

TECHNICAL ASSISTANCE FOR THE PREPARATION OF  
THE DOCUMENTS NECESSARY FOR THE PERFORMANCE  
OF THE STRATEGIC ENVIRONMENTAL ASSESSMENT  
(SEA) PROCEDURE FOR THE  
INTERREG PROGRAMME ROMANIA – HUNGARY 2021-  
2027  
SCOPING REPORT

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The contents of this publication are the sole responsibility of the authors.

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## LIST OF ACRONYMS

CBC	Cross-Border Cooperation
DRS	Strategy for the Danube Region
EEA	European Environmental Agency
EDRF	European Regional Development Fund
EU	European Union
EUSDR	The EU Strategy for Danube Region
ESPON	European Spatial Planning Observation Network
GHG	Greenhouse Gas
ISO	Interreg Specific Objective
IUCN	International Union for Conservation of Nature
ITC	Information Trade Commission
LAU	Local Administrative Unit
NUTS	Nomenclature of Territorial Units for Statistics
OP	Operational Programme
PA	Programme Area
PC	Programme Committee
PO	Policy objective
RSO	Regional specific objective
RES	Renewable Energy Sources
SEA	Strategic Environmental Assessment
SEA Directive	Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.
Scoping	Determination of scope of the Strategic Environmental Assessment
Sqkm	Square kilometre
TEN-T	Trans-European Transport Network

## 1 INTRODUCTION

### 1.1 Scoping Report

This document is part of the Notification to be submitted to the Competent Environmental Authority, for initializing the SEA procedure for the proposed Interreg Programme Romania – Hungary for the programming period 2021-2027. The main information about `Interreg Programme VI-A Romania-Hungary 2021-2027` is currently available on the website: <https://interreg-rohu.eu/en/library-2020/>, the section dedicated to Programming post 2020. In the Annex 1 of the present Scoping Report is presented the `Draft 2 of Interreg Programme VI-A Romania-Hungary 2021-2027`.

In this documents is provided relevant information for consideration of the environmental authorities in Romania and Hungary, in order to obtain their advice on the scope of the SEA study that should be elaborated in view of obtaining the necessary environmental approval.

The interested institutions, parties and persons were already invited to submit their observations and suggestions for improving the draft programming document.

## 2 DETERMINING THE SUBJECT OF THE PROGRAMME TO THE SEA

### 2.1 The outline of the programme

The scoping document is prepared for the second draft (**July 1st, 2021**) of the Interreg Programme VI-A Romania-Hungary 2021-2027, which includes four counties of Romania (Satu Mare, Bihor, Arad, Timiș) and four districts of the Hungary (Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés, Csongrád-Csanád). The total programme area (PA) is 50,435.31 sqkm (56.3% represents Romanian Programme`s administrative area - 11.9% of the total national territory) and 43.7% Hungarian Programme`s administrative area - 14.15% of total national territory). The programme area is split in two NUTS2 regions in Romania (*North-West(RO11)* - Bihor County, Satu Mare County and *West (RO42)* - Arad County and Timiș County), and two NUTS2 regions in Hungary (*Northern Great Plain (HU32)*- Hajdú-Bihar County, Szabolcs-Szatmár-Bereg County and *Southern Great Plain (HU33)*- Békés County, Csongrád-Csanád County). The total length of the border is 450 km, crossed by 12 road corridors and 5 railways border crossing points.

The PA is composed of a total of 117 urban settlements and 672 rural settlements. Romania`s border area has 36 urban settlements and 307 rural settlements, whilst the Hungarian`s border area has 81 urban settlements and 365 rural settlements.

The EC recommends to both cross-border Member States, as individual states and as a cross-border area, to support:

- *The concentration of resources on digital and green transition* (i.e. including promoting ITC, e-government services, as well as developing joint strategies for the sustainable valorisation of natural resources, assessing vulnerabilities and increasing joint emergency response capacity);
- *The resilience of the health sector* (including mapping needs and developing a joint strategy, as well as strengthening the health emergency response capacity, reducing territorial disparities in the accession to health services and promoting patients` mobility and exchange of information);
- *The recovery of economy and labour market following Covid-19 crisis* (including by mapping labour market exchanges, reinforcing labour active measures and ensuring a

closer relevance of education and vocational training to skills required in the cross-border labour market, promoting high value-added clusters and cross-border value chains, as well as supporting the recovery of tourism and culture as drivers for the socio-economic development of the PA, hardly affected by the Covid-19 crisis);

- *The improvement of governance and decision-making processes* (including assessing legislative barriers to cooperation, reduce language barriers, improving the exchange of data and information, improving coordination with mainstream programmes and the involvement of stakeholders and the involvement of stakeholders and social partners).

The guiding principles leading to the proposed Strategy and Intervention Logics can thus be defined as follows:

- **maximising the concentration of resources on interventions where cross-border cooperation brings added value and the Interreg programme represents the main option** for funding;

- **promoting the higher possible cross-border impact on territorial disparities and communities**, focussing on policy objectives with the possible higher and more direct impacts on the population well-being (i.e. health, environmental protection and green infrastructure), safety (i.e. protection from natural disasters and climate change adaptation strategies) and equal opportunities (i.e. equal access to health services, tailor-made solutions for patients, involving youth, rural population and marginalised communities in cultural activities and in the valorisation of resources for the socio-economic development of the area);

- **bridging territories and communities based on common territorial and intangible assets**, which may create common socio-economic opportunities for the economic recovery (i.e. renewable energies and the opportunity of creating “renewable energy / green communities”, as well as culture and tourism, as fields of common interest capable of leveraging funds and partnerships under a common territorial marketing vision);

- **promoting people-to-people interventions as foundation for more structured cooperation**, with a demonstrative value for building sustainable and inclusive communities and an open business environment, which may support in designing tailor-made solutions for future community-led local development initiatives and integrated socio-economic strategies at cross-border level, thus making people-to-people actions “laboratories” for the animation of local communities;

- **building the knowledge basis, capacities, joint systems and joint working procedures** as a precondition for projects sustainability and effective results of the programme implementation, drawing lessons on cooperation, in what concerns: the development of joint strategies, effective cross-border systems and institutional cooperation frameworks throughout the selected POs; the resolution of legal and administrative barriers; the creation of more cohesive local and business communities through people-to-people exchanges.

## 2.2 Objectives and areas of intervention

The vision for the current Interreg Programme between Romania and Hungary 2021-2027 can be defined as follows: “A greener, resilient and more cohesive cross-

**border Region between Romania and Hungary, with enhanced understanding of cooperation opportunities, increased trust and reduced barriers to cooperation, towards Agenda 2030 common targets with a more sustainable cooperation framework.”**

The Programme strategy is articulated in a general objective and **three specific objectives** corresponding to the three selected POs; each of the three selected POs has up to three Specific Objectives underlying specific Interreg investment priorities.

The following 3 Policy Objectives will be financed through the future Romania-Interreg Programme VI-A Romania-Hungary 2021-2027 for the programming period 2021-2027:

Following fruitful and constructive discussions at the meeting, the PC members decided to finance:

- ❖ PO 2 – A greener cross-border area, through the following specific objectives:
  - Promoting climate change adaptation, risk prevention and disaster resilience (RSO 2.4);
  - Promoting renewable energy (RSO 2.2);
  - Enhancing nature protection and biodiversity, green infrastructure in particular in the urban environment, and reducing pollution (RSO 2.7).
  
- ❖ PO 4 – A more social cross-border area, through the following specific objectives:
  - Ensuring equal access to health care through developing infrastructure, including primary care (RSO 4.4);
  - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation (RSO 4.5).
  
- ❖ ISO 1 – A better cooperation governance, through the following specific objectives:
  - Enhancing efficient public administration by promoting legal and administrative cooperation and cooperation between citizens, civil society actors and institutions, in particular, with a view to resolving legal and other obstacles in border regions (ii);
  - Enhancing the Institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders (i);
  - Build up mutual trust, in particular by encouraging people-to-people actions (iii).

### 2.3 Priorities that the programme covers

Justification for the selection of policy objectives and the Interreg specific objectives, corresponding priorities and the forms of support are presented below, according with Section 1.3, Table 1 of the currently analysed Programme draft 2 (see Annex 1).

#### ***1. Priority 1 (PO2). Cooperation for a green and more resilient cross-border area between Romania and Hungary***

*Justification of the priority 1:* Investments in the fields of environmental protection and risk management are based on the needs of the programme area, such as: underperforming environmental infrastructure, environmental hotspots and risks, lack of awareness of the population on environmental threats (climate change risks, floodings, landslides, droughts, fire, landscape destruction, deforestation, biodiversity loss etc.) and lack of knowledge about environmental friendly solutions (climate change adaptation,

response to extreme weather events, eco-system based approaches, green infrastructure, renewable energy, urban regeneration, natural heritage, minimising pollution, etc.).

This priority 1 responds to the following Interreg specific objective PO2: *A greener Europe*.

The specific objectives within this priority - PO2 are:

1. RSO 2.4 Promoting climate change adaptation and disaster risk prevention and disaster resilience, taking into account eco-system based approaches;
2. RSO 2.2 Promoting renewable energy in accordance with Renewable Energy Directive (EU) 2018/2001[1], including the sustainability criteria set out therein;
3. RSO 2.7 Enhancing nature protection and preservation of nature, biodiversity and green infrastructure, including in the urban environment, and reducing all forms of pollution.

### ***2. Priority 2 (PO4): Cooperation for a more social and cohesive PA between Romania and Hungary***

*Justification of the priority 2:* Investments in infrastructure and services for equal access to health care and infrastructure, as well as for sustainable exploitation of natural and cultural heritage are based on the needs of the programme cooperation between Romania and Hungary, such as: poor accessibility to social and health care services in remote regions, old medical health care infrastructure, limited primary care services (considering COVID's pandemic experience and afterward local resilience), high potential of PA tourism in order to exploit cross-border niches and to integrate vulnerable groups (young, unemployed or low salary people) and local communities in cultural and natural heritage for sustainable development, social inclusion and for social innovation.

This priority responds to the following Interreg specific objective PO4: *More social Europe, SOs related to labour markets (i), health care (iv) and culture and sustainable tourism (v)*.

The specific objectives within this priority PO4 for the PA 2021-2027 are:

1. RSO 4.4 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;
2. RSO 4.5 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation.

### ***3. Priority 3 (ISO 1): A more sustainable, community-based and effective cross-border cooperation***

*Justification of the priority 3:* Although there are many examples of cooperation (cultural, economic, environment and so on) among public administrations and with private and non-governmental actors, the policy decision-making centres and services delivery competences remain anchored on traditional administrative units on both sides of the border and limited capacity of rural areas and small cities to provide quality infrastructure and services for the inhabitants.

There is still needed:

- to improve the potential beneficiaries' capacities (especially smaller local public administrations, without being limited to) to design results-oriented projects, to consolidate cross-border partnerships, as well as, in general, to think strategically on common objectives, based on well-defined common opportunities and challenges;

- to support better understanding of processes and phenomena at cross-border level, in several fields (notably climate change and energy consumption, labour market flows, transports and connectivity and others), especially in view to mitigate the border effects and overcoming barriers to cooperation;
- to develop people-to-people actions which represent an opportunity to build trust, through mutual learning, exchange and mutual support for the realisation of a variety of socio-economic actions (such as sport and competitions, performing arts, cultural events, non-curricular education activities, exchange of experience among the business sector, facilitated by social partners) with high potential to bridge communities, as well as to animate the business community.

This priority responds to the following Interreg specific objective (ISO1): *A better cooperation governance - Enhance the Institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders.*

The specific objectives within this priority ISO 1 are:

1. (ii) Enhance efficient public administration by promoting legal and administrative cooperation and cooperation between citizens, civil society actors and institutions, in particular, with a view to resolving legal and other obstacles in border regions;
2. (i) Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders;
3. (iii) Build up mutual trust, in particular by encouraging people-to-people actions.

Table 1. Policy Objectives, Specific Objectives and Actions

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
PO 2	<b>RSO 2.4 Promoting climate change adaptation, risk prevention and disaster resilience</b>	<p>The cross-border region is characterised by a rich hydrographic network, which is crossing the border almost in its entirety, producing contiguous riparian areas which have a high potential of joint valorisation. Due to the topography and river density, the area is also one of Europe's most prone regions to floods: High flood recurrence is recorded in Hajdú-Bihar, Timiş, Arad, Bihor, while very high flood recurrence is a significant risk for the two northernmost counties of Szabolcs-Szatmár-Bereg and Satu Mare. Bihor and Satu Mare have historically been the most affected by flood class 1 events. Landslide susceptibility is relatively limited, throughout the whole cross-border areas (with the exception of Bihor, in the Apuseni Mountains region), with some areas prone to landslides concentrated along rivers.</p> <p>Cross-border disasters and risk management in the area is incipient: although there are some ongoing initiatives in this field, there is still significant room for improvement of coordination, risk prevention and joint response capacity, which substantiates the need for joint investments and future cooperation actions, building on the Water management Convention signed at country level and on the previous experience gained by public administrations involved in relevant initiatives, including at macroregional level (EUSDR).</p> <p>An increased cooperation and capacity of joint risk prevention and response to extreme weather events, mostly generating floods, rural and urban landscape destruction, as well as to other climate change-related phenomena, such as draught and fires, is considered a priority by the majority of stakeholders. Non-intervention or inappropriate (i.e. not coordinated)</p>	<p>Action 1:</p> <ol style="list-style-type: none"> <li>1. Update the Danube Flood Risk Management Plan (DFRMP)</li> <li>2. Implement structural and non-structural measures related to flood risk management, support the improvement of forecasting and nowcasting (pilot actions / joint strategies)</li> <li>3. Increase the preparedness and resilience of communities against floods (trainings, awareness raising events), including youth involvement and gender mainstreaming in civil protection actions</li> <li>4. Promote sustainable floodplain management including green infrastructure</li> <li>5. Foster basin wide management planning on specific issues (e.g. ice on rivers)</li> <li>6. Pilot / demonstrative actions</li> </ol> <p>Action 2:</p> <ol style="list-style-type: none"> <li>1. Training, development capacities and procedures for better preparedness of disaster management, including youth and women's involvement in civil protection actions</li> <li>2. Identification of innovative solutions to support disaster management (IT tools, VR, mobile apps, etc.) (pilot actions)</li> <li>3. Strengthening resiliency of national/regional authorities (this type of intervention foresees that a harmonised and standardised approach is developed at cross-border level and then applied at national regional level) (pilot actions / joint strategies)</li> <li>4. Support operative flood management planning on transboundary watersheds and the harmonization of available assets (pilot actions / joint strategies).</li> </ol> <p>Action 3:</p>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		intervention, may generate high social, economic and environmental costs.	<ol style="list-style-type: none"> <li>1. Providing support for risk assessment (eg. with identification of hazards, assessing consequences and probabilities, characterization of risks and uncertainties) on regional, national, or macroregional level and related training and exchange of experience</li> <li>2. Supporting the monitoring and survey of different environmental risks</li> <li>3. Harmonising climate change adaptation (CCA) strategies and action plans to improve international collaboration and coordinate activities in the Danube Region</li> <li>4. Exploring direct effects of climate change and implement mitigation and adaptation measures in environmental risk management plans (joint strategies)</li> <li>5. Improve cooperation with regard to the use of climate change data and projections from Copernicus Climate Change Service (C3S) and its Climate Data Store (CDS), including training and exchange of experience in these fields</li> <li>6. Research in the field of climate change adaptation, including promoting partnerships between academic research and youth NGOs activating in the field of environment</li> <li>7. Support natural (small) water retention measures</li> <li>8. Pilot / demonstrative actions.</li> </ol>
	<b>RSO 2.2 Promoting renewable energy in accordance with Renewable Energy Directive (EU) 2018/2001[1], including the sustainability criteria set out therein</b>	Environmental and ecosystem protection, climate change adaptation, energy transition and the low carbon economy represent vital issues at the core of the European policy for the 2030 time-horizon. Both Romania and Hungary have committed to ambitious targets through their respective National Energy and Climate Plans 2030 in order to reduce GhG emissions, reach RES shares of 30.7% (Romania) and at least 21% (Hungary) and to contribute to the overall European goal	<ol style="list-style-type: none"> <li>1. Training (physical and e-learning), best-practice sharing, capacity development for better understanding the advantages of RES utilization tailored to the needs of different stakeholder groups (political-legislative, technical, public, youth and women, etc.)</li> <li>2. Encourage cross-border project generation related to the spread of sustainable RES usage</li> </ol>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		<p>of reaching at least 32.5% improvement in energy efficiency by 2030.</p> <p>High and very high potential of geothermal district heating (very high – 171-1932 ktoe – in Csongrád-Csanád, Hajdú-Bihar, Szabolcs-Szatmár-Bereg, Timiș and Bihor), is a distinct endowment of the programme area. While wind energy, large hydropower and, to a degree, biomass energy, are reduced, there is still a high photovoltaic energy potential, with circa two thirds of the territory being suitable for installation of photovoltaic production (Csongrád-Csanád, Békés, Timiș, partly Arad, Bihor and Hajdú-Bihar - 3.30-3.51 kWh/kWp/day). However, although the renewable energy potential is substantial, this potential is not fully exploited, nor fully mapped at micro-zone level.</p> <p>Considering the high policy support, both at European, Danube Macro-region, central and local level, for the transition to a low-carbon economy, a better understanding and exploitation of existing resources for renewable, alternative energies, is considered a priority for the cross-border area, which may have an important leverage and indirect effect, and generate strong synergies with other components of development, such as the business sector, research and innovation (to be funded under other national and European funds). In this respect, investments in regenerable energies under the future Interreg Programme may contribute to create a favourable, enabling, environment for further developments of the renewable energy in the area, the creation of green communities or jobs and certainly the improvement of local environment.</p>	<p>3 Training (physical and e-learning), best-practice sharing, capacity development for uptake of renewable energy solutions tailored to the needs of different stakeholder groups (political-legislative, technical, public, youth and women etc.)</p> <p>4. Projects of renewable energies on the high geothermal / photovoltaic / wind / biomass potential of the PA (pilot actions)</p> <p>5. Mapping renewable energies, assess barriers and drafting joint strategies for coordinated actions in the energy market</p>
	<p><b>RSO 2.7 Enhancing nature protection and biodiversity, green infrastructure in</b></p>	<p>The Programme area is characterized by a plain geomorphology that is favourable to settlement development and agriculture, with a higher landform diversity in the Romanian counties (Oriental and Banat</p>	<p>1. Develop the Masterplan of border Natura2000 areas or sensible areas to focus on the identification of biodiversity hotspots, the common setting of conservation objectives, identifying priority sites for</p>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
	<p><b>particular in the urban environment, and reducing pollution</b></p>	<p>Carpathians and Apuseni Mountains). Landscape diversity overall is moderate, but coherent across the border, which offers no natural impediment to landscape and protected site integration. The PA is thus characterized by a “green border”, generating a high potential for the valorisation of natural resources. The soil biodiversity potential in the area is moderate, with lower potential recorded in the south (Csongrád-Csanád, Timiș) and Hajdú-Bihar, and higher in the eastern parts of the Romanian counties (Apuseni Mountains), however with significant potential to support further development of biodiversity in the border area south of Nyíregyháza, and with exceptional potential in the regions already protected by Natura 2000 classification (Hortobágy in Hungary, Lipovei Hills, Zarand Mountains in Romania). However, the current management of protected sites is hardly coordinated and does not reflect the real cross-border nature of the natural landscapes and both the sides of the border are affected by deforestation trends, which may further deteriorate the exposure of the territory to natural hazards and the impact of climate change.</p> <p>An increased level of cooperation in the sustainable management of natural resources, in line with EUSDR action plan for biodiversity and landscape protection, is expected to directly contribute to a more effective protection of these areas and to an increased carbon-storage capacity, with the possible direct contribution to the reduction of the GhG emissions accounting. Non-intervention or inappropriate (i.e. not coordinated) intervention, may generate high social, economic and environmental costs, generating the further deterioration of precious natural heritage, whilst potentially compromising local population safety</p>	<p>restoration, and measures for mainstreaming the biodiversity</p> <ol style="list-style-type: none"> <li>2. Projects to supporting sustainable use of protected areas in order to increase support and feeling of ownership of local people, like events (workshop, conference); report on best practices (case studies); workshops/study tours.</li> <li>3. Develop and/or implement conservation action plans and/or management plans for endangered umbrella species of Natura2000 protected areas</li> <li>3. Develop and/or implement conservation action plans and/or management plans focussed on certain species conservation aspects</li> <li>4. Develop and apply the most appropriate methods for prevention and control of IAS and management of their priority pathways in the border areas (pilot actions)</li> <li>5. Measures for restoration of the invaded ecosystems (pilot actions)</li> <li>6. Trainings, capacity building and awareness raising on biodiversity conservation</li> <li>7. Preservation and restoration of biodiversity and establishment and improvement of green infrastructure (pilot actions)</li> <li>8. Construction of exemplary, permanent green and recreational facilities (pilot actions)</li> <li>9. Promotion of ecosystem services to assess the progress of biodiversity promotion and conservation activities (pilot actions)</li> <li>10. Capacity building, training and awareness raising related to blue and green infrastructure</li> <li>11. Develop use of Strategic Environmental Assessments for decision making with integration of the blue-green infrastructures into planning documents</li> </ol>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		(notably from the adverse effects of climate change) in the cross-border area.	12. Establish the cooperation between the MRS approaches in establishing ecological connectivity and Green Infrastructure.
PO 4	<b>RSO 4.4 Ensuring equal access to health care through developing infrastructure, including primary care</b>	<p>The programme area is characterised by generally positive trends in human capital development, with raising life expectancy, lowering rates of social exclusion and unemployment. However, the PA is still lagging behind the European level in the performance for several of these indicators, including life expectancy at birth. In particular, this indicator suggests that the quality of life and the health status of population still need to be improved.</p> <p>The uneven distribution of public services is a significant barrier impeding balanced development and internal cohesion. In relation to health infrastructure, the basic endowment in the PA looks still inadequate compared to needs, as suggested by the average number of beds per 100 000 (below the national averages), as well as to the disparities related to the territorial concentration of ambulatories (with the Romanian side of the border lagging behind) and the number of medics / 1000 inhabitants (generally lower in the norther counties of the PA).</p> <p>An increased resilience of the health sector is considered a high priority at all governance levels, from EU, to national and local governments. Resilience does not mean only infrastructure and endowments (although it certainly includes them too) but also encompasses the quality of services, their flexibility, adaptability to target groups / specific challenges and response capacity to emergency situations, as the Covid-19 pandemic has dramatically showed. An increased level of cooperation in the health sector is expected to improve health staff' skills and the overall health-care system</p>	<ol style="list-style-type: none"> <li>1. Analysis of trends, needs, standards and barriers to cooperation for health-care services in the PA (including health status of population)</li> <li>2. Trainings for public employees and civil society in the field of health-care services</li> <li>3. Networks to exchange good practices, peer learning in the field of health-care services</li> <li>4. Developing (transnational/cross-border) Action Plans and development strategies in the field of health (including joint response and civil protection mobilisation)</li> <li>5. Investment in infrastructure, computer programs/software and IT equipment/hardware for the support of eGovernance in the field of health</li> <li>6. Pilot / demonstrative projects in the field of health</li> </ol>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		<p>quality, including its capacity to reach target groups most in need. This will be achieved starting from the exchange of experience and best practices, the capitalisation of existing resources, networks and previous cooperation in this field, in order to reach a coordinated response, if need arises, based on common working procedures and standards.</p>	
	<p><b>RSO 4.5 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation</b><sup>1</sup></p>	<p>The PA is endowed with rich natural and cultural heritage, as well as a dense network of local actors already cooperating for the organisation of international cultural events and tourism niches' development (i.e. religious and rural/eco-tourism) providing the basis for cross-border valorisation in touristic routes.</p> <p>The growth of the tourism sector is demonstrated by the increased accommodation capacities in the PA counties over time (13.45% increase in 10 years). However, occupancy rate is low and very low, with an average of 35-38% in the best performers (Hajdú-Bihar, Bihor) and in Satu Mare and going down to 18% in Csongrád and 19.08% in Szabolcs-Szatmár-Bereg. Since 2010, tourist overnight stays have generally grown, except in Satu Mare (-19%, 2010-2018), with a significant 135% increase in Csongrád-Csanád and remarkable increases in Békés (83%), Timiș (77%) and Bihor (72%). However, overnight stays have decreased, on average from 2.78 nights per stay to 2.41 (2010-2018). Disparities in overnight stays have been higher in Romania, with an actual increase in Timiș (+4%), and a 44% decrease in Bihor.</p> <p>The cross-border area is thus still not able to attract and retain high flows of tourists, but many local and county strategies put great accent on touristic resources and</p>	<ol style="list-style-type: none"> <li>1. Identification of possibilities for making the tourism offer sustainable or creating new sustainable tourism products of public interest (including analysis of trends, mapping resources, assessing barriers to cooperation)</li> <li>2. Development of such sustainable tourism offers and products incl. investments, embedded into joint tourism strategies for local development</li> <li>3. Territorial marketing initiatives (Marketing, communication, awareness raising campaigns on local resources and traditions)</li> <li>4. Trainings, capacity building and exchange of experience among cross-border actors</li> <li>5. Identification, mapping and further development of cultural heritage (tangible and intangible), including its preservation, protection, conservation and rehabilitation, as well as the development of joint promotion and conservation strategies and assessment of barriers to cooperation;</li> <li>6. Mapping of needs and possibilities for digitised cultural heritage and drafting joint strategies;</li> </ol>

<sup>1</sup> Based on current formulation of this specific objective included in PO 4, under revised EDRF Regulation (December 2020).

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		<p>potentials in their territories, in close connection with traditional economic sectors such as local agriculture and food production, which makes tourism a relevant sector for the diversification of local economies, especially rural and marginalised areas. However, cross-border cooperation is needed and would provide high added value, in order to fully exploit the local potential, through a strategic destination management approach, which shall be able to consolidate existing tourist flows, to the benefit of a larger possible area of intervention in the cross-border region.</p>	<p>7. Improving the interpretation / adopting innovative methods for territorial marketing through “Story telling models” (“Living history” and “Living heritage”)</p> <p>8. Pilot actions for innovative solutions (including the acquisition of hardware/software) and the creation of thematic routes, no specific commercial brand) for the protection and valorisation of cultural / rural / natural / religious heritage.</p> <p>9. Involving local authorities and communities (including schools) to build up intercultural and transcultural ties with different partners (skills development, educational contents and cultural initiatives, joint events etc.)</p>
ISO 1	<p><b>(ii) Enhance efficient public administration by promoting legal and administrative cooperation and cooperation between citizens, civil society actors and institutions, in particular, with a view to resolving legal and other obstacles in border regions</b></p> <p><b>(i) Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders</b></p>	<p>In terms of governance, the cross-border area presents commonalities in the way the multi-level administrative structure of the two states is organised, where NUTS 3 and LAU 2 levels are the most relevant in terms of competencies. Furthermore, there is a similarity in the implementation of vertical governance coordination. The governance and policy analysis showed that, although there are many examples of cooperation (cultural, economic, and so on) among public administrations and with private and non-governmental actors, the policy decision-making centres and services delivery competences remain anchored on traditional administrative units on both sides of the border.</p> <p>Additionally, the analysis of the current programming, consultations and interviews show that there is still need to improve potential beneficiaries’ capacities (especially smaller local public administrations, without being limited to) to design results-oriented projects, to consolidate cross-border partnerships, as well as, in</p>	<p>1. Cross-border studies on barriers to cooperation</p> <p>2. Lessons learnt from previous experiences</p> <p>3. Standards and legislation mapping</p> <p>4. Drafting joint actions plans / strategies / institutional agreements</p> <p>5. Joint trainings on how to tackle barriers to cooperation</p> <p>6. Pilot / demonstrative actions to tackle barriers</p> <p>7. Cross-border studies on fields not covered under PO2 and PO4 selected objectives</p> <p>8. Lessons learnt from previous experiences</p> <p>9. Drafting joint actions plans / strategies / institutional agreements on Agenda 2030 and tailor-made solutions for integrated territorial mechanisms in the PA</p>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
	<p><b>(iii) Build up mutual trust, in particular by encouraging people-to-people actions</b></p>	<p>general, to think strategically on common objectives, based on well-defined common opportunities and challenges.</p> <p>The region thus presents the need to support better understanding of processes and phenomena at cross-border level, in several fields (notably climate change and energy consumption, labour market flows, transports and connectivity and others), especially in view to mitigate the border effects and overcoming barriers to cooperation, starting from evidence-based joint strategies and more effective and sustainable partnerships.</p> <p>Finally, there is an increasing trend of territorial disparities between rural and urban areas and between larger urban centres and minor urban centres, which is reflected in a still limited capacity of rural areas and small cities to provide quality infrastructure and services for the inhabitants. Additionally, there is a significant diversity of social challenges in the region, underlying disadvantaged areas, whilst similar disparities and indicators lagging behind in the whole PA area are observed also at the level of economic development.</p> <p>In this complex and differentiated socio-economic context, people-to-people actions represent an opportunity to build trust, through mutual learning, exchange and mutual support for the realisation of a variety of socio-economic actions (such as sport and competitions, performing arts, cultural events, non-curricular education activities, exchange of experience among the business sector, facilitated by social partners) with high potential to bridge communities, with low access to main public services especially in scattered settlements, as well as to animate the business community.</p>	<p>10. Joint trainings, events and exchange of experience on cross-border strategic planning, project development and joint response</p> <p>11. Small-scale pilot / demonstrative actions on fields not covered under PO2 and PO4 selected objectives focussed on policy / strategy / multiple funds coordination systems, Monitoring and Evaluation (M&amp;E) at cross-border level</p> <p>12. Small scale Trainings, events, peer exchanges and people-to-people actions.</p>

Policy objective	Specific objective or dedicated priority*	Justification (summary)	Examples of Actions/Interventions
		<p>Given the needs identified above, the next Interreg Programme should also improve the understanding and knowledge basis of barriers to cooperation, as well as of relevant cross-border patterns, flows, quality of public services, characteristics of specific target groups. This will allow to better tackle existing barriers whilst building evidence-based joint strategies, in line with the EU Territorial Agenda 2030. In this respect, trainings, joint events, peer-to-peer exchanges are cross-cutting measures needed to build capacities and institutional relations able to manage future interventions with a more cross-border character and an increased potential impact on both the territorial development and the cooperation dimension.</p>	

### 3 DETERMINING THE LIKELY SIGNIFICANCE OF EFFECTS

#### 3.1 Environmental effects at regional and transboundary level

The priorities, measures and action interventions covered by the Interreg VI-A Programme between Romania and Hungary 2021-2027 will have an overall positive environmental impact.

The programme area benefits from the existence of a vast area of national natural parks or Nature 2000 network of protected areas in the PA, with touristic, cultural and environmental values. Natural endowments of the PA are rich and diverse, ranging from floodplain-specific landscapes to spa heritage, natural reservations, Karst areas rich in caves, RAMSAR wetland areas, and including a UNESCO world Heritage site, Hortobágy National Park (Hungary). Natural areas are very well represented across the whole PA, with Natura 2000 sites covering between 14.63% (Timiș) and 47.29% (Hajdú-Bihar) of the surface of the counties. However, they are not always contiguous across both sides of the border, and this is an indication of a need to improve cooperation in managing the Natura 2000 sites, as well as of joint investments and a coordinated action for the development of green infrastructure along the green border (including buffer zones) or in the cities. Even though the region has a varied, but consistent natural heritage, there is no common branding or understanding of the natural potential of the region and its diverse opportunities, which may contribute to the decreasing touristic performance of the PA, with shortening of the number of nights spent in touristic accommodations.

Climate change adaptation strategies and the management of natural and anthropic hazards, especially linked to the incidence of floods (notably in the northern and southern areas of the PA), land-slides and fires deriving from draughts and land abandonment have emerged as important investment needs and priorities. The territorial analysis also shows that, although the renewable energy potential (i.e. solar, biomass, geothermal) is substantial, this potential is not fully exploited, nor fully mapped at micro-zone level, which also represents a joint investment need and a priority area for future cooperation. The PA is characterized by a green border and high potential for the valorisation of natural resources. However, the current management of protected sites is hardly coordinated and does not reflect the real cross-border nature of the natural landscape. Additionally, both the sides of the border are affected by deforestation trends, which may further deteriorate the exposure of the territory to natural hazards (droughts, floodings, and landslides in the hilly landscapes) and the impact of climate change. Cooperation in the field of protection and valorisation of natural resources, including green infrastructure, has thus been highlighted as common investment need for the PA.

In relation to resilient and modern health infrastructure and services, which is a major investment priority of all EU countries, following SARS-CoV-2 pandemics, the basic endowment in the PA looks still inadequate compared to needs, especially in relation to emergency response, exchange of information and community, tailor-made health services for specific target groups. The PA is endowed with rich natural and cultural heritage, providing the basis for cross-border valorisation in touristic routes and cultural initiatives focussing on local traditions, as catalysers of social inclusion. However, the area is still not able to attract and retain high flows of tourists (which is suggested by the decreasing overnight average stay, in terms of number of days), whilst many local and county strategies put great accent on touristic resources and potentials in their territories, in close connection with traditional economic sectors such as local agriculture and food production.

The low level of monitoring of soil, water and air pollution diminishes the level of population awareness regarding the real level of pollution in their communities. The programme invests in actions and measures for raising awareness regarding the importance of protecting the environment and responsible behaviour.

This is the reason why the programme proposes this specific objective, for funding investments in green infrastructure in urban areas and for funding raising awareness measures of the resident population. This concept of “green infrastructure” is a relatively new one and special attention will be paid to promoting it and to developing pilot solutions that can be replicated later. The most common structures that will be targeted are: parks, tree-lined avenues, green roofs, open spaces, playing fields, agricultural land and woodland inside towns, etc.

As it is presented in tabel 1, the Interreg VI-A Romania-Hungary programme 2021-2027 proposes measures like:

- Investments in the field of natural resources, ecosystems and biodiversity (national parks, protected areas, Natura 2000 sites), natural restorations, ecological connectivity, blue and green infrastructure, including technologies/actions for environmental protection based on ecosystem approaches;
- Investments in new or upgraded disaster monitoring, preparedness, warning and response systems against natural disasters or non-climate related natural risks and against risks related to human activities
- Investments in climate change adaptations and mitigation measures;
- Investments in renewable energy actions related with trainings, cooperation on sustainable RES usage, best-practice sharings, potential of the PA (pilot actions) promoting projects of renewable energies on the high geothermal/photovoltaic/wind/biomass, mapping renewable energies, assess barriers and drafting joint strategies for coordinated actions in the energy market;
- Investments in green infrastructure in urban areas (e.g. storm-water management, sustainable drainage systems, green streets, green roofs, permeable/porous paving, natural cooling of buildings, recycling systems, subsurface detention, cisterns and rain barrels and blue and/or green infrastructure);
- Joint strategies and action plans tackling the issue of pollution and biodiversity protection;
- Testing of new tools, instruments, experiments, sharing best-practice and solutions between relevant stakeholders and increasing the cross-border cooperation in the field of biodiversity, green infrastructure and reducing pollution
- Identification, mapping and further development of cultural heritage and sustainable tourism (tangible and intangible), including its preservation, protection, conservation and rehabilitation, as well as the development of joint promotion and conservation strategies and assessment of barriers to cooperation;
- Involving local authorities and communities (including schools) to build up intercultural and transcultural ties with different partners
- Pilot actions for innovative solutions dedicated to the protection and valorisation of cultural / rural / natural / religious heritage
- Cross border studies, standard and legislation mapping, joint trainings, pilot/demonstrativ actions, events and exchange of experience on cross-border strategic planning, project development and joint response related with PA environmental issues;
- Small-scale pilot / demonstrative actions on fields not covered under PO2 and PO4 related with PA environmental solutions.

All main measures (exception those from RS04.4 Priority 2) proposed by the Programme are relevant to sustainable development and have the potential to contribute to Pillar II “Protecting the Environment” of the EUSDR and also to Pillar III “Environmental Quality” of the EUSAIR.

Each project will comply with the national legislation regarding environmental matters to conduct an environmental impact assessment to determine the significance of the impact and the remedial and compensatory measures, as appropriate. Thou, each project that will be registered in Annexes 1 and 2 of law 282/2019 will have to go through the procedure for obtaining the Environmental Agreement (short or long procedure - EIA).

In this regard, it is proposed to undertake a simplified form of SEA and focus it on providing suggestions for detailed planning of each of the intervention in order to reduce possible risks and maximize their environmental benefits.

### 3.2 Characteristics of the affected territory

The programme area for the Interreg VI-A Programme between Romania and Hungary 2021-2027 includes four counties of Romania (Satu Mare, Bihor, Timis, Arad) and four counties from Hungary (Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés, Csongrád-Csanád).

The PA is characterized by a plain geomorphology that is favourable to settlement development and agriculture, with higher landform diversity in the Romanian counties, due to the existence of Oriental and Banat Carpathians, as well as Apuseni Mountains as macroregional units partly covering the PA. Landscape diversity overall is moderate, but coherent across the border, which offers no natural impediment to landscape and protected site integration. A consequence of the vast plain terrain and urbanisation is the high degree of landscape fragmentation, which, albeit lower than in the western parts of Europe, is still a concern in particular in the Hungarian counties, with Szabolcs-Szatmár-Bereg recording over half of the county surface as medium and highly fragmented. There is a rich hydrographic network in the PA, which is crossing the border between Romania and Hungary almost in its entirety, producing contiguous riparian areas, generating a high potential of joint valorisation. Due to the topography and river density, the area is also one of Europe’s most prone regions to floods: high flood recurrence is recorded in Hajdú-Bihar, Timiş, Arad, Bihor, while very high flood recurrence is a significant risk for the two northernmost counties of Szabolcs-Szatmár-Bereg and Satu Mare. Bihor and Satu Mare have historically been the most affected by flood class 1 events. Landslide susceptibility is relatively low, throughout the whole PA (with the exception of Bihor, in the Apuseni Mountains), with some areas prone to landslides concentrated along rivers. Cross-border disasters and risk management in the area is incipient: although there are some ongoing initiatives in this field, there is still significant room for improvement of coordination, risk prevention and joint response capacity, which substantiates the need for joint investments and future cooperation actions. With respect to the quality of environmental factors, the water bodies in the Romanian PA are evaluated as being good and transitioning to „medium” towards the border. A significant amount of rivers` sections in the Hungarian side has a quality status considered by the EEA „poor” or „bad” under parameters of the Water Framework Directive, near Szeged city (eg. Létai-ér, Kösely, Körös). Water pollution represents vulnerability in the PA, which could be addressed through joint actions under non-climate change risk prevention strategies.

Additionally, renewable energy resources are a common potential opportunity available in both countries regarding the use of biodegradable waste, biomass residues,

wind, hydro, solar energy or geothermal reserves facilitating the energy transition. High and very high potential for geothermal resources for district heating are available in the PA specific regions as is presented: very high – 171-1932 kto<sub>e</sub> – in Csongrád-Csanád, Hajdú-Bihar, Szabolcs-Szatmár-Bereg, Timiș and Bihor. While wind energy, large hydropower or biomass potential for renewable energy are reduced in the PA, there is still a high photovoltaic energy potential, with circa two thirds of the territory being suitable for installation of photovoltaic production (Csongrád-Csanád, Békés, Timiș, partly Arad, Bihor and Hajdú-Bihar - 3.30-3.51 kWh/kWp/day), but not in competition with food agriculture for the land use.

Romania's border region has a total area of 28,396.50 km<sup>2</sup> (1.9% of total national territory) and Hungary's border region has a total area of 22,038.81 km<sup>2</sup> (14.15% of total national territory) (Eurostat 2019). The total length of the border is 450 km, crossed by 12 road corridors and 5 railways border crossing points.

Taking into consideration the natural landscape and distribution of land forms in the PA, part of the Carpathian-Pannonian region, we can observe that anthropic interventions are present mainly in county residences and predominantly in the urban areas, the majority share of the PA territory represents arable land and land principally occupied by agriculture.

The programme area is crossed by a significant number of rivers, with a higher concentration along the southern border and crossing into Serbia, along the northern border (crossing from Ukraine) and in the center area of the PA, in Arad-Bihor, where Körös/Criș is collecting a large number of tributaries from the Apuseni mountains, making for a very diverse and naturally-rich environment. Due to the topography, the hydrography highlights the „green border” status of the international border between Romania and Hungary, with river orientation predominantly perpendicular to the border. There are no coherent floodplain / riparian area management plans between the two countries, which can translate into an opportunity for development of such instruments in the future, building on lessons learnt and capitalising the results obtained under relevant interventions funded from other Interreg Programmes especially addressing the priorities of the Danube River basin (i.e. Interreg Danube Territorial Programme).

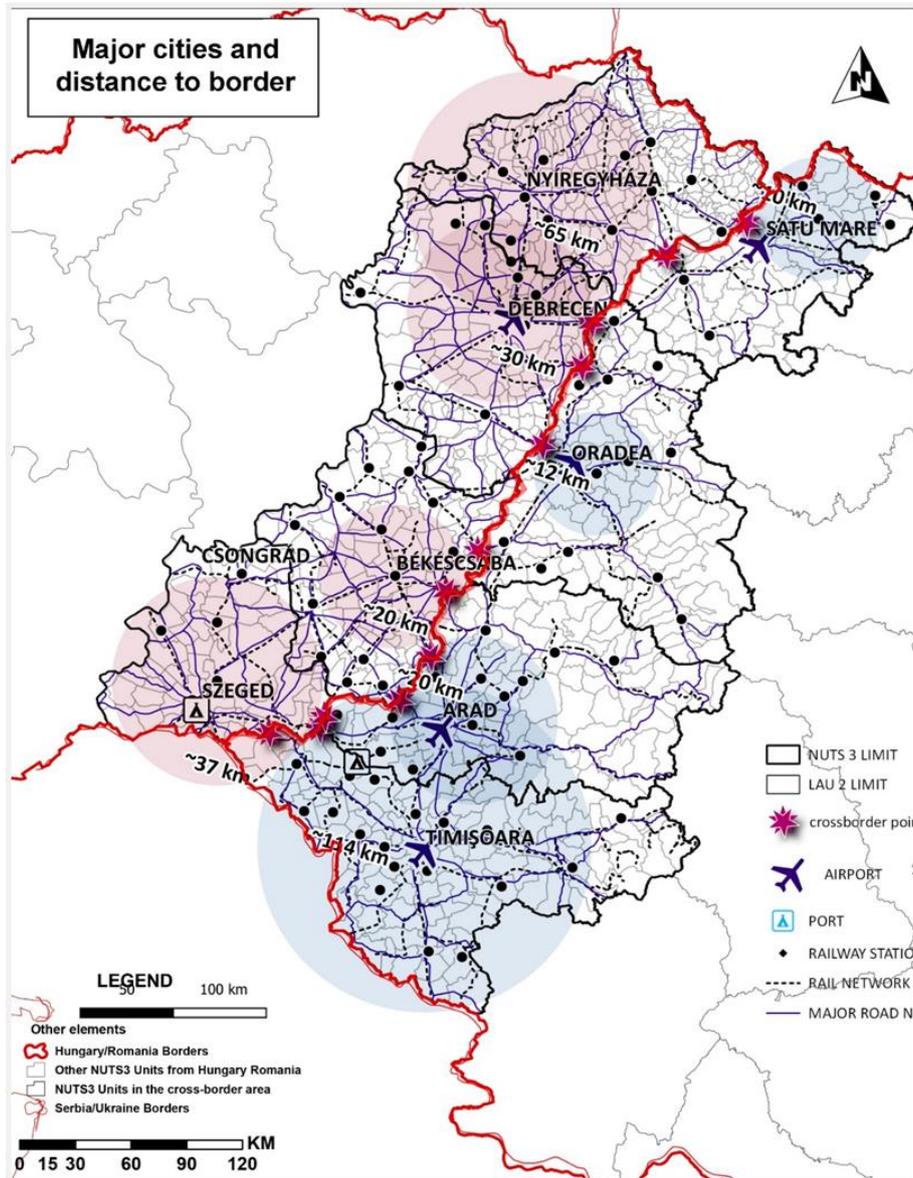


Figure 1 - Major cities and distance to border crossing points (Source: Territorial analysis)

PA represents a fragmented territory, Hungarian regions have a plainer terrain (which facilitated the development of a more stretched urban structure – the traditional “mezőváros” settlement structure), while Romanian regions have an important percentage of hills and mountain areas, resulting in a more scattered area, but with major settlements with higher buildings and population density.

Hungary has a comparatively higher degree of administrative unit fragmentation at LAU2 level, which are approximately 3 times smaller than Romania’s average. However, in most of the cross-border area, the LAU2 units are less fragmented, being closer to the Romanian side, which can be an indicator of historical administrative spill over effects between the regions.

Szabolcs-Szatmár-Bereg has a very high number of settlements, predominantly rural, distributed on an area of 5,935.92 km<sup>2</sup> (ranking fifth in size out of a total of 8 regions).

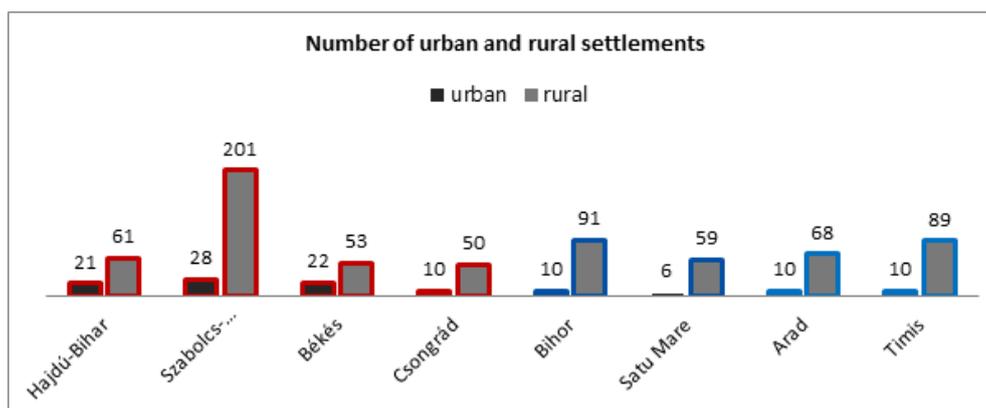


Figure 2 - Number of urban and rural settlements per NUTS3 region  
(Source: Territorial analysis from INS, KSH)

Although Szabolcs-Szatmár-Bereg is the region with most rural settlements, Bihor is the region with most rural area coverage (89.32% of total area being rural).

In the last decade, almost all of the PA's counties have registered a **decrease of population** between 1.23% (in Szabolcs-Szatmár-Bereg) and 8.43% (in Satu Mare). Timiș county is the outlier in the PA, registering a constant ascending trend in the last 10 years – from 676,360 in 2009 to 701,499 in 2018.

The population density is higher in the four analysed Hungarian counties and varies overall between 54.1 inhabitants/km<sup>2</sup> (Arad) and 93.9 inhabitants/km<sup>2</sup> (Csongrád-Csanád). The lowest population density is registered in the Romanian part, in Arad county – 54.1 inhabitants/km<sup>2</sup>, and the highest in Csongrád-Csanád - 93.9 inhabitants/km<sup>2</sup>. (Table 2- Population in PA,trends between 2009-2018) .

Table 2- Population in PA,trends between 2009-2018 and population density in 2018 (Source - Territorial analysis)

County	Population in 2018	% population of the PA	Trend in period 2009-2018	Population density in 2018
Hajdú-Bihar	530,464	14%	-2.16	85.4
Szabolcs-Szatmár-Bereg	558,361	15%	-1.23	85.4
Békés	338,025	9%	-8.97	60.0
Csongrád-Csanád	400,238	10%	-5.57	93.9
Bihor	564,109	15%	-4.97	74.8
Satu Mare	334,678	9%	-8.43	75.7
Arad	419,360	11%	-8.30	54.1
Timiș	701,499	18%	3.72	80.7
<b>Total</b>	<b>3,846,734</b>		<b>-3.72</b>	

Pertaining to the cultural capital, the PA is endowed with a remarkable number of cultural and natural tourist attractions, with a very high degree of diversity of built environment heritage (castles, historic monuments, churches) as well as immaterial heritage (original ethnographical and folklore elements).

We distinguish the following cultural highlights and touristic endowments:

- **Bihor County** benefits from the beauty and richness of the karst and biodiversity of the Apuseni Mountains, the spa resources exploited at Băile Felix and 1 Mai and beyond, the built heritage of Oradea (ancient and medieval monuments such as Oradea City Hall, Black Eagle Palace, Baroque Palace of Oradea, Roman Catholic Basilica-Cathedral

of the Assumption of Mary) and the diversity of traditions and cultural events allow a varied panel of tourist activities<sup>2</sup>.

- **Satu Mare** boasts historical sites (e.g. cathedral, churches), cultural institutions (e.g. Philharmonic and North Theater in Satu Mare, castle of the Karolyi family in Carei), natural landscapes, Țara Oașului (northeast region of the county, including the town of Negrești-Oaș), Țara Codrului (eastern region of the county, including the town of Arduș), “Schwabia” or “Tara Șvabilor” (southwestern region of the county, including the towns of Carei and Tășnad)<sup>3</sup>, the fortifications of Arduș and Medieșu Aurit, etc. The county seat hosts several museums, a theatre and the “Dinu Lipatti Philharmonic”.
- In **Arad**, the main cultural attractions are concentrated in Arad city (architectural monuments such as the Fortified Town of Arad, the Neumann Palace; historic buildings, monuments and statues, as well as a rich ecumenic and religious heritage - The "St. Peter and Paul" Serbian Church, St. Simon Monastery, The "Birth of Saint John the Baptist" Romanian Orthodox Cathedral, "St. Anthony of Padua" Church, a testament to the multicultural history of the city). Cultural life is active, supported by numerous theaters (Arad State Theater), international festivals (Classical Theater Festival, International Underground Theater Festival), museums and galleries. .
- **Timiș**<sup>4</sup> offers tourists attractions in the area of tourist centers - Timișoara, Buziaș (Buziaș resort), Lugoj (Dormition of the Theotokos Church), Sânnicolau Mare, industrial cultural landscapes, industrial heritage, natural reservations, medieval castles (Banloc, Carani) and citadels, architectural and monastery structures (Șag, Săraca), etc. The county seat, **Timișoara**, hosts the largest architectural ensemble of historical buildings in Romania (approx. 14,500), consisting of the urban heritage of the Cetate, Iosefin, Fabric and Elisabetin neighborhoods. It offers a wealth of architectural heritage and representative public spaces (eg. Unirii square, Victory square) and is the 2023 European Capital of Culture, a title supported by many cultural establishments (museums, theaters in three different languages, Romanian National Opera, art galleries), events and music festivals.
- In **Békés**<sup>5</sup> the attractions are Fekete, Fehér and Kettős-Körös rivers, castles and spa in Gyula, aquatic tours in Dánfok, galleries and churches in Békés and Gyula, and many more. The county seat, **Békéscsaba**, is host to a rich religious heritage (Great Lutheran Church - Evangélikus Nagytemplom, Small Lutheran Church - Evangélikus Kistemplom, Saint Anthony of Padua Cathedral - Páduai Szent Antal székesegyház), museums and memorial house of Mihály Munkácsy, theatres and otherwise valuable built heritage items.
- **Csongrád-Csanád** has a wealth of protected monuments (e.g. in Szeged, Hódmezővásárhely, Csongrád), water activities along Tisza rivers<sup>6</sup>, cultural and natural heritage. The county seat, **Szeged**, is recognized for the richness of its cultural life and organisation of many festivals and events (Szeged Open Air Theatre in front of the Votive Church; Szeged Wine Festival) and intangible heritage (gastronomy, arts and

<sup>2</sup> Strategy for sustainable development of Bihor County for the period 2014-2020, [www.cjbihor.ro](http://www.cjbihor.ro)

<sup>3</sup> Strategy for the tourist valorization of the patrimony of Satu Mare county 2014-2020, [www.cjism.ro](http://www.cjism.ro)

<sup>4</sup> Sectoral strategy for tourism development of Timiș County 2018-2028, [www.turismTimisTurismTimis.ro](http://www.turismTimisTurismTimis.ro)

<sup>5</sup> Common Marketing Strategy in Békés and Arad 2011-2018, <http://www.kozepbekes.hu>

<sup>6</sup> <http://www.infotourism.info/ro/>

science, literature, music). The city's multicultural history is reflected in the built heritage: the Votive Church, Church of Grey Friars, the Old and New Synagogues, the Saint Nicholas Serbian Orthodox Church. Other valuable heritage and touristic landmarks are the Dömötör Tower, the Water Tower of Szent István Square, the City Hall, the Gróf-palace, etc.

- While **Hajdú-Bihar** is primarily known for its thermal baths, and the vast areas of the puszta protected in the Hortobágy UNESCO Park, it also has a wealth of cultural heritage (eg. Balmazújváros – Semsey Castle, Téglás – Dégenfeld-Schomberg Castle, Hajdúböszörmény – Skansen, Hajdúdorog – Greek Catholic Church, Biharkeresztes – Reformed Church, Hajdúsámson – Csiha mill). The county seat, Debrecen, is one of the most important cultural centers at national level, home of the University of Debrecen (also an architectural monument), and many built heritage elements of great value (eg. the Reformed Great Church (Nagytemplom), Déri Museum, „Hortobágy” mill).
- Lastly, **Szabolcs-Szatmár-Bereg** hosts a rich heritage of medieval churches, watermill, castles (e.g. Andrásy Mansion in Tiszadob, Vay Castle in Vaja, Báthory Castle in Nyírbátor), spa, village museum and Zoo in Sóstó (Salty Lake). **Nyíregyháza**, the county seat, hosts one of the largest zoos, several baths and medicinal baths (Sóstógyógyfürdő), museums (Sóstó Open Air Museum, Jóna András Museum), five churches of different denominations, and a theatre.

### 3.3 Characteristics of the environmental effects of the programme

The SEA will consider the following key issues of concern:

- ❖ Biodiversity;
- ❖ Landscape;
- ❖ Flooding and droughts;
- ❖ Water quality;
- ❖ Soil erosion and contamination;
- ❖ Industrial pollution events and contamination.

## 4 DEFINING THE SCOPE OF THE ASSESSMENT

### 4.1 Relevant plans, programmes and environmental protection objectives

The Interreg Programme VI-A Romania-Hungary 2021-2027 has important relationships concerning more than two strategic documents that address environmental protection matters related to the study area, such as:

- ❖ EU Strategy for Danube Region (EUSDR);
- ❖ EU Territorial Agenda 2030 with the following programmes.

Both Romania and Hungary are negotiating the **Partnership Agreement with the EU** for the next programming period. According to the draft available versions, the list of operational programmes that will be proposed by each side of the programme area are detailed in the table below:

*Table 3 List of operational programmes*

Romania <sup>7</sup>	Hungary <sup>8</sup>
<ul style="list-style-type: none"> <li>Operational Programme for Smart Growth, Digitalisation and Financial Instruments;</li> <li>Operational Programme for Health;</li> <li>Operational Programme for Education and Employment;</li> <li>Operational Programme for Social Inclusion and Dignity;</li> <li>Operational Programme for Sustainable Development;</li> <li>Operational Programme for Transport;</li> <li>8 Regional Operational Programmes;</li> <li>Operational Programme for Aquaculture and Fishing;</li> <li>Operational Programme for a Just Transition;</li> <li>Technical Assistance Operational Programme.<sup>9</sup></li> </ul>	<ul style="list-style-type: none"> <li>Operational Programme for Business Development and Innovation (VINOP);</li> <li>Green Infrastructure and Climate Protection Operational Programme (ZIKOP);</li> <li>Mobility Operational Programme (MIOP);</li> <li>Competitive Hungary Operational Programme (VMOP);</li> <li>Operational Programme for Human Development (HOP);</li> <li>Digital Renewal Operational Programme (DIMOP) and</li> <li>Hungarian Aquaculture Development Operational Programme (MAKOP).</li> </ul>

Additionally, the following table shows the list of other Operational Programme under the ETC objective where Romania and Hungary could also benefit of:

*Table 4 The list of other Operational Programmes*

Romania	Hungary
Interreg VI-A Romania-Bulgaria Interreg IPA-III-CBC Romania-Moldova Interreg IPA-III-CBC Romania-Ukraine Interreg IPA-III-CBC Romania-Serbia Black Sea Basin Programme	Interreg VI-A Austria-Hungary Interreg VI-A Slovenia-Hungary Interreg VI-A Hungary-Croatia Interreg VI-A Slovakia-Hungary Interreg IPA-III-CBC Hungary-Serbia
<b>Common programmes under the ETC objective</b>	
INTERREG EUROPE Programme Interreg Programme Hungary-Slovakia-Romania-Ukraine URBACT Programme INTERACT Programme Danube Transnational Programme ESPON Cooperation Programme	

The relevance of draft mainstream Operational Programmes and other Operational Programmes falling under the Territorial Cooperation objective resides in the need that interventions under the future Interreg Programme between Romania and Hungary shall be **complementary and synergic**, thus boosting a **mutual leverage effect on investments, whilst avoiding overlapping**. In this respect, the proposed priorities for the future Interreg Programme between Romania and Hungary will reinforce the strategy adopted by each MS to implement national and regional priorities, with a specific attention paid to needs and opportunities that can be better addressed through cross-border cooperation, adding value to other ERDF and ESF + interventions funded under MS' operational programmes and will

<sup>7</sup> [2021 - 2027 - Fonduri Structurale \(fonduri-structurale.ro\)](https://fonduri-structurale.ro/)

<sup>8</sup> <https://www.palyazat.gov.hu/operativ-programok>

<sup>9</sup> <https://mfe.gov.ro/timeline-consultari-publice/>

contribute to further translate transnational cooperation programmes and, in particular, the EUSDR and ESPON related programmes into specific interventions tailor-made on the specificities of the Romania - Hungary border area.

### **The EU Strategy for Danube Region (EUSDR)**

The Interreg Programme VI-A Romania-Hungary 2021-2027 shall seek to create synergies and complementarities with EUSDR and to contribute directly to the implementation of the Macro- Regional Strategy for Danube Region.

The EU Strategy for the Danube Region (EUSDR) provides an overall framework for parts of Central and South East Europe area aiming at fostering integration and integrative development. The Danube Region covers 14 countries (Germany, Austria, the Slovak Republic, the Czech Republic, Hungary, Slovenia, Romania, Bulgaria, Croatia, Serbia, Bosnia and Herzegovina, Montenegro, Republic of Moldova and Ukraine). Thus, the Danube Region encompasses the entire Programme area, whilst all projects to be financed contribute in a way and in a certain proportion to the achievement of EUSDR objectives. The Strategy's four pillars (Connecting the Danube Region, Protecting the environment in the Danube Region, Building prosperity in the Danube Region and Strengthening the Danube Region) are all addressed by the Priorities and objectives of the Programme.

It is accompanied by a "rolling" Action Plan breaking down eleven Priority Areas into actions and project examples. The proposed list of the strategic actions was taken into account in the Programme strategy.

The relations between the programme area and the Danube Region can be analysed in the following main fields: mobility, energy, environment, risks, and socio-economic development.

In all these fields of interaction challenges and opportunities can be identified, according to the scale of the phenomena, local, regional or international, and 23 according to the main driving factors like the global environmental changes or the international tourism markets for example.

In some areas, a strong interdependency between the programme area and the larger Danube region can be identified. These areas are dominated by international and interregional factors, with impacts that largely overcome the regional dimension. Some examples: reduction and prevention of pollution of land, water and air by industrial and urban sources, control and mitigation of environmental risks, development of the integration of the European Transport Networks. In these areas the action of the project partners should be focused on the integration of the local actions with the strategies at the level of Danube region.

In other areas, interventions do not entirely depend, but can benefit from cooperation at the larger Danube regional level. Among these areas, the preservation of environmental resources, biodiversity, landscape; development of renewable energy sources; increase of tourism; reduction of localized pollution sources; promotion of smart innovation initiatives can be mentioned as potential beneficiary of the cross-border cooperation actions.

During its implementation, the programme can develop specific project assessment criteria to encourage projects that support the priorities of the EUSDR (e.g. budget earmarking, specific calls for EUSDR, allocation of extra points to projects contributing to macro-regional targets and actions).

The vision for the future Interreg Programme between Romania and Hungary 2021-2027, where it can create complementarities and synergies with the other

plans/strategies/programmes, is defined as follows: *'A greener, resilient and more cohesive cross-border Region between Romania and Hungary, with enhanced understanding of cooperation opportunities, increased trust and reduced barriers to cooperation, towards Agenda 2030 common targets with a more sustainable cooperation framework'.*

## 4.2 Identified environmental problems

The 2st draft of the proposed OP outlines the following key environmental strengths and weaknesses of the study area as follows:

- ❖ The PA border is crossed by two European corridors (motorway/rail) providing more improved accessibility to the southern area (Timișoara – Arad – Szeged motorway and railway Lökösháza – Curtici) and it benefits by vicinity of international airports (Timisoara, Arad, Oradea, Satu Mare, Debrecen);
- ❖ Variety of landscapes, geo and bio diversity;
- ❖ Natural resources (World Heritage natural sites, natural parks, Natura 2000 sites, thermal spring, forests, waters, mineral resources);
- ❖ Delineations of Natura 2000 sites, in relevant instances, do not cross the border - an aspect which makes site management difficult in lack of cooperation agreements.
- ❖ Rich cultural and historical/ archaeological heritage;
- ❖ Favourable conditions for agriculture in the valleys, as well as for agro/food industry;
- ❖ Relatively good coverage of primary education, social and primary health service networks;
- ❖ Regional and local involvement for investing in joint risk management and emergency preparedness;
- ❖ Significant flood risk in the PA, especially on the Mureș, Crișul Alb and Someș rivers, which cross the PA perpendicular to the border. The occurrence of floods is very high in the Szabolcs-Szatmár-Bereg - Satu Mare area, in the north.
- ❖ Medium earthquake risk in the Banat area (south) and Crisana-Maramures area (north) predominantly on the Romanian side of the border, with potential effects on the Hungarian side too.
- ❖ Shared environmental challenges along a high number of cross-border rivers: poor and bad water river quality in the Hungarian counties (especially Csongrád-Csanád).
- ❖ Important distance-travelled for both Romania and Hungary in terms of recycled municipal waste percentage (2004-2017), but the countries are very distant from each other (from marginal / 2% to ca. 10% for Romania and from 12% to over 45% for Hungary, which is still under the EU-27 average). This is a significant regulation, infrastructure and behavioural disparity in the region.
- ❖ Land abandonment, especially on the Hungarian side, with a loss of over 18,000 hectares (in most part from Hajdu-Bihar).
- ❖ Significant deforestation in the Hungarian counties, with a 19% loss of forest in Szabolcs-Szatmár-Bereg between 2001-2019, 18% loss in Hajdu-Bihar and 15% in Csongrád-Csanád, three to four times higher than in the Romanian counties (where the highest deforestation rate is 4.6% in Bihor). This important issue may lead to soil erosion and increased natural risks.

- ❖ Local and regional support for implementing joint measures to preserve biodiversity, valuable landscapes and cultural/historical/ architectural heritage;
- ❖ Air pollution with particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), VOC and CO is affecting the Romanian counties significantly, due to an industrial profile and potentially also heating / waste burning solutions (especially relevant for PM concentrations).
- ❖ The area is in the core of the Danube basin and of the European Danube macro-region;
- ❖ Large areas exposed to environmental and climate change risks;
- ❖ Low awareness of the population regarding nature and environment protection;
- ❖ The geography of the eligible area is mostly plained or hilly, but landscape is heterogeneous;
- ❖ High potential for various types of tourism based on thermal and wellness natural and historical resources and on cultural activities;
- ❖ Public utility services for waste management and wastewater treatment in some regions are underdeveloped and generate pollution;
- ❖ Most underdeveloped areas deep rural-urban divide;
- ❖ Low economic viability of agricultural holdings;
- ❖ Low number of joint plans for environmental risks and low coordinated risk management and emergency preparedness actions;
- ❖ Tourism potentials unaddressed, lack of competitive products, low standard accommodation infrastructure, lack of coordinated touristic offers and services;
- ❖ Common actions in order to increase the competitiveness of local industries;
- ❖ Poor internal connectivity within the border area;
- ❖ High number of people at risk of poverty and social exclusion;
- ❖ Language barriers, weak capacity for project generation and development and co-financing
- ❖ Low development of joint strategies, effective cross-border systems and institutional cooperation frameworks throughout the selected POs; the resolution of legal and administrative barriers; the creation of more cohesive local and business communities through people-to-people exchanges.

#### 4.3 SEA Objectives

The most relevant environmental reference framework for the proposed Interreg Programme VI-A Romania-Hungary 2021-2027 are linked with the priorities defined in the environmental pillar of the EU Strategy for the Danube Region and the EU Territorial Agenda 2030 within its programmes as referred above sections.

The objectives for the Priority Area 'Priority 1. *Cooperation for a green and more resilient cross-border area between Romania and Hungary*' are:

1. RSO 2.4 Promoting climate change adaptation, risk prevention and disaster resilience;
2. RSO 2.2 Promoting renewable energy;
3. RSO 2.7 Enhancing nature protection and biodiversity, green infrastructure in particular in the urban environment, and reducing pollution;

The objectives for the Priority Area 'Cooperation for a more social and cohesive PA between Romania and Hungary' are:

5. RSO 4.4 Ensuring equal access to health care through developing infrastructure, including primary care;

6. RSO 4.5 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation;

The objectives for the Priority Area `A more sustainable, community-based and effective cross-border cooperation` are:

7. (ii) Enhance efficient public administration by promoting legal and administrative cooperation and cooperation between citizens, civil society actors and institutions, in particular, with a view to resolving legal and other obstacles in border regions
8. (i) Enhance the institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders
9. (iii) Build up mutual trust, in particular by encouraging people-to-people actions.

The SEA will appraise the proposed Interreg Programme VI-A Romania-Hungary 2021-2027 against the above specified 9 targets defined analysing the environmental related issues.

#### 4.4 Baseline information

##### 4.4.1 Environmental baseline information from Hungary

#### Biodiversity

##### General information

The Programme area is thus characterized by a “green border”, generating a high potential for the valorisation of natural resources. The soil biodiversity potential in the area is moderate, with lower potential recorded in the south (Csongrád-Csanád) and Hajdú-Bihar, however with significant potential to support further development of biodiversity in the border area south of Nyíregyháza, and with exceptional potential in the regions already protected by Natura 2000 classification (Hortobágy in Hungary).

In the Hungarian CBC PA, there is a significant natural heritage which can be continuously and sustainably developed:

- **In Békés<sup>10</sup>** the attractions are the Körös-Maros National Park, Fekete, Fehér and Kettős-Körös rivers, spa in Gyula, aquatic tours in Dánfok, Mályvádi forests and floodplain forests of the Körös rivers;
- **Csongrád-Csanád** has plenty of protected monuments (e.g. in Szeged, Hódmezővásárhely, Csongrád), water activities along Tisza rivers<sup>11</sup>, the Mártély Landscape Protection Area and Montág-puszta Ramsar sites, etc.
- **Hajdú-Bihar** welcomes the tourists with relief, hydrography, landscape, karst areas, protected areas from Hortobagy National Park (in Hajdú-Bihar), the largest spa complex in Europe<sup>12</sup> (Hajdúszoboszló), churches, bridges, etc.
- Through **Szabolcs-Szatmár-Bereg** is passing the Tisza River, with the Upper Tisza (Felső-Tisza) Ramsar Site, in addition to touristic heritage in Sóstó area (Salty Lake)<sup>13</sup>, Vaja nature reserve, etc.

However, the current management of protected sites is hardly coordinated by specific EU and national regulations and their management does not reflect the real cross-

<sup>10</sup> Common Marketing Strategy in Békés and Arad 2011-2018, <http://www.kozepbekes.hu>

<sup>11</sup> <http://www.infotourism.info/ro/>

<sup>12</sup> <https://www.hungarospa.hu/en>

<sup>13</sup> [Sóstógyógyfürdő | Tourist Website of Nyíregyháza \(nyiregyhaza.info.hu\)](http://sostogyogyfurdő.nyiregyhaza.info.hu)

border issues, but the natural landscapes in both countries alongside the border are affected by deforestation trends, which may further deteriorate the exposure of the territory to natural hazards and the impact of climate change.

### Likely future trends

The systems of natural and semi-natural areas, the ecological corridors and surrounding areas form a coherent ecological network system. The EU 2020 Biodiversity Strategy sets out specific targets for ecosystem services, maintenance and re-establishment of spatial planning and the integration of green infrastructure.

The main risk factor is human intervention, but it is also important to prepare against certain natural influences. The natural and cultural values are mainly endangered by intensive agriculture, illegal material gain, and infestation by invasive species. Constructive co-operation between different authorities and more effective involving of different stakeholders (farmers, authorities, municipalities, NGOs, and academic institutions) is necessary.

It is essential to rehabilitate the degraded habitats, growing areas with the involvement of farmers as much as possible. In the future, special attention should be paid to climate change on habitats and living communities, and the rehabilitation and reconstruction tasks as well.

On the Hungarian side, there is a UNESCO world Heritage site, Hortobágy National Park - the Puszta, and the Körös-Maros National Park, located in Békés county.

The largest Natura 2000 territorial coverage in the PA is recorded in Hajdú-Bihar (47.29%) and Csongrád-Csanád (32.38%).

The largest Natura 2000 territorial coverage in the PA is recorded in Arad (41.07%), followed by Bihor (35.05%).

### Landscape

The natural landscape and distribution of land forms in the Hungarian PA, part of the Pannonian region, we can observe that anthropic interventions are present mainly in county residences and predominantly in the urban areas, covering from mainly plains and to a lesser degree hills. The main anthropic intervention level on hills landform is situated on the Hungarian side of the programme, proving better accessibility and connectivity and better local resources exploitation. From the land cover point of view, the majority share of the PA territory represents arable land and land principally occupied by agriculture.

There are several objects with important landscape values in the designated districts, and should be therefore taken into consideration.

The Hungarian cross-border regions, due to their plainer terrain, represent a generally more urbanised territory, with a more fragmented development.

### Air quality

In the Hungarian PA side of the border the highest pollution is with:

- emissions of volatile organic compound in Békés and Szabolcs-Szatmár-Bereg with figures at half Romanian ones and
- NH<sub>3</sub> emissions in Békés
- NO<sub>x</sub> and PM<sub>10</sub> emissions affected Szabolcs-Szatmár-Bereg county
- CO<sub>2</sub> emissions affect the Romanian counties more, while the next most polluted is Szabolcs-Szatmár-Bereg from Hungarian side of the border.

The main sources for particulate matter, NO<sub>x</sub> and CO<sub>2</sub> are traffic and heating solutions (such as wood burning), industrial sources, agriculture, construction sites, landfills.

### **Water quality**

The programme area is crossed by a significant number of rivers (Tisza, Cris, Mures, Bega), with a higher concentration along the southern border and crossing into Serbia, along the northern border (crossing from Ukraine) and in the center area of the PA, in Arad-Bihar, where Körös/Criş is collecting a large number of tributaries from the Apuseni mountains, making for a very diverse and naturally-rich environment. Due to the topography, the hydrography highlights the „green border” status of the international border between Romania and Hungary, with river orientation predominantly perpendicular to the border.

There are no coherent floodplain/riparian area management plans between the two countries, which can translate into an opportunity for development of such instruments in the future, building on lessons learnt and capitalising the results obtained under relevant interventions funded from other Interreg Programmes especially addressing the priorities of the Danube River basin (i.e. Interreg DTP).

In Hungary, the quality of **surface water** in each of the target counties can be described as follows below:

#### **Hajdú-Bihar**

The quality of water in Hajdú-Bihar is generally in the „Failing good status/high confidence” range (rivers Berettyó/Barcău, Hortobágy-Berettyó, Sebes-Körös/Crişul Repede), with the exception of a „Good status / medium confidence” evaluation (in some, reduced, segments of the Berettyó/Barcău river) and Good status/low confidence (in some segments of the Tisza/Tisa river).

#### **Szabolcs-Szatmár-Bereg**

The quality of water in Szabolcs-Szatmár-Bereg is generally in the „Failing good status/high confidence” range (rivers Szamos/Someş – 51,26 and Tisza/Tisa - 86.42), with the exception of a „Good status/high confidence” assessment Szamos/Someş. River Tisza/Tisa has also segments that have measured as „Failing good status/medium confidence” (33,75), „Good status/low confidence” (19,37) and “Good status/medium confidence” (47,08), out of a total of 191.92.

#### **Békés**

The quality of water in Békés is generally in the „Failing good status/high confidence” range (rivers Berettyó/Barcău, Fehér-Körös/Crişul Alb, Fekete-Körös/Crişul Negru, Hortobágy-Berettyó, Körös/Criş, Sebes-Körös/Crişul Repede), with the exception of a „Good status/medium confidence” evaluation (in some, segments of the Fekete-Körös / Crişul Negru river, Körös/Criş and Sebes-Körös/Crişul Repede) and Good status/low confidence (in some segments of the Tisza/Tisa river).

#### **Csongrád-Csanád**

The quality of water in Csongrád-Csanád is shared between “Good status/medium confidence” (river Maros Mureş - 39.91), “Failing good status/medium confidence” (rivers Körös/Criş – 9.17 and Tisza/Tisa - 12,41) and “Failing good status/high confidence” (Tisza/Tisa - 87,56) out of a total of 172,95.

About **ground waters**, there are 70 vulnerable catchments in the Hungarian eligible counties. Due to Hungary's natural endowments the public utility water supply is predominantly based on groundwater sources. Two thirds of the drinking water supply is based on vulnerable sources. Since that the area of these water sources are mostly affected by many sources of pollution, these water sources should be regarded not only vulnerable but endangered also.

### **Soil erosion and contamination**

#### **General information**

In general, the Hungarian counties' agriculture is using approximately 4 times more chemical fertilizers in agricultural activities

As concerns the risk of polluting the soil and groundwater resources, through agricultural activities that implies the use of chemicals, Hungarian side represents a more pressing issue, due to the high quantities of chemicals used on a longer time period (2009-2018).

Soil contamination and soil loss are two critical aspects in the European Union, though there is currently no database on European brownfields, much less information at national levels.

#### **Likely future trends**

The overall condition of soils is favourable, but the agriculture-affected areas are endangered by functionality reducing, fertility degradation (e.g., erosion, wind erosion, loss of organic material set) risks. Degradation processes occur due to improper land use, resulting increasing costs of agricultural production, ecological/water balance (increasing drought sensitivity) circles break-up, build-up of hazardous substances (food safety), and water, drinking water contamination. Implementation of integrated nutrient management practices plays an important role in sustainable land use. The expansion of infrastructure, industry and settlements leads to significant land permanently withdraw from agricultural production and long-term soil sealing.

### **Climate change, Droughts and Flooding**

According to the most recent data from the JRC (2020), there are significant climate change effects manifesting at the level of the programming area. As part of a wider macro-regional area in the Central and Eastern Europe faced with an increase in temperature, the programming area records on average 7-10 additional summer days per decade, with the northern area (especially Satu Mare) being affected more, with over 10 additional summer days over the last decade (JRC – Maes et al., 2020).

The programme area is prone to increased flood risk, especially in the northern part, with Szabolcs-Szatmár-Bereg and listed under very (ESPON). **Brief torrential rain** is exceptional in the regions on both sides of the border, occurring only in Csongrád-Csanád and Békés on the Hungarian side. **Most affected areas by heavy rain** in Hungary are Hajdú-Bihar, Szabolcs-Szatmár-Bereg and Békés, which experience over 62% to 66,67%, followed by Csongrád-Csanád with 57,47% of the total of flood causing events

The programme area is also affected by increasing frequency in droughts, and extreme droughts – specifically Szabolcs-Szatmár-Bereg and Csongrád-Csanád.

### **Cultural capital**

Pertaining to the cultural capital, the PA is endowed with a remarkable number of cultural and natural tourist attractions, with a very high degree of diversity of built

environment heritage (castles, historic monuments, churches) as well as immaterial heritage (original ethnographical and folklore elements).

- In **Békés**<sup>14</sup> the attractions are Fekete, Fehér and Kettős-Körös rivers, castles and spa in Gyula, aquatic tours in Dánfok, galleries and churches in Békés and Gyula, and many more. The county seat, **Békéscsaba**, is host to a rich religious heritage (Great Lutheran Church - Evangélikus Nagytemplom, Small Lutheran Church - Evangélikus Kistemplom, Saint Anthony of Padua Cathedral - Pádúai Szent Antal székesegyház), museums and memorial house of Mihály Munkácsy, theatres and otherwise valuable built heritage items.
- **Csongrád-Csanád** has a wealth of protected monuments (e.g. in Szeged, Hódmezővásárhely, Csongrád), water activities along Tisza rivers<sup>15</sup>, cultural and natural heritage. The county seat, **Szeged**, is recognized for the richness of its cultural life and organisation of many festivals and events (Szeged Open Air Theatre in front of the Votive Church; Szeged Wine Festival) and intangible heritage (gastronomy, arts and science, literature, music). The city's multicultural history is reflected in the built heritage: the Votive Church, Church of Grey Friars, the Old and New Synagogues, the Saint Nicholas Serbian Orthodox Church. Other valuable heritage and touristic landmarks are the Dömötör Tower, the Water Tower of Szent István Square, the City Hall, the Gróf-palace, etc.
- While **Hajdú-Bihar** is primarily known for its thermal baths, and the vast areas of the puszta protected in the Hortobágy UNESCO Park, it also has a wealth of cultural heritage (eg. Balmazújváros – Semsey Castle, Téglás – Dégenfeld-Schomberg Castle, Hajdúböszörmény – Skansen, Hajdúdorog – Greek Catholic Church, Biharkeresztes – Reformed Church, Hajdúsámson – Csiha mill). The county seat, Debrecen, is one of the most important cultural centers at national level, home of the University of Debrecen (also an architectural monument), and many built heritage elements of great value (eg. the Reformed Great Church (Nagytemplom), Déri Museum, „Hortobágy” mill).
- Lastly, **Szabolcs-Szatmár-Bereg** hosts a rich heritage of medieval churches, watermill, castles (e.g. Andrassy Mansion in Tiszadob, Vay Castle in Vaja, Báthory Castle in Nyírbátor), spa, village museum and Zoo in Sóstó (Salty Lake). **Nyíregyháza**, the county seat, hosts one of the largest zoos, several baths and medicinal baths (Sóstógyógyfürdő), museums (Sóstó Open Air Museum, Jóna András Museum), five churches of different denominations, and a theatre.

#### 4.4.2 Environmental baseline information from Romania

##### ***Biodiversity***

###### ***General information***

In CBC PA, there is a significant natural heritage which can be continuously and sustainably developed.

- **Bihar County** is characterised by the karst and biodiversity of the Apuseni Mountains, the spa resources exploited at Băile Felix and 1 Mai and beyond, Stâna de Vale Resort, many caves (including the Bear Cave), allowing a varied panel of tourist activities<sup>16</sup>.

<sup>14</sup> Common Marketing Strategy in Békés and Arad 2011-2018, <http://www.kozepbekes.hu>

<sup>15</sup> <http://www.infotourism.info/ro/>

<sup>16</sup> Strategy for sustainable development of Bihar County for the period 2014-2020, [www.cjbihor.ro](http://www.cjbihor.ro)

- **Satu Mare** boasts natural landscapes, Țara Oașului (northeast region of the county, including the town of Negrești-Oaș and the Oaș Mountains), Țara Codrului (eastern region of the county, including the town of Aradud), “Schwabia” or “Tara Șvabilor” (southwestern region of the county)<sup>17</sup>, the Tășnad Resort;
- In **Arad** the attractions are Valea Muresului, Valea Crisului Alb, Codru-Moma mountain area, Arad vineyard, thermal pools, Lunca Muresului, Arad Municipality (Faleza Mureș, Neptun Swimming Pool)<sup>18</sup>; there are natural protected areas, watermills, etc.
- Timiș county<sup>19</sup> offers a rich natural heritage in the form of the Poiana Ruscă Mountains, the Surduc Lake area, the Satchinez swamps ornithological reservation. In the CBC PA, on the Romanian side, there are no UNESCO monuments, but there are several protected areas designated under the national law, corresponding with the IUCN system:

- The Apuseni Nature Park (Parcul Natural Apuseni)
- The little delta from Câmpia Crișurilor – The Cefa nature Park
- The Ramsar site Mureș Floodplain Natural Park –Lower Mureș Floodplain

#### Expected trends - challenges and control measures

#### Challenges

Biological diversity is in a continuous threat due to increased economic activities exert pressures on the environment.

Major consequences on biodiversity are found in a number of significant changes in the qualitative and quantitative structure and functioning of ecosystems. From the perspective of principles and objectives of conservation and sustainable use of biodiversity components, the main relevant consequences are:

- an active process of erosion of biological diversity is expressed by the disappearance or reduction in the number of species, especially mammals and birds;
- fragmentation of the habitats of many species and disruption of longitudinal connectivity (through river damming) and side (by damming of floodplains,
- blocking or severe curtailment of migration routes of fish species and access to spawning areas and feeding);
- reduction or elimination of habitat types and ecosystems in transitional areas (shelterbelts, alignments of trees, wetlands in the structure of large farms or large lotic systems) with profound adverse effects on biological diversity and diffuse pollution control functions , soil erosion, runoff and flood wave evolution, biological control of pest species populations, groundwater replenishment and water bodies;
- dismantle and reducing the productive capacity of agricultural biodiversity components; impact on the landscape.

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<sup>17</sup> Strategy for the tourist valorization of the patrimony of Satu Mare county 2014-2020, [www.cjasm.ro](http://www.cjasm.ro)

<sup>18</sup> Tourism Strategy for Arad County, [www.cjarad.ro](http://www.cjarad.ro)

<sup>19</sup> Sectoral strategy for tourism development of Timiș County 2018-2028, [www.turismtimis.ro](http://www.turismtimis.ro)

Uncontrolled tourism practiced intensively creates a negative impact on biodiversity components, the deterioration and degradation of flora, disrupting animal species, soil degradation downhill trails marked by failure and the camper and open fires in unauthorized places, dumping of household waste in space unsuitable for this purpose. All this has caused great pressure on the natural environment, leading to its degradation, thus requiring the implementation of the concept of ecotourism, not only in protected areas but also outside them.

Extend of the urban areas within natural protected areas or their vicinity generates a huge pressure on protected natural areas, but the Programme may promote biodiversity conservation, ecosystem based solutions and green&blue infrastructure.

Exploitation of natural resources and fragmentation of natural habitats endanger wildlife. Biodiversity conservation should be achieved on the basis of efficient and sustainable management of natural capital components and ensuring protection arrangements for vulnerable species, endemic or endangered can be done through the establishment of protected areas.

### Control measures

All activities that could have a significant impact on biodiversity are subject specific assessments (environmental assessment for plans and programs, environmental impact assessment and evaluation projects appropriate) and issued regulatory act only after proving, by reports realized by approved firms or individuals.

By implementing appropriate assessment requirements of the potential effects of plans/programs or projects on protected natural areas of community interest, ensure that any plan/program or project may significantly affect the protected area of community interest, alone or in combination with other plans/ projects that are in the regulatory procedure laid down in the strategy or development.

Biodiversity impact assessment is based on evaluation criteria that relate to: the degree of damage to species and natural habitats in the territory of impact, changing parameters ecosystem, fragmentation of ecosystems, mitigation measures.

### Landscape

The three components of the landscape that gives its uniqueness and attractiveness are:

- Cultural elements (settlements, infrastructure, construction, human activities)
- Biodiversity and
- Geomorphological structure (relief, geological features, hydrological).

An important element in the landscape is the natural heritage through natural monuments and protected areas as well as cultural heritage (described above).

### Expected trends

In recent decades, the natural and landscape in Romania have been influenced by the development of economic activities , especially given the recent years of growth, based on an excessive exploitation of natural resources. Under these conditions, many species of plants and animals are threatened with extinction and the landscape change is an important indicator for environmental deterioration.

Ecosystems consist of a variety of species have a higher probability of remaining stable when there is some loss or damage, than ecosystems with reduced functions.

Habitat fragmentation is caused by a range of different factors related to changes in land use, including urban sprawl, transport infrastructure and enhanced agricultural and forestry practices. Loss of natural areas has repercussions that extend beyond the disappearance of rare species.

Thus, it is necessary to ensure the necessary natural conditions through an integrated approach to land use by:

- Improving connectivity between existing natural areas to counter fragmentation and enhance their ecological coherence, for example by protecting hedges, strips of vegetation on the fields and small streams ;
- Emphasizing the permeability of landscape to support species dispersal, migration and movement , for example using land in a favourable manner for flora and fauna or the introduction of organic farming or forestry schemes which support extensive farming practices ;
- There are multifunctional areas, where land use supports healthy, such areas where agriculture, forestry, recreation and ecosystem conservation work all in the same space. Such combinations to benefit both sides, from multiple point of view, at the society level, but also at the individual level (farmers, foresters, tourism). This approach is providing valuable ecosystem services such as water purification and soil improvement and creating attractive spaces that people can enjoy ;
- Spatial guided development of infrastructure outside the sensitive areas, thus reducing the risk of additional fragmentation of habitats .

## **Water quality**

### **Surface Waters**

Romania has adopted and reported the second generation of River Basin Management Plans under the Water Framework Directive and the European Commission has assessed the status and the development since the adoption of the first River Basin Management Plans, including suggested actions in the EIR report 2017. The most significant pressures on surface waters are diffuse pressures from discharges not connected to sewerage network (25% of surface water bodies), diffuse pollution from agricultural (12%) and urban waste water (5%). For groundwater bodies the most significant pressure is diffuse pollution from agriculture and discharges not connected to sewerage networks, both affecting 10% of groundwater bodies The most significant impact on surface waters is nutrient pollution/enrichment (affecting 27% of surface water bodies) followed by organic pollution (17%) and most significant impact on groundwater is chemical pollution (affecting 10% of groundwater bodies). More assessment methods have been developed between the first and second River Basin Management Plans, including physicochemical quality elements, hydro-morphological quality elements and River Basin Specific Pollutants. The confidence in assessments of ecological status has improved for rivers and more biological quality elements and supporting quality elements have been used for classification of status in the second River Basin Management Plans.

### **Bihor**

The quality of water in Bihor is generally in the „Good status/medium confidence” range (rivers Sebes-Körös/Crișul Repede, Fekete-Körös/Crișul Negru and Berettyó/Barcău), with the exception of “Good status/low confidence” (in some segments of Fekete-

Körös/Crișul Negru, Sebes-Körös/Crișul Repede) and “Good status/low confidence” (in some segments of Sebes-Körös/Crișul Repede and Fekete-Körös/Crișul Negru).

#### **Satu Mare**

The quality of water in Satu Mare is generally in the “Failing good status/medium confidence” range (in some segments of Szamos/Someș) with the exception of “Good status/high confidence” in other segments of Szamos/Someș.

#### **Arad**

The quality of water in Arad is generally in the „Good status/medium confidence” range (rivers Maros/Mureș, Fehér-Körös/Crișul Alb), with the exception of a „Good status/low confidence” evaluation (in some, segments of the Berettyó/Barcău), “Good status/low confidence” (in some segments of Fehér-Körös/Crișul Alb) and “Failing good status/high confidence” (in other segments of Fehér-Körös/Crișul Alb).

#### **Timiș**

The quality of water in Timiș is generally in the „Good status/medium confidence” range (rivers Béga/Bega, Temes/Timiș and Maros/Mureș).

### Ground Waters

In the eligible area of Romania, the status of groundwater waters is good in general. Based on the Summary of Water Quality in 2013 in Romania, there were 17 groundwater bodies in “good” status and 3 in “poor” status from the 20 monitored groundwater bodies. The main factor for polluting the groundwater resources is represented by the agricultural activity, but the monitoring of pesticides and used chemicals is a challenging task because of the high number of registered pesticides, cost of analyses, and the need for sampling to be performed during periods of application and use, and under various weather conditions

### *Air pollution in the PA Romania*

The statistical data regarding greenhouse gases and air pollution are revealing that the highest pollution is on Romanian side of the border, with:

- PM<sub>2.5</sub> emissions in Timiș and Bihor, followed nearly by Arad and Satu Mare;
- emissions of volatile organic compound almost at the same high level in all NUTS3;
- SO<sub>2</sub> emissions mostly in Bihor;
- NH<sub>3</sub> emissions in Arad.

Regarding CO<sub>2</sub> emissions, the most affected county in the PA is Bihor, with a per capita emission value three times that of Satu Mare, though CO emissions affect the Romanian counties more than in Hungary. Regarding NO<sub>x</sub> emissions, the most affected NUTS3 is Bihor.

Pollution with particles in suspension (PM<sub>10</sub>) affects the Romanian counties significantly more than the Hungarian ones, with values up to three times higher per capita. The main sources for particulate matter are traffic and heating solutions (such as wood burning), industrial sources, agriculture, construction sites, landfills.

### *Climate change, floodings, droughts*

Weather-related extreme events and natural disasters are frequent during summers, but recently during springtime we have recorded different sever whether phenomena: hail, small tornada, heavy rains, generating flooding (Satu Mare - high flood recurrence), wildlife fires (especially in Timis and Arad mountains) and landslides (in Bihor mountain area). In Romania we find that heavy rain is a slightly greater problem, with the counties

of Bihor, Arad, Timiș and Satu Mare experiencing 62% to 73.52% large flood events in the form of heavy rain. The counties most affected by floods in the target area are in Romania in the counties of Bihor with 287 class 1 events (26.43% of total class 1 events) and 355 class 2 events (29.05% of total of class 2 events), and Satu Mare with 244 class 1 events (26.43% of total) and 363 class 2 events (29.71%).

Forest fires have multiplied in the last few decades in both Romania as well as Hungary, albeit with a much stronger increase in the former. The overall reasons can be found in climate extremities, less precipitation, the increase of mean annual temperature and a series of winters without snowfall.

As part of a wider macro-regional area in the Central and Eastern Europe faced with an increase in temperature, the programming area records on average 7-10 additional summer days per decade, with the northern area (especially Satu Mare) being affected more, with over 10 additional summer days over the last decade (JRC – Maes et al., 2020). The programme area is also affected by increasing frequency in droughts, and extreme droughts – specifically Satu Mare.

### **Soil erosion and contamination**

A qualitative assessment of the soil in the PA area is not achievable, due to the lack of data. Soil contamination and soil loss are two critical aspects in the European Union, though there is currently no database on European brownfields, much less information at national levels. Romania for example has identified 210 potentially contaminated sites, albeit their assessment has not been carried out, and county environmental reports do not provide data on the question.

### **Cultural Heritage**

From a structural point of view, the monuments are grouped into four categories according to their nature:

- I. Archaeological Monuments
- II. Monuments of architecture
- III. Public monuments
- IV. Memorial and funeral

In terms of value, historical monuments include the following categories:

- Category A - monuments of national interest
- Category B - monuments of local interest

The complete list is maintained and regularly updated by the Ministry of Culture of Romania, through the National Heritage Institute.

We distinguish the following cultural highlights and touristic endowments:

- **Bihor County** benefits from the beauty and richness of the karst and biodiversity of the Apuseni Mountains, the spa resources exploited at Băile Felix and 1 Mai and beyond, the built heritage of Oradea (ancient and medieval monuments such as Oradea City Hall, Black Eagle Palace, Baroque Palace of Oradea, Roman Catholic Basilica-Cathedral of the Assumption of Mary) and the diversity of traditions and cultural events allow a varied panel of tourist activities<sup>20</sup>.

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<sup>20</sup> Strategy for sustainable development of Bihor County for the period 2014-2020, [www.cjbihor.ro](http://www.cjbihor.ro)

- **Satu Mare** boasts historical sites (e.g. cathedral, churches), cultural institutions (e.g. Philharmonic and North Theater in Satu Mare, castle of the Karolyi family in Carei), natural landscapes, Țara Oaşului (northeast region of the county, including the town of Negrești-Oaş), Țara Codrului (eastern region of the county, including the town of Ardud), “Schwabia” or “Tara Șvabilor” (southwestern region of the county, including the towns of Carei and Tășnad)<sup>21</sup>, the fortifications of Ardud and Medieșu Aurit, etc. The county seat hosts several museums, a theatre and the “Dinu Lipatti Philharmonic”.
- In **Arad**, the main cultural attractions are concentrated in Arad city (architectural monuments such as the Fortified Town of Arad, the Neumann Palace; historic buildings, monuments and statues, as well as a rich ecumenic and religious heritage - The “St. Peter and Paul” Serbian Church, St. Simon Monastery, The “Birth of Saint John the Baptist” Romanian Orthodox Cathedral, “St. Anthony of Padua” Church, a testament to the multicultural history of the city).

Cultural life is active, supported by numerous theaters (Arad State Theater), international festivals (Classical Theater Festival, International Underground Theater Festival), museums and galleries.

- **Timiș**<sup>22</sup> offers tourists attractions in the area of tourist centers - Timișoara, Buziaș (Buziaș resort), Lugoj (Dormition of the Theotokos Church), Sânnicolau Mare, industrial cultural landscapes, industrial heritage, natural reservations, medieval castles (Banloc, Carani) and citadels, architectural and monastery structures (Șag, Săraca), etc. The county seat, **Timișoara**, hosts the largest architectural ensemble of historical buildings in Romania (approx. 14,500), consisting of the urban heritage of the Cetate, Iosefin, Fabric and Elisabetin neighborhoods. It offers a wealth of architectural heritage and representative public spaces (eg. Unirii square, Victory square) and is the 2023 European Capital of Culture, a title supported by many cultural establishments (museums, theaters in three different languages, Romanian National Opera, art galleries), events and music festivals.

#### 4.5 Methods of the assessment

The SEA report will be prepared in accordance with the EC-endorsed “Handbook on SEA for Cohesion Policy 2007-2013” which represents a primary reference material for undertaking SEA which is still valid and remains recommended for the programming process 2021-2027. The handbook has been endorsed in 2006 by the two concerned directorates of the European Commission (DG Regional Development and DG Environment) as advisory material that is still being recommended for applying the SEA Directive within the programming of EU Structural Funds <sup>23</sup>.

## 5 STRUCTURE OF THE SEA REPORT

The SEA Report will address all items specified in the Annex I of the SEA Directive. It will include the following items:

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<sup>21</sup> Strategy for the tourist valorization of the patrimony of Satu Mare county 2014-2020, [www.cjsm.ro](http://www.cjsm.ro)

<sup>22</sup> Sectoral strategy for tourism development of Timiș County 2018-2028, [www.turismTimisurismtimis.ro](http://www.turismTimisurismtimis.ro)

<sup>23</sup> <http://ec.europa.eu/environment/eia/pdf/SEA%20Guidance.pdf>

## Executive summary

(j) a non-technical summary of the information provided under the headings below.

### Introduction

(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes.

### Environmental baseline

(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.

(c) the environmental characteristics of areas likely to be significantly affected.

(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.

Relevant environmental objectives and appraisal of the proposed strategy pursued in the programming document:

(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;

Expected likely significant environmental effects, proposed mitigation measures and monitoring arrangements

(f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;

(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;

(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;

(i) a description of the measures envisaged concerning monitoring;

## 6 SEA PROCEDURE

### 6.1 Consultations

The Managing Authority for Interreg Programme VI-A Romania-Hungary 2021-2027 (*Ministry of European Investments and Projects*) together with the Joint Secretariat - BRECO Oradea, Romania, who provides the Programme draft, wishes to have the SEA report as soon as possible, in accordance with the decision taken by the Competent Environmental Authority. The SEA Studies and Report will be provided for consultations to the public and relevant environmental authorities in accordance with national legislative requirements in both Hungary and Romania.

## 7 EXPECTED ENVIRONMENTAL EFFECTS ON THIRD COUNTRIES

As outlined in the chapter 3.1, the proposed Interreg Programme VI-A Romania-Hungary 2021-2027 will likely achieve overall positive transboundary impacts and is not expected to have any significant adverse transboundary impacts that would warrant attention.

## 8 Sources

- Draft 2<sup>nd</sup> Interreg Programme VI-A Romania-Hungary 2021-2027, 1<sup>st</sup> July 2021
- Territorial Analysis of the Cross-Border Programme Area between Romania and Hungary, March 2021
- Strategy for sustainable development of Bihor County for the period 2014-2020, [www.cjbihor.ro](http://www.cjbihor.ro)
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- Sectoral strategy for tourism development of Timiș County 2018-2028, [www.turismtimis.ro](http://www.turismtimis.ro)
- Common Marketing Strategy in Békés and Arad 2011-2018, <http://www.kozepbekes.hu>
- <http://www.infotourism.info/ro/>
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- Sóstógyógyfürdő | Tourist Website of Nyíregyháza ([www.nyiregyhaza.info.hu](http://www.nyiregyhaza.info.hu))
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- <https://danube-region.eu/about/the-danube-region/>
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