-hr.eu/en2/>

¹⁵ <https://www.interreg-hr-ba-me2014-2020.eu/>

¹⁶ <https://greece-albania.eu/>

¹⁷ <https://www.italy-albania-montenegro.eu/>

¹⁸ <http://www.enicbcmed.eu/>

¹⁹ <https://www.erasmus-entrepreneurs.eu/index.php?lan=en>

²⁰ 2021-2027: available the Adrion orientation paper - Greece Italy ([greece-italy.eu](https://www.greece-italy.eu/))

²¹ <https://op.europa.eu/en/publication-detail/-/publication/676bbd4a-7dd9-11e9-9f05-01aa75ed71a1/language-en/>

²² <https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y>

- To adapt to sustainable seafood production and consumption, by developing common standards and approaches for strengthening these two sectors and providing a level playing field in the macro-region.
- To improve sea basin governance, by enhancing administrative and institutional capacities in the area of maritime governance and services.

2. Connecting the region

- To strengthen maritime safety and security and develop a competitive regional intermodal port system.
- To develop reliable transport networks and intermodal connections with the hinterland, both for freight and passengers.
- To achieve a well-interconnected and well-functioning internal energy market supporting the three energy policy objectives of the EU – competitiveness, security of supply and sustainability.

3. Environmental quality

- To ensure a good environmental and ecological status of the marine and coastal environment by 2020 in line with the relevant EU acquis and the ecosystem approach of the Barcelona Convention.
- To contribute to the goal of the EU Biodiversity Strategy to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, by addressing threats to marine and terrestrial biodiversity.
- To improve waste management by reducing waste flows to the sea and to reduce nutrient flows and other pollutants to the rivers and the sea.

4. Sustainable tourism²³,

- Diversification of the macro-region's tourism products and services along with tackling seasonality of inland, coastal and maritime tourism demand.
- Improving the quality and innovation of tourism offer and enhancing the sustainable and responsible tourism capacities of the tourism actors across the macro-region.

Along with the Communication COM(2014) concerning the European Union Strategy for the Adriatic and Ionian Region²⁴, EUSAIR Action Plan²⁵ as well as the EUSAIR Flagships 2021-2027 that were adopted on 12th Extraordinary EUSAIR Governing Board meeting on 10 June 2020²⁶, all in the frame of the area's needs and challenges.

²³ <https://www.adriatic-ionian.eu/about-eusair/>

²⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0357&from=EN>

²⁵ <https://www.adriatic-ionian.eu/wp-content/uploads/2020/04/EUSAIR-SWD-2020.pdf>

²⁶ https://www.adriatic-ionian.eu/wp-content/uploads/2020/06/EUSAIR-flagships-GB_F.pdf

The Programme aims at strengthening further its alignment with EUSAIR thematic priorities and its contribution to the flagship implementation, in coordination with the other ETC programmes of the Adriatic-Ionian area. EUSAIR priorities and flagships are incorporated horizontally in the Programme under each Priority and specific objective.

The level of contribution of the projects to EUSAIR flagships will be assessed upon selection criteria. The Programme shall promote actions and interventions that will enhance the level of integration and connectivity of the cross-border area with key fields of the EUSAIR ensuring full complementarity with other Interreg programmes of the Adriatic and Ionian area. Inter-programme coordination modalities (for example, joint communication events by targeted theme/policy, capitalization activities across different programs, such as with ADRION, alignment in project selection criteria and guidance towards capitalisation and EUSAIR to project applicants) can be defined within informal coordination tools between JS/MAs, which will eventually be established at the EUSAIR level in 2021-2027.

The Programme will also consider participation in coordinated projects undertaken at the Mediterranean level, in particularly strategic cooperation areas (such as for example, sustainable tourism).

Equally important, the Programme has great potential to foster the implementation of national and regional programmes supported by the ERDF, ESF, Cohesion Fund, EAFRD and EMFF by enabling stakeholders to address common challenges and needs across administrative borders.

Complementarity with other programmes funded by the Cohesion Policy is critical, particularly in terms of investment planning and preparation, which can be accomplished by regional and local levels and be supported by the GR-IT Programme.

Accordingly, the Programme will seek complementarities and synergies with the interventions of other sectoral or regional operational programmes within the eligible CBC area. Moreover, coordination actions will be planned, such as encouraging representatives of the MAs of the Regional Operational Programmes funded by the European Structural Funds of the territories involved to participate in the Programme Monitoring Committee.

4 DESCRIPTION OF THE PROGRAMME

This chapter contains the description of the programme with a particular reference to:

- a) Its geographical scope
- b) Its contents
- c) The projects and activities that may arise from its implementation.

4.1 Map of the Programme Area

Cross-border cooperation between Greece and Italy has been consolidating over the years. The Programme Area has been enlarged linking the current eleven (11) regional units on behalf of Greece and eleven (11) provinces on behalf of Italy. More specifically, it covers:

- three (3) Greek Regions:
 - **Region of Western Greece**, including: Aitoloakarnania, Achaia, Ileia;
 - **Region of Ionian Islands**, including: Zakynthos, Kerkyra, Kefalonia, Lefkada; and
 - **Region of Epirus**, including: Arta, Thesprotia, Ioannina, Preveza;
- Three (3) Italian Regions:
 - **Region of Puglia**, including: Foggia, Bari, Brindisi, Lecce, Barletta-Andria-Trani (BAT) and Taranto;
 - **Region of Basilicata**, including: Matera; and
 - **Region of Calabria**, including: Catanzaro, Cosenza, Crotona and Reggio Calabria.



Figure 4-1: Map of the Programme Area

The Programme area is located in the southern part of the European Union and covers a territory of 59.950,83 km² with a total population of 7,1 million inhabitants, as shown in the following figure.

The Programme area is clearly coastal, but we can note also a relevant presence of rural areas in Puglia (Murgia, Capitanata and rural area of Salento), in Matera (where the coastline is only 35 km out of the total area of 3.479 km²). Calabria is a very mountainous area like Epirus and some part of Region of Western Greece (Aitolookarnania).). Calabria and Epirus are also linked by historical migration of the Greek-Epirotes in Calabria (Cosenza).

In the Programme area we have also some islands: major islands in Greece (Kerkyra, Lefkada, Kefalonia, Zakynthos), as well as small islands in Greece and Italy (Tremiti in Puglia, Dino and Cirella in Calabria – Province of Cosenza).

The geographic morphology of the territories included in the Programme area explains the difficulties in homogeneous economic development in an area characterised by the presence of islands, mountains and rural areas with low population density and difficulties in connections (transport and high-speed internet connection). This requires greater coordination of the Interreg Greece-Italy Programme with national (Greek and Italian) and European policies on rural areas and islands. It is also necessary to link the

Programme area and the INTERREG Greece-Italy Programme to the national (Greek and Italian) and European policies regarding rural areas and islands.

4.2 Programme Strategy

In the frame of the policy orientations of the new Cohesion Policy, the analysis indicates the persisting challenges that the Programme area faces in several areas (economic, environmental and social) that further hinder its potential for smart economic transformation, green transition (including carbon footprint, circularity, biodiversity preservation) and social inclusion also due to high level of unemployment and the pandemic.

It is important to enhance further the competitiveness and smart resilience of SMEs in key sectors of the Programme area. The importance of sustaining strong sectors like tourism and culture is likewise pertinent, also in the frame of ensuring an inclusive and more social GR-IT area, always taking into consideration the maritime dimension and sustainability of coastal zones.

Cross-border cooperation is encouraged in order to build the resilience of the participating regions regarding the common challenges being among others economic transition, climate change, and digitisation. At the same time, cooperation will enable the regions to eliminate their economic and social disparities identified by the territorial analysis.

The Programme will bring together several types of actors including public authorities, high education centres, business support organisations, agencies and the civil society. Efficiency of the expected results will also depend on the capacity of the involved stakeholders in the frame of digitisation and the development of relevant skills.

Against this background, the Programme envisages enhanced cooperation in the GR-IT area in order to become:

- more competitive and smarter, including the continuous support to SMEs in key fields of the area to make them more competitive and enable their resilience and smart transition (digital skills, access to research and innovation);
- greener and low carbon, including climate change mitigation, circularity of activities, multimodality;
- more social and inclusive, including better employment conditions, reinforced health services and reinforced tourism and culture sectors;
- with enhanced governance for cooperation in the Greece-Italy region through improved institutional infrastructure of public authorities and the ability to implement macro-regional and other related strategies.

4.3 Priorities

The Policy Objectives, the Interreg Specific Objectives, corresponding Priorities, Specific Objectives and the forms of support are presented in the Final Version of the Cooperation Programme (TREK, 14/10/21).

In general, the programme, in order to achieve the above objectives, has chosen to intervene in four Priorities, each one including Specific objectives (SO) for each Priority. The aims of each Specific Objective are presented below, as found in the Final Version of the Cooperation Programme Interreg VI-A Greece-Italy 2021-2027.

4.3.1 Priority 1: Enhanced cooperation for a more competitive and smarter GR-IT area

SO1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies

Under this SO, the Programme is going to support synergies at cross-border level among enterprises, R&D centres and higher education institutions. The main aim is to improve and reinforce the innovation capacities of the stakeholders as well as to increase the level of coordination and collaboration between key actors and systems at cross-border level. In this frame, marine and maritime research and innovation for the protection and restoration of the marine ecosystems, should be also promoted in line with the 2050 long-term strategy, along with EUSAIR priorities under Pillar 1 - Blue Growth. Actions will include the creation of research platforms and other forms of networks that will enable knowledge transfer and allow also the development of tools, pilot actions as well as joint strategies and action plans in this frame. The expected actions of this SO are also taking into consideration the high level of unemployment in the area.

SO1.2: Reaping the benefits of digitisation for citizens, companies and governments

Under this SO, the Programme is going to support synergies at cross-border level in order to promote and enhance the application of such technologies in key sectors of the area, such as tourism, creative industries and culture, agriculture and fisheries sector, the environment, etc. In this frame, it is also essential to enable and promote the collection of data and big data, including cross border maritime data in all key actors in order to achieve evidence-based policy making. Actions will further include the support of digitisation initiatives and interventions in the area of e-learning, e-health, e-government, etc., as well as the development and promotion of education and awareness raising tools with regard to such applications and their benefits in economic and social terms. Actions should also promote cross-sector linkages by improving cooperation among key stakeholders with similar challenges also at cross-sectoral level with the aim to ensure a great level of resilience.

SO1.3: Enhancing growth and competitiveness of SMEs and job creation in SMEs

Under this SO, the Programme is going to support synergies at cross-border level among SMEs, other emerging enterprises and young entrepreneurs. The main aim is to enable them to apply smart

technologies as well as smart blue technologies through increased level of coordination and collaboration between key actors at cross-border level, building also upon previous experience and existing structures.

Actions will include the creation of clusters and smart clusters and networks that offer the space for knowledge transfer and allow also the development of tools, pilot actions as well as joint strategies and action plans in this frame. It is important to build entrepreneurial eco-systems that will support also the creation of innovative, smart, competitive and resilient incubators and start-ups in the Programme area.

4.3.2 Priority 2: Enhanced cooperation for a greener and low carbon GR-IT area

SO2.4: Promoting climate change adaptation and disaster risk prevention and resilience, taking into account eco-system-based approaches

Under this SO, the Programme is going to support synergies in order to adapt climate change measures as well as prevent and manage related risks that the area faces (mainly linked to storms and drought). It is important to raise the awareness and education in this regard as well as take cross-border actions towards civil protection and disaster management, promoting the implementation of early warning systems.

Actions will include the creation of platforms and other forms of networks that will enable the interaction among key stakeholders for the exchange of knowledge and best practices. It is important that the uptake of advanced and novel technologies and solutions is promoted. Actions should also promote cross-sector linkages by improving cooperation among key actors and areas with similar challenges. All will be aligned with the EU Green Deal priorities as well as the national, regional and local policies and strategies

SO2.6: Promoting the transition to a circular and resource efficient economy

Under this SO, the Programme is going to support synergies at cross-border level in order to enhance the implementation of circular economy policies and approaches in the Programme area. Cooperation actions may also include joint action plans and strategies, education and awareness-raising campaigns, trainings and the development of relevant tools, pilot actions and other relevant solutions. Behavioural change of all actors involved (producers / consumers) is important in this regard. Considering the maritime dimension that is important for the Programme, actions for the promotion of the blue circular economy should be also promoted in this regard and in the frame of marine technologies and blue bio-technologies. It is important that such actions will promote also the uptake of advanced and novel technologies and solutions. Actions should also promote cross-sector linkages by improving cooperation among key stakeholders with similar challenges.

SO2.7: Enhancing protection and preservation of nature, biodiversity and green infrastructure, including urban areas, and reducing all forms of pollution

Under this SO, the Programme is going to support synergies at cross-border level in order to enhance practices and activities to promote sustainable development. The main aim is to improve and reinforce the capacities for the protection of biodiversity for the transition to a green and low carbon GR-IT area. In this frame emphasis is put on coastal ecosystems that also effect the environment (air quality, litter, etc.) with the development of joint management plans and maritime spatial plans in areas of common interest. It is also important to capitalise successful projects that were funded during the previous programming period.

4.3.3 Priority 3: Enhanced cooperation for a more social and inclusive GR-IT area

SO4.2: Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and online education and training

Under this SO, the Programme is going to support partnerships/initiatives for enhanced access to employment for groups that may face constraints (women, youth, migrants, etc).

In this frame, it is essential to promote actions at cross-border level to improve access to finance, enable information and enhanced entrepreneurial and other skills. Actions will include also networking and exchange of information and good practices where applicable.

Actions should also promote cross-sector linkages by improving cooperation among individuals with similar challenges. Considering the high level of unemployment, especially for young people as well as the high number of NEETs in the Programme Area, actions will need also to target such groups.

SO4.5: 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

Under this SO, the Programme is going to support joint synergies for the reinforcement of the health sector and services in order to ensure better access to such systems in the GR-IT area. It is important also in this frame to support the increase of the number of services of general interest (SGIs - for example hospitals, primary schools and train stations) that are also located also in disadvantageous areas (e.g., mountain areas) for the transition to a more social and inclusive GR-IT area, capitalising also in previous projects and actions.

SO4.6: Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation

Under this SO, the Programme is going to support synergies at cross-border level in order to enhance the role of culture and tourism with a focus to sustainable tourism taking into account advanced technologies and the potential offered in the frame of the new reality that has occurred since the pandemic outbreak. The proposed actions will aim in this frame to promote sustainable and thematic cultural routes at regional as well as macro-regional level by further distributing tourism flows.

4.3.4 Priority 4: Enhanced governance for cooperation in the GR-IT area

ISO1.1: Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and all stakeholders

Under this SO, the Programme is going to support synergies at cross-border level for the enhanced institutional capacity of the public authorities. The aim is to improve and reinforce the existing capacities of the public authorities, as well as to increase the level of coordination and collaboration at cross-border level taking always into consideration the maritime dimension of the Programme area. Actions will include the support of the public authorities, especially the small Municipalities, in order to eliminate any issues linked to administration (e.g., bureaucracy) and, thus, contribute to more simplified procedures that will also enable more flexibility. Actions should enhance the efficiency of governance including multigovernance and networking in order to tackle also the issue of the language barrier.

ISO1.4: Enhance institutional capacity of public authorities and stakeholders to implement macro-regional strategies and sea-basin strategies, as well as other territorial strategies

Under this SO, the Programme is going to support actions that will enhance the capacity of the institutions to manage the macroregional strategies (EUSAIR) due to the potential offered with regard to interlinkages to other areas (nature, risk management, green infrastructure, sustainable tourism, etc).

4.4 Expected results

Cooperation actions at cross-border level are expected to result in more strengthened capacities and skills in terms of the following:

- Research and innovation for the application of advanced technologies for the smart economic transformation of the Programme area and in key fields.
- Enable the transfer of good practices and the access of SMEs to innovative research and technologies in key sectors, via cross-sector cooperation, technology transfer and coordination, making them more competitive

- Digitisation and the application of relevant technologies for the smart economic transformation of the Programme area in key fields.
- Exchange of knowledge and good practices among key stakeholders on climate change adaptation measures at cross-border level
- Resulting in more strengthened SMEs, other emerging enterprises (start-ups, incubators) and young entrepreneurs in the process of smart economic transformation
- Enable the transfer of good practices and the access of SMEs to finance
- Enable the creation of entrepreneurial eco-systems and networks
- Contribute in more ecological resilience and less negative effects due to climate change
- Improve the adaptation and prevention measures with regard to risks linked to natural events
- increase resource efficiency and waste recycling across sectors
- Promote the enhanced cross-border research and innovation capacities
- Promote the uptake of advanced technologies in circular economy
- Cross-border actions including pilot actions for civil protection and disaster management, promoting the implementation of early warning systems
- Strengthen skills in the area of circular economy in all sectors
- Achieve a raising of knowledge and awareness of the behavioural change of single actors
- Result in more strengthened capacities for enhanced preservation and protection of the natural habitats and biodiversity
- Improving waste management policies and competences of the public and private sector, including the prevention, processing and recycling of waste tackling specific types of waste (maritime, micro-plastics, textiles, waste related to pandemic equipment, construction, etc.)
- Enhanced access to employment for groups that may face constraints
- Increase the respective capacities and synergies of capitalisation projects
- Tackle high levels of unemployment as well as high levels of NEETs of the area and the consequences related to ageing population
- Result in more strengthened capacities and more resilient health systems in the Programme area in order to be able to operate efficiently and to react in possible future pandemics and not only
- Foster the role of culture and tourism for a more social and inclusive GR-IT area
- Enable the measurement of sustainability of SMEs in tourism sector
- Enable also to sustain and reinforce existing hubs as well as to develop new ones with the involvement of stakeholders and individuals of different backgrounds

4.5 Financing Plan

The financial appropriations by year are shown in the next table:

Table 4-1 Financial appropriations by year

<i>Fund</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>	<i>2025</i>	<i>2026</i>	<i>2027</i>	<i>Total</i>
<i>ERDF</i>	0,00	4.774.975,69	7.958.292,81	14.324.927,07	17.508.244,19	17.508.244,19	17.508.244,19	79.582.928,13
<i>Total</i>	0,00	4.774.975,69	7.958.292,81	14.324.927,07	17.508.244,19	17.508.244,19	17.508.244,19	79.582.928,13

The National (public) contribution is TBD.

5 ALTERNATIVES

Directive 42/2001/CE in articles 5 and 9, require an analysis of the alternatives and a justification of choices made. Especially, according to Article 5 / par. 1 of the Directive 2001/42/EU “where an environmental assessment is required under Article 3, an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme are identified, described and evaluated.”

The risk of significant negative effects means alternatives must be considered within the Programme to provide decision makers the opportunity to select options that will eliminate or reduce environmental impacts and will improve the global environmental footprint of the programme.

In accordance with the SEA Directive, the alternatives should be realistic, i.e they should be feasible and eligible based on the specific data and regulations of the programme framework. The territorial cooperation Programme is not offered for an exhaustive study of alternatives mainly because it does not include any primary projects of large scale with significant potential environmental impacts. So, two (2) realistic alternatives have been considered:

- Zero alternative (“do nothing scenario”), in which the non- implementation of the programme is being examined consisting the zero scenario
- The suggested alternative, which best integrates the requirements consisting the proposed solution

For these two alternatives the effects on the environment and sustainable development are presented and evaluated, as follows.

5.1 Zero alternative: Zero solution (no plan or programme)

The zero scenario or the “do nothing scenario”, i.e the non-implementation of the programme, will impede the real convergence with the developed regions of each country and the EU, with a negative impact on the economy, on the improvement of the living standards in the eligible areas, on the protection and enhancement of the natural and cultural wealth and on the improvement and protection of natural resources. More specifically it would result in the immediate cancellation of the funding of several million euros which should be directed towards actions with positive environmental impact. In this case, however, the expected environmental effect that will be lost is estimated to be much higher. The main element that will lead to the loss of this added value is the absence of the same programming framework that will allow coordination of actions for the joint protection and management of natural and cultural resources that require special support. Furthermore the cooperation and contact between two neighboring countries will

be diminished. In addition, the non-implementation of the Programme, is opposed to the general principle of the EU for the cohesion and balancing of inequalities in governmental and regional level.

5.2 Suggested alternative: Preparing the Development Programme for the Period 2021-2027 based on a Centralized Strategic Planning (Planned Growth)

The proposed solution, which was presented in Chapter 4, is considered to best integrate the requirements of actual environmental policy in the area and contribute to the pursuit of sustainable development not only in the cross-border area, but also in the wider regional area of the Ionian - Adriatic.

The present alternative solution aims to address deficiencies and problems that haven't been adequately addressed in the previous programming period and to give greater emphasis on actions relating to sustainable development and quality of life. In this way, the strategy will ensure the coherence and continuity with the present programming period in order to improve the effectiveness of the programme in the cross border area.

The new planned growth aims to exploit the strengths and the advantages of the cross border area, to address the weaknesses, to create new opportunities for socio – economic and regional development and to face the risks.

The Programme aim at the exchange, testing and spreading of good practices and policies. The Development Strategy of the programme, as specified in priorities and specific objectives, in the Cooperation Programme INTERREG VI-A Greece-Italy 2021-2027, is consistent with the development needs of the Cross Border Area and includes the need for:

- Environmental protection and sustainable use of natural sources and the renewable energy as well.
- Risk Prevention and Natural Disaster Management.
- Promotion of sustainable transport infrastructures, information and communications network, water and waste management and energy efficiency.
- Improvement of the cross border capacity to support entrepreneurship, business sustainability and competitiveness.
- Conservation of cultural and natural resources as a precondition for the development of tourism.

Regarding the Zero Solution, the non-implementation of the Programme will impede the real convergence with the developed regions of each country, with a negative impact on the economy, the living standards of the eligible areas, the protection and enhancement of the natural and cultural wealth and the protection of natural resources.

The Suggested Alternative is selected, since it is going to improve natural and human environment and natural resources, building on and highlighting the strengths and reducing or/and eliminating the weaknesses, thereby reaching the goal of Sustainable Development.

Consequently, the evaluation of the alternatives for the implementation and non implementation of the Programme (zero solution), for the programming period 2021- 2027, is based on criteria, which are related to the priorities of the EU in favor of sustainable development, protection and improvement of environmental quality, enhancement of economic growth, competitiveness and employment and social inclusion.

6 DESCRIPTION OF THE CURRENT STATE OF THE ENVIRONMENT

This section provides valuable information about the current situation of the environment by highlighting the key environmental issues and identifying the environmental characteristics of areas likely to be significantly affected within the study area.

6.1 Biodiversity – flora – fauna

6.1.1 Vegetation Zones – flora

The Mediterranean ecosystems include various structures of vegetation such as forests, shrub lands and herbaceous plants. Indicatively, in Greece, at higher elevations, the oaks, the chestnuts, the walnuts are dominated and at lower altitudes mainly the pine forests.

According to a study which was conducted by the non-governmental organization WWF (GR), the region of Epirus includes a large part of the range of vegetation types and habitats found in the whole Greece. In terms of flora, more than 2,000 species and subspecies are found. The mountains of northern Pindos are an important center of endemism in the Balkans especially with regard to flora which is found in serpentine soils. This occurs both because of the high number of endemic and evolutionary perspective, as many of these endemic species are belonged to residual or isolated groups. The rich and rare flora of the National Park Vikos- Aouou includes more than 1,200 species, and all types of vegetation from riparian forests and chasmophytic vegetation on the cliffs of the gorges, as well as forests to high altitude and alpine meadows. Many local endemic species but also endemic to Greece are gathered at the tops of Tymfi in the canyon of Vikos and Aouou. In the National Park of Pindos 415 species of plants have been recorded and the dominant forest species that are presented at the other mountains of Epirus is the black pine, the hybrid fir and the Robolis.

The wetlands of the Ambracian Gulf consist of double deltas of Lourou and Araithos rivers, lagoons (Tsoukalio, Rodia and Logarou), wet meadows and extensive saltmarsh.

The endemism of the flora of the Ionian Islands Region is not particularly high, although, more than 160 endemic plant species have been found. Very interesting regions from floristic point of view, are the usually rugged western coast of the Ionian Islands that host specialized flora species. The main coverage of the region is the agricultural lands (56% of the total area) while woodland and areas of low vegetation occupy 23% and 16,7% of the total area of the Ionian Islands.

The Peloponnese has two dominant vegetation types: a) the Mediterranean and b) the mountainous. The forest of Foloj, which is located in the prefecture of Ilia, is the most typical case of spreading broadleaf oak. Also, in the western Peloponnese, pine forests are found. In areas of Strofylia, Caiaphas and around the lagoon Kotychi, the largest pine forest (on dunes) in Greece, is identified. According to general information about the flora, the Peloponnese hosts more than 2,700 native plants of which 12.3% are Greek endemic and 4.6% grows exclusively in the Peloponnese, often in a single location.

The region of Puglia in Italy mainly includes agricultural ecosystems. The northern and central part of the region include arable land producing cereals and vegetables, while in central and southern Puglia mainly olive groves, herbaceous vegetation and vineyards, and heterogeneous rural areas are found. Unevenly distributed forest areas are concentrated on the peninsula Gargano. In hilly areas, except the extensive vineyards, the structure of the Mediterranean biome is determined by the rocky soil in which extensive grasslands are formed. In these rocky grasslands trees of typical Mediterranean vegetation are found, such as pine trees, and more or less extensive areas of oak.

Puglia and especially the area of Gargano is considered as a very important site for biodiversity because of the existence of more than 80 different species of wild orchid, some of which are endemic. A huge number of biotopes of vegetable and animal species characterizes the region. The Apulian self-vegetation was once rich of woods; today the territory shows the Mediterranean maquis and the so-called ganga (rocky pasture). Among the arboreal species we find the Aleppo Pine, in particular on the Gargano coast and in the area of the Gulf of Taranto, and the holm-oak, typical of the Salento; on the so-called Murgia we can admire Beeches, Durmasts, Hornbeams and Maples.

The South Apennines mixed forests ecoregion geographically covers a small area that is restricted to the high mountain massifs of the Italian regions of Basilicata, Calabria, and the island of Sicily. The wide altitudinal range of this ecoregion results in several forest zones. The lowest elevations are characterized by the predominance of mixed sclerophyllous evergreen oak (*Quercus ilex*, *Q. suber*) and deciduous (*Quercus pubescens*, *Fraxinus ornus*, *Ostrya carpinifolia*) forests. At medium elevations, mixed deciduous forests (*Quercus cerris*, *Q. pubescens*, *Q. frainetto*, *Castanea sativa*, *Ostrya carpinifolia*) predominate²⁷.

The ecoregion of Southern Italy hosts an outstanding plant diversity and the endemism rate of the Calabrian and Basilicata Mountains is between 10-20%. The Italian eligible part of the programme has maintained the majority of its forest cover. Outstanding and extensive old-growth forests have remained until nowadays due to the inaccessibility of these mountain massifs. It is still possible to find very old individuals of laricio pine, natural monuments of about 600 years old, in the Sila Mountains. Nevertheless, grazing and forestry management have considerably modified the forest structure.

6.1.2 Birds

The area of interest is characterized by a significant number of Special Protection Areas (27 areas) for birds in accordance with Directive 79/409/EEC and 2009/147/EC "On the conservation of wild birds". 22 areas are located in the Greek territory and five (5) of them in the Italian. In addition, the Special Protection Areas (SPAs) in the Greek territory, also belong to the Network of Important Bird Areas (IBAs) of Greece (Portolou et al., 2009).

The marine and coastal area of the Adriatic and Ionian Seas are characterized as one of the main bird migration routes in the Mediterranean and is a welcoming place for wintering and breeding for many species of birds. Indicative is the case of areas of NATURA 2000 in the prefecture of Corfu that are coastal

²⁷ WWF Southern Europe: Southern Italy (<https://www.worldwildlife.org/ecoregions/pa1218>)

ecosystems. A special feature that unites these regions of the Northern Ionian Sea is their connection through one of the main migration routes which is followed by the wild bird species that fly from Africa to Greece and vice versa.

The variety of habitats that is found in these coastal wetlands of Corfu includes lagoons, saltmarsh and freshwater marshes and dunes and favors the visit from many breeding species birds. Based on the above-mentioned, it is understood that wetlands of Corfu are potential areas for the development of a particular type of alternative tourism on the bird-watching, which is a popular pastime for many tourists coming from abroad and they want to combine spring holidays in the Greek islands and the opportunity to observe a huge variety of bird species.

In the study area there are a total of 11 marine Important Bird Areas (mIBAs), two of which relate to the area of Puglia (Adriatic) and nine in the Ionian region of interest.

6.1.3 Marine life

Mediterranean Monk Seal (*Monachus monachus*)

In Greece, the species characterized as Critically Endangered according to the Red Book of Endangered Animals of Greece, remains widely distributed in almost all coastal and island country, with the exception of two "closed" bays, the Amvrakiko and Corinth, where the last fifteen years observations of seals have not been found. Higher frequency of appearance is found in isolated, rocky and inaccessible islands and coastal areas by avoiding the intense human activities²⁸. The current data show, however, that in most areas the populations are quite limited in size.

Cetaceans

According to Frantzis et al. (2003), the presence of several species of cetaceans in the region of the Ionian Sea is significant. It is worth noting that two (2) cetacean species found in the Ionian Sea are characterized as Endangered: the *Physeter macrocephalus* and the common dolphin (Legakis & Carpenter, 2009).

Piches

The fish fauna in the Ionian Sea and inland water ecosystems is quite significant. As a result, fishing is well developed in the Ionian Sea and coastal wetlands. In coastal wetlands, there is a significant degree of endemism of fish populations with characteristic example the Ioniki Trout.

Red Data Book of both Member States include a significant number of marine species in common.

It should be noted that the important primary productivity near coastal areas of mainland Greece and Italy faced the Ionian, create suitable conditions for the development of aquaculture eg bream and eel. Intense fishing pressure leads in some cases in trapping and killing species of marine fauna such as seabirds, marine

²⁸ Movements of Mediterranean Monk Seals (*Monachus monachus*) in the Easter Mediterranean Sea, Adamantopoulou, September 2011

turtles and cetaceans. Although, the Ionian basin is considered highly productive for fishery, is been noted that the exploitation is not sustainable and many of the commercial species are overfished.

6.1.4 Amphibians – Reptiles

The largest threats to reptiles listed in the Red Data Book of Greece and Italy are the anthropogenic destruction and degradation of habitats. This is mainly due to uncontrolled urbanization, the development of agriculture, the mining and forest fires. The populations of very small islands are extremely vulnerable to any form of pressure (such as natural disasters, anthropogenic disturbance etc).

The Loggerhead Sea Turtle (*Caretta caretta*) is one of the most important species of marine fauna in the area of interest. In the Mediterranean, an average of about 5,000 nests are recorded per year, of which Greece is hosting about 60%.

There are about 45²⁹ species of reptiles and amphibians in Italy, including introduced and naturalized species. Common reptiles and lizards found in the country include spectacled salamanders, Italian newts, Italian stream frogs, Sicilian pond turtles, and the Italian Aesculapian snakes.

Nowadays, the main threats of the species in both Member States are:

- The degradation of nesting sites and adjacent marine area due to coastal structures (buildings, marinas) and tourist activities (lights, vehicles, umbrellas, speed, etc.).
- Effects of fishing activities (mainly injuries due to fishing gear and deliberate abuse)
- Predation (mainly eggs). In the case of Greece, it is mainly due to foxes on nesting areas of the Peloponnese, in proportion more than 40% of nests.

6.2 Protected Areas: Status and Management

A significant part of the study area consists of areas that have been included in the Network Natura 2000. All of these areas are shown on the map below, including SPAs and Special Areas of Conservation (SACs) of Directive 92/43/EOK.

In Puglia there are a total of 21 Sites of Community Importance (SCI), 18 of them are referred to coastal and marine areas and 3 of them concern only marine areas. On the other hand, in Greek area there are 83 areas³⁰ of Network Natura 2000 as shown at the map below.

²⁹ A-z animals in Italy <https://a-z-animals.com/animals/location/europe/italy/>

³⁰ <https://diavgeia.gov.gr/doc/6%CE%A4%CE%9F64653%CE%A08-%CE%A3%CE%A7%CE%97?inline=true>

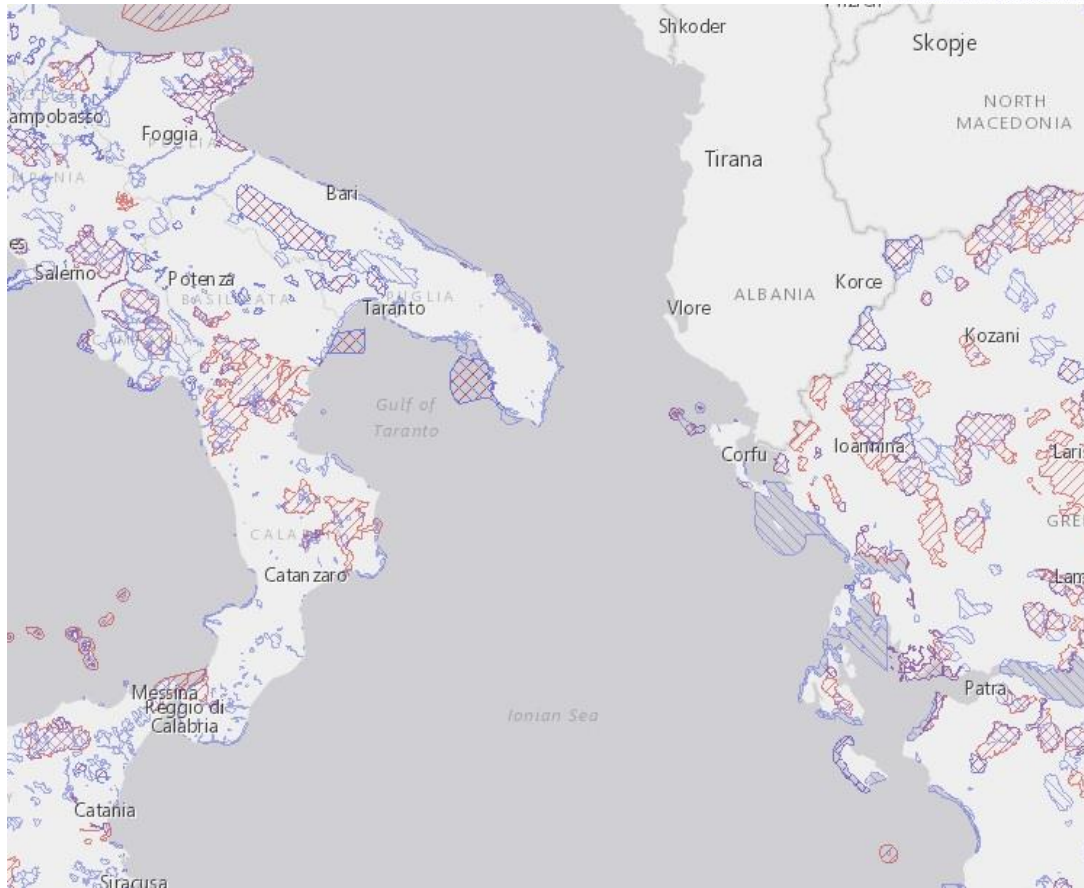


Figure 6-1: Protected Areas by type of protection

6.2.1 RAMSAR Wetlands

In the implementing programme area, six protected areas are identified based on the Treaty, three in each Member State, as shown in the table below.

Table 6-1: Identified RAMSAR Wetlands

Name	Date of inclusion		Area
Torre Guaceto	21/07/81	Puglia	940 ha
Saline di Margherita di Savoia	08/02/79	Puglia	3,871 ha
Le Cesine	06/12/77	Puglia	620 ha
Amvrakikos gulf ^{MR}	21/08/75	Aitoloakarnania, Preveza, Arta	23,649 ha
Kotychi lagoons ^{MR}	21/08/75	Ileia	6,302 ha
Messolonghi lagoons ^{MR}	21/08/75	Aitoloakarnania	33,687 ha

6.2.2 National Parks – Parks

The area has some of the most important National Parks of both Member States. Specifically, in the Puglia Region there is Gargano National Park and the National Park of Alta Murgia. Regarding the Greek part of the study area, the National Park of Enos in Kefalonia, the National Park of Pindos, as known as Valia Calda and the National Park of Vikos Aouu are found. Areas of significant importance are as well, the National Marine Park of Zakynthos, the National Park of Messolonghi- Etoliko Lagoons and the National Park of Tzoumerka, Peristeri, Arachthos Gorge & Acheloos Valley. Finally, the complex wetlands of Ambrakikos and Kotychi Strofylia National Parks are found, with a great diversity of bird life in particular.

6.3 Abiotic Environment

6.3.1 Climate

The climate of the border region is characterized as Mediterranean, with the exception of the hilly and mountainous areas of Thesprotia and Ioannina, where the Continental climate is identified.

The Mediterranean climate is characterized by mild winters with relatively small annual temperature range and warm summers. During the winter, rains are marked and snowfalls are rare and of short duration. Summers are hot and the Temperature reach significant levels after June.

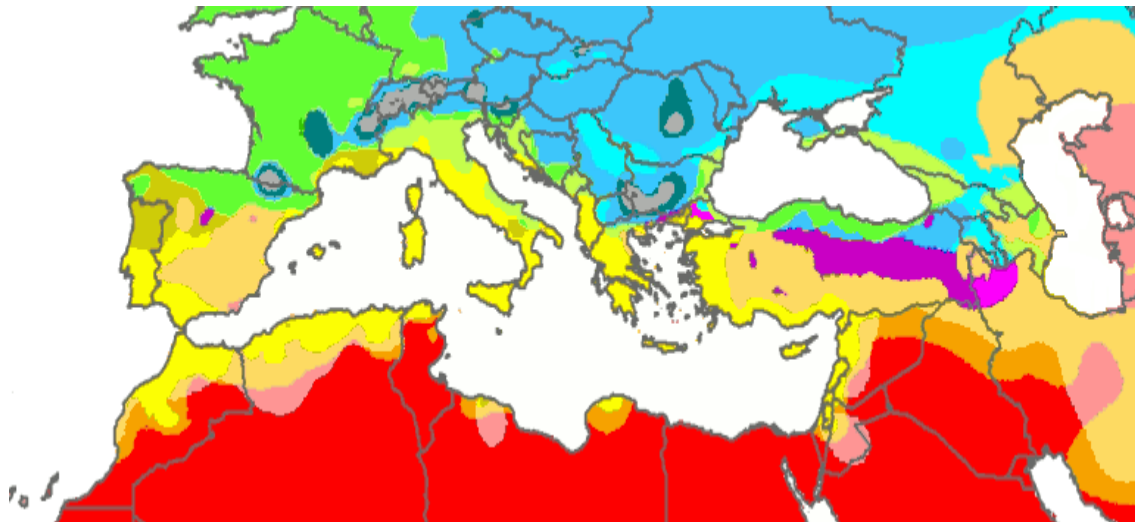


Figure 6-2: Map of the Mediterranean by Koppen

Significant differences between the two areas of the cross-border area is rainfall. Influenced by the orography of the area, the rainfall is much higher in the region of Epirus and the Ionian Islands in relation to Puglia (alike with climate of southern Peloponnese).

6.3.2 Air quality – Greenhouse Gases

Regarding air quality, the data of monitoring network of pollutants of European Environment Agency (EEA) shows a satisfactory condition in most categories of pollutants. The exception is the presence of increased amounts of ozone in Puglia and high values of PM10 in Ioannina. According to the Air Quality report for the year 2020, published by the Greek Ministry of the Environment (YPEN)³¹, the daily PM10 measured in Ioannina station, exceeded the limit for 60 days (more than 35). An excess of the PM2.5 limit is noted in Ioannina station as well, relevant to the average annual measures. In the case of Greece, for the year 2020³², most of Ozone (O₃) and nitrogen dioxide (NO₂) is concentrated in the metropolitan areas and in Western Greece and more particularly the city of Patras and less in the city of Agrinio²⁹. In the case of Puglia, the region shows high concentration especially with regard to Ozone (O₃). High-speed ferries and international shipping are responsible for significant air pollution too. The above strengthen the fact that, as also mentioned above, air quality is mostly affected by the transport sector in both countries. Air pollution is also the cause of monuments deterioration and buildings degradation and it affects visibility many areas interested by tourism, therefore action on air pollution shall have benefits on health but also on economic activities related to fisheries and tourism. With regard to the impact of COVID-19 in air quality, concentrations of nitrogen dioxide (NO₂) - a pollutant mainly emitted by road transport - have decreased in many European cities where lockdown measures have been implemented³³. In Puglia, as well as Calabria and Basilicata regions, all cities showed a considerable decrease between March - August when compared to the same months in 2019³⁴. The city of Patras in Western Greece shows a considerable decrease only in the month of April that has increased again in the summer months.

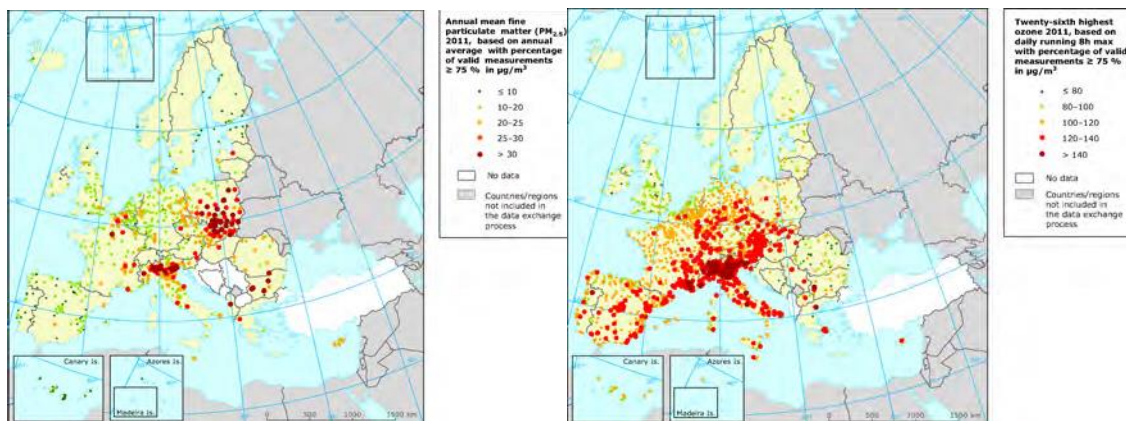


Figure 6-3: Map of fine particulate matter in the European territory

In relation to the contribution to the formation of the Climate Change, the national data of UN show that

³¹ <https://ypen.gov.gr/wp-content/uploads/2021/06/%CE%95%CE%9A%CE%98%CE%95%CE%A3%CE%97-2020.pdf>

³² <https://www.eea.europa.eu/themes/air/country-fact-sheets/2020-country-fact-sheets/greece>

³³ <https://www.eea.europa.eu/themes/air/air-quality-and-covid19>

³⁴ <https://www.eea.europa.eu/themes/air/air-quality-and-covid19>

the two Member States have trends of reduction of per capita GHG emissions - balancing in accordance with the set objectives. As shown in the following table, since 2005, both Member States have been reducing their CO₂ emissions, having Greece following Italy and reaching the same emissions in 2020³⁵.

Table 6-2: Per capita emissions GHG (tn of CO₂)

	2000	2005	2010	2015	2020
Greece	9.29	10.15	8.94	7.03	5.01
Italy	8.3	8.62	7.35	5.96	5.02

6.3.3 Waste Management

Wastewater of Puglia and the Ionian Islands are usually disposed in the sea after treatment as shown in the figures below. In the Italian eligible area, 56% of sewage is treated in line with EU legislation and about 900 treatment plants are operating; most of them are doing biological (secondary) treatment³⁶.

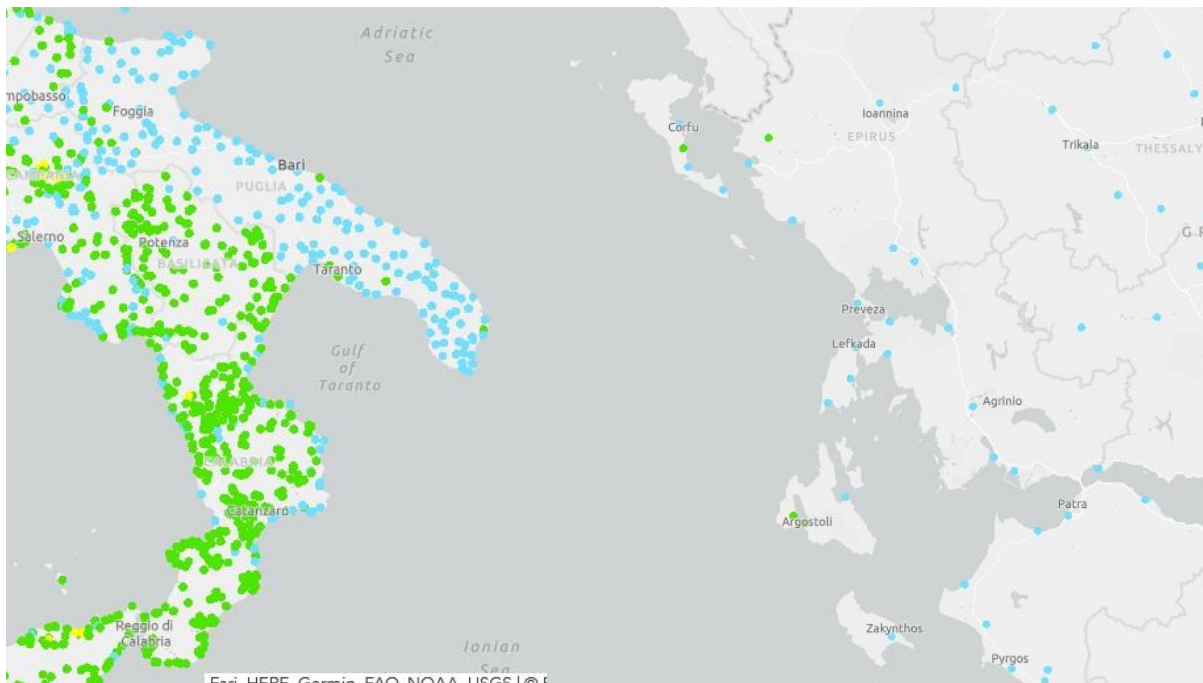


Figure 6-4: Wastewater treatment map of the eligible area

³⁵ <https://ourworldindata.org/co2/country/greece?country=GRC-ITA>

³⁶ <https://water.europa.eu/freshwater/countries/uwwt/italy>

In Greece 96%³⁷ of sewage is treated in line with the EU legislation. Within the eligible area 32 biological treatment plants are operating and most of them are treating waste with nitrogen and/or phosphorus removal.

In terms of recycling and waste management the Programme area shows potential and at the same time faces challenges to a certain extent. Data at national level show that Greece puts a significantly higher share of waste into landfill (at 81%), while Italy at 21% (below EU average). Waste generation per capita in both countries is slightly above the EU average of 1.717 kg per capita. In terms of recycling of municipal waste, Greece (at 17.2%) is substantially below the EU average of 45.8%, while Italy is in line, showing a disparity in this regard.

6.3.4 Soil

The main feature of the soil (terrestrial and undersea) of the cross-border area is the Apulian Ridge which includes the region of Puglia, the Adriatic - Ionian Seas, the Ionian islands and coasts of Epirus and the northern part of Western Greece.

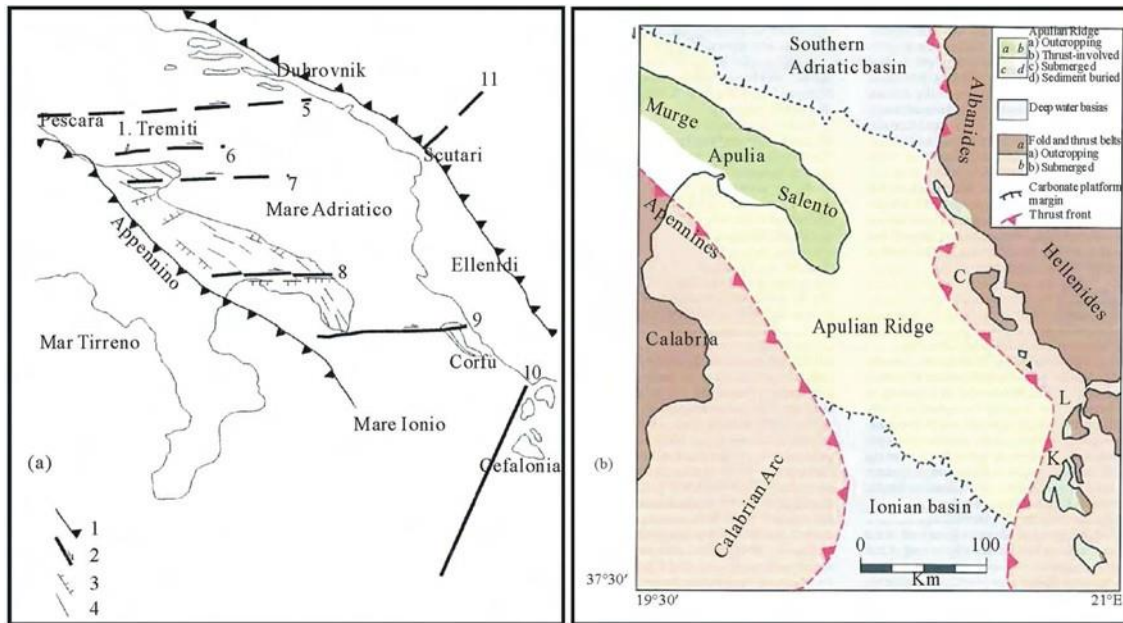


Figure 6-5: Structural map of the Apulian Ridge and the fault

The seismicity in the region is particularly strong, with the most vulnerable area the Ionian Islands, in which earthquakes are historically and recently recorded with significant human loss and property damage.

Another issue that arises is the erosion of the coastal zone. In the Region of Puglia, in accordance with the

³⁷ <https://water.europa.eu/freshwater/countries/uwwt/greece>

SHAPE, various positions with significant erosion are identified along the coastline in both the coastal area of Lecce (North and South of San Cataldo), and in the Barleta, and other areas of the National Park of Grangano.

6.3.5 Energy – geothermal

In the southern Adriatic, south of the peninsula of Gargano, the geology changes significantly and even the deeper carbon moiety has been shown to contain a number of heavy oil fields. A few oil discoveries have been made which, with the recent increases in oil prices, can now be considered as commercially exploitable.

The geological structure of the narrow and the wider region of the Ionian Islands contains strong evidence of hydrocarbon deposits. In the Gulf of Patras, Ioannina, Corfu and Katakolon, according to the available data, oil reserves are almost proven at least 300-500.000.000 barrels. Also, in the southeastern part of the island of Zakynthos, it has been observed that there are traces of oil jet at relatively shallow depth (200-500 metres).

So far, previous shallow drillings have not indicated the existence of specific sources of liquid or gaseous hydrocarbons, which are economically exploitable.

The Programme area shows potential in certain aspects of this area and faces challenges in other. While the Greek regions seem to generate more than 80% of the energy from renewable sources in 2015 according to the JRC, Puglia only generates 29,5% (2016)³⁸, while Calabria 79,2% of total energy production at regional level and Basilicata 96,3% (2019).

At national level, the share of renewables in gross inland energy consumption (2017 data) is below the EU average in Greece (12%), but higher than the EU average in Italy (18,1%). Biofuels and renewable wastes are the largest single source accounting for 48% in Italy and 41% in Greece. With regard to hydro-power, the situation is similar in Greece (12% of renewables) and Italy (11%). On the contrary, geothermal energy is 19% in Italy, but zero in Greece, while wind power is 16% of the total renewables in Greece, but just 5% in Italy. Solar energy is 21% of total renewables in Greece and just 8% in Italy. Italy has a higher share of renewable energy sources in transport than Greece, although both countries are below the EU average level of 7,6%. Renewable energy sources as a share of heating and cooling are above, or equal to, the EU average in both countries. The highest share is in Greece at 24,6%, with Italy at 18,9%.

³⁸ <http://www.comunirinnovabili.it/wp-content/uploads/2018/12/ComuniRinnovabili-Puglia.pdf>

6.4 Population – economic development

6.4.1 Population

The countries bordering the Adriatic and Ionian Sea show large differences in the level of economic development. Coastal regions of Puglia are characterized by high population density and urbanization while non-residential areas are limited. The Programme area is located in the southern part of the European Union and covers a territory of 59.950,83 km² with a total population of 7,1 million inhabitants, as shown in the following table.

Table 6-3: Population of the eligible area sorted by region

REGION	REGIONAL UNIT / PROVINCE	POPULATION	TOTAL POPULATION PER REGION
Western Greece	Aitoloakarnania	210.802	679.796
	Achaia	309.694	
	Ileia	159.300	
Ionian Islands	Zakynthos	40.759	204.624
	Kerkyra	104.371	
	Kefalonia	35.801	
	Lefkada	23.693	
Epirus	Arta	67.877	336.856
	Thesprotia	43.587	
	Ioannina	167.901	
	Preveza	57.491	
Puglia	Foggia	606.904	3.953.305
	Bari	1.230.205	
	Brindisi	385.235	
	Lecce	782.165	
	Barletta-Andria-Trani (BAT)	384.801	
	Taranto	563.995	
Basilicata	Matera	194.853	194.853
Calabria	Catanzaro	349.344	1.739.395
	Cosenza	690.503	
	Crotone	168.581	

REGION	REGIONAL UNIT / PROVINCE	POPULATION	TOTAL POPULATION PER REGION
	Reggio Calabria	530.967	
TOTAL			7.108.829

6.4.2 Demography

The Programme area shows a high level of ageing population, as depicted in the following figure.

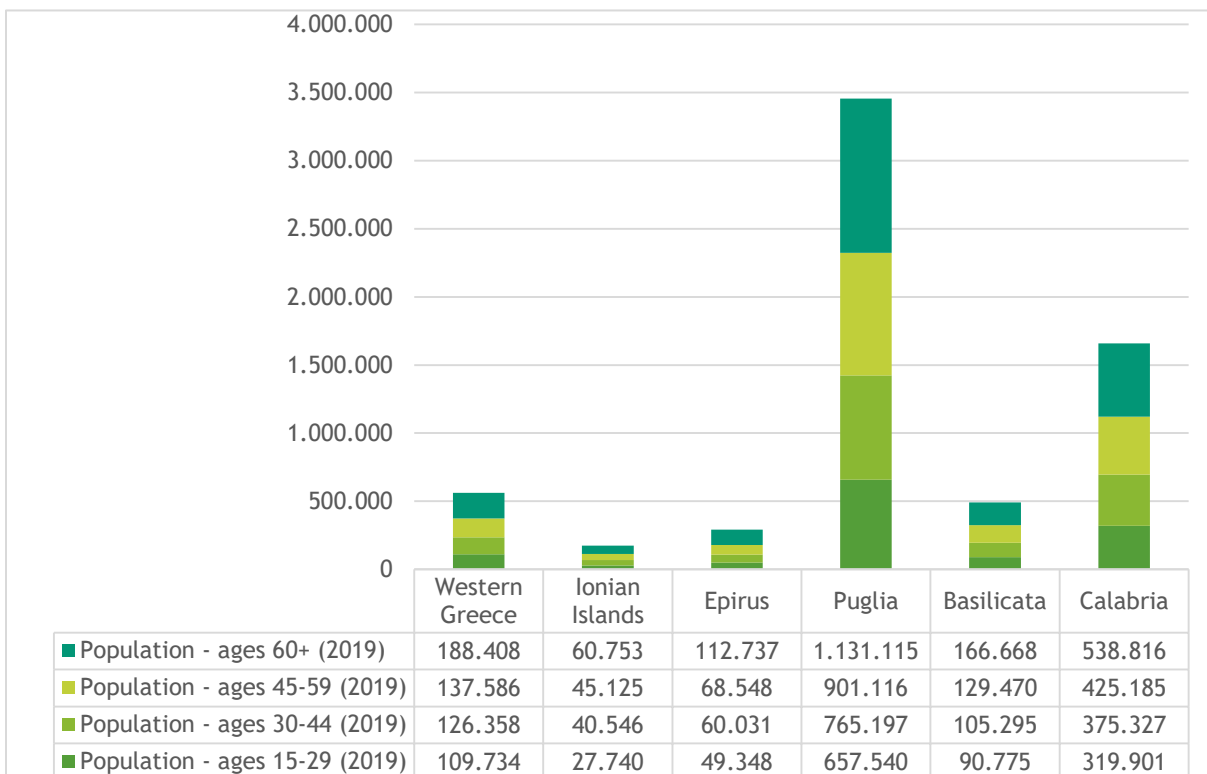


Figure 6-1: Population by Age Group in the Programme Area

Source: EUROSTAT

Moreover, as highlighted by ESPON (2019)³⁹, rural shrinking is widespread and long lasting in the macro-region of South Europe. This is partly linked to the decrease in agricultural workforce but also to a number of detrimental trends including the decline of the economic activity, degradation of natural spaces, fade-

³⁹ ESPON (2019): 'European Shrinking Rural areas. Challenges, actions and perspectives for Territorial Governance'. Inception Report.

out of local identity, loss of basic public services etc. The Programme area, showing a dominant rural element, consists part of this reality.

In terms of education, the table below shows that tertiary education attainment is higher in the age group 30-34. Data also reveals regional disparities, Epirus being the region with the highest rates and Calabria the one with the lowest.

In terms of education, the table below shows that tertiary education attainment is higher in the age group 30-34. Data also reveals regional disparities, Epirus being the region with the highest rates and Calabria the one with the lowest.

Table 6-4: Tertiary Education in the Programme Area

REGION	Tertiary education attainment - ages 25-64 (2019)	Tertiary education attainment - ages 30-34 (2019)
Western Greece	20,6%	32,8%
Ionian Islands	24,6%	42,5%
Epirus	31,8%	46,7%
Puglia	15,2%	20,0%
Basilicata	16,9%	27,4%
Calabria	15,9%	19,9%

6.4.3 Economic development

The Programme area faces challenges linked to economic disparities and inequalities. The following table proves that GDP per capita in all regions lag behind the EU average. GDP per capita growth is close to the EU average, with the exception of two Greek regions reaching almost half of the EU average (Western Greece and Epirus).

Table 6-5: Economic Data of the Programme Area

REGION	GDP per capita (PPS)	EU Average	GDP per capita growth (PPS)	EU Average
Western Greece	15.000	31.200	1,56	3,21
Ionian Islands	19.700		2,86	
Epirus	14.600		1,60	

REGION	GDP per capita (PPS)	EU Average	GDP per capita growth (PPS)	EU Average
Puglia	19.400		3,05	
Basilicata	23.500		2,97	
Calabria	17.500		2,59	

Moreover, the areas show different dynamics to a smaller or bigger extent for certain sectors. In Calabria, the agricultural sector has more benefit in economic terms when compared to the other Italian regions. The same also applies to Epirus. Agricultural sector (including first and secondary processing activities of such products) shows also dynamic in Basilicata. In Basilicata (including the province of Matera), there are some oil extraction areas; the petroleum refining is made in the industrial area of Taranto and Brindisi. The tertiary sector (services) is the one contributing higher in the Puglia region followed by industry (also agro-food industry) and building sector. Western Greece and Puglia regions are both characterised by strong trends of deindustrialisation. In terms of tourism, the Ionian Islands show a great dynamic.

The Programme area shows positive trends with regard to new enterprises (start-ups). Puglia is ranked among the 10 regions of Italy regarding the innovative start-ups and specifically 557. Accordingly, Calabria has 223 and Matera 29. At the same time, the enhancement of entrepreneurship is also of a strategic priority for all Greek regions. At national level start-ups are estimated to be around 2.000. Additionally, there are good results at Programme level regarding a number of previous projects dealing with start-ups and young entrepreneurship. Last but not least, there is a good level of enterprise birth rate in Puglia (7,7), Calabria (7,5), Basilicata (6,6), and sufficient in Greece (4,5).

6.4.4 Employment

Services is the major sector of employment across all regions in the Programme area as depicted in the following table. Employment in the other economic sectors varies significantly among the regions and deviate from the EU average, especially in the primary and secondary economic sectors (with the exception of two Italian regions, Puglia and Basilicata, which are close to the EU average in terms of employment in manufacturing).

Table 6-6: Employment in the Programme Area

REGION	Share of employment in:				
	Agriculture & Mining	Manufacturing	Utilities & Construction	Services	Public administration
Western Greece	26,3	7,1	6,2	51,2	9,3
Ionian Islands	9,6	3,2	6,7	74,5	6,0
Epirus	14,2	6,1	6,2	64,3	9,3
Puglia	8,7	13,8	8,3	62,2	7,0
Basilicata	9,1	15,1	10,2	58,5	7,1
Calabria	12,5	5,7	8,9	65,1	7,8
<i>EU AVERAGE</i>	<i>4,6</i>	<i>16,4</i>	<i>8,2</i>	<i>62,9</i>	<i>7,1</i>

Source: Regional Innovation Scoreboard 2021

In September 2020, Italy ranked third in the EU classification of member states with the highest unemployment rate. The first country in the ranking was Greece, where more than 15% of all potential employees did not have any occupation. The overall unemployment rate is quite high in the Programme area (with the exception of Basilicata) as shown in the following table. The table also shows that the highest employment rates in the age group 20-64 are in Ionian Islands and Epirus while the lowest in Basilicata and Puglia.

Table 6-7: Unemployment in the Programme Area

REGION	Unemployment rate - Overall	Unemployment rate - ages 15+ (2019)	Employment rate - ages 20-64 (2019)
Western Greece	18,8%	24,7%	53,2%
Ionian Islands	16,4%	12,0%	64,7%
Epirus	19,5%	17,7%	60,8%
Puglia	15,1%	17,8%	50,2%
Basilicata	9,1%	10,9%	54,8%
Calabria	16,5%	25,5%	45,3%

The number of NEETs (Not in Education, Employment or Training) remains worrying, at 295.000 in Puglia, against 2.940.000 in Italy (EURES, 2019 data). In Matera NEETs account for 26% and in Calabria 35,1%. Greece has also the second highest percentage of NEETs at EU level followed by Italy.

6.4.5 Innovation

According to the Regional Innovation Scoreboard 2021, the Programme area includes regions that are considered mostly moderate innovators. The majority of them have improved their innovation performance over time. The table below depicts the change of the Regional Innovation Index (RII) in the period 2014-2021, as well as the relative strengths and weaknesses of each region compared to the EU.

Table 6-8: Innovation in the Programme Area

REGION	PERFORMANCE	RII 2021 VS 2014	STRENGTHS	WEAKNESSES
Western Greece	Moderate Innovator (-)	+23.9%	<ul style="list-style-type: none"> Innovative SMEs collaborating Product innovators R&D expenditures public sector 	<ul style="list-style-type: none"> Employment knowledge-intensive activities Design applications Employed ICT specialists
Ionian Islands	Emerging Innovator (+/)	+35.6%	<ul style="list-style-type: none"> Non-R&D innovation expenditures Innovative SMEs collaborating Sales of innovative products 	<ul style="list-style-type: none"> Design applications Trademark applications Employed ICT specialists
Epirus	Moderate Innovator (-)	+36%	<ul style="list-style-type: none"> R&D expenditures public sector International scientific co-publications Innovative SMEs collaborating 	<ul style="list-style-type: none"> Lifelong learning R&D expenditures business sector Employed ICT specialists
Puglia	Moderate Innovator (-)	+21.6%	<ul style="list-style-type: none"> Non-R&D innovation expenditures Sales of innovative products Most-cited scientific publications 	<ul style="list-style-type: none"> R&D expenditures business sector Tertiary education Employed ICT specialists
Basilicata	Moderate Innovator (-)	+30.1%	<ul style="list-style-type: none"> Non-R&D innovation expenditures Business process innovators Product innovators 	<ul style="list-style-type: none"> R&D expenditures business sector Trademark applications Employed ICT specialists
Calabria	Emerging Innovator (+)	+20.1%	<ul style="list-style-type: none"> Business process innovators 	<ul style="list-style-type: none"> R&D expenditures business sector Tertiary education

REGION	PERFORMANCE	RII 2021 VS 2014	STRENGTHS	WEAKNESSES
			<ul style="list-style-type: none"> Sales of innovative products Non-R&D innovation expenditures 	<ul style="list-style-type: none"> Employment knowledge-intensive activities

It is evident from the above table that the Greek and Italian regions of the Programme area share common features in terms of both relative strengths (e.g., Non-R&D innovation expenditures) and weaknesses (e.g., R&D expenditures business sector). Thus, the challenge is to build upon and further exploit such strengths, while in parallel elaborating on weaknesses so as to reverse them.

Furthermore, RIS3 strategies should be taken into account, especially in the sectors whereby regions show a great potential, as the following table suggests.

Table 6-9: Regional Innovation Strategies in the Programme Area

REGION	RIS3 2014-2020
Western Greece	HORIZONTAL PRIORITIES: <ul style="list-style-type: none"> ICT; and Energy applications. VERTICAL PRIORITIES: <ul style="list-style-type: none"> Agriculture - fisheries - food; Tourism - culture; and Materials - microelectronics.
Ionian Islands	<ul style="list-style-type: none"> Primary sector - agrofood & gastronomy; Marine economy - fishery - aquaculture & marine tourism; and Experience industry: tourism, culture and creative economy
Epirus	<ul style="list-style-type: none"> Primary sector - food processing; Experience industry (tourism - culture - creative industry); Health & wellness; and Academic Institutions, ICT and youth entrepreneurship.
Puglia	<ul style="list-style-type: none"> Sustainable Manufacturing (smart factory, aerospace, mechatronics); Health and the environment (green and blue economy, food processing, sustainable construction, cultural heritage and tourism); and Digital, creative and inclusive communities (cultural and creative industry, services, social innovation, design, non-R&D innovation).
Basilicata	<ul style="list-style-type: none"> Automotive;

REGION	RIS3 2014-2020
	<ul style="list-style-type: none"> • Aerospace; • Energy; and • Green Economy.
Calabria	<p>VALORISATION OF THE PRODUCTION BASE that supports innovation and extra-regional projection of already developed areas / systems or with emerging potentials:</p> <ul style="list-style-type: none"> • Agribusiness; • Green building; • Tourism and Culture; • Logistics; and • ICT and innovative Tertiary sector. <p>QUALITY OF LIFE that responds to the main social challenges:</p> <ul style="list-style-type: none"> • Environment and natural risks; and • Life sciences.

Source: EC Regional Innovation Monitor Plus

6.4.6 Competitiveness

The Programme area still faces a joint challenge in terms of competitiveness. According to the Regional Competitiveness Index (RCI) in 2019, all regions of the programme area are below the European Regional Competitiveness Index (EURCI): the figure of the Region of Epirus is at -1.29, followed by the Region of Ionian Islands with a figure of -1.33 and the last one being the region of Western Greece with -1.43. The Region of Puglia shows a relatively better performance with -1.00, Calabria -1.11 and Basilicata -0.91.

According to the RCI 2019 scorecards, the major areas whereby the regions of the Programme area underperform are:

- macroeconomic stability (Greece);
- institutions (Italy);
- labour market efficiency (both); and
- technological readiness (both).

6.4.7 Blue Economy

Blue Economy is an area of potential for the Programme Area due to the contribution of coastal tourism to national GVA, the high employment rate in marine transport and port activities. More specifically, according to the EU Blue Economy Report 2019:

- In Italy blue economy's share in national Gross Value Added (GVA) is 1,3%, very slightly above the share of 1,2% in 2009, although the total contribution has risen slightly to EUR 19,8 billion in 2017 (EUR 17.2 billion in 2009). The total contribution in Basilicata was EUR 170,8 million and in Calabria EUR 1.165,3 million. Coastal tourism made the greatest contribution to GVA in the blue economy in Italy (EUR 7,1 billion), followed by maritime transport (EUR 3,9 billion), marine living resources, port activities and shipbuilding/repair (between EUR 2,7 billion and EUR 2,1 billion). In terms of employment, in 2017 around half was in coastal tourism followed by employment in marine living resources, in marine transport, in port activities and in shipbuilding/repair.
- In Greece, the blue economy's share in national Gross Value Added (GVA) is higher at 3,8%, amounting to just over EUR 6 billion in 2017. It has substantially increased the share from 2,2% compared to 2009. Coastal tourism made the greatest contribution to GVA in the Blue Economy in Greece (EUR 3,34 billion), followed by maritime transport (EUR 1,02 billion), port activities (EUR 767 million) and marine living resources (EUR 637 million). There has also been a substantial increase in employment in the blue economy in Greece in the period from 4% in 2009 to 9,4% in 2017.

6.4.8 Transport

Considering the maritime dimension of the Programme area that is divided by sea, transport and existing limitations in this regard consist of a joint challenge in territorial terms. This is added to the fact that most of the area is rural and there are mountainous and isolated areas in the participating regions.

With regard to the number of total goods that were loaded and unloaded between the years 2010-2016, considerable decrease has been noted in the regions of Puglia, at 30%, and Western Greece, at 11%. On the contrary, Epirus has seen an increase of 10% but with a low overall share in the Programme area and particularly with regard to the total goods loaded and unloaded.

Air transport of passenger in the Programme area has altogether increased between the years 2010-2019, mostly due to the Ionian Islands airports and to Puglia region. Additionally, railway accessibility varies strongly in the Programme area since the railway axis of Greece does not provide connections to the ports of Igoumenitsa and Patras, further hindering thus the multimodality potential.

Overall road infrastructure is in a good condition, added to the connectivity via Trans-European Axes with the existence of Egnatia highway and Ionia Odos.

Considering the maritime dimension of the Programme area, the cruise sector plays also an important role. This is linked to both economic as well as social and environments aspects. According to the available data and for the year of 2019⁴⁰, the Regions of Western Greece and Epirus were mostly affected in a

⁴⁰ Institute of the Association of Greek Tourism Enterprises (INSETE), October 2020

negative way. Still, in all cases no negative percentages were noted. In the case of Puglia⁴¹, for the year of 2019, the region is ranked 7th at national level. Its share to the total amount of passengers at national level was 6.3% accordingly.

6.4.9 Cultural Heritage and Landscape

The Adriatic –Ionian area has always been an exchanging channel for cultural goods and elements of the Mediterranean, several of which are included in places of cultural heritage UNESCO.

The region of Puglia is one of the richest archaeological sites in Italy and hosts several testimonies of prehistoric, Greek and Roman settlements. A large number of castles were built in the 13th century including Castle del Monte, which is one of the three monuments of UNESCO in the area of Puglia. Another attribute monument of UNESCO, are the limestone houses Trulli of Alberobello, located in the southern region.

Regarding the Greek area, the archaeological site of Olympia in prefecture of Ilia, is one of the greatest masterpieces of ancient Greek civilization. Ancient Dodoni in Epirus was the most famous oracle of the ancient Greek world and the old town of Corfu, which has its roots in the 8th century, belongs to the list of the cultural Heritage of UNESCO.

There is a significant number of marine archeological sites in the Ionian Region, for which the Ministry of Culture and Sports has banned their use for tourism purposes.

In relation to landscape, the main pressures are referred to coastal zone and especially its degradation by tourism uses and residential / resort development. A significant cause of degradation is also the large forest fires which were occurred in 2007 in prefecture of Ilia. In order to protect the landscape in Puglia Region, a Regional Territorial Landscape Plan was put in place. Respectively in Greece, by reviewing the Regional Framework for Spatial Planning and Sustainable Development, at this stage, Regional Strategies for landscape protection are being formulated.

6.4.10 Tourism

Tourism sector is key for the Programme area and is linked to economic, social and environmental aspects. The importance of the sector was also raised by the stakeholders during public consultations.

As depicted in the following figure, tourism is geographically concentrated in the regions of Ionian Islands and Puglia.

⁴¹ <https://www.statista.com/statistics/623583/cruise-industry-italy-passenger-traffic-by-region/>

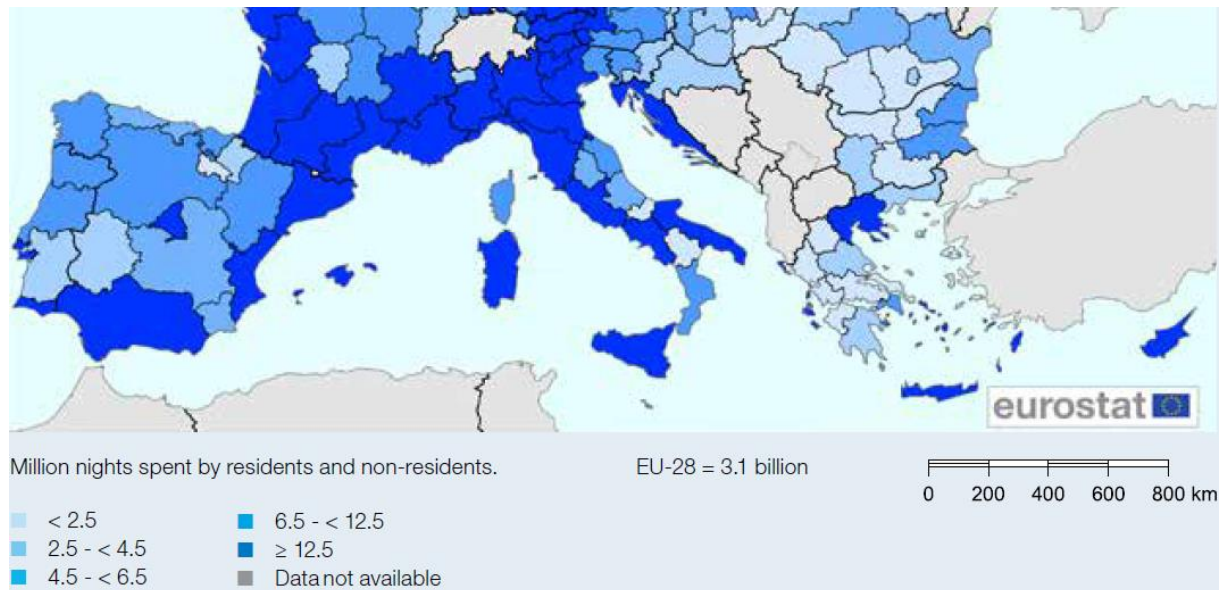


Figure 6-6: Nights spent in accommodation establishments by NUTS 2 regions, 2015

Source: EUROSTAT

This is also validated by employment and economy indicators. On the basis of 2019 data from the Hellenic Statistical Authority (ELSTAT), employment rates in accommodation and food and beverages sector in Western Greece and Epirus are very low (8.5%-9% of the total employment, respectively), while in Ionian Islands 25%. In 2018, the contribution of the Western Greece region's tourism in the region's GDP was among the lowest at national level, at 3%, followed by the Region of Epirus with a percentage of 7%. On the contrary, tourism in the Region of Ionian Islands contributed to its GDP by 71%, the second highest at national level. Accordingly, in the regions of Basilicata and Calabria in 2019, the contribution was 3.4% and 4.1% respectively.

Tourism demand varies considerably throughout the year. Occupancy rates at accommodation establishments in coastal areas, are higher in the summer months than in any other period of the year. The seasonality problem persists in the Programme area.

Sustainable Tourism plays also a key role for all the regions of the Programme area. Greece's strategic tourism plan for the 2021-2030 period places the element of safety in the strategic planning together with sustainable growth and digital reform⁴². Similarly, in Italy a Strategic Plan for Tourism 2017-2022⁴³, launched in 2017, recognises the need to have a lasting and sustainable approach to Italian environmental and cultural heritage on the basis of: Sustainability, Innovation, Accessibility. Thus, there is a clear common

⁴² Greece's 4th International Hospitality Forum held on 23.11.2020

⁴³ turismo.beniculturali.it

challenge in the Programme area to promote interventions that will contribute to achieving sustainable development goals in tourism.

6.4.11 Digitization

The Programme area is still lagging behind in terms of the application of digital technologies (daily internet use, use of e-banking services, e-Government, digitisation in business and commerce). The Italian regions seem to perform better showing high digital competence, but overall, the differences are slight.

According to the Digital Economy and Society Index (DESI) that summarises indicators on Europe's digital performance and tracks the progress of EU countries, in 2020 Italy and Greece have the lowest scores on the index.

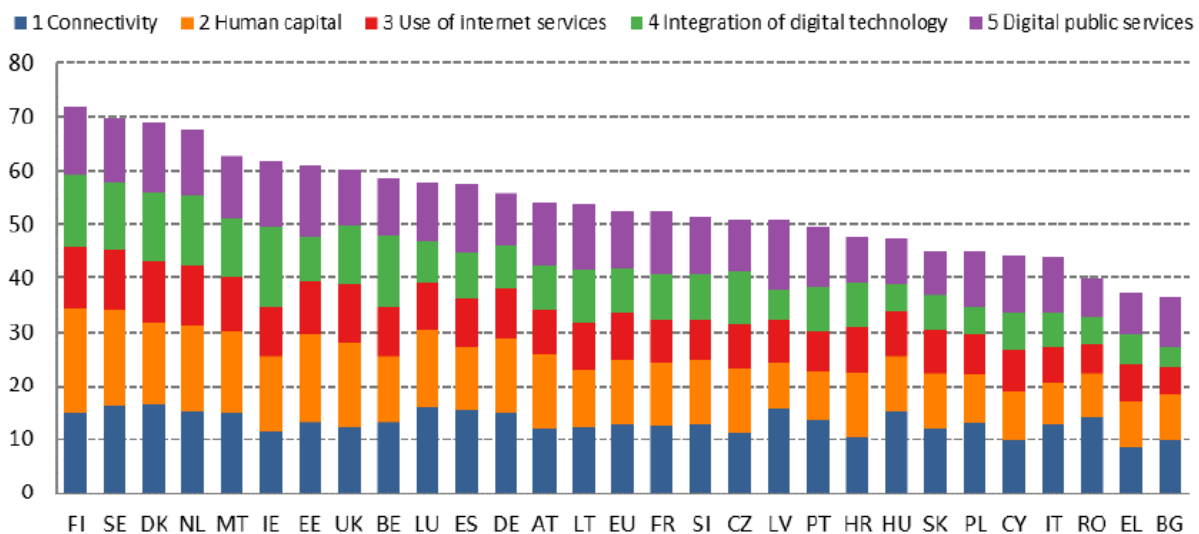


Figure 6-7: Digital Economy and Society Index, 2020

Source: DESI 2020, European Commission

The following figure shows the progress of Member States as regards the overall level of digitisation of the economy and society over the last 5 years (2015-2020). It is measured in terms of the progression of their DESI score over that period of time. Significantly, the majority of the countries, which are below the EU average in the level of digitisation have not progressed much in the last five years. This is the case notably for Greece.

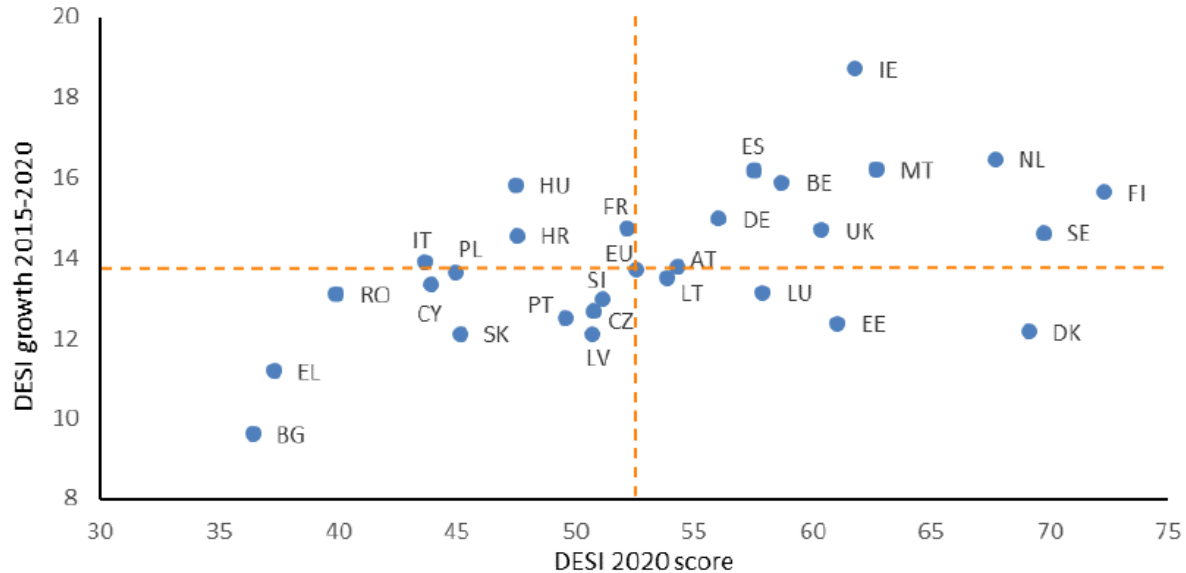


Figure 6-8: Digital Economy and Society Index – Member States' progress, 2015-2020

Source: DESI 2020, European Commission

At regional level, the Italian regions seem to perform better showing high digital competence, but overall, the differences are slight.

Thus, there is a clear joint challenge for the Programme area for the deployment of digital technologies, services and applications across several sectors addressed by the Programme, with the aim to contribute to regional, national and EU ambitions, as those are summarised below:

- The Digital Strategy paper published by the EC in 2020 sets out how it intends to position Europe as a leader in the digital world with respect to data, specifically via key objectives relating to digital technologies over the next five years. The released documents include the White Paper on Artificial Intelligence (AI), the European Strategy for Data and the Digital Strategy. The EU's Digital Strategy takes an ambitious approach toward digital technological development, as well as toward the ways in which technology will be used to meet climate-neutrality objectives.
- Greece developed the National Digital Policy 2016-2021, in order to support country's digital development. The national policy focuses in particular on seven areas of intervention with specific priorities corresponding to acknowledged gaps in the Greek public administration, the economy and society and form a coherent framework for ICT interventions that focus on producing results and optimising the use of available public resources.
- In the case of Italy, in line with the Action Plan 2019-2021⁴⁴, the Region of Puglia is designated as a Local Aggregator for Digitisation aiming at supporting the local authorities in adopting a public

⁴⁴ <https://www.opengovpartnership.org/wp-content/uploads/2019/07/Italy-Action-Plan-2019-2021-English.pdf>

system of digital identity that will have access to web portals and encourage its use among the citizens to access local and national digital public services. Additionally, Puglia Digital Agenda 2020⁴⁵ supports the commitment to ICT highlighted in the S3 (smart specialisation), defining the regional strategy to meet the objectives set in the Digital Agenda for Europe. The Digital Agenda focuses on two areas:

- Investments in digital infrastructures, improving access to ICT and their quality, extending broadband access; and
- Investments in digital growth, developing ICT, e-commerce, demand for ICT, and their application to e-government, e-learning, e-inclusion, e-culture and e-health.

One of the main priorities for Calabria is the development of the region's digital agenda⁴⁶. Similarly, Basilicata's ROP places as priority the enhanced use and quality of ICT technologies and ICT applications (e-government, e-health and e-procurement)⁴⁷.

6.4.12 Migration

With regard to migration and refugee flows, there was a significant increase towards Europe since 2014/15, with Greece and Italy as main entry points by sea, thus consisting of a joint challenge also for the Programme area.

Between 2010 and 2016 about 4.150.000 (extra-EU28) first-time asylum requests were registered in EU MS⁴⁸. First-time asylum applicants in Greece and Italy accounted for 28% of the total EU-28 number in 2017 and for 20% in 2018.

In Greece, the peak was reached in 2016, and in Italy it was in 2016 and the first half of 2017.

According to ESPRON⁴⁹, the regions of the Programme area are characterised as poorly attractive to migrants and refugees, as depicted in the following figure.

⁴⁵ www.innova.puglia.it

⁴⁶ https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/italy/2014it16m2op006

⁴⁷ https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/italy/2014it16rfop022

⁴⁸ http://ec.europa.eu/eurostat/statistics-explained/index.php/Asylum_statistics

⁴⁹ ESPON, Topic Paper "Migration and asylum seekers: ESPON evidences", August 2020

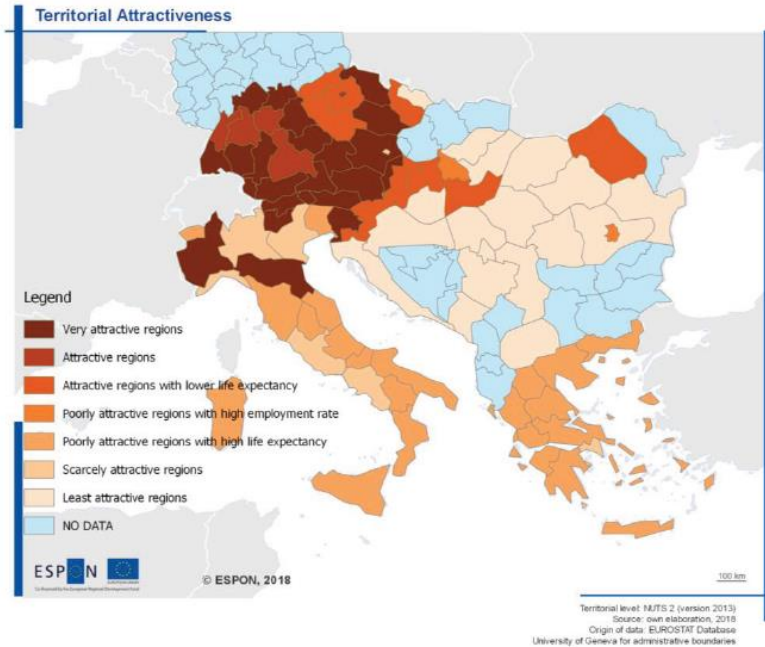


Figure 6-9: Map of Territorial Attractiveness

Source: ESPON

6.5 COVID- 19 Pandemic

The outbreak of the pandemic is a factor that has affected and is going to affect the Programme area. Italy was the first European country where it was emerged.

According to the data available, up to the month of April 2020⁵⁰, Italy was the country among the other EU countries mentioned that was affected the most, showing a decrease in expenditure in all categories of travel activities. There was a decrease in international flights of 81% and a decrease of 78% with regard to the domestic flights. In terms of traffic in the cruise sector, there was a smaller decrease of 68%, while there was a higher decrease, of 83%, in movements by car. With regard to accommodation, there was a decrease in expenditure in hotels sectors by 84%, while the respective decrease in short-term rental accommodation of 64%. The trips are also expected to show a decrease of 74% in terms of expenditure.

In the case of Greece country's travel receipts in 2020 decreased by 76,5% compared to 2019 and reached 4.280 MEUR. The number of inbound visitors to Greece fell by 76,5% to 7.375 thousand against 31.348 thousand in 2019. The smallest decrease was recorded in arrivals from the Eurozone countries with the number of travellers and revenue dropping by 69%.

⁵⁰ <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/survey-italian-consumer-sentiment-during-the-coronavirus-crisis>

At the same time, considering the positive effects that COVID-19 showed in terms of environmental figures, it might put forward an opportunity to rethink and redesign travel and tourism on the basis of a more sustainable dimension.

7 ASSESSMENT, EVALUATION AND MANAGEMENT OF ENVIRONMENTAL EFFECTS OF THE PROGRAMME

7.1 Introduction

The evaluation of the impacts is based on the environmental parameters that are suggested through the Directive 2001/42/EC of the European Parliament as adapted by the JMD 107017/2006 of Greek Legislation, on the assessment of the effects of certain plans and programmes on the environment. The examination of these parameters will reveal the possible effects that may arise through the programme's implementation. A correct selection of these parameters is vital in order for the Strategic Environmental Assessment to be substantial.

The selection of the parameters is following:

1. Biodiversity
2. Population- Human health
3. Soil
4. Water
5. Air, Climate and climate change
6. Infrastructure
7. Cultural Heritage
8. Landscape
9. Noise
10. Sustainable development
11. Interrelationship

The selection of the above parameters is in accordance with the appendix 3 of the JMD 107017/2006; with an addition of noise and sustainable development. The connection between the above parameters, is a factor which estimates the interaction and interrelationship of the above parameters with regards to the expected impact of them.

7.2 Methodology

For the evaluation of the environmental impacts, the methodology of **guiding questions** is being followed. This is a widely spread methodology, being introduced amongst others in «*Handbook on SEA for Cohesion Policy 2007 - 2013*» of the Greening Regional Development Programmes Network. According to this methodology, a network of evaluating questions is being formed, taking under consideration the environmental aims of the SEA, in order to determine all the possible environmental impacts for each environmental parameter. The questions are formed in a way to get a yes or no answer. Moreover, the answers may give a clue of the magnitude of the impact.

This option promotes significantly the granularity of diagnosis, for the following reason: an environmental objective (e.g. improved air quality) depends on a number of environmental parameters (e.g. concentrations of NO₂, SO₂, PM₁₀, emissions of these pollutants by sector, etc.). Turning the focus of critical questions on environmental parameters can determine not only whether the INTERREG Cross-Border Cooperation Programme "Greece-Italy 2021 -2027" helps achieve the environmental objective, but also which parameters contribute to environmental impacts, so as further evaluations can focus on detailed causal factors of impact and to propose appropriate measures.

The environmental impacts on each parameter will be examined per Priority and Specific Objective (SO).

The guiding questions which will be used in this SEA report are demonstrated in the following table.

Environmental Parameters	Guiding Questions
1. Biodiversity-flora and fauna	<p>Is the implementation of the SO expected to affect:</p> <p>B1: the extent and consistency (internal) of protected areas? B2: the conservation of habitats and protected species of flora and fauna? B3: the extent and consistency (internal) of forest ecosystems? B4: the maintenance of racial or genetic diversity, richness and composition of populations of wildlife species?</p>
2. Population, public health	<p>Is the implementation of the SO expected to affect:</p> <p>P1: the population demographics? P2: the population employment? P3: the population education level? P4: the level of public health services and the public health protection? P5: the exposure of individuals to new or increased sources of pollutants, radiations or other substances or energy that may be harmful to human?</p>
3. Soil	<p>Is the implementation of the SO expected to affect:</p> <p>G1: ground stability and geomorphology? G2: soil quality against pollution from waste and wastewater? G3: effective waste management and compliance with the European obligations</p>
4. Waters	<p>Is the implementation of the SO expected to affect:</p> <p>W1: inland and coastal waters hydromorphology? W2: water resources efficiency; W3: waters quality against pollution from waste and wastewater?</p>
5. Air, climate and climate change	<p>Is the implementation of the SO expected to affect:</p> <p>AC1: air Quality? AC2: climate change adaptation AC3: climate change mitigation by the reduction of GHGs emissions and the increase of CO₂ absorption? AC4: The achievement of the targets for renewable energy and energy efficiency?</p>

6. Material Assets-Infrastructure	<p>Is the implementation of the SO expected to affect:</p> <p>M1: the value of land, the public character and access to public goods?</p> <p>M2: the balanced territorial development (retaining population and income) and relationships of town - countryside?</p> <p>M3: the infrastructure</p>
7. Cultural Heritage	<p>Is the implementation of the SO expected to affect:</p> <p>H1: the protection and enhancement of cultural sites - monuments?</p>
8. Landscape	<p>Is the implementation of the SO expected to affect:</p> <p>L1: the existing character of the landscape,</p> <p>L2: the enhancement of natural landscape quality</p> <p>L3: the commitments of protection of the coastal zone?</p>
9. Noise	<p>Is the implementation of the SO expected to affect:</p> <p>N1: noise levels</p> <p>N2: protection of people from noise pollution?</p>
10. Sustainable Development	<p>Is the implementation of the SO expected to affect:</p> <p>S1: the increase of the GDP while keeping low carbon footprint?</p> <p>S2: the promotion of SDGs of the UN 2030 Agenda for Sustainable Development?</p>
11. Interrelationship	<p>Is the implementation of the SO expected to affect the interrelationship of the above parameters?</p>

The environmental impact assessment of each Priority or Specific Objective element is evaluated using the following criteria:

1. **Probability:** It expresses how much expected or not, an impact may be. The evaluation is primarily based on the consideration of:
 - (a) The impacts which are highly expected from an action, a type of project or an activity according to the experience on similar projects and
 - (b) The uniqueness of the conditions in which the programme is implemented, such as those identified in the current state of the environment.
2. **Scale-Direction of Impact:** Each action can have zero, positive or negative direction impacts, which may have different Scale, being strong or weak regarding the degree of intensity. The variation of the intensity is associated with the main scale of the project, the perception of the changes that are expected to bring about in critical factors, and the importance of the parameter that affects the type of area.

It is noted that, besides clear negative or positive impacts, ambiguous or mixed impacts may be identified and have one or both of the following characteristics:

- a) Have a positive effect on one environmental parameter, but negative on another. This case occurs often in actions involving different impacts direction during construction and operation phase (-/+).
- b) The scale and the direction of the impact depends on certain conditions, which will be primarily determined by the specificity of actions. In these

cases, beyond the identification of actions, those conditions will be investigated in order to be proposed as measures to improve the environmental performance of the programme (see Chapter 8)

3. **Duration:** It refers to the amount of time that the impact will last. Short-term duration usually happens during construction phase (e.g, noise from machinery, dust, etc.), while Long term duration mostly happens in some cases during the operation phase. As medium-term impacts are the impacts that occur after a critical concentration of a factor that creates disturbance.
4. **Reversibility:** It refers to the ability of the Priority or Specific Objective elements to prevent, reduce or offset or restore to the previous state of the environmental objective in the case either that the related action ends/ stops functioning or suitable mitigation measures are implemented. This criterion is not used for positive impacts.
5. **Cross- border dimension:** Refers to the spatial extent of the impacts, whether they affect both countries (areas) or one country only (local impact).
6. **Sequence:** It refers to the type of expected impacts, which is whether they are primary or secondary impacts. Primary impacts happen near the Programme implementation area and concurrently with it. Secondary impacts of the Programme may occur because of the Programme implementation but in a distant geographical area or at another time.
7. **Interaction:** Refers to the cumulative or synergistic nature of the impact and the cumulative effects that may arise by the implementation and coexistence of two or more impacts and how their scale is affected.

The above criteria, their rating and the symbols that will be used to assess the environmental impact of the CBC Programme “Greece – Italy 2021-2027”, are illustrated in Table 7-1.

The assessment and evaluation of the impacts occurring by the programme's implementation, will take into consideration the content of the CBC Programme "Greece-Italy 2021-2027" and the environmental status of the eligible area, as it's described in Chapter 6. The relevant analysis will result in a number of environmental parameters, identified to have a negative or positive impact. These findings will be presented in Table 7-2.

Table 7-1: Impact Assessment Criteria and Symbols

	Criterion	Abbreviation	Evaluation rank	Symbol
1	Probability	Prob	Very Probable	++
			Probable	+
			Non Probable	0
2	Scale-Direction	Scale	Large scale Negative impact	--
			Small scale Negative impact	-

			No impact	0
			Large scale Positive impact	++
			Small scale Positive impact	+
3	Duration	Dur	Long term or permanent impact	>>
			Short term or temporal impact	>
			No impact	0
4	Reversibility	Rev	Reversible	+
			Irreversible	-
			No impact	0
5	Cross Border dimension	Cross	Cross border impact	B
			Non Cross border impact-Local	L
			No impact	0
6	Sequence	Seq	Primary	P
			Secondary	S
			No impact	0
7	Interaction	Int	Cumulative	CU
			Synergistic	SY
			No interaction	n-I
			No impact	0

7.3 Do no significant harm (DNSH)

Before the strategic environmental impact assessment, which will follow, the Programme will be first evaluated according to the **“Do no significant harm (DNSH)” principle**.

According to the **Taxonomy regulation**, "The Funds should support activities that would respect the climate and environmental standards and priorities of the Union and would do no significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852".

In order to implement the DNSH principle, the following environmental objectives will be examined, as defined in Article 17 of the Taxonomy Regulation.

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. Circular economy
5. Pollution prevention and control

6. Protection and restoration of biodiversity and ecosystems.

The DNSH principle evaluation is presented in the next table. As it is shown, the evaluation is based on the answer given on a specialized question, which is addressed to each environmental objective.

Table 7-2: Environmental Assessment of the Programme using DNSH objectives

	Environmental objective	Question	Answer	Justification of DO NO SIGNIFICANT HARM
1	Climate change mitigation	Is the Programme expected to lead in significant GHG emissions?	NO	The energy sector is a key factor for the development of 2030 energy and climate policies, for both countries. The National plan for Energy and Climate (NPEC) for both countries includes targets for the reduction of GHGs emissions as well as saving energy, enhancing RES, avoiding land use change on areas that may act as emission sinks (e.g afforestation) and improving energy efficiency performance. The implementation of the programme is in line with the above guidelines and it will not lead to significant GHG emissions.
2	Climate change adaptation	Is the Programme expected to lead to an increased adverse impact of the current climate and the expected future climate, on the activity itself or on people, nature and assets?	NO	In the context of climate adaptation, prevention and preparedness measures, awareness campaigns for disaster risk management, flood protection and the development of early warning systems, constitute significant challenges in the eligible area. The programme is in line with the above guidelines.
3	Sustainable use and protection of water and marine resources	Is the Programme going to be detrimental to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters?	NO	In the cross-border area, investment needs should be identified, enhancing the sustainable water management. Investments and interventions are considered very important for the development of green infrastructure for the management of wastewater; including surface water and groundwater. Through the programme, cooperation actions may implement for the elimination of soil, air and water pollution.
4	Circular economy	Is the Programme expected to lead to significant inefficiencies in the use of materials or in the direct or	NO	The environmental resources protection, is a key factor for the overall development of the eligible area. The transition to a circular economy can be strengthened by the cooperation of the two members

		indirect use of natural resources, or if it significantly increases the generation, incineration or disposal of waste, or if the long-term disposal of waste may cause significant and long-term environmental harm?		in the specific fields for example of sustainable production and consumption of products, less waste with greater value, ect; which is vital for the environmental sustainability of the Region.
5	Pollution prevention and control	Is the Programme expected to lead to a significant increase in emissions of pollutants into air, water or land?	NO	The cooperation actions for the reduction of the air, soil, noise and water pollution are expected to fulfil the eligible area's needs.
6	Protection and restoration of biodiversity and ecosystems	Is the Programme going to be significantly detrimental to the good condition and resilience of ecosystems, or detrimental to the conservation status of habitats and species, including those of Union interest?	NO	The protection of the natural environment and biodiversity is the baseline priority of both countries, which is brought in alignment with the EU Biodiversity Strategy and the EU Forest Strategy. Cooperation actions and exchange of good practices should be implemented in the frame of protection and prevention of the natural environment e.g. in the forest environment; In particular, significant attention should be given to the raise of social awareness and the involvement of the society in the above issues.

7.4 Environmental Impact Assessment

The evaluation, which is performed in the following table, illustrates that the programme demonstrates a clear compatibility with the objectives of the Green Deal and the proposed Eighth EU Environmental Action Programme. Moreover, the programme has adopted environmental sustainability as a horizontal principle.

The analysis of the Policy Objectives followed by the environmental Impact assessment evaluation in tabular form, are following.

PO1: A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity

- SO1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies
- SO1.2: Reaping the benefits of digitisation for citizens, companies and governments
- SO1.3: Enhancing growth and competitiveness of SMEs and job creation in SMEs

The Programme is going to support synergies at cross-border level among enterprises, R&D centres and higher education institutions. Positive effects are expected with regards to population, human health and tangible assets since these measures strengthen entrepreneurship and competitiveness of enterprises, while unemployment indicators are expected to be improved and so would be the quality of life of the population in the cross-border area in general. Positive effects are expected to be of large scale and have cross-border dimension with direct results during the implementation of the indicative actions. The interaction is expected to be positively synergistic.

The level of collaboration between key actors and systems in cross border area is going to be increased regarding ecosystems protection; marine and maritime research and innovation will improve the protection and restoration of the marine ecosystems. This can lead to another positive impact of the programme regarding the biodiversity parameter and the protection of sensitive areas. The implementation of innovative technologies in tourism, culture industries and fisheries and aquaculture sector will promote the blue economy, the circular economy and the of course the bio-economy. These actions, will possibly increase tourism in the eligible area, which can lead to relatively significant environmental impact in the protection of the natural environment and sensitive ecosystems. These indirect impacts can be avoided or limited, by the implementation of the appropriate measures. In general, for the soil, ground, waters and air indirect positive impacts are expected, as the actions promote and protect the environment.

The promotion and application of digital technologies to the above mentioned sectors, is a key for supporting the economy and the society at national and local level. It will improve the capacities and competences of policy makers and other stakeholders to develop forward, especially in the fields of development of regional skills and industrial transition focus on SMEs. The promotion and application of digital technologies will improve the monitoring of all environmental parameters. Update data will be available for the species of fauna and flora, for air quality, for noise levels, for all environmental parameters. As a result positive effects are expected in the environmental protection. At the same time, the support of digitalization as well as the initiatives and interventions in the e-learning and e-health sectors, will increase the educational level of the population which is estimated as relatively low especially in the Italian regions, and improve the public health services, constituting an impact with benefits in economic and social terms.

Enhancing growth and competitiveness with regard to start-ups, young entrepreneurship and SMEs is a key element for a successful and smart economic transition to all fields –sectors of common interest and for achieving the blue economy, the green economy and the bio-economy with circularity in their heart. Modernisation of SMEs with new environmental friendly technology to avoid or reduce emissions, the use of energy efficiency machinery will reduce the emissions of pollutants and GHGs and will increase the protection of waters, air and all environmental parameters. As a result, positive effects are expected in the environmental parameters.

Table 7-3: Environmental Impact Assessment of PO1

Impact Evaluation of SO 1.1 , SO 1.2 and SO 1.3								
Environmental parameter	Environmental Objective-Question	Prob	Scale	Dur	Rev	Cross	Seq	Int
Biodiversity flora- fauna	- B1: the extent and consistency (internal) of protected areas?	+	-/+	>	+	L	S	n-l
	B2: the conservation of habitats and protected species of flora and fauna	+	++	>>	0	B	P	n-l
	B3: the extent and consistency (internal) of forest ecosystems?	0	0	0	0	0	0	0
	B4 : the maintenance of racial or genetic diversity, richness and composition of populations of wildlife species?	+	-/+	>	+	L	S	n-l
Population Public Health	- P1: the population demographics?	++	++	>>	0	B	S	SY
	P2: the population employment?	++	++	>>	0	B	P	SY
	P3: the population education level?	++	++	>>	0	B	P	SY
	P4: the level of public health services and the public health protection?	+	+	>>	0	B	S	SY
	P5: the exposure of individuals to new or increased sources of pollutants, radiations or other substances or energy that may be harmful to human?	0	0	0	0	0	0	0
Soil	G1: ground stability and geomorphology?	0	0	0	0	0	0	0
	G2: ground quality against pollution from waste and wastewater?	+	+	>>	0	B	S	CU
	G3: effective waste management and compliance with the European obligations	++	++	>>	0	B	S	CU
Waters	W1: inland and coastal waters hydromorphology?	++	++	>	0	B	P	CU
	W2: water resources efficiency?	+	++	>>	0	0	S	CU
	W3: waters quality against pollution from waste and wastewater?	++	++	>>	0	B	P	SY
Air, climate and climate change	AC1: the air quality?	+	+	>	0	B	S	CU

Impact Evaluation of SO 1.1 , SO 1.2 and SO 1.3								
Environmental parameter	Environmental Objective-Question	Prob	Scale	Dur	Rev	Cross	Seq	Int
	AC2: the climate change adaptation?	++	++	>>	0	B	P	n-l
	AC3: the climate change mitigation by the reduction of GHGs emissions and the increase of CO2 absorption?	++	++	>>	0	B	P	CU
	AC4: the achievement of the targets for renewable energy and energy efficiency?	+	++	>>	0	B	P	CU
Material Assets - Infrastructure	M1: the value of land, the public character and access to public goods?	++	++	>>	0	B	P	SY
	M2: the balanced territorial development (retaining population and income) and relationships of town - countryside?	++	++	>>	0	B	P	SY
	M3: the infrastructure?	+	+	>	0	L	S	SY
Cultural Heritage	H1: the protection and enhancement of cultural sites - monuments?	+	+	>>	0	L	S	0
Landscape	L1: the existing character of the landscape?	0	0	0	0	0	0	0
	L2: the enhancement of natural landscape quality?	+	+	>	0	B	S	n-l
	L3: the commitments of protection of the coastal zone?	++	++	>>	0	B	P	CU
Noise	N1: the noise levels?	+	-/+	>	+	L	S	n-l
	N2: the protection of people from noise pollution?	+	+	>>	0	L	S	n-l
Sustainable Development	S1: the increase of the GDP while keeping low carbon footprint?	++	++	>>	0	B	P	SY
	S2: promoting the goals according to The 2030 Agenda for Sustainable Development?	++	++	>>	0	B	P	CU
Interrelationship	The interrelationship of the above parameters?	+	+	>>	0	B	P	CU

PO2: 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 and risk prevention and management

- SO2.4 : Promoting climate change adaptation and disaster risk prevention and resilience, taking into account eco-system-based approaches
- SO2.6 : Promoting the transition to a circular and resource efficient economy
- SO2.7 : Enhancing protection and preservation of nature, biodiversity and green infrastructure, including urban areas, and reducing all forms of pollution

The programme is going to support synergies in order to adapt climate change measures as well as prevent and manage related risks that the area faces. These actions will lead to a primarily positive impact regarding climate change and protection of natural ecosystems. The preservation of protected species will be strengthened, consisting a positive impact, which is indirect though significant for the protection of the biodiversity. Raising the awareness and education regarding civil protection and disaster management, as well as, the implementation of early warning systems, will have a positive impact in the natural environment in the aspects of air, ground and water quality preservation and enhancement. The objectives will be aligned with the EU Green Deal priorities and their implementation will promote the goals of UN 2030 Agenda for Sustainable Development. The programme will contain actions that include the creation of platforms and other forms of networks. For example, the awareness- raising actions and education in issues related to climate change adaptation, risk prevention and enhanced protection and preservation of nature and biodiversity. These actions will enable the interaction among key stakeholders for the exchange of knowledge and best practices; will have a positive impact in the population in social and economic terms. The impacts are evaluated as of high probability and long term positive impacts.

The programme will also contain actions at cross border level, that will aim at tracking specific types of waste (micro-plastics, textiles, waste related to pandemic equipment, construction ect). These actions will act positively in the implementation of circular economy policies and approaches in the programming area. Among other, these actions will include the design of new facilities related to waste management and especially for those concerning the maritime waste, a positive impact in the maritime environment will be notice. Green Ports and the circular management of all related products is of high importance for synergistic positive impacts in the sectors of tourism, biodiversity, climate change mitigation, reduction of all pollutants. Capacity building on new environmental friendly products will also have a positive impact in the population in social and economic terms. Waste of several sources is also linked to the coastal management as well as to water management. These actions will have a positive impact in preserving and enhancing water and soil quality against pollution from waste and wastewater. Based on the behavioral change of single actors, knowledge and awareness raising will be achieved and skills in the area of circular economy in all sectors will be strengthened.

Table 7-4: Environmental Impact Assessment of PO2

Impact Evaluation of SO 2.4 , SO 2.6 and SO 2.7								
Environmental parameter	Environmental Objective-Question	Prob	Scale	Dur	Rev	Cross	Seq	Int
Is the implementation of the SO expected to affect:								
Biodiversity - flora-fauna	B1: the extent and consistency (internal) of protected areas?	+	++	>>	0	B	P	CU
	B2: the conservation of habitats and protected species of flora and fauna	++	++	>>	0	B	P	CU
	B3: the extent and consistency (internal) of forest ecosystems?	+	++	>>	0	B	P	CU
	B4 : the maintenance of racial or genetic diversity, richness and composition of populations of wildlife species?	+	++	>>	0	B	P	CU
Population - Public Health	P1: the population demographics?	+	+	>>	0	L	S	SY
	P2: the population employment?	++	++	>>	0	B	P	CU
	P3: the population education level?	+	++	>>	0	B	P	CU
	P4: the level of public health services and the public health protection?	++	++	>>	0	B	P	CU
	P5: the exposure of individuals to new or increased sources of pollutants, radiations or other substances or energy that may be harmful to human?	0	0	0	0	0	0	0
Soil	G1: ground stability and geomorphology?	+	+	>	0	L	S	CU
	G2: ground quality against pollution from waste and wastewater?	++	++	>>	0	L	P	CU
	G3: effective waste management and compliance with the European obligations	++	++	>>	0	L	P	CU
Water	W1: inland and coastal waters hydromorphology?	+	+	>	0	L	P	CU
	W2: water resources efficiency?	++	+	>>	0	B	S	n-l
	W3: waters quality against pollution from waste and wastewater?	++	++	>>	0	L	P	CU

Impact Evaluation of SO 2.4 , SO 2.6 and SO 2.7								
Environmental parameter	Environmental Objective-Question	Prob	Scale	Dur	Rev	Cross	Seq	Int
Is the implementation of the SO expected to affect:								
Air, climate and climate change	AC1: the air quality?	+	+	>>	0	B	S	SY
	AC2: the climate change adaptation?	++	++	>>	0	B	P	SY
	AC3: the climate change mitigation by the reduction of GHGs emissions and the increase of CO2 absorption?	++	++	>>	0	B	P	SY
	AC4: the achievement of the targets for renewable energy and energy efficiency?	++	++	>>	0	L	P	SY
Material Assets - Infrastructure	M1: the value of land, the public character and access to public goods?	++	++	>>	0	L	S	CU
	M2: the balanced territorial development (retaining population and income) and relationships of town - countryside?	++	++	>>	0	B	S	CU
	M3: the infrastructure?	+	+	>>	0	L	S	n-l
Cultural Heritage	H1: the protection and enhancement of cultural sites - monuments?	++	++	>	0	L	S	SY
Landscape	L1: the existing character of the landscape?	+	+	>	0	L	S	n-l
	L2: the enhancement of natural landscape quality?	++	++	>>	0	L	S	n-l
	L3: the commitments of protection of the coastal zone?	+	++	>>	0	B	P	CU
Noise	N1: the noise levels?	+	+	>	0	L	S	CU
	N2: the protection of people from noise pollution?	+	+	>	0	L	S	n-l
Sustainable Development	S1: the increase of the GDP while keeping low carbon footprint?	++	++	>>	0	B	P	SY
	S2: promoting the goals according to The 2030 Agenda for Sustainable Development?	++	++	>>	0	B	P	SY
Interrelationship	The interrelationship of the above parameters?	+	+	>>	0	B	P	CU

PO4: A more social and inclusive Europe implementing the European Pillar of Social Rights

- SO4.2 : Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and online education and training
- SO4.5 : 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
- SO4.6 : Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation

The programme is going to support partnerships/ initiatives for enhanced access to employment for groups that may face constraints (women, youth, migrants, ect). In addition, it is going to support the development of joint platforms or other types of digital infrastructure (e-learning, e-education, e-trainings ect). Considering the high level of unemployment, especially for young people as well as high level of NEETs (Not in Education, Employment, or Training) in the Programme area, actions like these, will act positively towards the eligible area's needs; will tackle high levels of unemployment as well as high levels of NEETs of the area and the consequences related to ageing population by having a positive impact in the population employment and educational level.

The programme is going to support joint synergies for the reinforcement the health sector and services in order to ensure better access to such systems in the GR-IT area. Considering that Italy was mostly hit by the pandemic since it was the first European country where it was emerged, and keeping in mind the maritime dimension of the Programme area, it is essential, in this regard, to enhance safety in marine connectivity. The integration of ICT also in the health systems, which are lagging behind in terms of the application of digital technologies will have a positive and great in scale impact in public health. In this frame, the programme will support the increase of the number of services of general interest (for example hospitals, primary schools and train stations) that are also located in disadvantageous areas. In this way, the transition to a more social and inclusive GR-IT area is going to be promoted, and the programme will have positive impacts in the sector of infrastructure by enhancing the public character and access to public goods.

The programme is going to enhance the role of culture and tourism with a focus to sustainable tourism taking into account advanced technologies and the potential offered in the frame of the new reality that has occurred since the pandemic outbreak. The proposed actions will aim in this frame to promote sustainable and thematic cultural routes at regional as well as macro-regional level by further distributing tourism flows. The implementation of these objectives will be aligned with the goals of UN 2030 Agenda for Sustainable Development, leaving a strongly positive impact in this parameter.

Tourism sector is linked to economic, social and environmental aspects. The implementation of innovative technologies in the tourism sector, will possibly increase the number of visitors in the eligible area, which can lead to relatively significant environmental impacts in the protection of the natural environment and

sensitive ecosystems. These are indirect impact which can be avoided or limited, by the implementation of the appropriate measures.

In the frame of promoting sustainable tourism, the promotion of cultural heritage including blue cultural heritage is also going to be strengthened. This will lead to positive impacts in the sustainable development and cultural heritage sectors by promoting actions which will enhance the cultural sites and monuments. Against this background, the workforce that is employed in the sectors of tourism and culture will need to have the necessary capacities and enhanced skills. This will have another positive impact in the population in terms of education and improvement of skills.

Table 7-5: Environmental Impact Assessment of PO4

Impact Evaluation of SO 4.2 , SO 4.5 and SO 4.6								
Environmental parameter	Environmental Objective-Question	Prob	Scale	Dur	Rev	Cross	Seq	Int
Is the implementation of the SO expected to affect:								
Biodiversity - flora- fauna	B1: the extent and consistency (internal) of protected areas?	+	-/+	>	+	L	S	n-l
	B2: the conservation of habitats and protected species of flora and fauna	+	-/+	>	+	L	S	n-l
	B3: the extent and consistency (internal) of forest ecosystems?	+	-/+	>	+	L	S	n-l
	B4 : the maintenance of racial or genetic diversity, richness and composition of populations of wildlife species?	+	-/+	>	+	L	S	n-l
Population - Public Health	P1: the population demographics?	+	++	>>	0	L	S	SY
	P2: the population employment?	++	++	>>	0	B	P	SY
	P3: the population education level?	++	++	>>	0	B	P	SY
	P4: the level of public health services and the public health protection?	++	++	>>	0	B	P	SY
	P5: the exposure of individuals to new or increased sources of pollutants, radiations or other substances or energy that may be harmful to human?	0	0	0	0	0	0	0

Soil	G1: ground stability and geomorphology?	0	0	0	0	0	0	0
	G2: ground quality against pollution from waste and wastewater?	+	++	>>	0	L	S	n-l
	G3: effective waste management and compliance with the European obligations	++	++	>>	0	B	P	n-l
Water	W1: inland and coastal waters hydromorphology?	+	+	>	0	L	S	n-l
	W2: water resources efficiency?	+	++	>>	0	B	S	CU
	W3: waters quality against pollution from waste and wastewater?	+	++	>>	0	B	S	CU
Air, climate and climate change	AC1: the air quality?	+	-/+	>	+	L	S	n-l
	AC2: the climate change adaptation?	+	++	>>	0	B	P	CU
	AC3: the climate change mitigation by the reduction of GHGs emissions and the increase of CO2 absorption?	+	++	>>	0	B	P	CU
	AC4: the achievement of the targets for renewable energy and energy efficiency?	+	++	>>	0	L	S	n-l
Material Assets - Infrastructure	M1: the value of land, the public character and access to public goods?	+	++	>>	0	L	S	n-l
	M2: the balanced territorial development (retaining population and income) and relationships of town - countryside?	+	++	>>	0	L	S	n-l
	M3: the infrastructure?	++	++	>>	0	L	P	n-l
Cultural Heritage	H1: the protection and enhancement of cultural sites - monuments?	++	++	>>	0	L	P	n-l
Landscape	L1: the existing character of the landscape?	+	-/+	>	+	L	S	n-l
	L2: the enhancement of natural landscape quality?	+	+	>	0	L	S	n-l
	L3: the commitments of protection of the coastal zone?	+	+	>	0	L	S	n-l
Noise	N1: the noise levels?	+	+	>	0	L	S	n-l
	N2: the protection of people from noise pollution?	+	+	>	0	L	S	n-l
	S1: the increase of the GDP while keeping low carbon footprint?	++	++	>>	0	B	P	SY

Sustainable Development	S2: promoting the goals according to The 2030 Agenda for Sustainable Development?	++	++	>>	0	B	P	SY
Interrelationship	The interrelationship of the above parameters?	+	+	>>	0	B	P	CU

ISO1: A better cooperation governance

- ISO1.1: Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and all stakeholders
- ISO1.4: Enhance institutional capacity of public authorities and stakeholders to implement macro-regional strategies and sea-basin strategies, as well as other territorial strategies

This Interreg Policy Objective (ISO) aims to improve and reinforce the existing capacities of the public authorities and all stakeholders, as well as to increase the level of coordination and collaboration at cross-border level. By this ISO all the procedures will be simplified, the administrative and linguistic barriers will be simplified, the bureaucracy will be eliminated, citizens' participation will be promoted, joint solutions, cooperation and organizational processes will be developed and implemented in order to ensure the successful implementation of the Programme. This Priority is expected to facilitate the flow of actions as well as the faster completion of integrated projects in other priorities. No environmental impact is expected by this ISO. It safeguards the effective management and implementation of the Programme and the positive environmental, social and economic impacts of the actions included in other priorities.

In order to protect the environment and the quality of life, projects under the Interreg Cross-Border Cooperation Programme Greece-Italy 2021-2027, which are listed in Annex I (or Annex II) of Directive 2011/92/EU (EIA Directive) shall be made subject to an assessment in accordance with Articles 5-10 of the above mentioned Directive. The effects of such a project on the environment should be assessed in order to take account of concerns to protect human health, to contribute by means of a better environment to the quality of life, to ensure maintenance of the diversity of species, to maintain the reproductive capacity of the ecosystem as a basic resource for life and to achieve the Climate objectives of Paris Agreement both on mitigation and adaptation fields. For such projects, the evaluation of an Environmental Impact Assessment Study (provided by the developer of the project) is needed and the competent authority or authorities in Greece and Italy shall adopt for such projects all appropriate and necessary measures in national or/and transboundary level in order to ensure the implementation of the prevention and precautionary principle.

8 MITIGATION MEASURES AND MONITORING

8.1 MITIGATION MEASURES

The prevention, reduction and mitigation of environmental impacts of the Programme is realized through two main mechanisms: a) the environmental permitting of projects and activities as it is in force and b) the creation of special provisions and / or conditions that will be applied in the implementation of the programme and will be integrated in the management processes (projects approvals etc).

a) Environmental permitting of projects and activities.

The impacts of each project are controlled by the environmental permitting process as it is in force in Europe acquis and is specialized on the implementation procedures of the institutional framework of the two countries. The approval of a project in the programme does not modify its obligations according to the Environmental Permitting, under which specific terms and conditions of its implementation are imposed. The relevant Environmental Impact Assessment Reports (EIA) should (not exclusively) include the following issues:

- Compliance with the specific emission limit values of pollutant loads and concentrations for air, water and soil in accordance with the applicable provisions.
- Compliance with the specific limit values of noise.
- Compliance with national or regional planning for the environment, such as waste management plan, the basin management plans of the WFD, etc.
- The suitability of locating in accordance with the approved land use plans and building restrictions.
- Taking into account all the necessary measures that are provided by the legislation in relation to the prevention and reduction of pollution of protected areas, sea and forest.
- Projects that are located in areas included in the Natura2000 network (as SCI or SPA), will have to comply with Article 6.3 of Habitats Directive 92/43/EEC, that is: *“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect on it, either individually or together with other projects, it is should be estimated regarding its impacts on the site by taking into account its conservation objectives”*.

b) Specific measures in order to protect the environment.

- Proposals that finance enterprises (innovation - entrepreneurship - competitiveness) and that include (in addition to the mandatory rules of the environmental law) investment in "green infrastructure and technologies" (e.g, use of geothermal energy etc.), bioclimatic principles and/or promote the reduction and reuse of materials (according to the hierarchy of waste management), would be highly desirable to be primed during the project selection process.
- In the process of specifying and selecting clusters, it should be considered to include enterprises that manage products or waste that are produced throughout the value chain.

- The actions of tourism development or enhancement of natural resources within Natura 2000 areas should be consistent with the management plan areas. In cases, where the projects are listed in areas with Management Agency, its opinion is necessary. In any case, it should be documented that the increase of visiting the protected ecosystems for tourism or other purposes does not have impact on the conservation status.
- Appropriate measures should be taken for technical projects that are implemented within the coastal marine area and may cause either a water quality pollution or a disruption of benthic substrate. Such measures should prevent and reduce the potential pollution of waters and the sediment.

More specifically, the aforementioned mitigation measures should address all the environmental parameters that might be affected by the projects of the Programme, according to the assessments of chapter 7.

Table 8-1 Proposed measures to mitigate environmental impacts

1	Biodiversity	<ul style="list-style-type: none"> • Utilization of EIA procedures to avoid damages to natural areas, NATURA 2000 and habitats • Integrate biodiversity protection criteria in the selection process of proposals for inclusion in the INTERREG Programme 2021-2027 (e.g planting native species, actions on the promotion of the environment, environmental awareness and education, information material on protected species) • Provide advice to stakeholders to improve their proposals in terms of biodiversity protection • Integrate ecodesign criteria, environmental management and sustainable natural resource management in the selection of proposals for inclusion in the INTERREG Programme (e.g bioclimatic design, implementation of Environmental Management Systems, reuse of excavated material, installation of energy and water saving systems) • Provide advice to stakeholders in terms of achieving the above objectives
2	Population-Human health	<ul style="list-style-type: none"> • reduce dust emissions and dispersion during construction • promote projects that enhance human physical activities (sports, cycling, running, walking)
3	Soil	<ul style="list-style-type: none"> • Encourage the use of clean technologies, practices to reduce waste and avoid toxic waste disposal, oily substances or salts in the soil. • Promoting entrepreneurship in introducing innovation in solid waste management in developing R & D and specialized services in the sector • Measures to protect soils from desertification • Reuse of excavation soils for backfilling
4	Water	<ul style="list-style-type: none"> • Encourage the use of clean technologies, practices to reduce wastewater and avoid waste disposal in the aquatic environment. • Encourage the introduction of technologies for reuse and saving water • Encouraging entrepreneurship in the sector of environmental management and protection of water resources

5	Air, Climate and climate change	<ul style="list-style-type: none"> • Encourage the use of clean technologies, replacement with cleaner fuels, installing pollution filters etc. • Encourage the use of RES • Encourage the use of public transport • Inclusion criteria for energy saving and reducing greenhouse gas production in the selection process of proposals for inclusion in the INTERREG Programme 2021-2027 (eg RES, use or replacement of equipment with energy-saving devices, actions for raising awareness and education for the public and business on climate change) • Provide advice to stakeholders in terms of achieving the above objectives and the need to reduce traffic volumes in relation to the movement of work force, raw materials and products
6	Infrastructure-Tangible Assets	<ul style="list-style-type: none"> • Encourage the use of local population workers in construction phase
7	Cultural Heritage	<ul style="list-style-type: none"> • Avoid installation of disturbing activities within or crossing areas of cultural interest • Use features that provide actions for the development of the tourism sector for the promotion and protection of monuments and sites of cultural interest • Take measures so that the improved accessibility to sites and cultural events areas will not have a negative impact to the cultural environment
8	Landscape	<ul style="list-style-type: none"> • The INTERREG Programme should introduce selection criteria of proposals for the establishment of enterprises in statutory or degraded areas, protection of rural and urban landscape and the development of green infrastructure (e.g installation of plants at industrial or business parks, regeneration or creating of green areas, use of clean technologies, use of energy and water-saving technologies, waste and waste-water management) • Advising stakeholders to protect the landscape from degradation
9	Noise	<ul style="list-style-type: none"> • Use of noise reduction techniques during construction and operation phases
10	Sustainable development	<ul style="list-style-type: none"> • Promotion of projects which combine development with environmental friendly features

8.2 MONITORING

The Monitoring System includes all the relevant environmental indicators per environmental parameter (e.g. biodiversity, air quality and climate change, soil, water, landscape and culture, etc.) and identifies the authorities that carry out the monitoring as well as the frequency of monitoring.

Data collection is suggested to be based on two sources: **(a)** primary data resulted from measuring environmental parameters and **(b)** assessment of environmental indicators.

The process of finding data through measuring is possible to involve the Regional Authorities (Regions), but also the State Authorities (e.g. Ministry of Environment), Local Authorities, scientific and professional bodies and utilities (e.g. landfills, wastewater treatment plants). Measuring environmental indicators is a complex process; either it is a regular or, even more, a continuous process.

The Regional Directorates should have a key role in regard with the data management and dissemination. In this context, the respective Departments must plan and act as a hub for the collection, analysis and dissemination of information. In particular, the role of the Regional Departments should include the following:

- Data collection from measurements performed by the Regional Services, either on a permanent or a temporary basis.
- Primary data collection performed by regional utilities (e.g. landfills, wastewater treatment plants, Municipal Enterprises for Water Supply and Sewerage, Public Power Corporation, Management bodies of protected areas).
- Primary data collection performed by public administration (e.g. National Monitoring System for the surface water quality, etc.)
- Primary data collection performed by scientific and other bodies.
- Analysis and synthesis of data in order to draw conclusions on the environmental state within the Region.
- Data storage and development of time series in order to monitor environmental status over time.
- Data dissemination through appropriate reports, according to the current legislation or/and Regional decisions. These reports are intended to **(a)** meet the relevant requirements of legislation, **(b)** inform those that participate to the planning and monitoring process of the INTERREG Programme Greece-Italy 2021 - 2027 implementation (decision makers) and **(c)** inform the public affected by the programme.

It is noted that, as mentioned before, the impact monitoring of INTERREG Programme Greece-Italy 2021 - 2027 will be carried out, where possible, using data derived from:

- The existing network for monitoring environmental parameters of the Ministry of Environment of the two countries or other bodies. Some indicative monitoring networks are:
 - Air pollution quality,
 - Water quality (surface waters, ground waters, coastal bathing waters).
- Separate and independent studies for identifying the impact of the overall program or part of it.
- Reports provided by contractors, either primary or based on data included in the EIA of the projects funded by the INTERREG Programme Greece-Italy 2021-2027.

The environmental indicators for each environmental parameter, the monitoring body and the monitoring frequency are provided in the next table. All indicators values should be measured or estimated **before the project** included in the Programme - **during construction** (if the project has a construction phase) - **during operation** (or implementation)

Table 8-2 Monitoring Indicators

No	ENVIRONMENTAL PARAMETER	ENVIRONMENTAL INDICATOR	MONITORING AUTHORITY	MONITORING FREQUENCY
01	Biodiversity - fauna- flora	<ul style="list-style-type: none"> satisfactory condition of habitats in the area of a project satisfactory condition of important species population in the area of a project Area covered by forests 	<ul style="list-style-type: none"> Management bodies of protected areas Competent Directorates of Regions 	According to the Management Plan (if exists) Annually
02	Population – human health	<ul style="list-style-type: none"> Years of healthy life expectancy New jobs Percentage of people living below the poverty line 	<ul style="list-style-type: none"> Competent Directorates of Regions 	Annually
03	Soils	<ul style="list-style-type: none"> Percentage of degraded land Quantities of waste disposed in landfills Development of per capita and total waste generation recycling (paper, glass, BMW14, aluminium) 	<ul style="list-style-type: none"> Competent Directorates of Regions Landfill Management Bodies 	Annually
04	Waters	<ul style="list-style-type: none"> Surface Water Quality (N, P, BOD5, COD, SS, TDS, Conductivity, Faecal Colliforms) Groundwater quality (Nitrate, Phosphate, Conductivity, Heavy Metals) Bathing waters Quality (Faecal Colliforms, transparency) Percentage of water recycling or reuse 	<ul style="list-style-type: none"> Competent Directorates of Regions WWTP Management Bodies Ministry of Environment 	Sampling and measurements in accordance to the environmental terms of each WWTP. National System of Surface Water Quality Monitoring for Greece According to the Monitoring Programme of bathing water quality on beaches for Greece
05	Air Climatic factors	<ul style="list-style-type: none"> Days of exceedance of air quality limits (CO, SOx, NOx, PM10) Emissions by Source Greenhouse Gas Emissions Development of energy demand Percentage of RES (%) Evolution of number of passenger vehicles 	<ul style="list-style-type: none"> Ministry of Environment Competent Directorates of Regions 	Annually
06	Cultural Heritage (including architectural and archaeological heritage)- Landscape	<ul style="list-style-type: none"> Number of preserved buildings restored Number of visitors Urban green per inhabitant 	<ul style="list-style-type: none"> Competent Directorates of Regions 	Annually

8.3 ASSESSMENT OF THE PROPOSED MONITORING SYSTEM BY THE SEA TEAM

The above basic arrangements provide a sufficient framework for monitoring the Programme implementation in order to identify at an early stage un-foreseen adverse effects and to be able to undertake appropriate remedial action. They can be used for meeting the requirements of the Article 10 of the SEA Directive. No further monitoring system is proposed in order to avoid potential duplicities in the monitoring.

9 REGULATORY ACT

According to the JMD 107017 of Greek Legislation the issuance of a regulatory act for the environmental approval of the Programme is needed.

This act will contain all the measures and monitoring activities described in chapter 8.

10 DIFFICULTIES DURING THE CONDUCT OF SEA

During the preparation of the Strategic Environmental Assessment (SEA) of the INTERREG PROGRAMME Greece- Italy 2021-2027, the following major difficulties were encountered by the authors of this report:

- the extremely tight time-schedule in relation to the required highly detailed, multi-level and in-depth analysis of strategic planning in a cross-border region and the different cultures, languages and development, environmental policies and legislation, etc.
- the different levels of digital convergence and e-government applications between the two countries which made difficult the direct access to information regarding the application of environmental policies and legislation.

However, the study focused on issues that were considered to have significant effects on the environment of the eligible cross border area and which were analyzed using the most appropriate methodologies and comparative tables. So, all difficulties were finally faced sufficiently and satisfactorily by the authors of this study and according to the Legislation.

11 BASIC STUDIES AND RESEARCHES

This chapter refers to the main studies and research that should be elaborated before the approval of the projects and actions described in the INTERREG Programme 2021-2027. In this framework, the following studies are recognized not as a prerequisite for the application of the programme but as supportive to the general environmental protection framework and as environmental studies of high priority to set an environmental baseline inventory. Although for few projects of the Program (like the ones that include constructions like infrastructure projects) an Environmental Impact Assessment (EIA) study might be mandatory:

- Special Environmental Studies for all NATURA sites and other areas under national protection regime and the establishment of appropriate five-year management plans.
- Ecological Studies for projects at areas that are included in NATURA network and other protected areas.
- Environmental Impact Assessment studies for all infrastructure projects in the cross-border area of cooperation which may precede or follow the mild measures proposed by the Program.
- Selection and evaluation of environmental indicators to establish a baseline environmental database which would enable benchmarking and ex post evaluation of the program results in specific fields such as water management, conservation status of biodiversity, etc.
- geotechnical studies and surveys,
- surveys mapping the atmospheric and the meteorological environment,
- noise level studies
- systematic recording of protected species of flora and fauna habitats (ecological baseline studies) especially if the region of study is characterized as of high environmental interesting (sites included in the Lists of NATURA 2000, CORINE, Convention Ramsar, SPA, National Forest, etc.)

12 CONSULTATION OUTCOMES

This chapter will be analyzed after the public and services consultation phase.

13 ANNEXES

13.1 BIBLIOGRAPHY

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13.2 MAPS

1. REGIONS COVERED BY THE PROGRAMME
2. CORINE LAND COVER
3. PROTECTED AREAS



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