DRAFT

JOINT OPERATIONAL PROGRAMME

for the

HUSKROUA ENI CBC Programme 2014-2020

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Consortium of

MEGAKOM Development Consultants Ltd. and

EX ANTE Consulting Ltd.

CONTENTS

LIST OF ABBREVIATIONS **4**
1 Introduction **5**
2 Description of the programme area **7**
2.1 Participating countries and the Programme area *7*
2.2 Core regions *7*
2.3 Adjoining regions *7*
2.4 Major social, economic or cultural centres *10*
2.5 Map of the programme area *12*
2.6 Intention to make use of Article 10(5) of Regulation (EU) No 232/2014 ..... *12*
3 Programme's strategy **13**
3.1 Selection process for the Thematic Objectives *13*
3.2 Description of the programme strategy *14*
3.2.1 General objective and vision of the joint operative program 14
3.2.2 Selected thematic objectives 14
3.2.3 Content of priorities within the selected thematic objectives 15
3.2.4 Relation between the ENI strategic objectives and the thematic objectives of the Programme 18
3.2.5 Hierarchy of the vision, objectives and priorities of the Programme 19
3.3 Justification for the chosen strategy *20*
3.3.1 Analysis of the socioeconomic and environmental situation of the programme area 20
3.3.1.1 General introduction of the area 20
3.3.1.2 Local culture and preservation of historical heritage (TO3) 21
3.3.1.3 Environmental protection, climate change mitigation and adaptation (TO6) 22
3.3.1.4 Accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems (TO7) 24
3.3.1.5 Common challenges in the field of safety and security (TO8) 25
3.3.1.6 Main challenges and needs of the cooperation area regarding economic, social, environmental and governance in line with future regional development trends 26
3.3.1.7 Main potentials of the cooperation area in line with the regional capacity available 27
3.3.2 Lessons learnt from previous experiences in cross-border programmes 29
3.3.3 Contribution and coherence with the planned interventions towards macro-regional strategies and other Union-financed programmes in the countries and regions concerned 31
3.3.4 Coherence with national, regional and other strategies and policies 37
3.3.5 Risk analysis and mitigating measures 41
3.4 Description of objectively verifiable indicators *42*
3.4.1 Expected results 42
3.4.2 Results indicators 44
3.4.3 Expected outputs, output indicators 45
3.5 Description of ways to mainstream cross-cutting issues *46*
4 Structures and appointment of the competent authorities and management bodies **52**
4.1 Programme level bodies *52*
4.2 Composition of the Joint Monitoring Committee and tasks *53*
4.3 Managing Authority and its designation process *55*

4.4 Procedure for setting up the Joint Technical Secretariat 57
4.5 National authorities of all participating countries 58
4.6 Audit Authority and the members of the group of auditors 59
4.7 Control contact points, national controllers and auditors 60
5 Programme implementation 63
5.1 Summary description of the management and control systems 63
5.2 Description of project selection procedures 63
5.3 Provisional indicative time-frame for programme implementation 63
5.4 Description per priority of nature of support 63
5.5 Description of planned use of technical assistance and applicable contract award procedures 63
5.6 Description of the monitoring and evaluation systems 63
5.7 2001/42/EC of the European Parliament and of the Council 63
5.8 Rules on eligibility of expenditure 63
5.9 Irregularities and recoveries: Apportionment of liabilities among the participating countries 63
5.10 Rules of transfer, use and monitoring of co-financing 63
5.11 Description of IT systems for the reporting and exchange of computerised data between the Managing Authority and the Commission 63
5.12 Language(s) adopted by the programme 63
6 Indicative financial plan 64
6.1 Thematic objectives by source of funding 64
7 Annexes 65
7.1 Detailed analysis of the socioeconomic and environmental situation of the programme area 65
7.1.1 General introduction - territory and population 65
7.1.2 General introduction - economy and labour market 74
7.1.3 Local culture and preservation of historical heritage (TO3) 82
7.1.4 Environmental protection, climate change mitigation and adaptation (TO6) 93
7.1.5 Accessibility to the regions, development of sustainable andclimate-proof transport and communication networks and systems (TO7) 110
7.1.6 Common challenges in the field of safety and security (TO8) 121

LIST OF ABBREVIATIONS

CBC	Cross-border Cooperation
CCP	Control Contact Point
ENI	European Neighbourhood Instrument
EU	European Union
HCSO	Hungarian Central Statistical Office
HU	Hungary
HUSKROUA	Hungary-Slovakia-Romania-Ukraine
HUSKROUA ENI CBC Programme 2014-2020	Hungary-Slovakia-Romania-Ukraine European Neighbourhood Instrument Cross-border Cooperation Programme 2014-2020
JOP	Joint Operational Programme
JTF	Joint Task Force
JTS	Joint Technical Secretariat
JWG	Joint Working Group
km	kilometre
LIP	Large Infrastructure Project
MA	Managing Authority
MS	Member State of the EU
NA	National Authority
NIS	National Institute of Statistics (Romania)
NUTS	Nomenclature des unites territoriales statistiques (Nomenclature of territorial units for statistics)
RO	Romania
SK	Slovakia
SOSR	Statistical Office of the Slovak Republic
SSSU	State Statistics Service of Ukraine
SWOT	Strengths, Weaknesses, Opportunities, Threats
TEN-T	Trans-European Transport Network
TO	Thematic Objective
UA	Ukraine

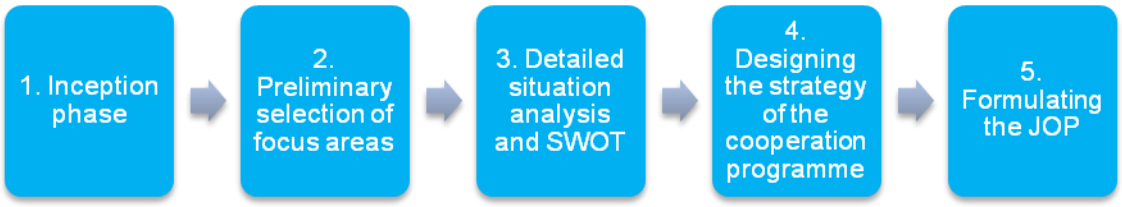
1 Introduction

The Hungary-Slovakia-Romania-Ukraine ENI Cross-border Cooperation Programme will be implemented during the programming period 2014-2020 of the European Union. The Joint Operational Programme (JOP) is based on the joint planning effort of all four participating countries and is aimed to provide a framework for the activities which will lead to a more intense cooperation between regions of Ukraine and regions of Member States sharing common border.

The elaboration of the JOP was governed and controlled by the Joint Task Force. The programming process was coordinated by the Managing Authority and the Joint Technical Secretariat.
The content of the present Joint Operational Programme has been elaborated based on the requirements of Article 4 of the COMMISSION IMPLEMENTING REGULATION (EU) No 897/2014 of 18 August 2014 laying down specific provisions for the implementation of cross-border cooperation programmes financed under Regulation (EU) No 232/2014 of the European Parliament and the Council establishing a European Neighbourhood Instrument.

This Programme Document is the result of a thorough planning process that started in the middle of 2014, with the participation of numerous stakeholders, the support of the Joint Technical Secretariat and of external consultants. The elaboration of the JOP was governed and controlled by the Joint Task Force composed of central governmental organisations and representatives of the eligible regions in each participating country. The programming process was coordinated by the Managing Authority and the Joint Technical Secretariat. Final decisions were made by the Joint Task Force.

The programming process included numerous consultations and actions to involve every important stakeholder in the preparation of the programme and involved the following main phases:



As a first step of the programming process (**Phase 2: Preliminary selection of focus areas**) in order to ensure that the strategic focus of the Joint Operational Programme is in line with the relevant ENI guidelines, the planning activity started with the evaluation of the projects of the period 2007-2013 and was followed by the preliminary selection of the focus areas where the interventions are most needed in order to handle regional disparities. Also, prior to the selection procedure an initial needs analysis was implemented based on the results of a preliminary desk research of strategic documents, a detailed stakeholder survey on the area's specific needs as well as the experiences of the previous cross-border programmes. A co-creation workshop was the forum where the involved parties – based on the results of the initial needs analysis - to discuss in details the possible elements of preliminary focus areas. The final decision on focus areas was made by the Joint Task Force. As part of this task of the planning activities, the evaluation of current projects have been carried out involving stakeholders by conducting a stakeholder survey on the specific needs and problems to be

addressed of the targeted regions and delivering a co-creative workshop with key stakeholders to define the first set of focus strategic objectives in line with the ENI CBC Programming Document provisions.

Subsequently, in the next phase (**Phase 3: Preparation of the situation analysis of the programme area, conducting SWOT analysis**) all relevant information regarding the border area was collected, structured and analysed, challenges, potentials and barriers of cross-border cooperation identified. The situation analysis assessed the possible areas, scale and existing networks suitable for future cross border cooperation in the fields of the focus areas. Special emphasis was taken to collect and utilize the experiences of the previous cross border programmes. Based on the results of situation analysis focus area specific SWOT analysis was elaborated during workshops. To deliver the specific activities related to this task, individual interviews have been carried out with relevant key partners on EU, national, regional/county level (altogether 34 interviews: 2 on EU level, 12 on country/national level, and 20 on regional/county level). Also, co-creation workshops (altogether 4) have been implemented in each participating country to discuss key findings, challenges, barriers and potentials on county level; based on the results of these workshops, an interactive workshop had been carried out with participants from all 4 participating countries where - based on the outputs of national workshops - the key common challenges and potentials concerning the selected Thematic Objectives had been determined.

The next step was the elaboration of the strategy (**Phase 4: Laying down the strategy of the future cross-border cooperation programme**). Special focus was given to the result oriented approach, to addressing joint problems of the border regions and to build on common potentials forming the basis of mutually beneficiary partnerships. A workshop with relevant stakeholders had been conducted in order to validate current state assessment and future vision according to focus areas.

The formulation of the JOP (**Phase 5: Formulating the Joint Operational Programme**) was implemented by incorporating all existing information connected to the programme.This planning phase also contained participatory, interactive methods in order to ensure the consensus based final document. A co-creative workshop had been conducted on the content of the JOP including specific objectives, indicators, planned activities, selection criteria; planned large infrastructure projects (LIPs) and financial allocations and in addition, a workshop with ex ante and SEA evaluators to discuss their findings and suggestions. There were consultationsheld with JTF, the Implementation Working Group, key institutions, ex ante and SEA experts on the content of the first draft final JOP.After finalizing the JOP, approvals of JTF, MA and NAs, a public consultations process have been implemented and its results had been incorporated into the final JOP.

National regional and local authorities, regional development agencies, chambers of commerce, nature parks and protected areas management bodies, cultural institutions, educational institutions, tourism associations, scientific institutes/research centres/universities, local business associations, and civil society organisations had been involved as **stakeholders**and provided valuable contribution during the programming process.

2 Description of the programme area

2.1 Participating countries and the Programme area

Participating countries of the Hungary-Slovakia-Romania-Ukraine ENI Cross-border Cooperation Programme 2014-2020 include EU Member States of Hungary, Slovakia, Romania and Ukraine as Partner Country.

The programme area of the Hungary-Slovakia-Romania-Ukraine ENI Cross-border Cooperation Programme 2014-2020 includes the core regions and adjoining regions as described below.

2.2 Core regions

The following **7territorial units**(referred to in Article 8(1) of Regulation (EU) No 232/2014) are included in the programme area**ascore regions**:

1. **Szabolcs-Szatmár-Bereg county**, Hungary (NUTS III)
2. **Košický region**, Slovakia (NUTS III)
3. **Prešovský region**, Slovakia (NUTS III)
4. **Maramureş county**, Romania (NUTS III)
5. **Satu-Mare county**, Romania (NUTS III)
6. **Ivano-Frankivska region**, Ukraine
7. **Zakarpatska region**, Ukraine

2.3 Adjoining regions

The following regions are participating in the implementation of the programme as adjoining regions:

1. **Borsod-Abaúj-Zemplén county**, Hungary (NUTS III)
2. **Suceava county**, Romania, (NUTS III)
3. **Chernivetska region**, Ukraine

Justification of the participation of the adjoining regions:

- **Borsod-Abaúj-Zemplén county**, Hungary ***(adjoining region with full participation rights)***

Borsod-Abaúj-Zemplén County meets the requirements of inclusion set out in the Programming Document the following ways:

- Involving the county is important because of its achieved experiences and willingness gained and showed in the current HUSKROUA ENPI CBC Programme 2007-2013 where Borsod-Abaúj-Zemplén participates as an adjoining region with full participation. Borsod-Abaúj-ZemplénCounty had successfully participated through projects in the HUSKROUA ENPI CBC programme by providing Lead Partners in 5 projects and Project Partners in 12 projects. The current experience is showing that

partners from the core area are eager to collaborate with actors from this active region as they possess valuable experiences.

- The county brings substantial added value for the core regions thanks to its capacities as follows: there are several regional and local authorities located in the county; the most important higher educational centre of the Hungarian part of the programme area, the University of Miskolc is located here with technical, industrial, economics, law, arts, healthcare and music faculties to meet the challenges of the constantly changing environment; the county host more than 20 R&D centres and economic zones for investors and there is also a regional-level airport in Miskolc; there is a high proportion of accommodation capacity compared to the participating regions, and a world heritage site as a remarkable tourism attraction. Also with its 52 museums (the highest number compared to regions in the eligible area) and 1492 protected buildings and monuments the county could make a valuable contribution to the local culture of the cross-border area. Thanks to the valuable experience and capacities, the county can provide knowledge transfer, exchanges of experiences in a wide range, and contribute to the tourism of the cross-border area with its transboundary natural and cultural heritages during the preparation and implementation of CBC projects.

- The caves of Aggtelek Karst overarching the border between Hungary and Slovakia (concerning Borsod-Abaúj-Zemplén county and Košický region) is a transboundary UNESCO world heritage natural site which holds common challenges and potentials for the involved areas.

- The vast majority of the catchment areas of Borsod-Abaúj-Zemplén county's natural waters are abroad, so the water quality of the transboundary rivers of the county (Bodrog, Sajó, Hernád, and Bódva) heavily depends on the natural factors and human interventions of the neighbouring Slovakia. All 4 rivers of the county rise in Slovakia; Bódva and Hernád are the tributaries of Sajó, Bodrog and Sajó are significant tributaries of Tisza. Hernád is a border river for 10 kilometres long along the Hungarian-Slovakian border. The location of the catchment areas form close natural and geographical ties among Košický, Prešovský and Borsod-Abaúj-Zemplén.

- Due to the geographical proximity of the county and the directions of the movement of people, epidemiology could be one of the important areas of cooperation.

- Borsod-Abaúj-Zemplén County is very close to the border; though it has not got common border section with Ukraine, it stretches between Košický region and Szabolcs-Szatmár-Bereg County functioning as a geographical, economic, socio- and cultural "bridge"; there is a strong functional territorial attachment to the rest of the programme area caused by natural topography and road/transport network.

- Although Borsod-Abaúj-Zemplén County is very close to Ukraine, they have not got other opportunity for cooperation in other CBC programmes; the HUSKROUA ENI CBC programme offers the only opportunity for cross-border cooperation with the Ukraine.

As detailed above, **Borsod-Abaúj-Zemplén county** based on its former participation in the HUSKROUA ENPI Cross-border Cooperation Programme 2007-2013 has already brought and therefore it will further bring substantial added value for the core eligible area and its participation is essential for achieving a more complete CBC impact in the core eligible area; thus it will be participating in the programme as **an adjoining region with full participation rights.**

- **Suceava county**, Romania ***(adjoining region with limited[1] participation rights)***

The following justification was sent by the Ministry of Regional Development and Public Administration of Romania, General Directorate of European Programmes:

"The participation of Suceava County was agreed both by Suceava County Council and Ministry of Regional Development and Public Administration. The decision was supported by the long-term collaboration with Ukrainian authorities in implementing projects and the common interest in the development of cooperation in the cross-border area. In the current programme, Suceava had the status of an adjoining region, eligible beneficiaries had the possibility to implement projects of common interest with partners from other eligible areas in the programme, and this opportunity should be maintained in the future."

Also, due to the geographical settings of the region areas of cooperation could be activities connected to the mountains like participation in mountain rescue networks.

- **Chernivetska region**, Ukraine***(adjoining region with limited[2] participation rights)***

The following justification was sent by the Ministry of Economic Development and Trade of Ukraine:

"Chernivtsi region has already gained significant experience in effective preparation and implementation of joint projects within the fulfilment of cross-border cooperation programmes which were financed by the European Union in 2007 – 2013 through the European Neighbourhood and Partnership Instrument. As demonstration of this it can be 16 cross-border initiatives with total budget of 9,11 million euro with main partner from Chernivtsi region financed by joint operational programme "Romania –Ukraine – Moldova Republic 2007-2013", and 2 large-scale projects with budget for Ukrainian partner of 7.5 million euro, initiated by Chernivtsi region within the mentioned program. This successful experience of the good project management creates additional opportunities to the cooperation with EU members-countries, especially in the context of EU-Ukraine Association Agreement implementation.

The participation of Chernivtsi region was limited in previous joint operational programme "Hungary – Slovakia – Romania –Ukraine 2007-2013", region representatives were involved in preparation of 10 project proposals that were submitted to call for proposals, with the participation of organizations from all represented countries, however, for some reason or other they were not selected for funding.

The number of participating organizations from Chernivtsi region in many project proposals shows mutual interest from Hungarian, Slovak and Romanian partners and representatives of Chernivtsi region in implementation of joint cross-border initiatives in tourism, culture, institutional cooperation, support the small and medium enterprises, etc.

Such cooperation gains additional attention in the context of EU Strategy for Danube region implementation, which involves number of EU member-states, including Hungary, Slovakia, Romania. Chernivtsi region participation in a status of additional region of joint operational programme

[1] Limited participation rights for Suceava county mean that the projects from the adjoining region has to have Hungarian or Slovak partners in the partnership, projects are restricted to Thematic Objective 6 and 7, and LIP projects cannot be implemented by them.

[2] Limited participation rights for Chernivetska county mean that the projects from the adjoining region has to have Hungarian or Slovak partners in the partnership, projects are restricted to Thematic Objective 6 and 7, and LIP projects cannot be implemented by them.

"Hungary– Slovakia – Romania –Ukraine" of the European Neighbourhood Instrument 2014-2020 will be good basis for a joint project initiatives, establishing closer relations and introduction of new forms of cross-border cooperation in a context of new Danube transnational programs 2014-2020."

Also, due to the geographical settings of the region areas of cooperation could be activities connected to the mountains like participation in mountain rescue networks.

Further justification for the adjoining regions of Romania and Ukraine will be sent by 26 March 2015; upon arrival, the justification will be incorporated to the JOP.

2.4 Major social, economic or cultural centres

Taking into account Article 8(3) of Regulation (EU) No 232/2014, besides the core and adjoining regions the following **centres identified and conditions for their participation in the programme**:

National or regional authorities or organisations located in the capital cities will be included in the Programme, in the specific cases when the involvement of these authorities and organisation is essential for the implementation or sustainability of the actions. In these cases, the authorities and organisations are allowed to participate in projects in the role of lead beneficiary or project partner. The project activities carried out by these authorities and organisations can be carried out in the major social, economic or cultural centres, but the results of these activities must always be realised in the border region.

The national and regional capitals concerned are:

- Budapest (Hungary)
- Debrecen (Hungary)
- Eger (Hungary)
- Bratislava (Slovakia)
- Bucharest (Romania)
- Cluj Napoca (Romania)
- Kiev (Ukraine)

The above list of major social, economic or cultural centres might be revised in duly justified cases, by decision of the Joint Monitoring Committee, to reflect the changes in the decentralisation of the administration systems occurring during the implementation of the programme in any of the four countries. Such revision shall not affect the purpose and thematic scope of the involvement.
The above listed major social, economic or cultural centres are involved in all priorities of the programme. The following table identifies for each programme priority the type of authorities and organisations that may participate from these territories.
Further details on the rules or limitations for the participation major social, economic or cultural centres will be defined in the calls for projects.

Priority	Type of authorities and organisations
TO3: Priority 1: Promoting local culture and history along with tourism functions	National or regional authorities responsible for the preservation of cultural and historic heritage National or regional public sector organisations responsible for the development or management of cultural and historic heritage sites National or regional authorities and public sector organisations responsible for tourism development and tourism management Church administrative bodies
TO6: Priority 1: Sustainable use of the environment in the cross border area - preservation of natural resources, actions to reduce GHG emission and pollution of rivers	National or regional authorities and public sector organisations responsible for policy making, regulation or management in the fields of waste, waste water and water quality National or regional authorities and public sector organisations responsible for policy making, regulation or management in the fields of water, nature protection and biodiversity National or regional authorities and public sector organisations responsible for policy making, regulation or management in the fields of energy Major energy supplier companies having services in the border regions
TO7 Priority 1: Development of transport infrastructure to improve the mobility of persons and goods	National or regional authorities and public sector organisations responsible for policy making, regulation or management in the field of transport National and regional public sector organisations responsible for the development or maintenance of roads, railways, bicycle paths or other transport infrastructure elements National authorities responsible for the development or operation of border crossing infrastructure or border management systems Public transport service provider companies having service in the border region
TO7 Priority 2: Development of ICT infrastructure and information sharing	National or regional authorities and public sector organisations responsible for policy making, regulation, development or management in the field of ICT networks and information sharing
TO8 Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations	National or regional authorities and public sector organisations responsible for policy making, regulation, development or management in the field of disaster management and flood prevention
TO8 Priority 2: Support to the development of health	National or regional authorities and public sector organisations responsible for policy making, regulation, development or management in the field of healthcare, health prevention and human epidemiology Church administrative bodies

The authorities and organisations located in the major economic, cultural and social centres of the eligible countries will contribute to the achievements of the programme as follows:

- the cooperation within the projects will be more fluent taking into account the extent of the centralisation of the governance;
- the exclusive knowledge, experience and competences in specific fields possessed by the national authorities (authority with local/regional offices or central/national public sector body without local/regional offices) in the capitals will add to the project implementation in the border regions even if there is a local/regional structural unit of the authority exists in the border region.

- in case of central/national public sector authorities without local/regional offices it is essential to involve the headquarters of the organisation to enable the project having the specific knowledge, experience and competences that is needed for the successful implementation of the project.
- in cases when only the headquarters of these organisations, located in the respective centres, are entitled to carry out the specific activities of the preparation, implementation or sustainability of the programme actions, their involvement is essential for the implementation of these actions.

The modalities for the participation of the centres will be defined at the level of calls for proposals.

2.5 Map of the programme area

This map will be replaced with another one, mentioning the name of each territorial unit and distinguishing between the territorial units by their nature (core or adjoining) and containing the concerned national and regional capitals as well.

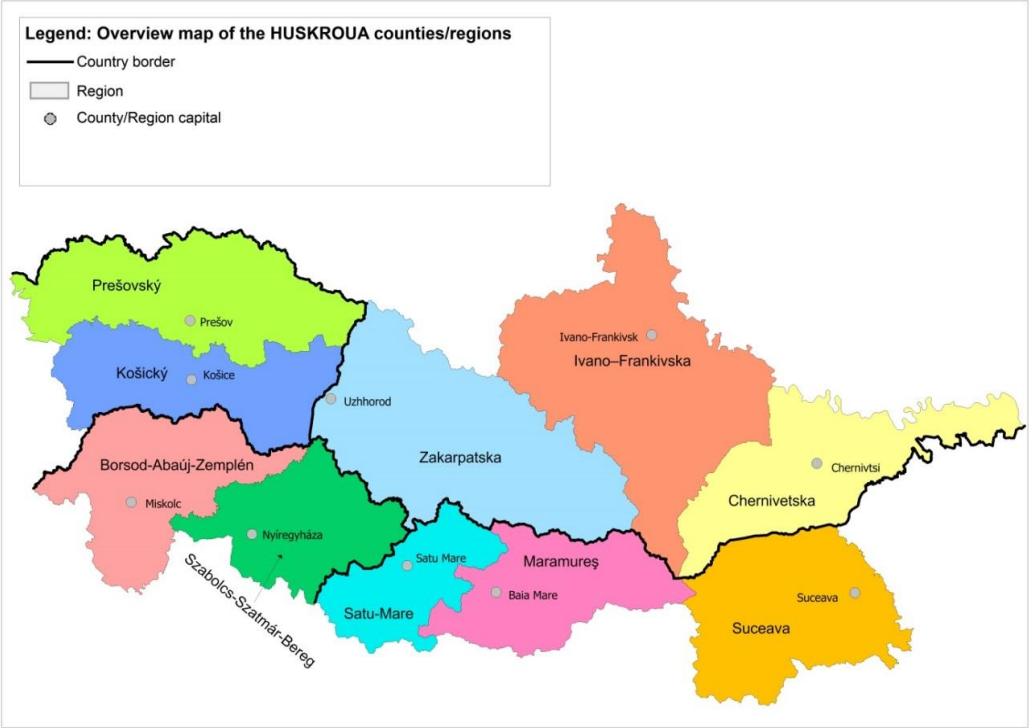


Figure 1: Eligible area of the HUSKROUA ENI CBC Programme 2014-2020

2.6 Intention to make use of Article 10(5) of Regulation (EU) No 232/2014

The Programme does not intend to make use of Article 10(5) of Regulation (EU) No 232/2014 under the conditions set out in the programming document as it is not relevant for the Programme.

3 Programme's strategy

3.1 Selection process for the Thematic Objectives

Taking into consideration the numerous outcomes, findings and standpoints in the course of the planning process (statistical analysis, document analysis, key findings of ROM evaluations, individual and group interviews, questionnaire for initial orientation and pre-selection of Thematic Objectives and Priorities in ENI Cross Border Cooperation Programme between Hungary, Slovakia, Romania and Ukraine 2014-2020) the following table summarises the aspects arose of the different information sources and also the recommended 4 versions regarding the possible structure of thematic objectives.

Source of information			TO1	TO2	TO3	TO4	TO5	TO6	TO7	TO8	TO9	TO10
TO & Prioirities questionnaire (lower value=high priority)	HU	2,42	2,52	2,28	1,85	1,83	2,77	2,1	2,33	2,76	2,97	2,78
	SK	3,02	3	2,69	2,1	3,46	3,25	3,08	2,93	3,3	3,66	2,73
	RO	2,53	2,64	2,83	2,15	2,81	2,69	2,41	2,15	2,32	2,79	2,54
	UA	2,95	3,07	3	2,65	3,25	3,22	2,48	2,7	2,77	3,02	3,33
		average	2,81	2,70	2,19	2,84	2,98	2,52	2,53	2,79	3,11	2,85
Statistical analysis (ranking)			4		1	3		2		5		
Document analysis (suggested by countries)			UA	RO	RO			RO	SK	UA, RO, SK		RO
ROM evaluations	ROM evaluations do not provide information regarding the selection of TOs											
Group interview					X			X		X		X
Beneficiary interviews (ranking)			2	1	2	3		2	4			
LIP data sheets (number of projects)				1	7			3	1	3		3

Suggested TOs taking all above into consideration*		TO1	TO2	TO3	TO4	TO5	TO6	TO7	TO8	TO9	TO10
Version 1 (focused programme)	Contains only:			X			X		X		
Version 2	Certain:			X			X		X		
	and select maximum 2 from TOs 1, 2, 4 and 7										
Version 3 (social focus)			X	X	X		X		X		
Version 4 (economy & accessibility)		X		X			X	X	X		

The Joint Task Force evaluated and discussed the possible versions and decided to include the Thematic Objectives in the Programme for 2014-2020 as described in Chapter 3.2.2.

3.2 Description of the programme strategy

Based on the findings of the individual interviews, the analysis of regional and national strategic documents, the national interactive workshops, the workshop with key stakeholders of participating countries and national experts, and the decisions of the Joint Task Force the following programme strategy was formulated:

3.2.1 General objective and vision of the joint operative program

The European Neighbourhood Policy (ENP) was developed with the objective of strengthening the prosperity, stability and stability of regions in the border area and avoiding the emergence of dividing lines between the enlarged EU and its neighbours.

In line with the ENP objectives the HUSKROUA cross border co-operation programme for 2014-2020 aims to intensify the co-operation between the regions of Zakarpatska, Ivano-Frankivska and Chernivetska of Ukraine and the eligible areas of the Member States in order to initiate progress on the fields of existing social, economic, infrastructural and environmental difficulties.

Based on the above intention the following vision was defined for the programme implementation:

*In **2030** the area along the borders of Ukraine with the three Member States of Hungary, Slovakia and Romania is a **cooperative cross-border region** that efficiently functions and works together in the fields of **promotion of local culture and preservation of historical heritage, environmental protection, climate change adaptation and disaster management**. The **cross-border accessibility among Ukraine and the three Member States does not hinder day-to-day cross-border cooperation, while safety and security and including border management is assured** on an adequate level. **Cooperation** is an integral and natural part of the daily life of the **people living and authorities operating** here.*

3.2.2 Selected thematic objectives

Based on the preliminary needs assessment, stakeholder interviews and workshops the following thematic objectives were selected by the decision of the Joint Task Force:

- **TO3 Promotion of local culture and preservation of historical heritage**
- **TO6 Environmental protection, climate change mitigation and adaptation**
- **TO7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems**
- **TO8 Common challenges in the field of safety and security**

The selected thematic objectives are taking into account the identified needs of the border area, the planned content of the mainstream OPs in the member states, the experiences of the previous programme and the opportunities defined in the situation analyses.

3.2.3 Content of priorities within the selected thematic objectives

The following priorities will support the selected thematic objectives in line with the provisions of the programing document:

TO3 Promotion of local culture and preservation of historical heritage

Priority 1: Promoting local culture and historical heritage along with tourism functions

The objective of the priority is to develop the eligible area as a joint tourism destination based on its cultural, historical, religious values with the preservation of historical buildings.

The planned measures will support the development of cultural-historical heritage along a tourism function. Renovations of historic buildings without real cross-border tourism function and also tourism service or programme development which are not built on cultural-historical-religious heritage and do not demonstrate real cross-border dimensions are excluded from the priority.

The priority contributes to the thematic objective via forming the basis of local cultural events, preserving buildings with historical heritage and creating market for local products with the promotion of touristic activities.

Preservation of historical heritage includes the following types of actions:

- Preservation and restoration of historical buildings in accordance with monument restoration requirements in order to create a network of touristic sites as basis of thematic routes and thematic packages in the cross border region.
- Surveys on buildings of cultural, historical and religious heritage to form the bases of cross border thematic routes.

Tourism services include the following types of actions:

- Development of joint cross-border touristic destinations, thematic routes, packages connecting historical cultural or religious heritage sites and other attractions and services.
- Joint promotion activities and information provision on cross-border routes and related attractions (including the development of maps, joint online information sources and information materials, modern IT tools and applications for the promotion of routes and attractions, signs, tourism cards, etc.).
- Organisation of joint cultural events with cross-border added value linked to historical, cultural, religious heritage.
- Support of the promotion of traditional local (handicraft, (organic) agricultural) products at touristic sites to foster local economic effects.
- Creating cross-border standard of services.
- Exchange of experiences among organisations related to cultural religious and historic heritage.
- Training for locals in tourism, cooperation, promotion and networking.

TO 6 Environmental protection, climate change mitigation and adaptation

Priority 1: Sustainable use of the environment in the cross border area - preservation of natural resources, actions to reduce GHG emission and pollution of rivers

The objective of the priority is to support the preservation and sustainable use of common natural values of the border area, to initiate actions for energy efficiency and the use of renewable energy sources as well as to reduce the risks caused by wastes on the quality of waters.

Within the frame of the priority the following types of actions are foreseen:

Preservation and sustainable use of common natural values:

- Protection of landscape, maintenance of biodiversity and eco-systems with cross border relevance via common developments like natural park co-operations, forestry managements systems, ecological and traditional agricultural production etc.
- Protection of water resources, adaptation to the more frequent water extremities through integrated water management actions.
- Joint ecological education programmes.
- Co-operation between institutions, authorities and civil organisations for the sustainable use of natural resources; support for the harmonisation of relevant regulations.

Energy efficiency and the use of renewable energy resources:

- Supporting investments to increase energy efficiency, energy savings and recycling.
- Elaboration of joint low-carbon strategies.
- Exchange of best practices and expertise, study tours, education on energy efficiency.
- Strengthening competences and skills in the field of eco-innovation and low-carbon solutions.
- Harmonisation of local renewable energy production strategies for biomass, water and geothermal energy.

Waste management and wastewater treatment:

- Sharing best practices, setting up of small scale pilot systems for wastewater treatment, communal and industrial waste management.
- Surveys on water quality problems of river basins crossing the border.
- Setting up of water quality monitoring systems of rivers crossing the borders.
- Joint awareness campaigns.

TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems

Priority 1: Development of transport infrastructure to improve the mobility of persons and goods

The objective of the priority is to improve the cross-border mobility of persons and goods, create the basis of economic co-operations and reduce the disparities of regions via the development of transport and border crossing infrastructure and services.

Types of actions in the frame of the priority:

- Preparation activities and/or building, modernisation and upgrading of transport infrastructures leading to and crossing the border to improve the opportunities for transboundary mobility.
- Developing border crossing infrastructure and improvement of border management systems connected with transport infrastructure developments.
- Building, modernisation and upgrading of bicycle paths, routes leading to and crossing the border.
- Development of cross-border public transport initiatives, harmonisation of systems, acquisition of rolling stocks.
- Awareness-raising activity regarding the importance of environment-friendly transport system (low emission and low noise pollution of cross-border transport).
- Development of IT solutions for public transport facilities.

Priority 2: Development of ICT infrastructure and information sharing

The objective of the priority is to increase the penetration of info-communication tools and help the share of information among the citizens, institutions and businesses of the border region.

Types of actions in the frame of the priority:

- Development of cross-border broadband internet infrastructure and communication centres.
- Development mutually usable local media content and related media production capacities.

TO8 Common challenges in the field of safety and security

Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations

The objective of the priority is to create technical background, strategies and co-operation platforms for the prevention and handling of natural and man-made disasters that may endanger the citizens of the border area.

Types of actions in the frame of the priority:

- Harmonising activities in the field of flood prevention, development of flood prevention infrastructure.
- Setting up joint early warning systems for natural disaster incidents.
- Strategic and technical planning and establishment of joint monitoring systems on environmental (air, water, soil) pollutions.
- Support/cooperation/network of non-governmental and public rescue teams/organisations.
- Database regarding natural disasters incidents.
- Joint training programmes and workshops, exchange of experiences, study tours.

Priority 2: Support to the development of health

The objective of the priority is to improve the prevention activities, the availability and level of services of health and health related social programs for the citizens of the border area.

Types of actions in the frame of the priority:

- Improvement of health care and prevention infrastructure and equipment related to cross border service provision, joint capacity development.
- Joint development and establishment of patient care areas.
- Exchange of know-how, joint training programmes, joint prevention programs, joint support services.
- Co-operation between institutions on the field of human epidemiology.
- Improvement of health related social care services infrastructure.

3.2.4 Relation between the ENI strategic objectives and the thematic objectives of the Programme

1. Promote economic and social development in regions on both sides of common borders

The JOP serves the strategic objective via:

- Increasing number of tourists with the development and promotion of heritage (TO3)
- Improvement of the mobility of persons and goods (TO7)
- Increasing the penetration of info-communication tools to share business information and provide services for citizens (TO7)
- Improvement of the prevention activities, the availability and level of services of health (TO8)

2. Address common challenges in environment, public health, safety and security

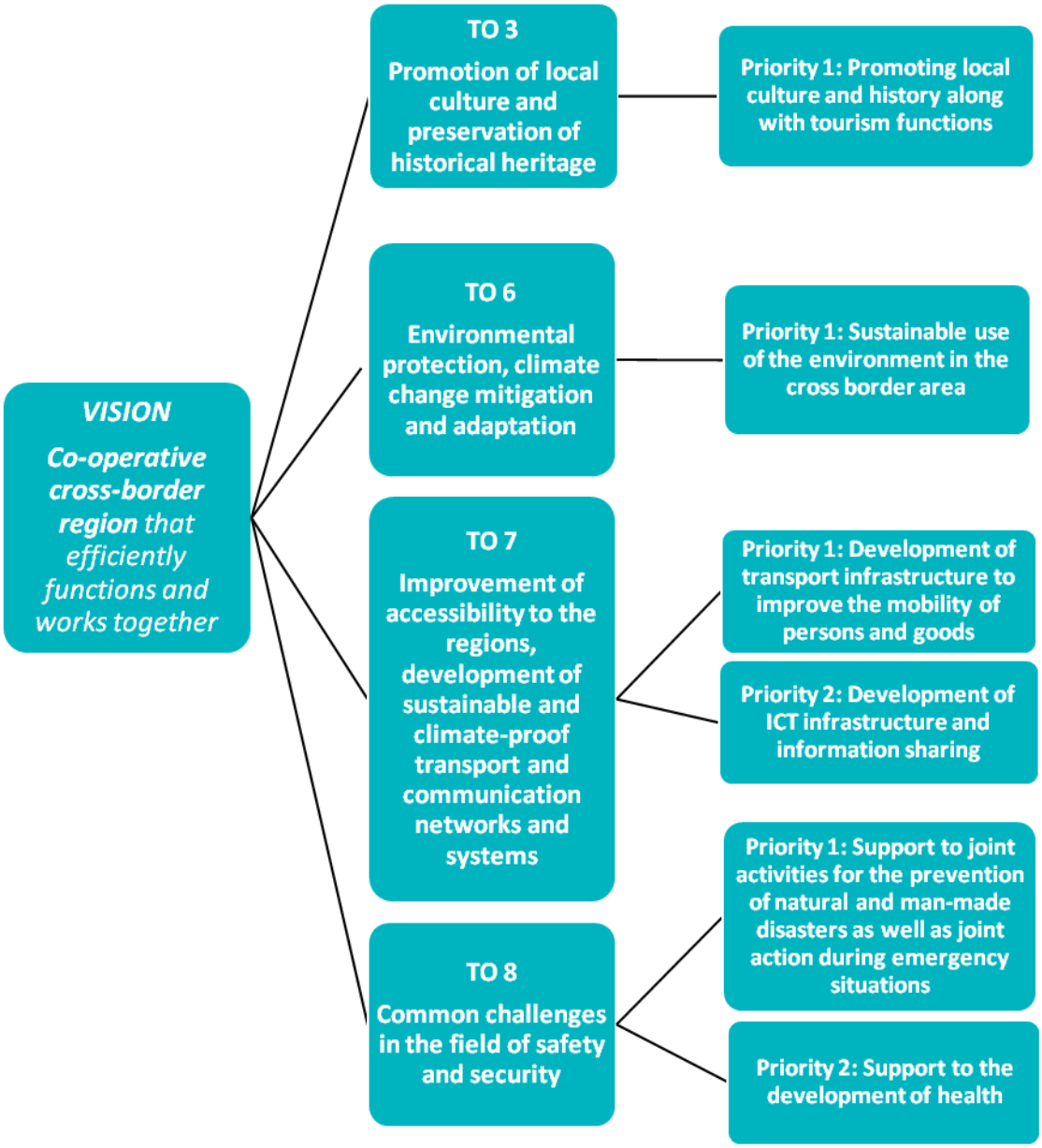
The JOP serves the strategic objective via:

- Supporting of sustainable waste and wastewater management systems (TO6)
- Supporting the preservation and sustainable use of natural resources (TO6)
- Initiating measures on energy efficiency and the use of renewable energy resources (TO6)
- Developing environment friendly transport infrastructure (TO7)
- Creating technical background, strategies and co-operation platforms for the prevention and handling of natural and man-made disasters (TO8)
- Support to the improvement of health services and prevention (TO8)

3. Promotion of better conditions and modalities for ensuring the mobility of persons, goods and capital

- Building, modernisation and upgrading of roads leading to and crossing the border (TO7)
- Development of cross-border public transport initiatives, harmonisation of systems (TO7)

3.2.5 Hierarchy of the vision, objectives and priorities of the Programme



3.3 Justification for the chosen strategy

3.3.1 Analysis of the socioeconomic and environmental situation of the programme area

3.3.1.1 General introduction of the area

Territory and population

Altogether more than 8 million inhabitants of almost 83.000 km^2 (almost equals the whole territory of Hungary) is covered by the programme containing 10 counties/regions (HU: 2 counties, SK: 2 regions, RO: 3 counties, UA: 3 regions). People affected representing 9,7% of the inhabitants of the participating countries. The 3 biggest areas regarding population are the three Ukrainian regions with 3,5 million inhabitant altogether. The most populated region is Ivano-Frankivska in Ukraine with 1.5 million inhabitants representing 17,5% of the cross-border area's population. The county with the smallest population is Satu-Mare in Romania inhabited by 361.000 people representing 4,5% of the cross-border area's population. The Ukrainian regions represent almost the half of the eligible area (41,9%) with 44,6% share of population, the Member States have a balanced share of territory (between 15,9% and 23,2%) and population (between 15,5% and 20,1%) in the program.

The population generally shows a heterogeneous picture. On eligible area level, proportion of people aged 0-14 is 19,4%, people between 15-64 is 65%, and people over 65 years is 15,6%. Population according to age groups the lowest proportion of active population can be seen in Zakarpatska and Chernivetska (around 53%, which is below the average value of the eligible area) when all other areas has a proportion around 69%. Ageing of the population (ageing index) is the lowest in the Slovak regions (60,8%) all other regions and counties have much higher values, between 80- 90%. Dependency ratio is the highest in the Ukrainian regions with Chernivetska leading (37,2 %), in Košický and Prešovský regions and in Satu-Mare county it is much more favourable (around 17%). The Slovak regions are in a much better situation regarding ageing of the society and dependency of elderly; the rest of the eligible regions and counties face with serious problems in these fields. In the eligible border area the density of the population is typically lower than the population density in the countries; Košický region again is the only exception.

Except the Hungarian counties and two of the Romanian counties (Maramureş and Satu Mare) the natural change of population has a positive value meaning that the number of births is higher than the number of deaths. As a result, the natural change of population is positive in the eligible area. Migration balance is characterised by emigration in the eligible area, except Košický region.

Roma communities as a minority are a relevant issue according to the Roma Strategies in all four countries but the social status of Roma communities has not got cross-border relevance; their situation cannot be handled in the framework of the cross-border cooperation programme.

Economy and labour market

GDP shows the relatively low economic performance of the cross-border area. The values show significant intra-regional disparities: Košický produces the biggest part, 24.4% of the total GDP of the eligible area; the economic performance of the Romanian and Ukrainian regions is well below the

average of the eligible area. Only a few of the regions reached pre-crisis levels. GDP per capita values of the regions of the eligible area are well under the national average.

The number of corporations and unincorporated enterprises in the cross-border area is more than 150 thousand, but the distribution of businesses is uneven. Business density is far below the national averages and the values show certain intraregional disparities. The border regions can be characterised by mostly small businesses present as employers.

Activity/participation rate in the eligible area tends to increase very slowly except the Romanian counties. This positive trend could be strengthened and accelerated by the programme activities.

Employment rate in the cross-border region varies between 48% and 62,5% in 2012 and shows increasing trends in all areas except Suceava. Though the rates for the eligible areas are increasing the values are still very low. Unemployment rate in the eligible area is characterised by a much dispersed range between 4,1% (Maramureş county) and 19,7% (Košický region) though these values do not reflect the real situation due to different data calculation methodologies. Regardless the calculation methodology according to the results of interviews and workshops unemployment has a great impact on the labour market. Untapped human resources could be somehow tackled by the activities of the programme and activate people to participate in the local economy; new ways of cooperation itself enhance the possibilities for participation in the labour market.

For details of the general introduction of the eligible area please see Chapter 7.1.1.

3.3.1.2 Local culture and preservation of historical heritage (TO3)

There are 7 UNESCO world heritage cultural sites in the cross border eligible area that represent unique value. In addition to the concentration of UNESCO sites, 2 of them possess cross-border location and represent physical cross-border relevance (Tokaj Wine Region, Wooden Churches). These cultural sites represent a basis for tourism in the region. The famous, visited and also world heritage religious sites to be visited in all of the eligible counties and regions that could be exploited in the development of tourism in the region and could help to distribute tourist to less known but worth to visit places in the eligible area. Besides the cultural heritage sites, 2 natural world heritage sites are located in the eligible area and are both transboundary UNESCO world heritage natural sites: Caves of Aggtelek Karst (HU-SK, Aggtelek is situated in the adjoining region of Borsod-Abaúj-Zemplén) and Slovak Karst and Primeval Beech Forests of the Carpathians (SK-UA). These cultural and natural sites represent a basis for tourism in the region and could help to distribute tourist to less known but worth to visit places in the eligible area.

The high number of museums (214) and almost 17 thousand protected buildings and monuments could serve as a good base for the cultural and touristic development of the cross-border area. Borsod-Abaúj-Zemplén with its 52 museums (the highest number compared to regions in the eligible area) and 1492 protected buildings and monuments the county could make a valuable contribution to the development of the local culture and historical heritage of the cross-border area.

Regarding tourism, the number of visitors is distributed unequally in the eligible area: the western part of the programme area hosts more visitors (Prešovský and Košický regions and Borsod-Abaúj-Zemplén county). This statement also valid for the capacity of public accommodation establishments which are lower than 55/100 km2 in the eastern part of the eligible area, while in the western part of the border area the values of capacity start from 185/100 km2 and even above 290/100 km2 in the Prešovský region. Untapped opportunities lie in the enhancement of the number of foreign tourist as now the proportion of foreign tourist in all affected counties and regions is lower than the national averages, in Ukraine their proportion compared to the population is insignificant - reasons for this may include the lower permeability of the border compared to the other countries concerned. The average length of stay shows regional disparities; it is twice as much as in Ukraine (max. 7,7 nights) then in the Member States (max. 3,2 nights).

The information system in tourism needs development in order to make connections to the national and European information systems in all participating countries. There are touristic sites same or similar in filed/topic that could be connected in the framework of the cross-border cooperation. The eligible region is rich in local products that could be marketed in tourism. The revision of the existing structures and currently running projects in this field is necessary to exploit the situation. The area is rich in local, national and even international cultural events that tourism could build on, the eligible area has many opportunities to invite many tourists from all over the world. Websites on touristic information is numerous and their structure sometimes difficult to follow; online information in English or in the neighbouring languages (Ukrainian, Slovak, and Romanian) is hard to get. Cooperation among tourist organisations in the cross-border area is not typical.

For details of the analysis regarding “Local culture and preservation of historical heritage” please see Chapter 7.1.2.

3.3.1.3 Environmental protection, climate change mitigation and adaptation (TO6)

Climate change as a worldwide issue is a significant factor influencing the future development of the eligible area. Regarding Member States, from the perspective of aggregate potential impact of climate change 3 out of the 7 regions (Prešov, Satu Mare, Suceava) face low negative impacts, Maramureş, Szabolcs-Szatmár-Bereg and Košice face medium negative impact, while Borsod-Abaúj-Zemplén is in the worst category (highest negative impact) according to the EPSON Climate Report. Unfortunately, regarding capacity to adapt to climate change, the eligible area does not exhibit an optimistic situation: all the Romanian counties are characterised by the lowest overall capacity to adapt to climate change – in fact, they are amongst the lowest 25% of all European and CBC NUTS3 regions, while the Hungarian counties and Slovakian regions have just a slightly better situation by having low overall capacity to adapt. According to the indicator of ‘vulnerability to climate change’ Borsod-Abaúj-Zemplén county is characterized by highest negative impacts, Maramureş, Satu Mare, Szabolcs-Szatmár-Bereg and Košice exhibit medium level of negative impacts, and only Prešov, Suceava can face low negative impacts. According to the vulnerability and adaptivity indicators of the regions problems caused by unusual and extreme weather conditions will increase and tackling them will be a common issue especially in the areas of cross-border relevance (e.g. catchment areas in the other country, common affected areas).

There are 2 natural world heritage sites located in the eligible area and are both transboundary UNESCO world heritage natural sites: Caves of Aggtelek Karst (HU-SK, Aggtelek is situated in the adjoining region of Borsod-Abaúj-Zemplén) and Slovak Karst and Primeval Beech Forests of the Carpathians (SK-UA). Also, landscapes and the forests are situated across the borders, their management, the protection of the environment, the natural heritage and biodiversity should be a common task.

Protected natural areas (especially Natura 2000 sites) in the cross-border area (in the Member States) involve numerous sites primarily in the northern part of the eligible area (Košický and Prešovský regions and in Borsod-Abaúj-Zemplén county) and smaller but not least important sites in Szabolcs-Szatmár-Bereg, Maramureş and Suceava counties concerning the area of the Western- and Eastern-Carpathians. The demarcation lines of protected habitats surely do not stop at the borders in reality and the Ukrainian part of the Eastern-Carpathian Mountains must involve other sites that would involve areas of similar characters as the Natura2000 sites according to the European Union's directives.

Forests represent 7,2% of the territory of the eligible area. Within the region the largest areas of protected natural areas are situated in Maramureş (24,5% of the county's territory) Borsod-Abaúj-Zemplén (15% of the county's territory) and Zakarpatska (11.5% of the region's own territory). Altogether there are 20 national parks (HU: 3, SK: 7, UA: 10), high number of nature parks, protected landscape areas in the eligible area. The protection and management of the unique flora and fauna of these vast, and partly connected and cross-borderly situated territories can only be effective when happens commonly, with the participation of all involved and affected parties.

Waste handling shows a heterogeneous picture of the eligible area again. Regarding wastewater, the proportion of treated municipal wastewater only in the Hungarian counties is 100%, the other counties and regions of the eligible area are lagging behind with the proportion between 60-80%. The proportion of households connected regular waste disposal system is at least about 90% in the Hungarian and Romanian areas the Slovak regions have significantly lower rates around 60%. Average values in both cases show the need for development in these fields.

Solid waste collection problems have a negative impact on the quality of the environment, which can be perceived especially the contamination of rivers. As the eligible area is an integrated catchment basin with lots of rivers interweaving solid waste should be handled commonly to achieve visible impact.

The water resources of the eligible area are at risk of contamination in almost every county. Although there were and are initiatives to reduce the risk of contamination, the management of the water resources of the eligible cross-border area can only be achieved through cross-border initiatives.

Regarding endangered and invasive species in the eligible area a great diversity of endangered species are listed and are being protected also in the frame of natural parks and protected areas. The threats and pressure on habitats, wild flora and fauna could come from close infrastructure development, extension and development of human settlements, over exploitation of natural forests conducing to ecological disproportions in the mountain hydrographical basins, poaching of some species of hunting or economic interest. The reduction of the high diversity hardwood forests in the floodplain is significant.

Energy efficiency is becoming a more and more important question regarding the management of energy, renewable energy and self-sufficiency. There are energy efficiency initiatives in the eligible

area, but the counties' share of renewable energy sources still has a minimal role in the current energy structures. Using alternative sources of energy conversion, however, very expensive, the rate of return is long and does not work without a support system. Initiatives like biomass power plants that utilise forestry waste, other wooden waste deriving from forest management and furniture industry, crop wastes and plantations installed for energy purposes are popular in the eligible area primarily because of the high proportion of the forested areas. The regions try to reduce the consumption of housing and household energy and also the deriving expenditure. Important renewable energy source could be geothermal, solar and wind energy. Besides the investment activities for modernising the energy sector awareness raising activities could help a lot in the framework of a small scale cross-border programme.

For details of the analysis regarding "Environmental protection, climate change mitigation and adaptation" please see Chapter 7.1.4.

3.3.1.4 Accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems (TO7)

Regarding the motorways and main roads, in the past ten years improvements have been accomplished and further developments are planned and needed to eliminate missing links and bottlenecks as well as to improve the quality of infrastructure. It is especially important regarding the Ukrainian regions because of the low public road density which is far below than the values in the Member States: in all three Ukrainian regions concerned the value for road density is 50-60km road per 1000 km2 while in the Member States it is 350 km road per 1000 km2 on average. If we take a look at the roads between the counties/regions' seats of the cross-border area, we can see an unpleasant average speed which varies between 58.1 and 95.3 km/hour. Even if the density of roads would be suitable the state and quality of roads need to be developed to take the advantages of the existing opportunities.

Infrastructural inequalities are also traceable concerning the railway lines. Railway lines are more accessible/dense in the southwest part of the cross-border region especially in the Slovak and the Hungarian areas and in Satu-Mare in Romania. There is no rail connection between Chernivetska region and Suceava County and also between Maramureş and Suceava counties. Cross-border railway connections are partly underused because of the long traffic time and the partly inadequate schedules; railway traffic does not support daily mobility. The quality of infrastructure of railway transport services in passenger transport is low.

The number of border crossing points was found to be convenient but the infrastructure (road and border crossing stations) needs development in order to ensure smooth and comfortable crossings; rapidity and predictability and also permeability in the first place is a need for the population of the border area.

The situation of bicycle routes and traffic improved in the programme area as a result of the previous programming period, but there are still missing tween sections, which would facilitate the construction of cross-border and cross-border areas of everyday life in transport and tourism.

Generally the usage of ICT technologies is low and underdeveloped in the programme area. Info-communication interconnectivity of the region is low-level. The usage and quality of telecommunication services is underdeveloped especially in the poorer and the mountainous regions. There are local appearances of traditional media (newspapers, radio and TV stations, online portals) though there is no common communication platform for the inhabitants of the programme area (except the programme's website in connection with the projects). The existing traditions, infrastructure of the traditional media channels and the difficulties of the usage of modern ICT technologies create opportunities for a more feasible and usable common communication platform.

For details of the analysis regarding "Accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems" please see Chapter 7.1.5.

3.3.1.5 Common challenges in the field of safety and security (TO8)

Rivers, water reservoirs, groundwater resources located in the eligible area highly depend on each other; protecting of their quality is essential to secure healthy drinking water for the population of the area and to avoid harming natural resources. Catchment areas do not end at the border; the risks and damages are common and should be managed jointly. The role of Tisza in all of the four affected countries cannot be emphasized enough. It is important to emphasize that the Hungarian eligible counties are in the downstream and the risk factors for them are higher according to this fact.

According to the experiences of the past years, the contamination of the rivers crossing the border, caused by the insufficient solid waste and waste water collection treatment systems is an existing problem in all regions. The pollution of surface water is caused mainly by poor wastewater from the public sewage and industrial production and also from the deficiencies of the solid waste treatment. Extremely heavy rainfall and subsequent flooding, as well as long periods of drought resulting from global warming of the atmosphere, have generally increasing the frequency of occurrence in the territory.

Improvement of flood management is an urging need especially in the western part of the eligible area. Solving the problems caused by the environmental factors is a common wish of the whole eligible cross-border area.

Water resources and catchment areas are interconnected and spread out widely in the cross-border area and highly dependent on water management and protection of the other countries.

Natural and man-made disaster, emergency situations in the region are caused mainly by natural factors by floods caused by the increased storm activity, frequent flooding, snow breaks, and earthquakes because of the geographical location of the eligible area. There is lack of integrated call centres for emergency interventions, so that the objective of assuring a certain minimal standard duration for emergency situations in the region could not be fulfilled.

Number of registered crimes in the cross-border area is decreasing in their number in the Hungarian counties, Slovak regions and Romanian counties. However the number of crimes significantly increased from 2012 to 2013 in all three Ukrainian regions. Fortunately, number of registered crimes per thousand inhabitants is under the national average in all 4 border areas.

In Hungary there is a great need for the development of health infrastructure and public health services (especially for people in disadvantaged situation). The health status of the population of Slovakia is neither very favourable.

For details of the analysis regarding "Common challenges in the field of safety and security" please see Chapter 7.1.6.

3.3.1.6 Main challenges and needs of the cooperation area regarding economic, social, environmental and governance in line with future regional development trends

Based on the findings of the individual interviews, the analysis of regional and national strategic documents, the national interactive workshops, and the workshops with key stakeholders of participating countries and national experts below we summarise the key challenges and needs by thematic objectives. Challenges are in general valid for the programme area as a whole, national and county specificities are indicated wherever relevant.

TO 3 Promotion of local culture and preservation of historical heritage

- Inappropriate condition and lack of preservation of historical sights, uncontrolled restoration of churches in the Ukrainian regions resulting obstacles to the development touristic routes crossing the border.
- Inappropriate system of registration, restoration and usage of historical sites, many of the museums are not registered, there are potential touristic sites with no information on them in the Ukrainian regions resulting obstacles to the development touristic routes crossing the border.
- Number of international tourists is low – except for transit visitors.
- People with marketable products (local handcraft and foodstuff) do not know how to cooperate due to socio-cultural past of the region in Ukraine which makes their involvement in to cross-country tourism services more difficult.
- Lack of common tourist destination management – possibilities for thematic cross border programmes is not utilised. No marketing activities to promote the region as an extended tourism destination which offers a tourism package, integrated cultural programmes.
- Lack of infrastructure to reach the touristic destination (roads, bicycle roads) and the ICT infra for promotion and information
- Lack of skilled experts, language barriers, not enough information on sites and programmes (ICT based supporting materials).
- No promotion of local cuisine specialities and agro tourism etc.

TO 6 Environmental protection, climate change mitigation and adaptation

- Need for common water management, inland water and drought caused by extreme weather conditions, water erosion, soil degradation.
- Energy efficiency of buildings and introduction of clean technologies is a challenge for the whole region – there is need for education, study tours, best practices, and information exchange.
- Possibilities for producing energy from renewable sources are not utilised in the region.
- Waste collection and treatment: no education and no developed infrastructure for collecting the waste especially in Ukraine, it effects the neighbouring countries as well especially in the river valleys.
- There is no adequate waste water collection and treatment in many settlements of the programming area

- There is a need for cooperation in the field of preservation and sustainable use of natural resources, our forests to develop the green infrastructure for touristic utilisation (**bicycle pathways**, green buildings), form the basis of eco-tourism and green services.

TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems

- No motorway reaches the border at the moment.
- Low quality of road network infrastructure.
- Low quality of railway transport.
- Border crossing: lack of permeability, security, rapidity, and predictability.
- Poorly developed public transport services.
- Low quality infrastructure for intermodality
- Low penetration of internet.
- Need for development of an IT platform for transport services.
- Low interoperability of processes and efficiency of public services and administrative procedures in the sector of transport.
- Quality and density of road network is not satisfactory (UA).
- Poor quality of telecommunication services, especially in the mountain region (UA).

TO 8 Common challenges in the field of safety and security

- The current state of infrastructure and hydraulic flood control structures Transcarpathian region does not protect the population, industrial facilities and agricultural land from the harmful effects of water especially in Ukraine, causing risks for neighbouring areas as well.
- Disaster management in case of floods and other natural disasters has to be further developed in the border region especially forecast and monitoring systems and emergency co-operations.
- The catchment areas do not end at the border, the risks and damages are common and require co-operation in management.
- Challenges in public health (like TBC, HIV, drug, alcohol etc.).
- Lack of health and social insurance, logistics space („shelter houses) for disabled people.
- Smuggling and black marketing is wide spread.
- Need for effective co-operation in case of man-made disaster, emergency situations.

3.3.1.7 Main potentials of the cooperation area in line with the regional capacity available

Based on the findings of the individual interviews, the analysis of regional and national strategic documents, the national interactive workshops, and the workshop with key stakeholders of participating countries and national experts below we summarise the main potentials for co-operation by thematic objectives.

TO3 Promotion of local culture and preservation of historical heritage

- Based on the common and similar natural, cultural and historical values there are opportunities to increase the attractiveness, visibility, market presence of the programme area, lengthen average stay of tourists by providing complex packages focusing on destinations in Ukraine.
- A touristic brand for the whole cross-border region could be developed and marketing activities organized to promote it (creating network of tourism services).
- There is an opportunity to develop cross border religious tourism, develop religious connections between countries take advantage of historical religious heritage.

- Based on existing cultural values there is a potential to organize festivals and other joint cultural events (music, dance, theatre, contemporary art, folk art etc.) based on common cultural traditions.
- Extend already existing co-operations between museums and scientific institutions, to increase number of visitors, share information and develop thematic programmes.
- In the border region there is a good potential for local (organic) products and production of handcrafts which could be utilised with touristic products.
- There are mountain areas and rivers which natural assets could be developed for touristic purposes.
- Creation of a network of sites with cultural and historical interest in the programming area.

TO6 Environmental protection, climate change mitigation and adaptation

- Improvement of the efficiency of businesses and energy production through the development and implementation of alternative energy sources, introduction of clean technologies.
- Joint initiatives and co-operations to increase the presently low energy efficiency (education, study tours, best practices, information exchange, database on biomass resources).
- Setting up cross border disaster management structures in order to use resources more effectively: cross border coordination and cooperation of national authorities and NGOs potentially involved in disaster management, long term cooperation agreement between authorities.
- Increase role of NGOs in cross border disaster management and handling emergency situations (multifunctional intervention centres, non-governmental rescue centre, international rescue teams, and united database).
- Setting up complex cross border water management systems in the catchment area of the Upper-Tisza Maintenance of biodiversity and natural landscapes through ecological and traditional agriculture.
- Systematic ecological education to increase awareness of natural values in the border region.
- Harmonised interventions near rivers crossing the border.

TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems

- Modernise the transport infrastructure with special focus on sustainable, environmentally friendly and cost-effective transport infrastructure to save natural values and increase competitiveness (taking into consideration the national and regional strategies for transport development of relevant countries)
- Increase the economic activities and living conditions at remote rural settlements with improvement of roads to villages and tourist objects.
- Use the possibilities of modern information systems and telecommunication to provide competitive services for citizens, businesses and institutions
- Utilise common cultural, historic roots, and economic co-operation opportunities via electronic media and joint website development.
- Use Tisza and other rivers as water transport infrastructure.
- Increase the mobility of labour force across the border via the development of public transport
- Increase the number of tourists with better infrastructure to touristic attractions and leisure activities: building of bicycle routes, footpaths

TO8 Common challenges in the field of safety and security

- Setting up co-operation on the fields of preventive medicine, diagnosis of infections and chronic diseases, creating a cross-border strategy for handling these challenges.
- Creation and development of commonly used health infrastructure.
- Promotion of healthy lifestyle in the frame of cross border programmes.
- Cross border co-operation in the form of common strategies in climate change adaptation.. (Vulnerability analysis, development of adaption measures and their implementation).
- Jointly operated early warning systems regarding flood, water and air pollution, development of monitoring system, monitoring of qualitative and quantitative indicators of water resources.
- Co-operation network of non-governmental rescue teams, organizations.
- Formation of local and voluntary fire protection units with the ability to take place in cross border tasks.

3.3.2 Lessons learnt from previous experiences in cross-border programmes

Structure of Thematic Objectives in the HUSKROUA ENPI CBC Programme 2007-2013

Main findings regarding the structure of TOs of the currently running HUSKROUA ENPI CBC Programme 2007-2013:

- TO1 Business and SME development, TO3 Promotion of local culture and preservation of historical heritage, TO4 Promotion of social inclusion and fight against poverty and TO6 Environmental protection, climate change mitigation and adaptation were represented in the Top 5 areas of development both in the case of submitted and contracted projects.

- Among submitted projectsThematic Objective 2 (Support to education, research, technological development and innovation) was the 4th most represented objective in the top 5 areas. After contracting, projects under Thematic Objective 8 (Common challenges in the field of safety and security) replaced TO 2 in the top 5 also representing approximately 10% of the projects.

- The proportion of projects under Thematic Objective 4 (Promotion of social inclusion and fight against poverty) almost doubled among the contracted projects compared to the rate among the submitted ones (from 9,4% to 16,3%). This translates a high quality of proposals in that area.

- Thematic Objectives 5 (Support to local & regional good governance), 7 (Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems), 9 (Promotion of and cooperation on sustainable energy and energy security) were highly underrepresented both among submitted and contracted projects.

- Regarding the Top 5 TOs, on average 22% of submitted projects were contracted.

ROM evaluations of HUSKROUA ENPI CBC Programme 2007-2013

Key findings and recommendations of the ROM evaluations by priority of the Hungary-Slovakia-Romania-Ukraine ENPI Cross-border Cooperation Programme 2007-2013 accomplished in period 2011-2013 which included the monitoring of 25 projects[3]:

Priority	Key findings
1. Promote economic and social development	• Strict follow up of detailed work plans would be necessary to control delayed implementations • Ownership issues to be handled in advance • Support agreements with and between authorities in order to help implementation and sustainability • Take actions to increase synergy between different projects of same intervention area • Strengthen the indicator set of projects to make results measurable • Further attention to project institutional and financial sustainability, request phase out strategies • Give more attention to gender equality • Platform to foster cooperation and integration between the projects in the targeted regions
2. Enhance environmental quality	• Take actions to avoid additional costs and cost escalations • Cost of the works to be carried out can be a challenge especially for larger projects • Take actions to avoid delays of payments for Ukrainian partners • Identify outcome oriented indicators at the result and Specific Objective levels, better impact indicators suggested • Strict follow up of detailed work plans to avoid delays in implementation and need to extension, • Strengthen sustainability of the project outputs already during implementation • Take measures to assure financial and institutional sustainability
4. Support people to people cooperation	• Ensure logical linkage between the activities-results and the Specific Objectives, foster project cycle thinking during the planning of projects • Some cases additional indicators suggested • Construction elements may cause delay – needs special focus • Strengthen sustainability of project outputs • Improve the communication between partners • Initiate co-operation with other projects to increase impact, sector meetings to increase synergy

Summary of experiences gathered via interviews

- Approximately 70 % of the projects were bilateral; the ratio of projects with four partners is very low.

[3]Priority 3 (Increase border efficiency) has not been evaluated in the examined period.

- Partner-seeking events worked well - coordination on 3 levels: (1) Partner search forum, (2) trainings for potential beneficiaries, (3) national level information days for potential beneficiaries.
- For many of the potential applicants' project documents are rather complex and frequently changed during the application and the implementation process.
- Some projects were poorly designed which could be developed by improving the application forms with more demanding criteria and setting up more specific evaluation criteria/grid.
- Slow evaluation of applications caused difficulties in keeping timeframes and budget of the project. The time span from the launch of a call for proposal till the contract signature is very long.
- Delayed payment was a horizontal problem along the implementation of the programme.
- Financial risks of Large Infrastructure Projects, delays in implementation and procurement procedures should be taken into account.

3.3.3 Contribution and coherence with the planned interventions towards macro-regional strategies and other Union-financed programmes in the countries and regions concerned

TO3 Promotion of local culture and preservation of historical heritage	
Programming document	**Planned interventions**
1. Economic Development and Innovation Operational Programme (HU)	Development of national and international attractions (UNESCO sites and sites maintained by Gyula Forster Centre), cultural and religious thematic routes, complex networks of historic heritage sites.
2. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	TDM-based development of tourism. Main tourism branches: wine, cultural, health, thermal and active tourism. Cultural programmes (e.g. support of cultural events) and joint tourism product development.
3. County Development Concept, Strategic and Operative Programme of Szabolcs-Szatmár-Bereg county (HU)	Coordinated tourism development: attractions, thematic routes, complex packages as well as related services and marketing, TDM and tourism clusters, community development, protection and development of cultural values in the rural areas.
4. Hungary-Slovakia Cross-border Co-operation Programme 2014 - 2020	Supporting the harmonised protection, development and utilisation of the common cultural heritage of the border region (renovation of cultural, built heritage sites; development of cross-border tourist products and services). Common tourist management and marketing, development of joint tourist destinations, products and thematic routes, development of tourist infrastructure and tourist services.
5. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Development of tourism infrastructure and the linked recreational infrastructure, promotion of tourism potential.
6. Draft Development Plan of the North-West Region 2014-2020 (RO)	Promotion and economic valorisation of tourist potential with local features. Rehabilitation and conservation of the built patrimony and its valorisation by tourism.
7. Regional Operational Programme 2014-2020 (RO)	Restoration, protection and valorisation of cultural patrimony Economic valorisation of the balneary/wellness tourist potential – economic valorisation of tourist potential with local specificity – recreational public tourist infrastructure

TO3 Promotion of local culture and preservation of historical heritage	
Programming document	**Planned interventions**
8. Satu Mare County Development Strategy until year 2020 (RO)	Promotion of Satu Mare county as a cultural and health tourist destination, as well as a business destination for foreign and local investors, promotion of locally produced traditional food products Development of tourism and related services (with accent on health and cultural tourism) Cross-border cooperation in the field of tourism
9. Danube Transnational Programme 2014-2020 (HU, SK, RO, UA)	Development of new and existing Cultural Routes relevant in the Danube Region, theme paths and joint products; Ensure the sustainable preservation of cultural heritage by developing relevant clusters and networks of heritage sites, museums, interpretation and visitor centres; Develop and implement education, training and capacity building to support quality tourism (among 'indicative actions')

TO6 Environmental protection, climate change mitigation and adaptation	
Programming document	**Planned interventions**
1. Economic Development and Innovation Operational Programme (HU)	Energy production from solar, geothermal, biomass and water, increasing the energy efficiency of buildings owned by enterprises complex energy efficiency and renewable energy investments of enterprises, intelligent buildings. Main target groups: Enterprises (excluding agriculture related activities).
2. Environment and Energy Efficiency Operative Programme (HU)	Water management data collection, reservoirs, flood protection interventions, (major projects in the Tisza valley).
3. Regional and Urban Development Operative Programme(HU)	Public transport infrastructure, bicycle roads, local renewable energy production, energy efficiency of municipality buildings. Target groups: Municipalities and their institutions.
4. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Local and county strategies for adaptation to climate change Protection against flood and inland water. Recycling industrial waste, waste water management, landscape rehabilitation, use of renewable energy resources, water quality improvement, and landscape and nature protection, raising awareness of sustainable development.
5. County Development Concept, Strategic and Operative Programme of Szabolcs-Szatmár-Bereg county (HU	Support to use of renewable energy resources, waste management, nature and biodiversity protection, complex water management, protection against flood and inland water, raising awareness of environmental protection, protection and development of natural values in the rural areas.
6. The Operational Programme the Quality of Environment 2014-2020 (SK)	Sustainable use of natural resources through development of environmental infrastructure Adaptation to the adverse effects of climate change with the focus on flood protection Promoting risk management, emergency management and resilience to emergencies affected by climate change Energy efficient low-carbon economy in all sectors
7. The Integrated regional Operational Programme 2014 – 2020 (SK)	Improving the quality of life in the regions with an emphasis on the environment

TO6 Environmental protection, climate change mitigation and adaptation	
Programming document	**Planned interventions**
8. The Water Plan of The Slovak Republic (SK)	Interventions aiming at achieving a good ecological and chemical status for surface waters. Prevent the pollution, and protect, enhance and restore groundwater bodies and to ensure the balance between abstraction and recharge of their volume. Reverse the significant and sustained upward trend in the concentration of pollutants.
9. The Strategy of the Climate Change Adaptation and Mitigation of the SR (SK)	Local and county strategies for adaptation to climate change Protection against food and inland water. Recycling industrial waste, waste water management, landscape rehabilitation, use of renewable energy resources, water quality improvement, and landscape and nature protection, raising awareness of sustainable development.
10. Program of the Waste Management of the SR for period 2011 – 2015 (SK)	Support the use of renewable energy resources, waste management, raising awareness of environmental protection. Targets in the waste management plan are focused on municipal waste, bio – waste, WEEE, packaging waste, used batteries and accumulators, end-of-life vehicles, used tyres, construction and demolition waste, wastes containing PCBs and PCB contaminated equipment, waste oils.
11. Hungary-Slovakia Cross-border Co-operation Programme 2014 – 2020	Supporting the harmonised protection, development and utilisation of the common natural heritage of the border region (protection of biodiversity; assuring the conditions for common water management), nature and environment protection.
12. Big Infrastructure Operational Programme 2014-2020 (RO)	Investments in the water and sewage sector in order to attain the requirements of the EU acquis in the field of environment, through the continuation of the integrated development of projects regarding water and sewage water. Investments in the waste sector in order to attain the requirements of the EU acquis in the field of environment, through the continuation of the integrated waste management projects of the counties. Improvement of the conservation level of species and habitats of community importance.
13. European Strategy for the Danube Region (EUSDR)	Priority Area 4 of the EUSDR "To restore and maintain the quality of waters"and Priority Area 5 “Environmental Risks” support the following actions under TO6: - surveys on water quality problems of river basins crossing the border, - setting up of water quality monitoring systems of rivers crossing the borders protection of water resources, adaptation to the more frequent water extremities through integrated water management actions
14. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Increasing energetic efficiency of public institutions, dwellings and companies. Investments in creation, rehabilitation, modernization and extension of drinking water and sewage network in integrated waste management systems and risk management systems. (also including: realization of joint environment protection plans with neighbouring regions, including regions from Republic of Moldova and Ukraine, realization of projects and joint monitoring of polluting factors) Rehabilitation of contaminated and/or polluted soils Preservation of biodiversity

TO6 Environmental protection, climate change mitigation and adaptation	
Programming document	**Planned interventions**
15. Draft Development Plan of the North-West Region 2014-2020 (RO)	Supporting business environment to adapt their activities for a low-carbon economy. Supporting and facilitating the use of regenerating energy sources Biodiversity and Natura 2000 sites protection. Development and improvement of services for the prevention of emergency situations. Supporting the waste management and its valorisation. Extension and modernization of public utility networks (water, sewage, electricity, thermic, natural gas).
16. Regional Operational Programme 2014-2020 (RO)	Energetic efficiency of public buildings, including consolidation measures Energetic efficiency of residential buildings, including consolidation measures – investments in public illumination – measures for urban transport (bicycle routes/ purchasing ecological electrical means of conveyance etc.) – regeneration and revitalization of urban areas (modernization of public spaces, rehabilitation of abandoned buildings/areas, historical centres, etc.)
17. Satu Mare County Development Strategy until year 2020 (RO)	Minimizing the effects of natural risks on population and goods, assuring quality of surface waters, air, durable waste management, protection of biodiversity and natural patrimony Cross-border cooperation for the joint environment protection
18. Danube Transnational Programme 2014-2020 (HU, SK, RO, UA)	Support strategic frameworks and develop concrete solutions to restore, conserve and improve a network of green infrastructures/ bio-corridors; Promote interlinking of natural habitats and wildlife corridors through the reduction of barriers; Promote awareness-raising and environmental education; Contribute to regional energy planning and -coordination of transnational relevance (among 'indicative actions')

TO7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	
Programming document	**Planned interventions**
1. Integrated Transport Development Operative Programme (HU)	Development of existing roads, increase of safety and reduce of negative environmental effects, increase of interoperability
2. Regional and Urban Development Operative Programme(HU)	Supporting local mobility and investments. Target groups: Municipalities, and enterprises in case of complex projects.
3. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Development of main, secondary and local CB roads, new roads to improve CB connection (e.g. Miskolc-Košice motorway, Domaháza-Petrovce, Bánréve-Lenartovce, Aggtelek- DlháVes, Perecse-Janík, Hidasnémeti- Perín-Chym, Lácacséke- Pribeník). New bicycle roads to tourism, attractions and connecting EuroVelo, railway developments across the border, raising awareness of sustainable traffic forms, development of public transport, enhance traffic security.
4. County Development Concept, Strategic and Operative Programme of Szabolcs-Szatmár-Bereg county (HU)	Environmental friendly mobility Improvement of accessibility Bicycle road development

TO7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	
Programming document	**Planned interventions**
5. Operational Programme Integrated Infrastructure 2014 – 2020 (SK)	Selected investment priorities: • Development of environmentally friendly and low-carbon transport systems and promoting sustainable urban mobility, including inland waterways transport, ports and multimodal lines • Development and reconstruction comprehensive, interoperable railway system of high quality • Services to citizens and businesses • Effective public administration • Broadband and next generation network
6. Integrated Regional Operational Programme 2014-2020 (SK)	Safe and environmentally friendly transport in the regions Improving the quality of life in the regions with an emphasis on the environment
7. Strategy of Transport Development of the Slovak Republic to the year 2020 (SK)	Sustainable development of transport Development of environmentally friendly and low-carbon transport systems promoting mobility
8. The Strategic plan of the Transport Infrastructure Development Of the SR to the year 2020 (SK)	Sustainable development of transport infrastructure Improvement of accessibility
9. Hungary-Slovakia Cross-border Co-operation Programme 2014 - 2020	Strengthening the harmonisation of public and environment-friendly transport and multimodality within the region and improving the quality of the services.
10. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Modernization and development of railway infrastructure Modernization and development of road infrastructure Development of durable urban transportation systems Extension of the Internet infrastructure, with special regard to rural areas and isolated communities Development of TIC through the creation and development of e-„services" and products
11. Draft Development Plan of the North-West Region 2014-2020 (RO)	Supporting the use of TIC by persons and firms (e-economy, e-commerce)
12. Regional Operational Programme 2014-2020 (RO)	Construction/ rehabilitation/ modernization of county ring roads
13. Satu Mare County Development Strategy until year 2020 (RO)	• Development of major transportation infrastructure including expressway, national roads, air transportation, and rehabilitation of rail infrastructure, as well as development of gas, sewage and water networks in rural areas • Cross-border cooperation for the improvement of cross-border transport infrastructure Cross-border cooperation for the improvement of cross-border communication
14. Danube Transnational Programme 2014-2020 (HU, SK, RO, UA)	Contribute to the development of integrated transport frameworks; Encourage joint planning and development of urban, interurban and cross-border bicycle routes in the Danube region; Contribute to ensure accessibility of rural areas (among 'indicative actions')

TO8 Common challenges in the field of safety and security	
Programming document	**Planned interventions**

TO8 Common challenges in the field of safety and security	
Programming document	**Planned interventions**
1. Human Resource Development Operative Programme (HU)	Development of health, disease prevention and health infrastructure
2. Environment and Energy Efficiency Operative Programme (HU)	Data collection system, integrated risk management system, information systems for citizens, new rescue and other equipment
3. Hungary-Slovakia Cross-border Co-operation Programme 2014 - 2020	Assuring the conditions for common water management and common risk prevention and risk management. Common development of public services and their accessibility. Strengthening institutionalised cooperation in the programming region.
4. Operational Programme Employment and Social Inclusion 2014-2020 (SK)	Improvement and availability of health care and prevention infrastructure and equipment Improvement and availability of social care services infrastructure
5. Operational programme Quality of the Environment 2014-2020 –approved by the EC (SK)	Promoting risk management, emergency management and resilience to emergencies affected by climate change Adaptation to the adverse effects of climate change with the focus on flood protection
6. Strategy of the Institutional System of Social Services in the SR (SK)	Improvement of social care services infrastructure and accessibility
7. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Increasing access to quality health care services Extension, diversification and improvement of the access of vulnerable groups and isolated communities to education, health care, social services, employment and living, also including the modernization of the related infrastructure
8. Draft Development Plan of the North-West Region 2014-2020 (RO)	Rationalization, completion and modernization of the existing regional medical network Development of regional network of social assistance centres
9. Regional Operational Programme 2014-2020 (RO)	Construction of regional hospitals • rehabilitation/modernization/equipping of emergency hospitals in the county • rehabilitation/modernization/extension/ equipping of health care infrastructure • construction/rehabilitation/modernization/equipping of the community integrated intervention centres Integrated actions including: • Construction/rehabilitation/Modernization of social dwellings • Investments in health care, education and social infrastructure
10. Satu Mare County Development Strategy until year 2020 (RO)	Improvement of health care services and increasing the level of education and training of the population with special regard to vocational training in line with the economic profile and development perspectives of the county Cross-border cooperation for providing medical services and joint solutions in emergency situations
11. European Strategy for the Danube Region (EUSDR)	Priority Area 5 of the EUSDR “Environmental Risks” supports the following actions: - harmonising activities in the field of flood prevention, development of flood prevention infrastructure. - Setting up joint early warning systems for natural disaster incidents. Strategic and technical planning and establishment of joint monitoring systems on environmental (air, water, soil) pollutions.

TO8 Common challenges in the field of safety and security	
Programming document	**Planned interventions**
12. Danube Transnational Programme 2014-2020 (HU, SK, RO, UA)	Encourage more effective information sharing, mutual learning and a sustainable approach to managing the risks of floods; Contribute to the common transboundary implementation of the Flood directive (joint flood monitoring and alert systems) (among 'indicative actions')

3.3.4 Coherence with national, regional and other strategies and policies

TO3 Promotion of local culture and preservation of historical heritage	
Programming document	**Strategic objective/policy**
1. Economic Development and Innovation Operational Programme (HU)	Protection of natural and cultural heritage
2. Regional and Urban Development Operative Programme (HU)	Support of local products, local markets to increase employment.
3. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Overall objective: Sustainable and efficient use of natural and cultural resources; Strategic objective: Sustainable use of unique natural and cultural resources; Priorities: Improving the adaptive capacity of the society, Tourism
4. County Development Concept, Strategic and Operative Programme of Szabolcs-Szatmár-Bereg county (HU)	Overall objective: Creating an attractive natural, social, cultural and economic environment
5. Hungary-Slovakia Cross-border Co-operation Programme 2014 – 2020	Preserving and protecting the environment and promoting resource efficiency (Thematic objective 6.) To increase the attractiveness of the border area
6. Programme of economic and social development of Prešov Self-government Region for the period of 2008-2015 (SK)	Development of tourism, Creation of landscape and flood protection, Development of Regional Culture
7. Strategy of Maramureş County (RO)	Priority 4. Development of tourism through valorisation of the well-known potential of the county
8. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Specific objective 5: Supporting the development of urban areas Specific objective 7: Supporting valorisation of the existing tourist potential
9. Draft Development Plan of the North-West Region 2014-2020 (RO)	Objective 3. Increasing the quality of life of the population from the region Priority 3.4. Durable development of tourism
10. Regional Operational Programme 2014-2020 (RO)	Priority axis 5. Conservation, protection and durable valorisation of the cultural patrimony Priority axis 7.Diversifying local economies through the durable development of tourism
11. Satu Mare County Development Strategy until year 2020 (RO)	Territorial marketing, Tourism development, Extension and intensification of territorial cooperation for the social and economic development of the County and strengthening its strategic position

TO3 Promotion of local culture and preservation of historical heritage	
Programming document	**Strategic objective/policy**
12. Strategy for Sustainable Tourism Development for the Carpathians	Establish supportive conditions for sustainable tourism products and services, including development of a marketing scheme for the promotion of the Carpathians as a unique sustainable destination. Develop innovative tourism management, fully integrating the needs of local people and economies and other supporting sectors, and respecting the preservation of natural and cultural heritage. Establish a continuous process of awareness raising, capacity building, education and training on sustainable tourism development and management at all levels.

TO6 Environmental protection, climate change mitigation and adaptation	
Programming document	**Strategic objective/policy**
1. Economic Development and Innovation Operational Programme (HU)	Reduction of CO2 emission with the refurbishment of buildings and investment to renewable energy production.
2. Integrated Transport Development Operative Programme (HU)	Increase of energy efficiency in transport sector
3. Environment and Energy Efficiency Operative Programme (HU)	More effective disaster prevention to persons and values
4. Regional and Urban Development Operative Programme (HU)	Sustainable development of transport, increase of energy efficiency and the utilization of renewable energy sources
5. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Overall objective: Sustainable and efficient use of natural and cultural resources Strategic objectives: Sustainable use of unique natural and cultural resources Increase share of resources of renewable energy in energy production and consumption Improving environmental condition and security Priority: Improving environmental condition and safety
6. County Development Concept, Strategic and Operative Programme of Szabolcs-Szatmár-Bereg county (HU)	Overall objective: Creating an attractive natural, social, cultural and economic environment Thematic strategic objective: Green economy, climate-friendly energy management, adaptation to the climate change Priority: Effective environmental management and adaptation to climate change
7. Operational Programme Integrated Infrastructure 2014- 2020 (SK)	Activities aimed at promoting sustainable urban mobility can contribute to more efficient use of energy resources and to reduce the negative impacts (emissions, noise) on the environment.
8. Hungary-Slovakia Cross-border Co-operation Programme 2014 – 2020 (HU-SK)	Preserving and protecting the environment and promoting resource efficiency (Thematic objective 6.)
9. Programme of economic and social development of Prešov Self-government Region for the period of 2008-2015 (SK)	Creation of landscape and flood protection Water Protection Using renewable energy Improving the management of waste management
10. The Strategy of PM 10 Reduction in Slovakia (SK)	The main is to achieve and maintain good air quality throughout the Slovak Republic. Strategic priorities are: monitoring of air quality and identifying sources of pollution, local heating, transport, soil and not reinforced surfaces, impact on public health and communication with the public.

TO6 Environmental protection, climate change mitigation and adaptation	
Programming document	**Strategic objective/policy**
11. The Water Plan of the Slovak republic (SK)	Achieving good water quality according to WFD criteria. Improvement of water status in compliance with WFD will basically support also the protection objectives specific for the given protected area.
12. Program of the Waste Management of the SR for period 2011 – 2015 (SK)	The strategic objective of Waste Management is diverting waste from landfilling, respectively reducing the amount of waste going to landfills. The main objective is to minimize the negative effects of the generation and management of waste on human health and the environment, as well as reducing the use of resources, and favour the practical application of the waste hierarchy as defined in Article 4 of the new Waste Framework Directive (prevention, preparation for reuse, recycling, other recovery, e.g. energy recovery, disposal).
13. Big Infrastructure Operational Programme 2014-2020 (RO)	PA 4. Environment protection and promotion of efficient utilization of resources PA 5. Biodiversity protection and conservation, cleaning of polluted soils and monitoring air quality
14. Strategy of Maramureş County (RO)	Priority 5. Protection and improvement of the quality of environment
15. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Specific objective 1: Promoting energetic efficiency Specific objective 2: Environment and biodiversity protection through specific investments
16. Draft Development Plan of the North-West Region 2014-2020 (RO)	Objective 1. Increasing the number of jobs and incomes Priority 1.3. Increasing the competitiveness of regional economy through supporting the transition towards a low-carbon economy Priority 3.7. Protection and conservation of natural environment
17. Regional Operational Programme 2014-2020 (RO)	Priority axis 3. Supporting the increase of energetic efficiency of public buildings Priority axis 4. Supporting durable urban development - financing of integrated projects on the basis of integrated urban development strategies
18. Satu Mare County Development Strategy until year 2020 (RO)	Assuring durable development through environment protection and prevention of risks Extension and intensification of territorial cooperation for the social and economic development of the County and strengthening its strategic position

TO7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	
Programming document	**Strategic objective/policy**
1. Economic Development and Innovation Operational Programme (HU)	E-inclusion, provision of a new generation national broadband network, increase of computerization of enterprises
2. Integrated Transport Development Operative Programme (HU)	Supporting the competitiveness of businesses with the development of the transport infrastructure; Increase of employment via better infrastructure for mobility
3. Regional and Urban Development Operative Programme (HU)	Increase the mobility of potential employees

TO7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	
Programming document	**Strategic objective/policy**
4. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Priority: Traffic, accessibility of labour market centres
5. Operational Programme Integrated Infrastructure 2014- 2020 (SK)	Global objective of the OP is to promote sustainable mobility, economic growth, job creation and improving the business environment through the development of transport infrastructure, development of public passenger transport and the development of the information society. Transport investments shall be directed to build quality modern infrastructure, which improves accessibility, connectivity to regions, increasing their attractiveness to investors, thereby laying the foundations for greater competitiveness, business development, job creation and economic growth. As regards the information society, the focus is on improving the availability, quality and use of information and communication technologies (ICT) through: • strengthening ICT applications for e-government, e-learning, e-inclusion and e-health, • development of ICT products and services, the development of e-commerce and the increasing demand for ICT expansion of broadband and the deployment of high speed networks
6. Hungary-Slovakia Cross-border Co-operation Programme 2014 – 2020 (HU-SK)	Promoting sustainable transport and removing bottlenecks in key network infrastructures (Thematic objective 7.) Enhancing regional mobility by increase of density of border crossing points. Improving environmentally friendly cross-border transport services
7. Programme of economic and social development of Prešov Self-government Region for the period of 2008-2015 (SK)	Development of ICT Development of transport infrastructure
8. Strategy of Maramureş County (RO)	Priority 2. Development and modernization of the transport infrastructure
9. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Specific objective 1: Increasing accessibility, connectivity and mobility through investments in transport infrastructure Specific objective 2: Stimulation of attractiveness and local economy through increasing access to quality ICT infrastructure
10. Draft Development Plan of the North-West Region 2014-2020 (RO)	Objective 2. Increasing the accessibility of the region and of the mobility of population, goods and information Priority 2.1. Development of a durable transport system and assuring the access and integration to major European and international transport networks Priority 2.2. Improvement of the access to ICT,the quality and utilization of these networks by the public and private sector
11. Regional Operational Programme 2014-2020 (RO)	Priority axis 6. Improvement of road infrastructure of regional and local importance
12. Satu Mare County Development Strategy until year 2020 (RO)	Improvement of infrastructure as support for the economic development of the county in order to transform Satu Mare County into a logistic pole of transnational importance Extension and intensification of territorial cooperation for the social and economic development of the County and strengthening its strategic position

TO8 Common challenges in the field of safety and security	
Programming document	**Strategic objective/policy**
1. Human Resource Development Operative Programme (HU)	Development of the quality of public services in the field of health care, social interventions.
2. Environment and Energy Efficiency Operative Programme (HU)	More effective disaster prevention to persons and values
3. County Development Concept, Strategic and Operative Programme of Borsod-Abaúj-Zemplén county (HU)	Priority: Improving the adaptive capacity of the society
4. Operational Programme Integrated Infrastructure 2014- 2020 (SK)	Active approach of public authorities to effectively eliminate the negative impacts of road development on a wide range of the traveling public act to increase road safety.
5. Hungary-Slovakia Cross-border Co-operation Programme 2014 – 2020	Enhancing institutional capacity of public authorities and stakeholders and efficient public administration (Thematic objective 11.). Improving the level of cross border inter-institutional cooperation
6. Programme of economic and social development of Prešov Self-government Region for the period of 2008-2015 (SK)	Creation of landscape and flood protection Improving the management of waste management Specialization and modernization of hospitals
7. Draft Regional Development Plan of the North-East Region 2014-2020 (RO)	Specific objective 3: Increasing access to quality health services Specific objective 4: Promoting social inclusion through the regeneration of declining rural and urban area
8. Draft Development Plan of the North-West Region 2014-2020 (RO)	Objective 3. Increasing the quality of life of the population from the region Priority 3.3. Improvement of access and development of educational and professional training, health and social infrastructure
9. Regional Operational Programme 2014-2020 (RO)	Priority axis 8. Development of health and social infrastructure Priority axis 9. Supporting the economic and social regeneration of disadvantaged communities from urban areas
10. Satu Mare County Development Strategy until year 2020 (RO)	Efficient valorisation of human resources, as support for increasing economic competitiveness and reducing inequalities in the county Extension and intensification of territorial cooperation for the social and economic development of the County and strengthening its strategic position

3.3.5 Risk analysis and mitigating measures

This chapter will be detailed in a later phase during the preparation of the JOP.

3.4 Description of objectively verifiable indicators

3.4.1 Expected results

Thematic Objective	Priority	Expected result
TO 3 Promotion of local culture and preservation of historical heritage	**Priority 1: Promoting local culture and history along with tourism functions**	A network of renewed cultural and historic sites (buildings and their environment and infrastructure) which forms the bases of touristic products of the programing region (thematic routs crossing the border, cultural programmes with cross border effect) with which the number of visitors can be increased in the area.
TO 6 Environmental protection, climate change mitigation and adaptation	**Priority 1: Sustainable use of the environment in the cross border area**	Increased capacity in the programming area to address challenges in the field of environmental protection and climate change mitigation. Successful protection of common natural values with demolishing the effects of borders on habitats and increasing awareness of people living in the area. Improved water quality of rivers crossing the borders as a result of interventions related to waste management and waste water treatment. Increased awareness, competence and skills of renewable energy technologies and energy efficiency interventions among citizens, businesses and institutions. As a final outcome less dependency on imported energy sources in the programming area.
TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	**Priority 1: Development of transport infrastructure to improve the mobility of persons and goods**	With the support of the priority labour force and businesses become more mobile in the border region, the economic activities are increasing including the number of visitors of touristic attractions.
	Priority 2: Development of ICT infrastructure and information sharing	The penetration of info-communication tools should increase in the region supporting the activities of businesses and institutions, making their communication faster and more effective. Also via the mutually usable local media content citizens and enterprises of the region should be able to learn and share information on local issues, opportunities and events increasing the awareness of local values and common tasks.
TO 8 Common challenges in the field of safety and security	**Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations**	The risk of natural and man-made disasters should be decreased and the handling of such cases should be more effective with the use of new infrastructure elements, common strategies and co-operation platforms created for the programming area.

Thematic Objective	Priority	Expected result
	Priority 2: Support to the development of health	Joint prevention programmes, improved health care infrastructure and cross border institutional co-operations are foreseen to improve health conditions of citizens and reduce the risk of human epidemiology hazards crossing the border.

3.4.2 Results indicators

Thematic Objective	Priority	Result indicator	Baseline value[4]	Target value
TO3 Promotion of local culture and preservation of historical heritage	Priority 1: Promoting local culture and history along with tourism functions	Increase of number of visitors of reconstructed sites (visitors)	-	-
TO 6 Environmental protection, climate change mitigation and adaptation	Priority 1: Sustainable use of the environment in the cross border area	Increased capacity in environmental protection and climate change mitigation (Based on surveys (baseline, mid-term, final) among key stakeholders e.g. water directorates. relevant NGOs institutions, authorities)	Based on baseline survey	Based on final survey
TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems	Priority 1: Development of transport infrastructure to improve the mobility of persons and goods	Increase of number of vehicles using the built, modernized transport and border management infrastructure (number of vehicles) Increase of number of passengers using transport systems improved with the support of the programme (number of passengers)	-	-
	Priority 2: Development of ICT infrastructure and information sharing	Size of population serviced by new ICT infrastructure or information service (number of citizens served)	-	-
TO8 Common challenges in the field of safety and security	Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations	Size of population served by improved prevention system (number of citizens served)	-	-
	Priority 2: Support to the development of health	Size of population served by improved health and health related social services (number of citizens served)	-	-

[4] Baseline values and a target values will be defined in a later phase during the preparation of the JOP.

3.4.3 Expected outputs, output indicators

Thematic Objective	Priority	Output indicator	Quantified target value	Method of calculation
TO 3 Promotion of local culture and preservation of historical heritage	Priority 1: Promoting local culture and history along with tourism functions	• Number of organisations using programme support for promoting local culture and preserving historical heritage	40	-
		• Number of improved cultural and historical sites as a direct consequence of programme support	20	Appr. 500000 EUR/site Total : 10 million
		• Number of cross-border cultural events organised and touristic products developed using ENI support	30	Appr. 40 000 EUR/event Budget: 1,2 million
TO 6 Environmental protection, climate change mitigation and adaptation	Priority 1: Sustainable use of the environment in the cross border area	• Number of active participants in best practice sharing events, awareness campaigns and education programmes	6000	Appr. 200 EUR/participant
		• Number of waste, wastewater, energy efficiency or renewable energy production interventions	30	Appr. 400.000 EUR/project
		• Surface area protected in order to attain a better conservation status (ha)	800	Appr. 5000 EUR/ha
TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and	Priority 1: Development of transport infrastructure to improve the mobility of persons and goods	• Total length of newly built roads and bicycle roads (km)	5	Average 1,2 mEUR/km
		• Total length of reconstructed or upgraded roads and bicycle roads (km)	40	150 000EUR/km
		• Number of public transport lines with increased service level as direct consequence	4	250 000 EUR/line

Thematic Objective	Priority	Output indicator	Quantified target value	Method of calculation
systems		of the support (lines)		
	Priority 2: Development of ICT infrastructure and information sharing	• Number of additional ICT based tools developed supporting cross-border cooperation as direct consequence of the support	1	-
		• Number of newly developed information providers with cross border coverage	1	-
TO 8 Common challenges in the field of safety and security	Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations	• Number of co-operating organisations in disaster management.	8	2 from each country
		• Population benefiting from natural and man-made disaster prevention and management developments as a direct consequence of the support	30000	-
	Priority 2: Support to the development of health	• Improved healthcare related services with cross border effect (services)	15	-

3.5 Description of ways to mainstream cross-cutting issues

Environmental sustainability

Environmental sustainabilitywas taken into account as a horizontal principle during the programme preparation. Special measures in order to ensure environmental sustainability will be included in the calls for proposals. The following priorities and operations will contribute to the requirements of environmental protection, climate change mitigation and resource efficiency:

TO3 Promotion of local culture and preservation of historical heritage

Type of action	Ways of contribution to the cross-cutting issue
Priority 1: Promoting local culture and historical heritage along with tourism functions	
• Preservation and restoration of historical buildings in accordance with monument restoration requirements	Preferring environmental-friendly materials and technologies in promotion activities and the preservation works of buildings.
• Development of touristic destinations, thematic	

Type of action	Ways of contribution to the cross-cutting issue
routes connecting historical cultural or religious heritage sites	
• Promotion activities and information provision on routes and attractions	Preferring environmental-friendly materials and technologies in promotion activities.
• Organisation of joint cultural events with cross-border added value linked to historical heritage	
• Support of the production of traditional local products at touristic sites	Using local resources and preferring organic agriculture.
• Creating cross-border standard of services	Including environmental sustainability in the standards.
• Exchange of experiences among organisations related to cultural religious and historic heritage	Using environmentally friendly methods as much as possible during information and experience exchange, networking. Travelling by environmentally friendly ways of transportation or using the modern methods of communication.
• Training for locals in tourism, cooperation, promotion and networking	

TO 6 Environmental protection, climate change mitigation and adaptation

Type of action	Ways of contribution to the cross-cutting issue
Priority 1: Sustainable use of the environment in the cross border area - preservation of natural resources, actions to reduce GHG emission and pollution of rivers	
• Development of natural parks and forestry management systems with cross border effect	Protection and sustainable development of the transboundary flora and fauna.
• Protection of landscape, biodiversity and eco-systems	
• Protection of water resources, adaptation to the more frequent water extremities through integrated water management actions	Sustainable protection of transboundary waters and making environmentally friendly and sustainable decisions in connection with climate change mitigation issues (floods), work, investments in the field of water management.
• Joint ecological education programs	Raising awareness on environmental sustainability.
• Co-operation between institutions, authorities and civil organizations	Sustainable use of natural and human resources.
• Support for the harmonization of relevant regulations	Acting jointly on a common basis.
• Promotion of measures to increase energy efficiency, energy savings and recycling	Raising awareness on environmental sustainability.
• Elaboration of joint low-carbon strategies	Reduction of environmental impacts by low-carbon strategies.
• Exchange of best practices and expertise	Study tours, education on energy efficiency.
• Strengthening competences and skills in the fields of eco-innovation and for low-carbon solutions	Study tours, education on eco-innovation and for low-carbon solutions.

Type of action	Ways of contribution to the cross-cutting issue
• Harmonization of local renewable energy production strategies for biomass, water and geothermal	Reduction of environmental impacts through rationalisation of strategies.
• Sharing best practices, setting up small scale pilot systems	Exchange of experiences and raising awareness on the importance and content of environmental sustainability, implementation of surveys and pilot projects, planning and setting up monitoring systems.
• Surveys on water quality problems of river basins crossing the border	
• Setting up of water quality monitoring systems	
• Awareness campaigns	

TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems

Type of action	Ways of contribution to the cross-cutting issue
Priority 1: Development of transport infrastructure to improve the mobility of persons and goods	
• Building, modernization and upgrading of bicycle paths, routes leading to and crossing the border	Preferring environmental-friendly materials and technologies in the road works.
• Development of cross-border public transport initiatives, harmonization of systems	Preferring environmental-friendly materials and technologies.
• Awareness-raising activity regarding the importance of environment-friendly transport system	Raising awareness on low emission and low noise forms of cross-border transport.

TO8 Common challenges in the field of safety and security

Type of action	Ways of contribution to the cross-cutting issue
Priority 1: Support to joint activities for the prevention of natural and man-made disasters as well as joint action during emergency situations	
• Harmonising activities in the field of flood prevention, development of flood prevention infrastructure	Reduction of environmental impacts through rationalisation of strategies, activities and infrastructure.
• Setting up joint early warning systems (fire, avalanches)	Early warning systems to prevent or get ready to disaster events thus reducing damages.
• Strategic and technical planning and establishment of joint monitoring systems on environmental (air, water, soil) pollutions	Reduction of environmental impacts through a joint monitoring system.
• Database regarding natural disasters incidents	Reduction of environmental impacts through benefiting a joint database.
• Increasing awareness and knowledge and developing skills to develop local and regional strategies	Prevention and mitigation of the impacts of global climate change.

Type of action	Ways of contribution to the cross-cutting issue
• Support/cooperation/network of non-governmental rescue teams/organisations	Sustainable use of natural and human resources.
• Joint training programmes and workshops, exchange of experiences, study tours	Mitigating environmental impacts through the development of the transboundary human resources.

Beyond these thematic priorities and actions the issue of environmental sustainability will be taken into account on programme level as well. This means the application of good environmental practices during the implementation of the programme, in particular in relation to energy efficiency, the sustainable use of the resources needed, and lowest possible production of waste, sustainable use of transport and the evolvement of sustainable operational functions of the organisational structure.

Democracy and human rights

Regarding democracy and human rights, several aspects are embedded in the strategy as horizontal issues or modalities to be applied in projects across any of the priorities selected, as follows:

TO3 Promotion of local culture and preservation of historical heritage

Type of action	Type of human rights concerned/ *Ways of contribution to the cross-cutting issue*
Priority 1: Promoting local culture and history along with tourism functions	
• Preservation and restoration of historical buildings in accordance with monument restoration requirements	Right to freedom of movement and residence within the borders of each state. Right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. Right to freedom of thought, conscience and religion. Right to freedom of speech. *Enhancing relations, mutual understanding and tolerance*.
• Development of touristic destinations, thematic routes connecting historical cultural or religious heritage sites	
• Organization of joint cultural events with cross-border added value linked to historical heritage	
• Support of the production of traditional local (handicraft, (organic) agricultural) products at touristic sites	

TO 6 Environmental protection, climate change mitigation and adaptation

Type of action	Type of human rights concerned/ *Ways of contribution to the cross-cutting issue*
Priority 2: Preservation and sustainable use of natural resources	
• Co-operation between institutions, authorities and civil organisations for the sustainable use of natural resources	Right to a standard of living adequate. Right to freedom of speech. Right to freedom of thought, conscience and religion. *Enhancing communication on different levels of the society can result in more complete solutions and discussions for a good standard quality environment.*
• Support for the harmonisation of relevant regulations.	

TO 7 Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems

Type of action	Type of human rights concerned/ *Ways of contribution to the cross-cutting issue*
Priority 2: Development of ICT infrastructure and information sharing	
• Development of cross-border broadband internet infrastructure and communication centres	Right of equal access to public service in his country. Right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. Right to freedom of thought, conscience and religion. *Enhancing the quality of information exchange.*
• Development mutually usable local media content	Right to freedom of thought, conscience and religion. Right of equal access to public service in his country. Right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. *Enhancing relations, mutual understanding, tolerance, and information exchange*.

TO8 Common challenges in the field of safety and security

Type of action	Type of human rights concerned/ *Ways of contribution to the cross-cutting issue*
Priority 2: Support to the development of health	
• Improvement of health care and prevention infrastructure and equipment related to cross border service provision, joint capacity development,	Right to a standard of living adequate. Right of equal access to public service in his country. *Development of healthcare and social care system taking into account the situation of the peripheral regions.*
• Joint development and establishment of patient care areas	
• Exchange of know-how, joint training programmes, joint prevention programs, joint support services	
• Co-operation between institutions on the field of human epidemiology	
• Improvement of social care services infrastructure	

In summary, the thematic objectives and priorities of the Programme are expected to positively contribute to the following aspects of human rights:

- Right to freedom of movement and residence within the borders of each state
- Right to leave any country, including his own, and to return to his country.
- Right of equal access to public service in his country.
- Right to social security
- Right to work

- Right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.
- Right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.
- Right to freedom of speech
- Right to freedom of thought, conscience and religion

Beyond these thematic priorities and actions, the issue of democracy and human rights will be taken into account on programme level as well. This means that considerations related to democracy, good governance and human rights and the reduction of discrimination will be considered throughout the implementation of the programme in the forms of exchange of good practices, transparent selection, reporting and financing, publicly available project data and results.

Gender equality

Promotion of gender equality is mainstreamed within the Programme as a horizontal issue. Both men and women shall have equal access to the opportunities and benefits of the Programme. All projects will have to adequately consider gender related issues – such as equality of opportunity, rights, distribution of benefits, responsibilities for men and women. This may include the integration of a gender perspective when planning e.g. training activities, considering the likeliness of increased gender equality beyond the project ends, etc. Special measures in order to ensure gender equality will be included in the calls for proposals. Gender related issues will be considered on programme level as well at the development and operation of the different programme bodies.

HIV/AIDS

The challenges posed by the presence, spreading and prevention of HIV/AIDS will be potentially handled in the frame of **Thematic Objective 8 Common challenges in the field of safety and security, Priority 2: Support to the development of health**, through the following possible types of actions:

- Improvement of health care and prevention infrastructure and equipment related to cross border service provision, joint capacity development,
- Joint development and establishment of patient care areas,
- Exchange of know-how, joint training programmes, joint prevention programs, joint support services,
- Co-operation between institutions on the field of human epidemiology,
- Improvement of social care services infrastructure.

4 Structures and appointment of the competent authorities and management bodies

The content of this chapter is in line with

the general REGULATION (EU) No **232/2014**of the European Parliament and of the Council of 11 March 2014 establishing a European Neighbourhood Instrument,

the REGULATION (EU) No **236/2014**of the European Parliament and of the Council of 11 March 2014 laying down common rules and procedures for the implementation of the Union's instruments for financing external action,

the Commission Implementing Regulation (EU) No **897/2014** of 18 August 2014 laying down specific provisions for the implementation of cross-border cooperation programmes financed under Regulation (EU) No 232/2014 of the European Parliament and the Council establishing a European Neighbourhood Instrument and

the Programming document 2014-2020 ENI Cross Border Cooperation (Draft August 2014).

The bodies and functions described in the present Chapter are separated from each other according to paragraph 1 (a) of Article 30 of the ENI Implementing Rules. A programme level description of the Management and Control System will be elaborated after the adoption of the JOP.

4.1 Programme level bodies

The following programme level bodies are involved in the management of the HUSKROUA ENI CBC 2014-2020 programme:

MANAGEMENT BODY	ORGANISATION	TASK
Joint Monitoring Committee	Members delegated to it according to Article 22 of the ENI CBC IR.	Responsible for monitoring the implementation of the programme.
Managing Authority	Prime Minister's Office (Hungary)	Managing and implementing the joint operational programme
Intermediate Body	Széchenyi Programme Office*	Providing management services: • Monitoring system management + administration • unit dealing with financial transfers (accounting officer)
Joint Technical Secretariat (JTS)	Széchenyi Programme Office*	Supports the MA in day-to-day management tasks, the Joint Monitoring Committee and the Audit Authority.
Branch offices of the JTS	In the eligible programme area in Hungary, Slovakia, Romania and Ukraine	On-site information offices help and assist the work of the JTS.
Audit Authority (**Directorate General for Audit of European Funds Hungary**)	**Directorate General for Audit of European Funds Hungary**	• The AA as independent audit body shall be responsible for the designation audits." • The Audit Authority of the programme ensures that audits are carried out on the management

MANAGEMENT BODY	ORGANISATION	TASK
and **representatives to the group of auditors referred to in Article 28(2);**		and control systems, on an appropriate sample of projects and on the annual accounts of the programme.

*Széchenyi Programme Office (SZPO) is the intermediate body, hosting the JTS and the department providingmanagement services. The department providing management services performshorizontal tasks for all CBC programmes with participation of Hungary, which are managed by thePrime Minister's Office as Managing Authority. The JTS and the department providingmanagement services are functionally independent and separated units of SZPO, which is a Stateowned public company.

4.2 Composition of the Joint Monitoring Committee and tasks

The Joint Monitoring Committee is responsible for monitoring the implementation of the programme. According to Commission Implementing Regulation (EU) No 897/2014 of 18 August 2014 the Joint Monitoring Committee will be composed of one or more representatives appointed by each participating country. Representatives will be appointed on a functional basis. Other persons may be appointed as observers by the Joint Monitoring Committee and participating countries will ensure suitable participation of all actors concerned and in particular local stakeholders, including civil society organisations and local authorities.

The Commission will be involved in the work of the Joint Monitoring Committee as an observer and will be invited to each meeting of the Joint Monitoring Committee at the same time as the representatives of the participating countries.

The chairperson of the Joint Monitoring Committee will be appointed as it is set out in the rules of procedure. A representative of the Managing Authority or the Joint Technical Secretariat will be appointed as secretary of the Joint Monitoring Committee.

The Joint Monitoring Committee will draw up and adopt its rules of procedure by unanimity and will seek to take decisions by consensus. It may put certain decisions to a vote, particularly those relating to the final selection of projects and the grant amounts allocated to them in accordance with its rules of procedure. Each participating country has equal voting rights regardless of the number of representatives it has appointed. The secretary, the Commission or any other observer have no voting rights. The chairperson of the Joint Monitoring Committee will act as moderator and lead the discussions. The chairperson hasno voting rights.

The Joint Monitoring Committee will meet at least once per year. It will be convened by its chairperson at the request of the Managing Authority or upon duly justified request of any participating country or the Commission. It may also take decisions through written procedure at the initiative of its chairperson, the Managing Authority or any participating country in conformity with its rules of procedure. Minutes will be drawn up after each meeting of the Joint Monitoring Committee for signature by the chairperson and the secretary. A copy of these minutes will be shared with the participating countries representatives, the Commission and any other observer.

Composition of the Joint Monitoring Committee:

Component	Requirement
1. Representatives appointed by each participating country	**One or more representatives** appointed by each participating country (the number of representatives does not change the proportion of votes;each country has only one vote). As preferable, two governmental representatives per participating country will be delegated: • one of them by the ministries responsible for territorial development, • and considering the importance of the external relations development the ministries of foreign affairs of the participating countries their representatives will be invited as second governmental member of the Joint Monitoring Committee.
2. Observers	Whenever possible and appropriate, participating countries **shall ensure suitable participation of all actors concerned and in particular local stakeholders, including civil society organizations and local authorities, in order to ensure their participation in the implementation of the programme**.
3. Chairperson	The chairperson has no voting rights.
4. Secretary	Nominated by the MA, no voting rights.
5. Commission	The Commission shall be invited to each meeting, as an observer and without any decision-making power and no voting rights.
6. Advisory capacity	Representatives of the ministries of finance of participating countries and other participants may be invited in an advisory capacity to the meetings of the Joint Monitoring Committee.
7. Representatives without voting rights	The representatives of the Managing Authority and the Joint Technical Secretariat will be present at the meetings of the Joint Monitoring Committee.

Tasks of the Joint Monitoring Committee:

- Follow the programme implementation and progress towards its priorities using the objectively verifiable indicators and related target values defined in the programme.
- Examine all issues affecting the programme performance.
- Issue recommendations to the Managing Authority regarding the programme implementation and evaluation.
- Monitor actions undertaken as a result of its recommendations.
- Approve the Managing Authority's work programme and financial plan, including planned use of technical assistance. Monitor the implementation by the Managing Authority of the work programme and financial plan.
- Approve the criteria for selecting projects to be financed by the programme.
- Responsible for the evaluation and selection procedure applicable to projects to be financed by the programme.
- Approve any proposal to revise the programme.
- Examine all reports submitted by the Managing Authority and if necessary, take appropriate measures.
- Examine any contentious cases brought to its attention by the Managing Authority.
- Examine and approve the annual report referred to in Article 77.
- Examine and approve the annual monitoring and evaluation plan referred to in Article 78.
- Examine and approve the annual information and communication plans referred to in Article 79.

- Approve the changes of the programme financial plan might be directly made by the Managing Authority.
- May set up a project selection committee acting under its responsibility.
- May request the revision of the Programme as a result of any of the following: (a) review of the programming document; (b) major socioeconomic changes or substantial changes in the programme's area; (c) implementation difficulties; (d) changes in the financial plan beyond the margin of flexibility referred to in paragraph 1 or any change significantly affecting the nature and objectives of the programme; (e) audits, monitoring and evaluations.
- May request the discontinuation of the Programme due to problems arising in relations between participating countries and in other duly justified cases.

4.3 Managing Authority and its designation process

The Managing Authority appointed by the countries participating in the Programme is the Prime Minister's Office in Hungary.

Prime Minister's Office (Hungary)

1-3 Kossuth Lajos square, Budapest, Hungary - 1055

The Managing Authority (MA) shall be responsible for managing and implementing the joint operational programme, including technical assistance in line with the principle of sound financial management and the principles of economy, efficiency and effectiveness, and shall carry out any controls necessary in accordance with the rules and procedures provided for by the relevant regulations.

The designation procedure of the Managing Authority:

1. The designation procedure of the Managing Authority will be based on a report and an opinion of an independent audit body that assesses the compliance of the management and control systems, including the role of intermediate bodies therein, with the designation criteria laid down in Annex I to Commission Implementing Regulation (EU) No **897/2014** of 18 August 2014 laying down specific provisions for the implementation of cross-border cooperation programmes financed under Regulation (EU) No 232/2014 of the European Parliament and the Council establishing a European Neighbourhood Instrument. The audit body shall take into account, where relevant, whether the management and control systems for the programme are similar to those in place for the previous programming period, as well as any evidence of their effective functioning. The independent audit body shall be the Audit Authority, or another public or private law body with the necessary audit capacity, which is functionally independent of the Managing Authority. It shall carry out its work in accordance with internationally accepted audit standards.
2. The Member State will submit the formal decision to the Commission as soon as possible after the programme adoption by the Commission.
3. Within two months of receipt of the formal decision, the Commission may request the report and the opinion of the independent audit body and the description of the management and control system as regards, in particular, those parts concerning project selection. If the Commission does not intend to request these documents, it shall notify the Member State as soon as possible. If the Commission requests these documents, it may make observations within two months of receipt of these documents which shall be reviewed taking into account the observations. When the Commission does not have any initial or further observations it shall notify the Member State as soon as possible.
4. Where existing audit and control results show that the designated authority no longer complies with the criteria, the Member State will, at an appropriate level, set the necessary remedial action and fix a period of probation according to the severity of the problem, during which such remedial action shall be taken. Where the designated authority fails to implement the required remedial action within the

period of probation determined by the Member State, the Member State, at an appropriate level, shall end its designation. The Member State shall notify the Commission without delay when: — a designated authority is put under probation, and provide information on the remedial actions and the respective probation period, or — following implementation of remedial actions the probation is ended, or — the designation of an authority is ended. The notification that a designated body is put under probation by the Member State shall not, without prejudice to the application of Article 61, interrupt the handling of payment requests.

Regarding the designation process of the JMA, consultations will take place later. The chapter will be reformulated according to the final decisions of the consultations.
The chapter will explain how the process of designation will be undertaken in Hungary: Who will be the designating body? Will it be independent from the MA? What form will the designation decision take? What is the expected timeframe for the entire process?

Tasks of the Managing Authority

- Responsible for managing the programme in accordance with the principle of sound financial management and for ensuring that decisions of the Joint Monitoring Committee comply with the applicable law and provisions.
- Programme management tasks:
  - Support the work of the Joint Monitoring Committee and provide it with the information it requires to carry out its tasks, in particular data relating to the progress of the programme in achieving its expected results and targets.
  - Draw up and, after approval by the Joint Monitoring Committee, submit the annual report and the final report to the Commission.
  - Share information with intermediate bodies, the Joint Technical Secretariat, the Audit Authority and beneficiaries that is relevant to the execution of their tasks or project implementation.
  - Establish and maintain a computerised system to record and store data on each project necessary for monitoring, evaluation, financial management, control and audit, including data on individual participants in projects, where applicable. In particular, it shall record and store technical and financial reports for each project. The system shall provide all data required for drawing up payment requests and annual accounts, including records of amounts recoverable, amounts recovered and amounts reduced following cancellation of all or part of the contribution for a project or programme.
  - Carry out where relevant environmental impact assessment studies at programme level.
  - Implement the information and communication plans in accordance with Article 79.
  - Implement the monitoring and evaluation plans in accordance with Article 78.
- Tasks related to the selection and management of projects
  - Draw up and launch the selection procedures.
  - Manage the project selection procedures.
  - Provide the lead beneficiary with a document setting out the conditions for support for each project including the financing plan and execution deadlines.
  - Sign contracts with beneficiaries
  - Manage projects
- Tasks related to technical assistance:
  - Manage the contract award procedures.
  - Sign contracts with contractors.
  - Manage contracts.
- Tasks related to financial management and control of the programme:

- Verify that services, supplies or works have been performed, delivered and/or installed and whether expenditure declared by the beneficiaries has been paid by them and that this complies with applicable law, programme rules and conditions for support of the projects. (Verifications will include administrative verifications for each payment request by beneficiaries and on-the-spot project verifications. The frequency and coverage of the on-the-spot verifications will be proportionate to the amount of the grant to a project and the level of risk identified by these verifications and audits by the Audit Authority for the management and control systems as a whole. On-the-spot project verifications will be carried out on a sample basis. Where the institution hosting the Managing Authority is also a beneficiary under the programme, arrangements for the verifications will ensure suitable segregation of functions.)
- Ensure that beneficiaries involved in project implementation maintain either a separate accounting system or a suitable accounting code for all transactions relating to a project.
- Put in place effective and proportionate anti-fraud measures taking into account the risks identified.
- Set up procedures to ensure that all documents regarding expenditure and audits required to ensure a suitable audit trail are held.
- Draw up the management declaration and annual summary.
- Draw up and submit payment requests to the Commission.
- Draw up the annual accounts.
- Take account of the results of all audits carried out by or under the responsibility of the Audit Authority when drawing up and submitting payment requests
- Maintain computerised accounting records for expenditure declared to the Commission and for payments made to beneficiaries..
- Keep an account of amounts recoverable and of amounts reduced following cancellation of all or part of the grant.

4.4 Procedure for setting up the Joint Technical Secretariat

The Joint Technical Secretariat (JTS) is **Széchenyi Programme Office Non-profit Ltd**. (30-32 Gellérthegy Street, 1016 Budapest, Hungary).

The JTS supports the MA in day-to-day management tasks, the Joint Monitoring Committee and the Audit Authority. The technical assistance budget shall finance the operation of the Joint Technical Secretariat and branch offices. The JTS will assist the Managing Authority, the Joint Monitoring Committee and, where relevant, the Audit Authority, in carrying out their respective functions; and informs potential beneficiaries about funding opportunities under programmes and assist beneficiaries in the project implementation.

Detailed tasks of Joint Technical Secretariat:

- Organising and acting as a secretariat for meetings of the JMC.
- Preparation and the mailing of the documentation.
- Drawing-up the minutes of the meetings.
- After approval by the JMC, following the endorsement by the MA launching calls for tenders and calls for proposals for the selection of projects.
- Receiving and registering project applications.
- Organising, chairing and acting as secretariat for selection committees.
- Sending reports (as approved by the MA) including selection committee recommendations to the JMC.
- Following up the selection of projects by the JMC.
- Signing contracts for the various projects with beneficiaries and contractors.
- Carrying out operational follow-up and financial management of the projects including the transfer of payments to projects from the technical account of the programme.

- Implementing the information and visibility plan.
- Co-ordinating and carrying out the activities related to project generation and application procedures, technical preparation of JMC decisions on project selection.
- Preparing and making available standardised forms compliant with the EC Practical Guide for project applications and for project assessments for all projects.
- Preparing project documentation, contributing to assessment of applications' eligibility and quality.
- Carrying out information and publicity activities and public relations work (e.g. publicity of the programme, creation, maintenance and updating of a web-site) in agreement with the MA and the JMC.
- Co-operation with national bodies.
- Co-operation with organisations, institutions, networks and media relevant for the objectives of the programme.
- Participating in the monitoring and evaluation of the programme.
- Daily operation of the Programme Monitoring and Information System.
- Implementation of Technical Assistance projects under the responsibility of the MA.
- Preparing any other documentation required by the JMC.

Although the MA bears overall responsibility for the programme, the MA will delegate certain tasks to Széchenyi Programme Office, acting as intermediate body and hosting the Joint Technical Secretariat (JTS). According to the principle on segregation of functions, the tasks and functions of the authorising and accounting officer – in the meaning of the Financial Regulation and its rules of application (Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council and Commission Delegated Regulation (EU) No 1268/2012) – are clearly separated. All financial transfers require both the signature of the authorising officer and the accounting officer. The accounting officer shall be the head of a functionally independent unit within the Széchenyi Programme Office. Independency means to be independent from all other programme bodies.

The JTS establishes branch offices in Hungary, Ukraine, Slovakia and Romania for the purpose of informing potential beneficiaries of activities planned under the programme. The responsibility of the branch offices of the JTS is to publicise activities under the joint operational programme to provide anyone who may be interested with information and may provide assistance to the MA/JTS in the project evaluation and implementation follow-up.

Tasks of branch offices:

- Communication, information, activities
- Provide assistance to the Managing Authority in the project evaluation and implementation follow-up.

4.5 National authorities of all participating countries

National level authorities of the participating countries:

MANAGEMENT BODY	ORGANIZATION	TASK
National Authority (NA) - Hungary	Prime Minister's Office	Counterparts of the MA; responsible for the coordination of the programming process in their countries in the programme preparation period and they bear the ultimate responsibility for the implementation of the programme on their country's territory.
National Authority (NA) - Slovakia	Ministry of Agriculture and Rural Development of the Slovak Republic	
National Authority (NA) - Romania	Ministry of Regional Development and Public Administration of – General Directorate for European Programmes, National Authorities for European	

MANAGEMENT BODY	ORGANIZATION	TASK
National Authority (NA) - Ukraine	Ministry of Economic Development and Trade of Ukraine	

Tasks of the National Authorities:

- Set up and operate an effective management and control systems at national level.
- Ensure the overall coordination of the institutions involved at national level in the programme implementation, including, inter alia, the institutions acting as control contact points and as member of the group of auditors.
- Represent the own country in the Joint Monitoring Committee, participation in JMC meetings. Proposing qualified candidates for approval by the JMC as members of the selection committee.
- Prevent, detect and correct irregularities, including fraud and the recovery of amounts unduly paid, together with any interest on their territories. Notify these irregularities without delay to the Managing Authority and the Commission and keep them informed of the progress of related administrative and legal proceedings. Responsibilities for amounts unduly paid to a beneficiary.
- Responsibility for recovery.
- Ensure co-financing for the Slovak/Romanian/Hungarian side.
  - In case of Ukraine, the ultimately responsible body for implementing the provisions set out in the financing agreement.
- Signing bilateral agreement or memorandum of understanding (Slovakia, Romania) with the MA regulating the responsibilities between the participating states.

4.6 Audit Authority and the members of the group of auditors

The appointed single Audit Authority is the **Directorate General for Audit of European Funds Hungary** (105-113 Bartók Béla Street, Budapest, 1115, Hungary).

The Audit Authority is functionally independent from the programme and national level management bodies and the beneficiaries. It carries out its work in accordance with internationally accepted audit standards.

The Audit Authority shall be assisted by a group of auditors comprising a representative of each participating country in the programme. The representatives have to be functionally independent from the programme and national level management bodies and the beneficiaries. The group of auditors shall be set up within three months of the designation of the Managing Authority. It shall draw up its own rules of procedures. It shall be chaired by the Audit Authority.

Where audits are carried out by a body other than the Audit Authority, the AA shall ensure that this body has the necessary functional independence.

Institutional structure will be explained later as a justification, after getting information on it followed by consultations of authorities have been taken place.

Tasks of the Audit Authority:

- Ensure that audits are carried out on the management and control systems, on an appropriate sample of projects and on the annual accounts of the programme.
- Submit an audit strategy for performance of audits to the Commission within 9 months of the signature of the first financing agreement. The audit strategy will set out the audit methodology on the annual accounts and on projects, the sampling method for audits on projects and the planning of audits for the current accounting year and the two subsequent accounting years. The audit strategy will be updated annually from 2017 until end 2024. The updated audit strategy will be submitted to the Commission together with the programme annual report.
- Draw up an audit opinion on the annual accounts for the preceding accounting year.
- Prepare an annual audit report.
- The AA as an independent audit body will also be in charge of the designation audit.

4.7 Control contact points, national controllers and auditors

Control Contact Points (CCPs) are to support the Managing Authority in its control of the programme obligations. Ukraine has to identify a public body to take care of this function.

MANAGEMENT BODY	ORGANIZATION	TASK
Control Contact Point in each participating country	Széchenyi Programme Office Non-profit Ltd. in Hungary Ministry of Agriculture and Rural Development of the Slovak Republic Ministry of Regional Development and Public Administration of Romania – General Directorate for European Programmes, Directorate of First Level Control Ministry of Finance of Ukraine	To support the Managing Authority in its control of the programme obligations.
National controllers*	HU: SZPO Non-profit Ltd., SK: Cross-Border Cooperation Control Unit RO: Ministry of Regional Development and Public Administration, General Directorate of Territorial Activity Coordination – First Level Control Department	Examination of expenditures declared by the beneficiaries.

*In the Member States 'public officers' in the meaning of Article 32 of the ENI CBC Implementing Rules are called as 'national controllers', as in the ENPI 2007-2013 programme. In Member States, the body performing the national controllers' task is the Control Contact Point as well.

Role and functions of the Control Contact Points:

- Organisation of trainings for controllers, where information will be provided to them about the rules of project implementation, reporting, and about the programme and national rules on the examination of expenditures declared by beneficiaries Elaboration of guidelines, templates and checklists for controllers and beneficiaries in order to assist them in preparing their reports;
- Preparation of internal guidelines and checklists for the controllers.
- Clarification of national rules (procurement, labour, tax, etc…) to MA
- Support to MA during on-the-spot checks in their countries & any additional checks

National controllers and auditors

According to paragraph 1, Article 32 of the ENI CBC Implementing Rules, expenditure declared by the beneficiary in support of a payment request shall be examined by an auditor or by a competent public officer being independent from the beneficiary. In Member States 'public officers' are called as 'national controllers', as in the ENPI 2007-2013 programme.

In Ukraine, auditors shall meet the requirements set out in Article 32.

In Member States, the body performing the national controllers' task is the same institution as the Control Contact Point.

Tasks of the national controllers and auditors:

Examination of the expenditure in the payment request declared by the beneficiary (whether the costs declared by the beneficiary and the revenue of the project are real, accurately recorded and eligible in accordance with the contract). This examination will be performed on the basis of an agreed-upon procedure, based on the international standards and includes, in particular:

- Examination of the delivery of the products and services co-financed.
- Examination of the soundness of the expenditure declared.
- Examination of the compliance of such expenditure with Programme, Community and national rules.
- Validation of the expenditure incurred by the controlled project partner.
- Validation of the content of both the activities and the finances of the partner report.
- Drafting a report and a checklist on the control performed.
- Signing a report on the factual findings.
- Prevention, detection and correction of irregularities for beneficiaries

Auditors shall undertake their examination in accordance with: (a) the International Standard on Related Services 4400 Engagements to perform Agreed-upon Procedures regarding Financial Information as promulgated by International Federation of Accountants (IFAC); (b) IFAC Code of Ethics for Professional Accountants, developed and issued by IFAC's International Ethics Standards Board for Accountants.

- **Hungary**

Expenditure declared by the beneficiary/national partner in support of a payment request will be examined by a competent public sector officer (national controller) in Hungary. The institution in role of CCP will be Széchenyi Programme Office Nonprofit Ltd., being the organization responsible for the implementation of first level control and expenditure verification tasks in the 2007-2013 programming period in all ETC, IPA and ENPI programmes Hungary is involved in (12 programmes in total). Thus, continuity between the 2 programming periods will be ensured and experience gained during the previous period will be used in the new one. The tasks of the CCP will be implemented by the Central Control Unit (Budapest) and Northeast-Hungary Control Unit (Mátészalka) within the Control Department of SZPO. The Central Control Unit will have a co-ordinating role at programme level, while control tasks will be implemented by the unit located in the border region in Mátészalka.

- **Slovakia**

The tasks of the CCP will be performed by the Ministry of Agriculture and Rural Development of the SR, the Unit of Cross-Border Cooperation Programmes Control HU-SR, PL-SR and programme ENPI. The Unit of Cross-Border Cooperation Programmes Control HU-SR, PL-SR and programme ENPI bears responsibility for the national control administration and administrative verification of

expenditures of Slovak and Partners including public procurement procedures check for the current HU-SK-RO-UA ENPI CBC Programme and continuosly will be ensured the implementation of the future quadrilateral ENI CBC Programme.

- **Romania**

Should be provided by the Romanian National Authority

- **Ukraine**

Should be provided by the Ukrainian National Authority

5 Programme implementation

5.1 Summary description of the management and control systems

5.2 Description of project selection procedures

5.3 Provisional indicative time-frame for programme implementation

5.4 Description per priority of nature of support

5.5 Description of planned use of technical assistance and applicable contract award procedures

5.6 Description of the monitoring and evaluation systems

5.7 2001/42/EC of the European Parliament and of the Council

5.8 Rules on eligibility of expenditure

5.9 Irregularities and recoveries: Apportionment of liabilities among the participating countries

5.10 Rules of transfer, use and monitoring of co-financing

5.11 Description of IT systems for the reporting and exchange of computerised data between the Managing Authority and the Commission

5.12 Language(s) adopted by the programme

6 Indicative financial plan

6.1 Thematic objectives by source of funding

Indicative financing plan of the HU-SK-RO-UA ENI CBC Programme, Providing the EU Contribution and the co-financing if known for the whole programming period for each thematic objective and for Technical Assistance ***Thematic objectives by source of funding (in euros):***				
	EC Funding (a) *	**Co-financing (b)**	**Co-financing rate (in %) (c) ****	**Total funding (d) = (a)+(b)**
Thematic objective 3	**11 855 430**	**1 317 270**	11,11%	**13 172 700**
Thematic objective 6	**14 018 526**	**1 557614**	11,11%	**15 576140**
Thematic objective 7	**21 339 774**	**2 371 086**	11,11%	**23 710860**
Thematic objective 8	**19 343 070**	**2 149 230**	11,11%	**21 492 300**
Technical Assistance	**7 395 200**	0	0,00%	**7 395 200**
Total	**73 952 000**	**7 395 200**	**10,00%**	**81 347 200**

* In accordance with the Strategy Paper.

** Cofinancing rate shall be calculated on the basis of the Community contribution to the joint operational programme, in accordance with articles 12, 13 and 14 of the Commission Implementing Regulation (EU) No 897/2014 of 18 August 2014 laying down specific provisions for the implementation of cross-border cooperation programmes financed under Regulation (EU) No 232/2014 of the European Parliament and the Council establishing a European Neighbourhood Instrument

Thematic Objective	Priority	Allocation by TOs (%)	Allocations in the percentage of the total budget (%)	EC funding allocation (EUR)
TO 3	Priority 1	**17,81**	**16,03**	**11 855 430**
TO 6	Priority 1	**21,06**	**18,96**	**14 018526**
TO 7	Priority 1	**32,06**	**28,86**	**21 339 774**
	Priority 2			
TO 8	Priority 1	**29,06**	**26,16**	**19343070**
	Priority 2			
Technical Assistance			**10**	**7 395 200**
		TOTAL:	**100**	**73 952 000**

7 Annexes

7.1 Detailed analysis of the socioeconomic and environmental situation of the programme area

7.1.1 General introduction - territory and population

The area covered by the analysis consists of 10 counties/regions (HU: 2 counties, SK: 2 regions, RO: 3 counties, UA: 3 regions) in the cross-border area which spreads out a territory of almost 83.000 km2. The area is inhabited by slightly more than 8 million people representing 9,7% of the inhabitants of the participating countries. The 3 biggest areas regarding population are the three Ukrainian regions with 3,5 million inhabitant altogether. The most populated region is Ivano-Frankivska in Ukraine with 1.5 million inhabitants representing 17,5% of the cross-border area's population. The county with the smallest population is Satu-Mare in Romania inhabited by 361.000 people representing 4,5% of the cross-border area's population.

Distribution of territory and population

Regarding the share of population per eligible county compared to the whole programme area, the Hungarian counties (7-8% each) and Slovak regions (10% each) represent about the same share; 15-20% of the programme area's population per country. The Ukrainian regions represent almost half of the population of the programme area (44,6%); the Romanian counties have a share of 20%.Regarding territorial distribution, the size of counties territory compared to that of the territory of the entire programme area follows almost the same pattern as the population size: the Hungarian counties (7-8% each) and Slovak regions (8-10% each) represent about the same share (15-20%); The Ukrainian regions represent almost half of the territory of the programme area (41,9%); the Romanian counties have a share of 23,2%.

County/Region	Corss-border area			
	Population	Territory (km2)	Share of population	Share of territory
Szabolcs-Szatmár-Bereg	559 272	5 936	7,0%	7,2%
Borsod-Abaúj-Zemplén	686 266	7 250	8,6%	8,7%
Hungarian counties	**1 245 538**	**13 186**	**15,5%**	**15,9%**
Košický	794 689	6 753	9,9%	8,1%
Prešovský	818 916	8 974	10,2%	10,8%
Slovakian regions	**1 613 605**	**15 727**	**20,1%**	**19,0%**
Maramureş	505 788	6 304	6,3%	7,6%
Satu-Mare	360 969	4 418	4,5%	5,3%
Suceava	709 364	8 553	8,9%	10,3%
Romanian counties	**1 576 121**	**19 275**	**19,7%**	**23,2%**
Zakarpatska	1 252 700	12 777	15,6%	15,4%
Ivano–Frankivska	1 405 500	13 928	17,5%	16,8%
Chernivetska	919 300	8 097	11,5%	9,8%
Ukrainian regions	**3 577 500**	**34 802**	**44,6%**	**41,9%**
Total:	**8 012 764**	**82 990**	**100%**	**100%**

Table 1: Population and territory in the eligible area
Source: HCSO,SOSR NIS, SSSU (Population data: HU, RO, UA: 2011, SK: 2013; territory data: 2013)

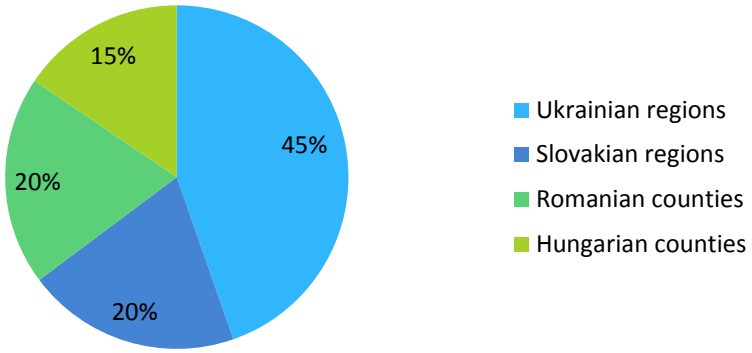


Figure 2: Share of population in the eligible area of the Programme
Source: HCSO,SOSR, NIS, SSSU (Population data: HU, RO, UA: 2011, SK: 2013; territory data: 2013)

Regarding distribution of population according to age groups the proportion of people above the age of 65 is the highest in two Ukrainian regions: Ivano-Frankivska and Chernivetska; this rate is the lowest in the two Slovak regions. The Ukrainian counties of Zakarpatska and Chernivetska have the highest proportion of people under the age of 15 and also the lowest proportion of people from 15 to 64 years. Satu-Mare, Maramureş, Košický and Prešovský counties/regions all have the proportion of active age group (form 15 to 64 years) around 70%.

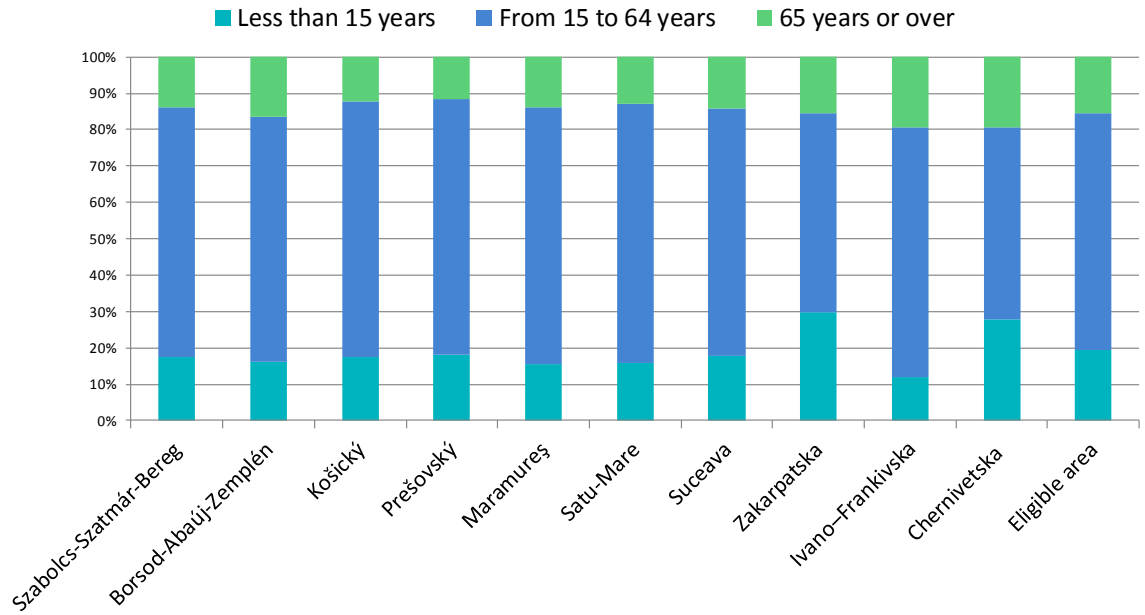


Figure 3: Distribution of population according to age groups in the eligible area
Source: HCSO,SOSR, NIS, SSSU (HU, RO, UA: 2011, SK: 2013)

Ageing index and dependency ratio

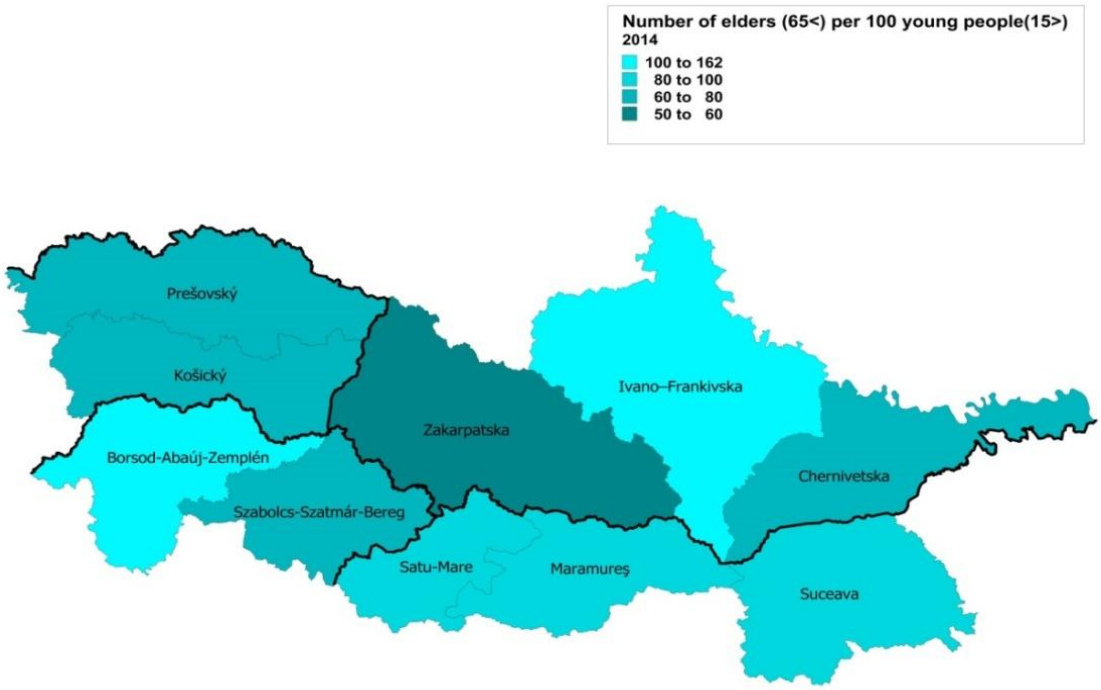


Figure 4: Ageing index in the eligible area of the Programme HUSKROUA ENPI CBC 2007-2013
Source: HCSO,SOSR, NIS, SSSU (2013)

Regarding the values of ageing index[5]these show that the ratio of population between 0-14 years and the population of over 65-year-old people: Hungarian counties are leading (90,7%) followed by Romanian counties (83,2%), Ukrainian regions (80,7%) and Slovak regions (60,8%). The situation is the worst with very high rates in Ivano-Frankivska region (UA - 160,8%) and Borsod-Abaúj-Zemplén (HU - 100,6%) and the best in Zakarpatska region (52,1%); Szabolcs-Szatmár-Bereg county, Košický, Chernivetska and Prešovský regions are also in a good situation having rates between 64-80%.

County/Region	Ageing index	Dependency ratio of elderly people (65+)
Szabolcs-Szatmár-Bereg	79,4%	20,1%
Borsod-Abaúj-Zemplén	**100,6%**	24,4%
Košický	71,4%	**17,6%**
Prešovský	**64,8%**	**16,7%**
Maramureş	89,2%	19,4%
Satu-Mare	81,3%	**17,9%**
Suceava	80,3%	20,8%
Zakarpatska	**52,1%**	**28,5%**
Ivano–Frankivska	**160,8%**	**28,1%**
Chernivetska	69,7%	**37,2%**

Table 2: Ageing index and dependency ratio in the eligible area of the Programme HUSKROUA ENPI CBC 2007-2013
Source: HCSO,SOSR, NIS, SSSU (2013)

[5] Ageing index is calculated as the number of persons 60 years old or over per hundred persons under age 15

Dependency ratio[6]is the highest in the Ukrainian regions, with Chernivetska leading (37,2 elderly for 100 active persons). The situation in Košický and Prešovský regions and in Satu-Mare County is much more favourable with about 17 elderly for 100 active persons.

Natural change of population

In Hungary the natural change of population had been more hectic compared to the other eligible areas in the other 3 countries. A peak in the natural change could be observed in 2006 in the country as a whole and the **Hungarian counties**. Two years later there was another peak of positive growth in Borsod-Abaúj-Zemplén but this could not be observed in Szabolcs-Szatmár-Bereg County. The peaks were followed by a significant decline, but growth started again in the last few years. Taking into account of all the peaks and the new growth segment also, the index of natural change of population could not step over to be positive, which means that over the past decade the number of deaths had been constantly higher than the number of births.

The **regions of Slovakia**canalso be characterised with the pattern also valid for the country as a whole. In the first phase of the studied period (until about 2007) stagnation can be observed regarding the natural change of population. This was followed by a strong growth, which peaked around 2009. After 2011, however - like in Romania - a strong downturn can be observed in the natural change of population. This trend continues until the end of the examined period and the decline does not seem to stop. Despite this the situation of natural change is favourable in the country and also in the regions concerned, since the last decade the number of births was permanently exceeded the number of deaths.

Each of the three **Romanian counties** could be characterised with a strong growth of population till 2008 in the past decade; which peak was followed by a similarly intense decline in the natural change of population. This also can be observed in the whole country. Only Suceavaof the eligible counties can show continuous values where the number of births in exceeds the number of deaths. The country as a whole is also characterized by relapse after that and the projection from 2008 onward. Altogether, on country-level the number of deaths permanently exceeds the number of births in the period examined. In Romania and in the eligible counties a slight increase has started since 2011.

The **Ukrainian regions** are characterised by the same trend in the decrease of natural death and in the increase in the number of births over the past 10 years. Natural change of population became positive in absolute terms in 2011 in Chernivetska region and in 2012 in Ivano-Frankivska region. Indicators of Zakarpatska region have the most favourable best in this respect: its dynamics of trends are very similar to the regions mentioned before, but the number of births is permanently higher than the number of deaths since 2006 in Zakarpatska. There is an overall positive growth regarding the whole of Ukraine. In 2003, the number of deaths was 350,000 more than the number of births; 10 years later, this figure shows that the number of deaths is higher only by 150,000 than the number of births; the positive trend seems to continue.

Regarding the **eligible programme area as a whole** the number of deaths had been constantly higher than the number of births in the Hungarian counties and in two of the Romanian counties (Maramureş and Satu Mare). In all the other regions the natural change of population has a positive value meaning that the number of births is higher than the number of deaths.

[6] Dependency ratio is the number of persons 65 years and over per one hundred persons 15 to 64 years

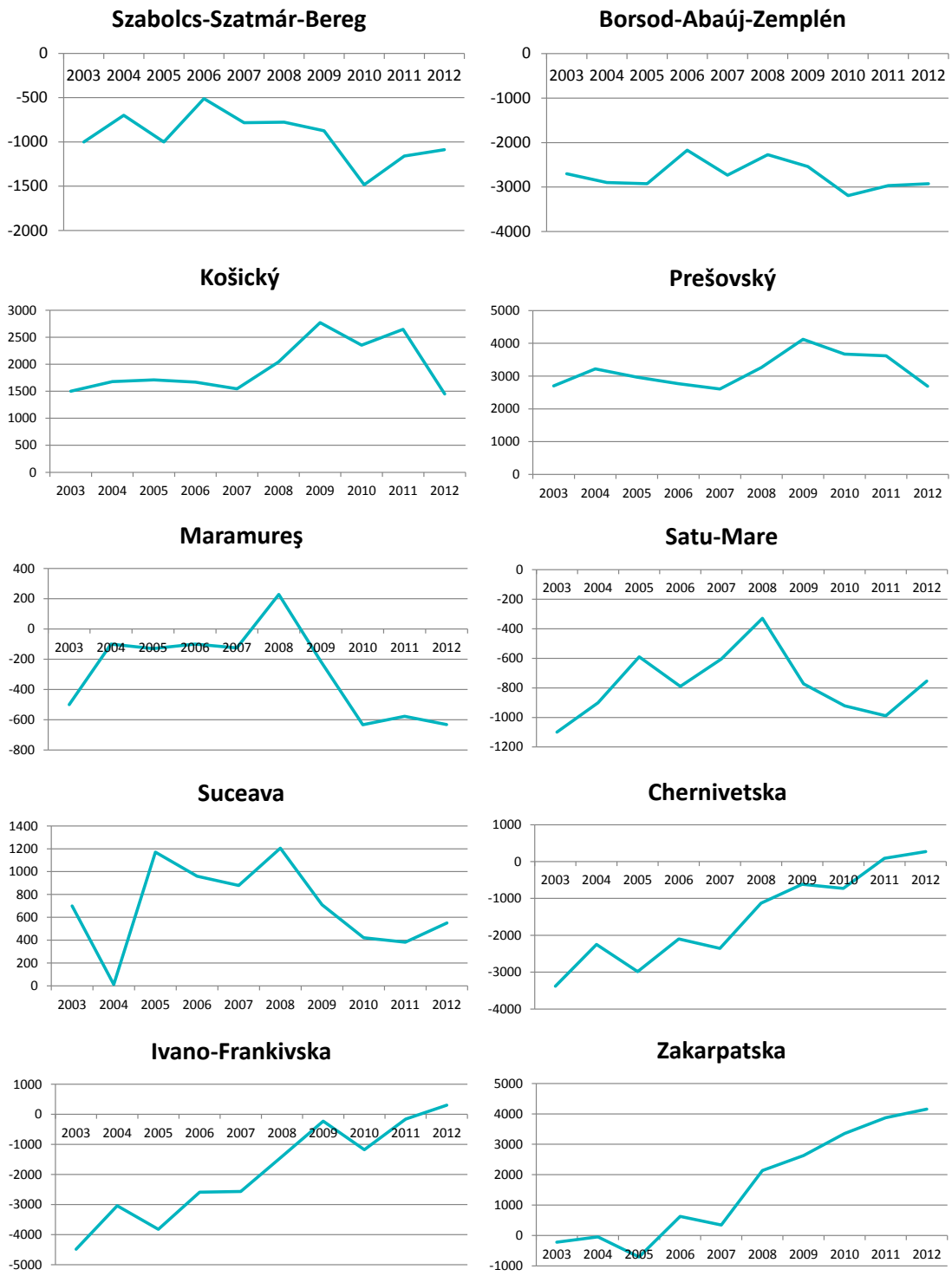


Figure 5: Natural change of population in the eligible area, 2003-2011
Source: EuroStat, State Statistics Service of Ukraine

Total population change

Both in **Hungary** and in the eligible counties the population decreased during the examined period and the decline seemed to stop and increase a little in the recent few years. On country level in **Slovakia** the population continued to grow after a temporary downturn in 2010. In the eligible border regions a 2009 peak was followed by the slowing of population growth. In **Romania**, in Satu Mare County a continuous decline of population growth can be observed in the studied period. In MaramureşCounty the population grew only in 2005 since then the population has decreased. In Suceava county most of the period was characterized by a growing population until 2010, after it the growth of population turned negative. Considering Romania as a whole, as it has been mentioned earlier, there was a great volume emigration in 2007, which caused a significant loss in the total population. Subsequently, the population began to stagnate. Regarding total population change for Ukraine no regional-level data was available.

Net migration

During the whole study period, Hungary was characterized by immigration, although with a declining pace. In contrast, the two **Hungarian counties** could be described very similarly regarding emigration. In 2008 both county reached a low point of net migration, the subsequent growth phase followed by that could not result yet in a positive migration balance.

Košický region is characterized by immigration - although decelerating - for most of the study period. However, a significant break came in 2009, with the consequence that in 2010 the migration balance turned negative. **Prešovský region** can be characterized by continuous emigration; in 2009 a fracture also can be observed, resulting in a substantial increase in the number of emigrants. Regarding Slovakia a continuous decline in emigration can be observed throughout the first half of the period; after 2007 emigration was decisive. It is encouraging, however, that from 2011 Slovakia's migration has been characterised by a vigorous re-growth.

Regarding the Romanian counties net migration data show a diverse picture. In 2005 in **MaramureşCounty**the index of net migration reached a peak. In that year the number of immigrants was more than the number of emigrants. The 2005 peak was followed by a significant decline in the next year, but then - by the end of the study period - lasting growth can be observed: the balance of migration tends are very close to zero. There are two crisis (in 2004 and 2006) can be observed in the studied period in **Satu Mare county**, then the index stabilized around zero value, so the balance of migration does not have a significant effect on the population change of the county. In **Suceava County**net migration data entered twice to the positive side in 2005 and 2010. In 2011 immigration was dominant again. Romania as a whole is characterized by stagnant emigration, but around 2007 marked a very significant immigration wave, which is likely to be explained by the EU accession.

Regarding net migration for Ukraine no regional-level data was available.

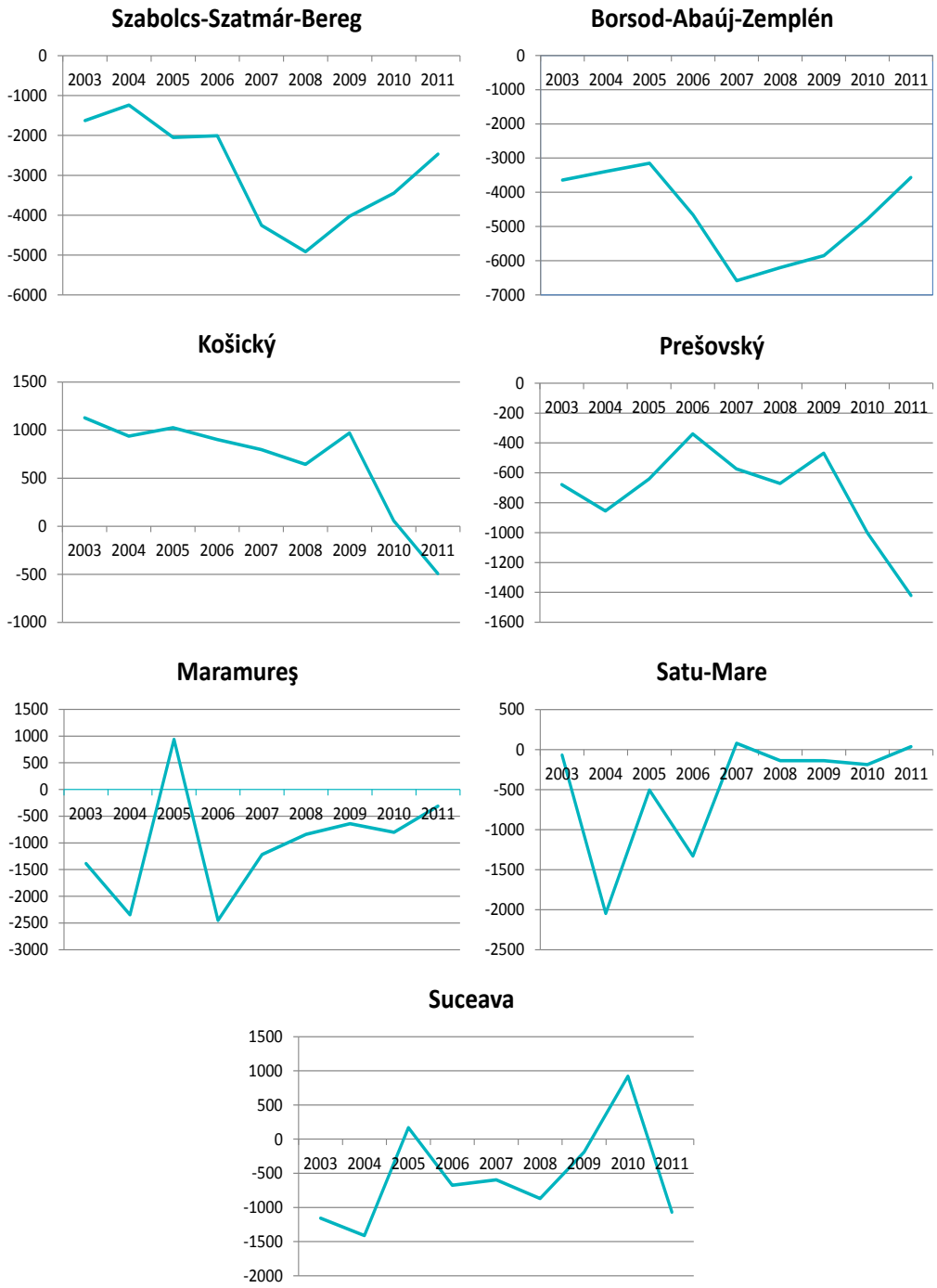


Figure 6: Net migration in the eligible areas of the Member States, 2003-2011
Source: EuroStat

Population density

In general the population density of the eligible **border area** concerned is typically lower than the population density in the countries. Košický region is the only exception. The Romanian counties have the lowest population density, while the Hungarian counties are the more densely populated areas besides Košický region. The Slovakian regions show a great difference to each other. Regarding population density for Ukraine no regional-level data was available.

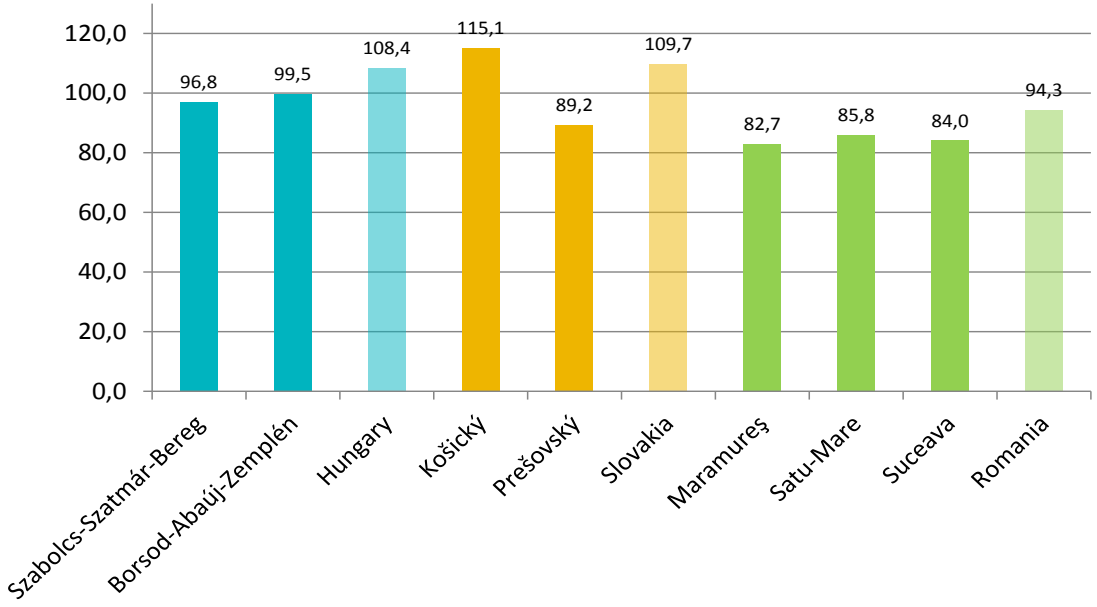


Figure 7: Population density in the eligible area (2010-2011 average, person /km2)
Source: EuroStat

Roma minority

In **Hungary** the Roma population has an uneven geographical distribution in the territory of the country. The majority of the Roma population lives in regions significantly affected by social and economic problems (in the North Hungary and East Hungary regions).The ratio of the Roma population to the entire population is one of the highest in **Borsod-Abaúj-Zemplén**County, nearly 15 percent. More than 60% of Roma live in the countryside, in a rural environment, mostly in segregated residential zones, in rather poor housing conditions. The employment rate of the Roma population barely reaches 20%. The 10 per cent employment rate amongst Roma women is particularly alarming. These figures are coupled with an extremely poor state of health (Roma die 10 years younger than non-Roma on average), a low educational level (barely 20% of them reach secondary final examinations) and ghetto-like housing conditions without modern conveniences. Crime and ethnic conflicts are particularly rife in these areas. The poverty rate amongst the Roma population in 2009 was near the 2000 figure and reached 70%. A number of economic and social processes are negatively affects the most disadvantaged regions and social groups. By international comparison, the employment rate is low, education is not being competitive are accumulating a dangerous level of debt. These processes have a multiplied effect on the Roma population. Segregation and discrimination are simultaneously the cause and consequence of these processes. In other words, it is a cyclically regenerated phenomenon that is passed down from one generation to the next. As regards discrimination at the work place, most disadvantaged are suffered on grounds of skin colour/ethnic origin, age and gender.[7]

[7]National Social Inclusion Strategy – Extreme Poverty, Child Poverty, The Roma – (2011–2020), December 2011, Ministry of Public Administration and Justice State Secretariat for Social Inclusion

Roma population living in **Slovakia** regularly appears among the groups mostly affected by poverty, social exclusion and discrimination. With this ethnicity, several disadvantageous factors apply: they are affected by poverty interconnected with demographic conditions; poverty created by unemployment; poverty caused by performing low-skilled and low-paid work; or by the lack of education and discrimination. The Roma population as a group jeopardized by poverty is explicitly mentioned also in political documents and action plans of the Slovak Republic addressing poverty or social exclusion. 440 000 Roma resided in the territory of the Slovak Republic in 2011, which represents around 8 % of the total population. Regionally, the Roma are mostly concentrated in the **Prešovsky, Košicky** and Banská Bystrica regions. The unemployed constitute the largest group within the Roma population aged 16-64: 72 % of Roma men and 75 % of Roma women are unemployed. In an identical survey using identical methodology 20 % of Roma men and 11 % of Roma women claimed they were employed (UNDP. 2010).Although the Roma population living in Slovakia varies ethnically, socially and culturally, the majority population generally perceives the Roma population as a unified group, which chose to differ and lives on the border of the society. Generally the Roma maintain a much more favourable attitude towards the majority than the majority does to the Roma population. Roma perceive the majority as a part of their social world; they want to see themselves as a part of the majority. A large part of the Roma considers the members of the majority society their own, which points to a high level of identification with the majority population. The Roma often consider Slovaks to be a reference group with which they would like to identify.[8]

According to the Communication "An EU framework for National Roma Integration Strategies up to 2020", the European Commission, based on the data from of Council of Europe, estimated an average number of Roma from Romania of 1,850,000 people, representing a percentage of 8.32 % out of the total population of **Romania**. Regarding education, a large percentage of early school leavers are represented by Roma. School segregation is a form of discrimination that leads to unequal access to quality education in 2007 the Ministry of Education, Youth and Sports issued the Order no 1540 on banning school segregation of Roma children and on the approval of the Methodology for the prevention and elimination of school segregation. Roma people represent a large part of the poor population. According to the Survey on the Family Budgets conducted by the Ministry of Labour, Family and Social Protection – MLFSP, they represented 20.6% of all people living in absolute poverty, 35.2% of people living in severe poverty and 44.4% of people living in food poverty. Lack of decent housing and utilities, of documents of property on houses and lands lead to social exclusion, blocking the access to social assistance, medical assistance, education and, in general, to all citizen rights. Roma people live mostly in peripheral areas of towns (83%), in compact communities (77%). Roma people continue to be subject to discrimination as regards their access to public services, labour market and presentation in the media, and these attitudes are maintained by negative stereotypes and prejudices rooted in the public consciousness.[9]

In **Ukraine**, Roma constitute a very heterogeneous community and live in different regions of Ukraine, where the density of the Roma population varies throughout the country. According to estimations by local Roma NGOs, the largest concentrations of Roma live in **Zakarpatska region** (42 580 persons); In Ivano-Frankivska and Chernivetska the number of Roma inhabitants are below 4000 persons.Roma in Ukraine are divided into several sub-groups according to certain characteristics, such as the region where they live, the main language spoken, the profession of their ancestors and

[8]National Roma Integration Strategies of Slovakia for the Decade of Roma inclusion 2005 – 2015

[9] Strategy of the Government of Romania for the Inclusion of the Romanian Citizens belonging to Roma minority for the period 2012 – 2020

religion. Almost all Roma groups in Ukraine are sedentary. There are a few semi-nomadic groups living in the west of the country, although their movements within Ukraine are mostly seasonal and labour-related. The general situation of Roma in Ukraine is problematic. Roma continue to face particular challenges in accessing quality education, housing and civil registration documents, as well as in their relation with the police. In addition, the Ukrainian authorities should place special emphasis on ensuring access to quality education for all Roma and on combating the segregation of Roma in schools, and assigning them to special classes. The processes of civil registration and, in particular, birth registration for Roma need to be facilitated. Relations between the police and Roma need to be addressed by providing training for law enforcement and prosecution officials against all forms of harassment or discriminatory behaviour by the police, to raise awareness of the situation of Roma and to counter prejudices. In addition, policies to build trust and understanding between Roma communities and the police should also be developed.[10]

7.1.2 General introduction - economy and labour market

The **GDP** shows the relatively low economic performance of the cross-border area: the proportion of the border population in the total area of Hungary, Slovakia, Romania and Ukraine (9.74%) exceeds the share of the region regarding GDP (7.7%). The difference is particularly large in case of Chernivetska, Zakarpatska and Szabolcs-Szatmár-Bereg.

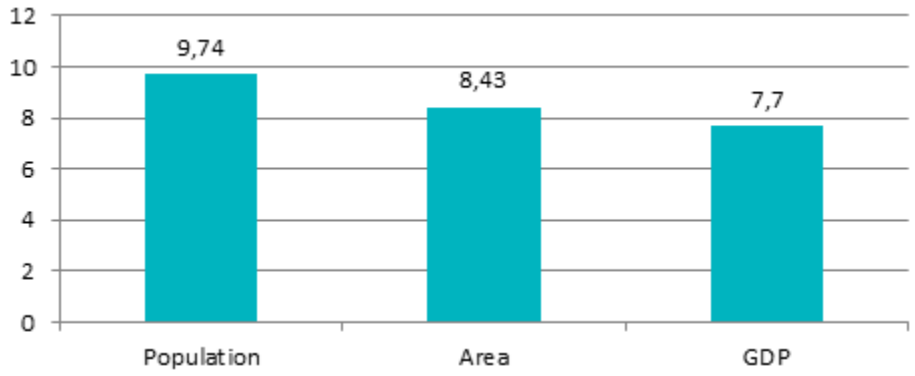


Figure 8: Share of the eligible area of national indicators (Hungary, Slovakia, Romania and Ukraine combined)
Source: HCSO,SOSR, NIS, SSSU (2011, %)

The values of the counties show significant intra-regional disparities:

- The position of Košický is conspicuous since this county produces the biggest part, 24.4% of the total GDP of the eligible area.
- The economic performance of the Romanian and Ukrainian regions is well below the average performance of the eligible area.

[10]Source: Situation Assessment Report On Roma In Ukraine And The Impact Of The Current Crisis, Warsaw August 2014, Office for Democratic Institutions and Human Rights

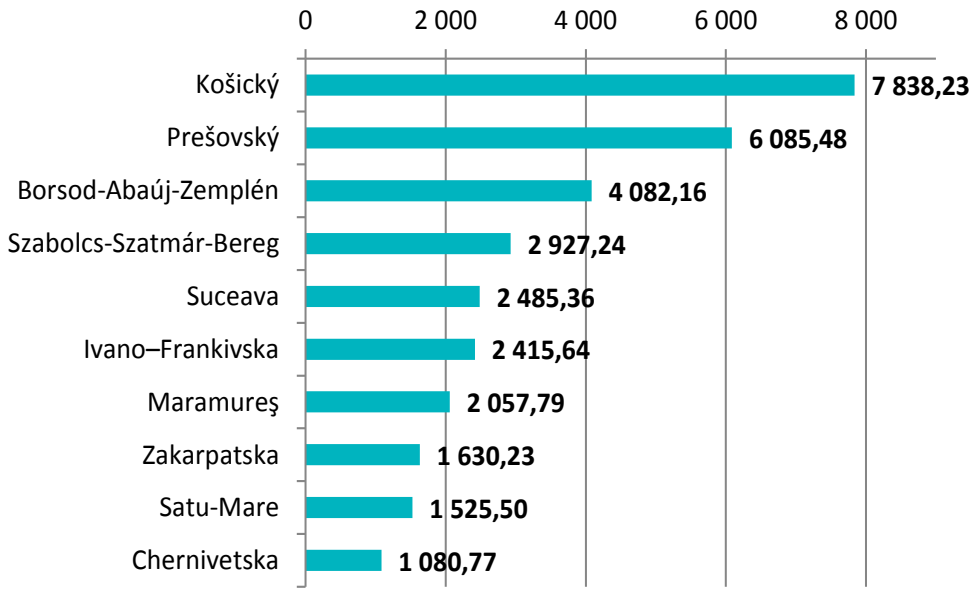


Figure 9: GDP of the counties (2011, million EUR)
Source: HCSO, SOSR, NIS, SSSU

The trends of the last years are controversial: the Ukrainian regions lost one-third of their GDP from 2008 to 2009, while the rest of the eligible area faced a decline of 7-17%. Since 2010 the tendencies are mainly positive, however, only few of the regions reached pre-crisis levels.

Regarding the GDP per capita values of the regions of the eligible area are well under the EU28 (25.100 PPS – source: Eurostat, 2011) and the national averages as well. The position of Slovakia and particularly Košicky region is remarkable: its value is almost nine times as much as Chernivetska with the lowest data. The crisis had an obviously negative influence on this indicator, but 2010 represented a turning point from this aspect, too. Although the Ukrainian regions are still the last ones in the comparison regarding its GDP per capita ratio (PPS), the increase was even in these regions the largest between 2009 and 2011 (more than 35% compared with the 4-12% of the other regions). The average GDP per capita in the eligible area is 17,8% of the average in the EU28; regarding the eligible regions, the highest GDP per capita in Košický region is 50%, the lowest PPS value for Chernivetska is 4,and 7% of the EU28 average.

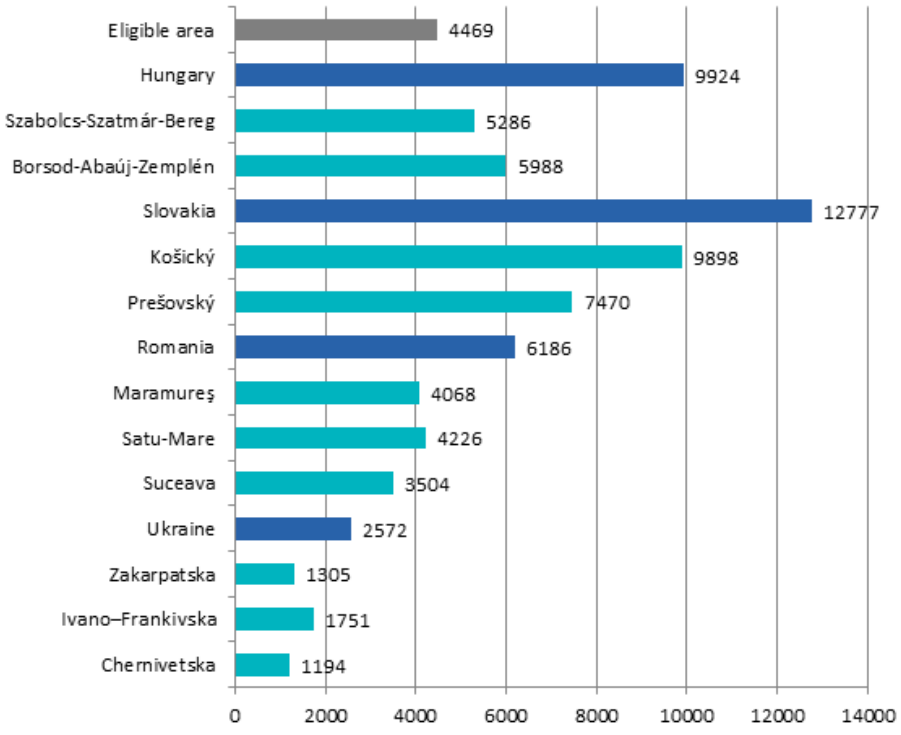


Figure 10: GDP/capita (PPS) of the eligible regions (2011, EUR)
Source: HCSO, SOSR, NIS, SSSU

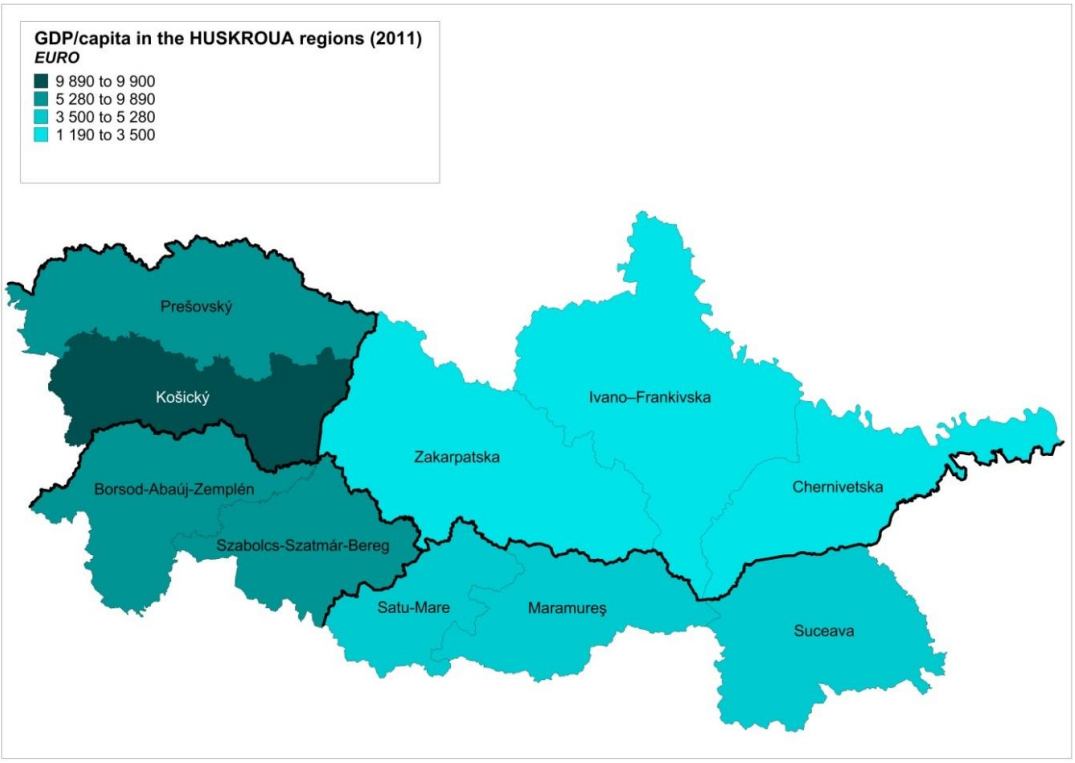


Figure 11: GDP/capita (PPS) of the regions (2011, EUR)
Source: HCSO, SOSR, NIS, SSSU

The **number of corporations and unincorporated enterprises** in the cross-border area is more than 150,000, but the distribution of businesses is uneven.

Region	Number of registered corporations and unincorporated enterprises 2012
Szabolcs-Szatmár-Bereg	16 927
Borsod-Abaúj-Zemplén	17 013
Hungary	**33 940**
Košický	16 829
Prešovský	15 068
Slovakia	**31 897**
Maramureş	9 102
Satu-Mare	6 716
Suceava	9 945
Romania	**25 763**
Zakarpatska	21 376
Ivano–Frankivska	25 306
Chernivetska	17 637
Ukraine	**64 319**
TOTAL:	**155 919**

Table 3: Number of registered corporations and unincorporated enterprises, 2012
Source: HCSO, SOSR, NIS, SSSU

Business density (number of enterprises per thousand inhabitants) is far below the national averages; additionally, the values show certain intraregional disparities: the difference between the highest (Szabolcs-Szatmár-Bereg) and the lowest (Suceava) value is more than two-fold.

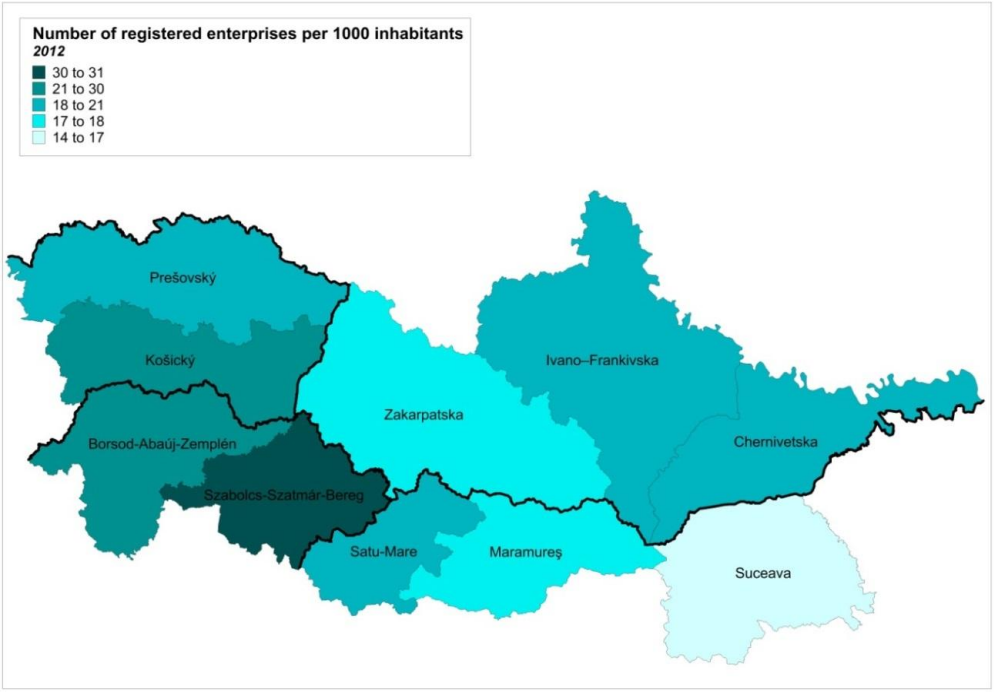


Figure 12: Number of registered enterprises in the programme area, 2012
Source: HCSO, SOSR, NIS, SSSU

Economic development seems to correlate with delinquency; the highest is the value of GDP per capita, the lowest is the number of crimes per thousand inhabitants. The number of crimes is the highest in the Romanian counties and does not seem to follow the pattern mentioned before. The definition and methodology of data collection are different in the different countries, so not all these values and relations can be taken as granted.

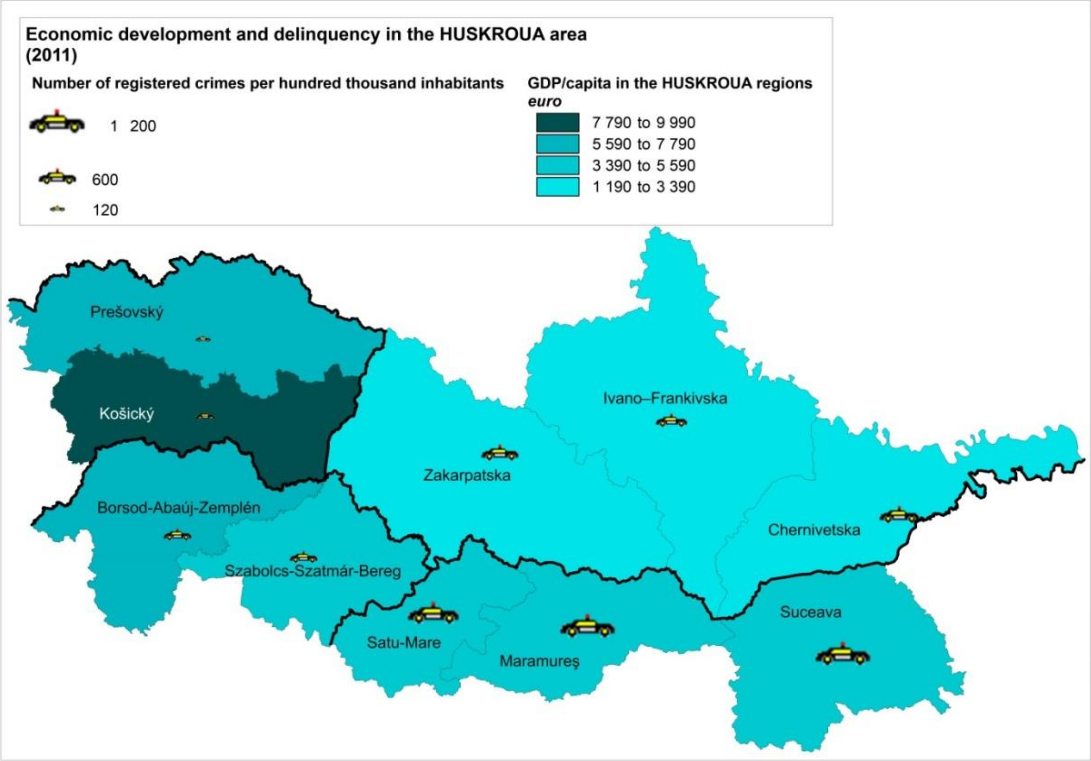


Figure 13: Economic development and delinquency in the HUSKROUA area, 2011
Source: HCSO, SOSR, NIS, SSSU

Region	Gross added value in percentage of GDP (2011)		
	Agriculture, forestry and fishing	Industry and construction	Services
Szabolcs-Szatmár-Bereg	7,98	26,02	50,77
Borsod-Abaúj-Zemplén	4,22	34,29	46,27
Hungary	**3,92**	**25,67**	**55,18**
Košický	2,86	34,02	26,43
Prešovský	4,45	35,58	24,65
Slovakia	**3,11**	**32,7**	**25,91**
Zakarpatska	2,9	0,65	4,2
Ivano–Frankivska	3,9	1,4	4,7
Chernivetska	3,5	0,3	2,2
Ukraine	**9,9**	**11,1**	**0,8**

Table 4: Gross added value in percentage of GDP in the regions (2011)
Source: HCSO, SOSR, NIS, SSSU

Value added to GDP ratio reveals a lot about the economic structure of the region. This could only be analysed in three countries; the Romanian statistics were not available. Data shows that in the field of agriculture, forestry and fishing values of Szabolcs-Szatmár-Bereg, Prešovský and Borsod-Abaúj-Zemplén are above the national average. Data for all three Ukrainian regions are considerably below the national average. Regarding industry and construction, the Slovak regions are around the national average. Borsod-Abaúj-Zemplén County is worth to be pointed out, as the industrial added value is 10 percent higher due to the presence of several major companies in the chemical or machine industry. Data for each of the Ukrainian regions is far below the Ukrainian average; according to the data the presence of industry in the region is minimal. In case of Ukrainian regions only data for services represent higher values their national average, but in the light of their proportion to the GDP, these values are extremely low. The values for the Slovak and Hungarian regions are around the national average.

Size of companies/enterprises

The major part of the employees in the three member states on country-level work for companies that employs 10 or more employees. Conversely, in the border regions, mostly small businesses are present as employers. In the Romanian counties 11-14% of employees work at a company that employs less than 10 people. For Ukraine no regional-level data was available.

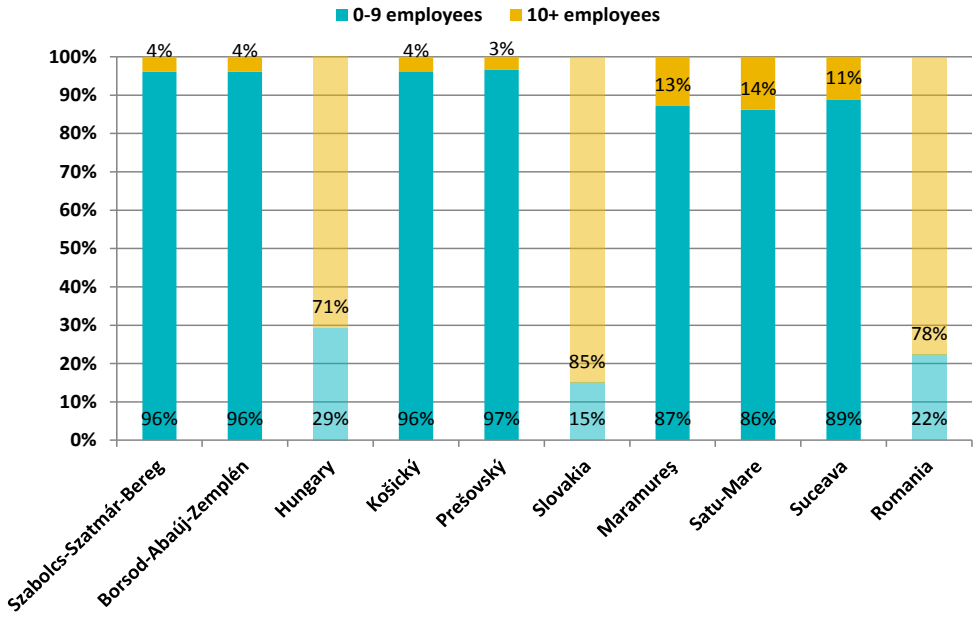


Figure 14: Employees of active enterprises by size of enterprise, 2010
Source: EuroStat

Activity/Participation rate[11]

The participation rate in the neighbouring areas tends to increase very slowly except the Romanian counties where after a lower rate in 2011 it does not show a clear decrease or increase.

[11] Activity/Participation rate expresses the percentage of the population, both employed and unemployed, that constitutes the manpower supply of the labor market, regardless of their current labor status.

The participation rate in the cross-border area varies between 54% and 70% in 2013. In Hungary and Slovakia the county/regional rates are lower than the national average. Participation rates are the highest in the cross-border area in all three regions of Ukraine and those are equal to the country-level rate. In Hungary, Slovakia and Romania the border areas are lagging behind the national average. The only exception is Satu Mare County, where the participation rate is 1.4 percentage points higher compared to the country-level rate.

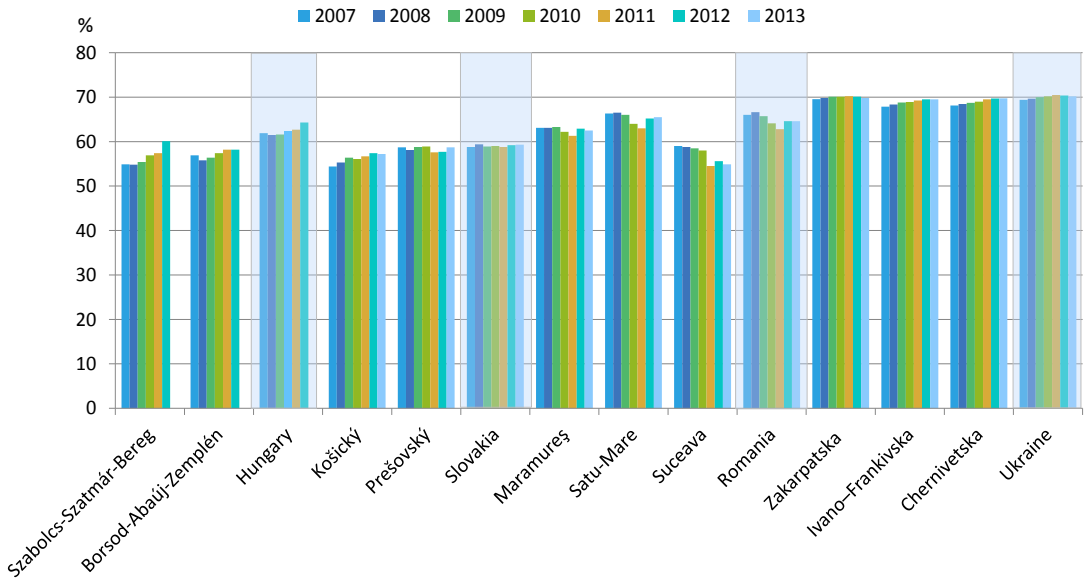


Figure 15: Participation rate in the eligible area of the Programme HUSKROUA ENPI CBC 2007-2013
Source: HCSO,SOSR, NIS, SSSU, 2007-2013

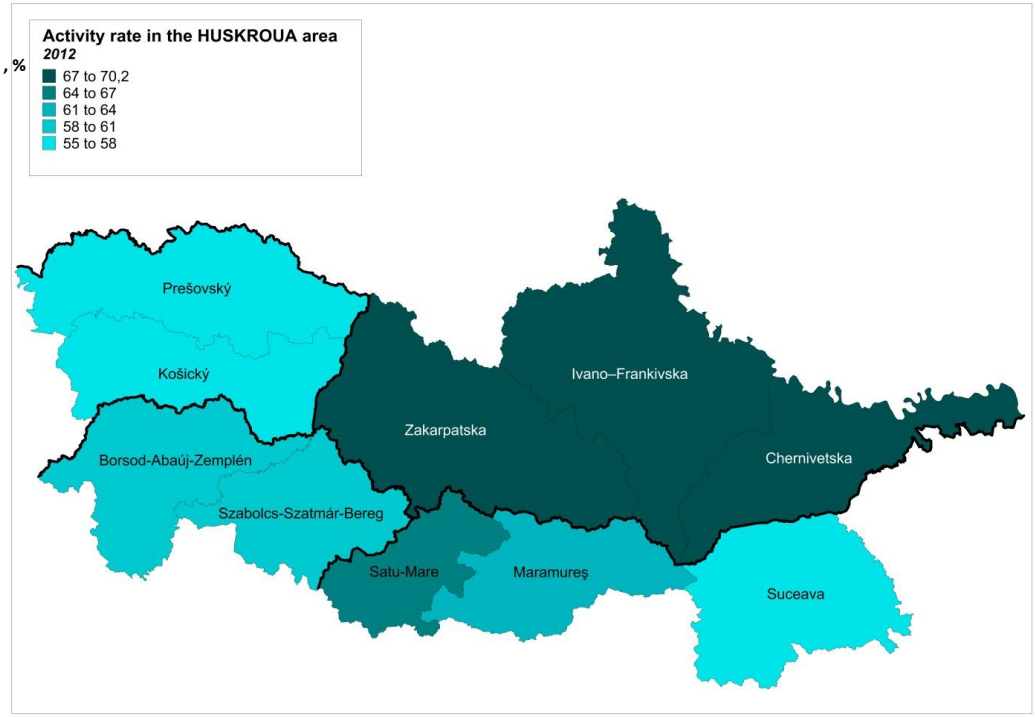


Figure 16: Activity rate (%) in the eligible area
Source: HCSO,SOSR, NIS, SSSU (2012)

Employment rate[12]

The employment rate in the cross-border region varies between 48% and 62,5% in 2012 and shows increasing trends in all areas except Suceava. The lowest employment rates can be found in the Hungarian counties (48,1% and 50,3%) and Suceava (52,5%). Satu Mare (62%) Maramureş (60,4%), Chernivetska (57,9%) and Zakarpatska (57,5%) have the highest rates in the cross-border region.

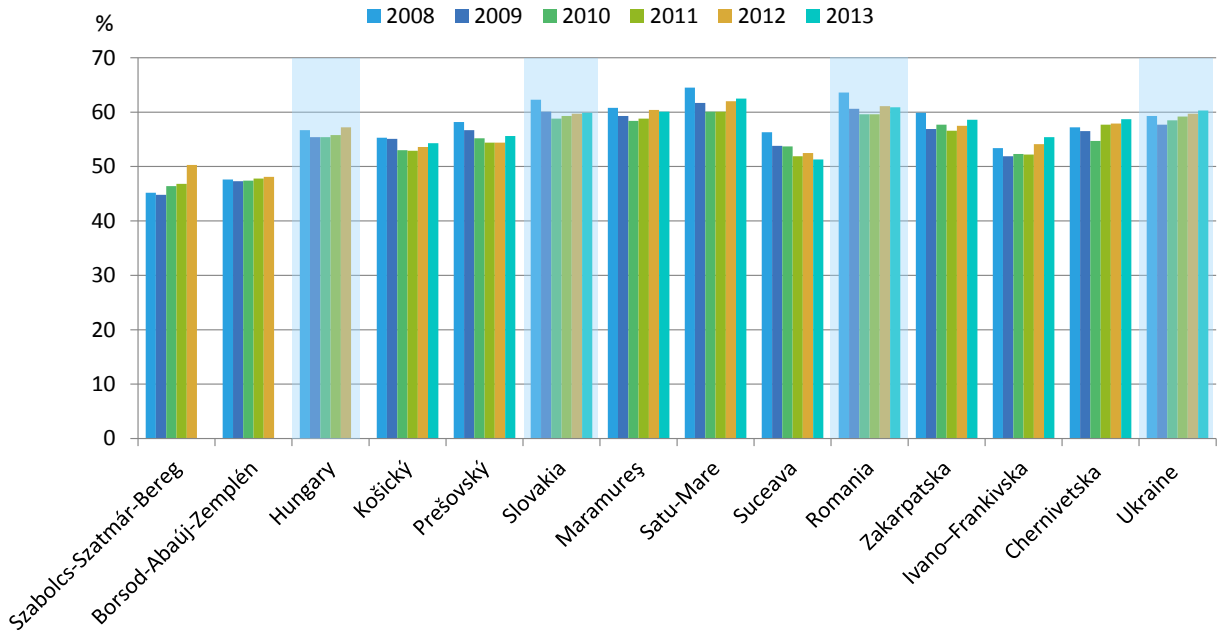


Figure 17: Employment rate in the eligible area
Source: HCSO,SOSR, NIS, SSSU, 2008-2013

Unemployment rate[13]

Unemployment rate in the cross-border area is characterised by a much dispersed range between 4,1% (Maramureş county) and 19,7% (Košický region).

In 2012 in the Hungarian counties and Slovak regions the unemployment rate is rather high (between 16,2% and 19,7%) and these rates are well above the country-level rates: in Hungary the county rates 1,5 times higher, in the Slovak regions 1,3 higher than the country-level rates.

Though according to statistical data the unemployment rates are much lower in the Romanian counties (between 4,1% and 5,5%) and Ukrainian regions (between 7,9% and 8,7%) these values are results of different data calculation methodologies and do not reflect the real situation.

[12] Employment rate is the proportion of working age adults employed.
[13] Unemployment rate is the ratio of number of persons unemployed and the number of persons in the labour force. The labour force is the sum of the numbers of persons employed and unemployed.

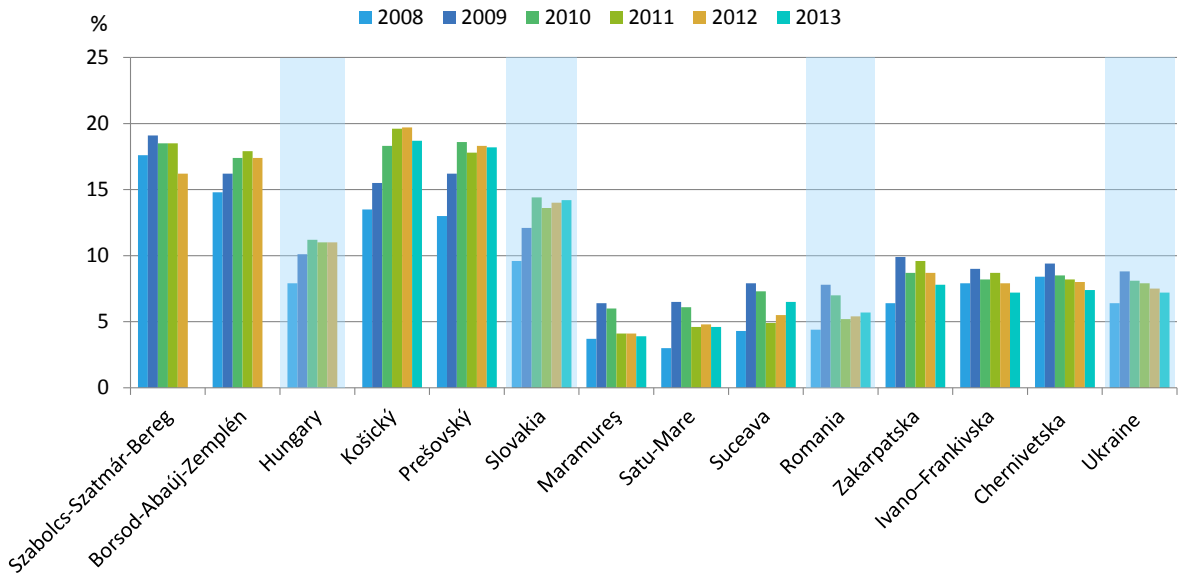


Figure 18: Unemployment rate in the eligible area of the Programme HUSKROUA ENPI CBC 2007-2013
Source: HCSO,SOSR, NIS, SSSU, 2008-2013

7.1.3 Local culture and preservation of historical heritage (TO3)

Local culture and historical heritage

County/Region	Number of museums		Number of protected buildings and monuments	Proportion of museums		Proportion of protected buildings and monuments
	2011	2012	2012	2011	2012	2012
Szabolcs-Szatmár-Bereg	20	22	867	9,8%	10,3%	5,1%
Borsod-Abaúj-Zemplén	50	52	1492	24,5%	24,3%	8,8%
Hungarian counties	**70**	**74**	**2359**	34,3%	34,6%	14,0%
Košický	10	10	2007	4,9%	4,7%	11,9%
Prešovský	13	13	3919	6,4%	6,1%	23,2%
Slovakian regions	**23**	**23**	**5926**	11,3%	10,7%	35,1%
Maramureş	25	25	582	12,3%	11,7%	3,4%
Satu-Mare	15	16	310	7,4%	7,5%	1,8%
Suceava	30	30	517	14,7%	14,0%	3,1%
Romanian counties	**70**	**71**	**1409**	34,3%	33,2%	8,3%
Zakarpatska	14	14	1493	6,9%	6,5%	8,8%
Ivano–Frankivska	22	24	3944	10,8%	11,2%	23,3%
Chernivetska	5	8	1774	2,5%	3,7%	10,5%
Ukrainian regions	**41**	**46**	**7211**	20,1%	21,5%	42,7%
Eligible area	**204**	**214**	**16905**	**100,0%**	**100,0%**	**100,0%**

Table 5: Commonly available data on cultural and historical heritage units in the programme area (2011, 2012)
Source: HCSO, SOSR, NIS, SSSU

There were 214 museums in the cross-border area altogether. Most of the museums(52) are located in Borsod-Abaúj-Zemplén (24,3% of the cross-border area). Altogether there are only 23 museums in the Slovak regions but the number of protected buildings and monuments is very high here. Ivano-Frankivska has outstandingly high number and proportion of protected buildings and monuments (3944, 23,3%). From 2011 to 2012 the number of museums increased only in the two Hungarian counties (2-2 institutions), Ivano-Frankivska in (2 institutions) and in Chernivetska (3 institutions).

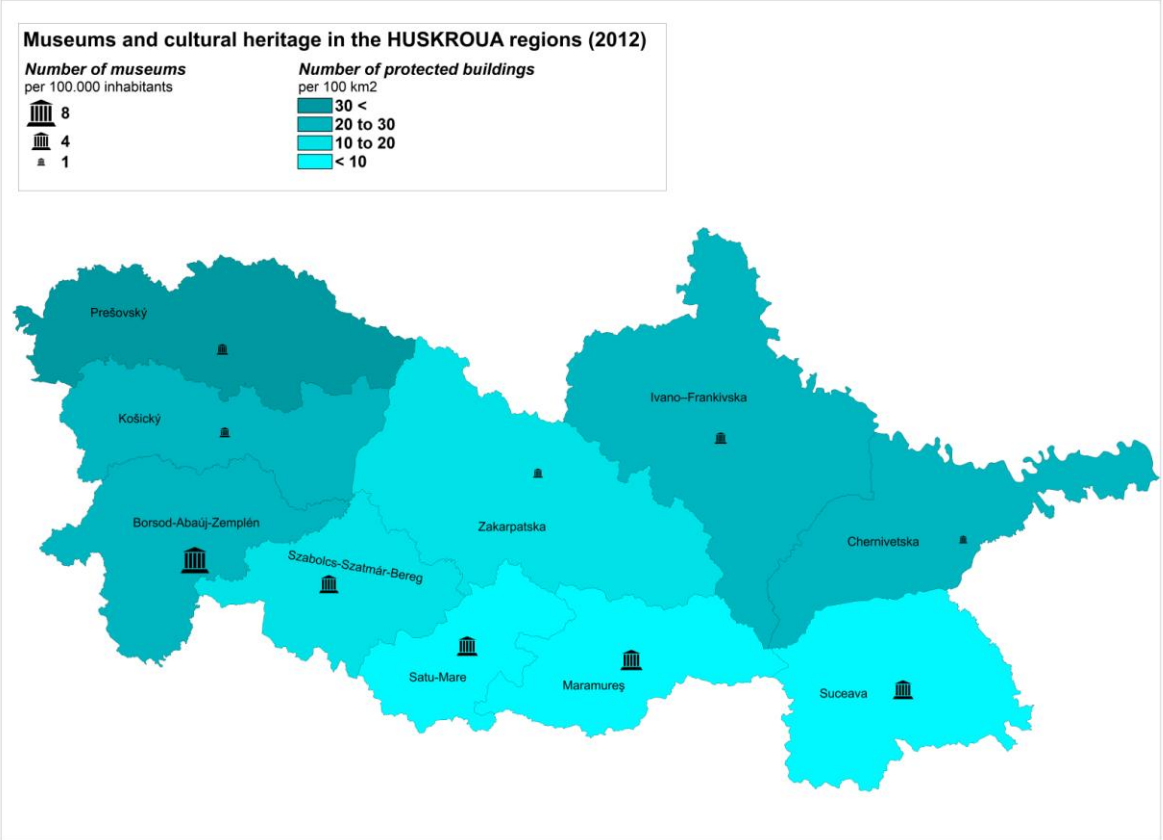


Figure 19: Museums and cultural heritage sites in the programme area
Source: HCSO, SOSR, NIS, SSSU

Seven UNESCO cultural world heritage sites are located in the affected area as well. The following sites are under cultural protection:

Country	Location
Hungary	• Tokaj Wine Region Historic Cultural Landscape
Slovakia	• Levoca, Spissky Hrad and the Associated Cultural Monuments • Bardejov Town Conservation Reserve • Wooden Churches of the Slovak part of the Carpathian Mountain Area
Romania	• Wooden Churches of Maramureş • Churches of Moldavia
Ukraine	• Residence of Bukovinian and Dalmatian Metropolitans

Table 6:UNESCO cultural world heritage sites in the programme area
Source: http://whc.unesco.org

Tourism

From 2007 to 2013 major changes happened in the Ukrainian regions regarding the **number of accommodations** (number of bed-places) in Zakarpatska and Ivano-Frankivska regions where the number of accommodations increased more than 2,5-fold, from (Zakarpatska 255% (from 3600 to 9800), Ivano-Frankivska 278% (from 2900 to 8000)). There were no major changes regarding the number of bed places in the **Hungarian** counties (round 10000 In Szabolcs-Szatmár-Bereg, around 20000 in Borsod-Abaúj-Zemplén) and **Slovak regions**(14000 in Košický region, 3000 in Prešovský region). In the **North-East Region of Romania** there is a very low level of used functioning accommodation capacities (21,5% in 2013) and the average length of stay is also low (2,14-2,36 nights/tourist) though the capacity of public accommodation establishments grew by 30-40% in Maramureş (from 3600 to 4800) and Suceava (from 6800 to 9600) counties.

Regarding the importance of tourism the **number of tourists compared to the population** of the specific region was examined to facilitate the comparability of the areas. In this respect Hungary leads as the tourist traffic in public accommodations makes 85% of the population concerned. The corresponding value in Slovakia is 70%, in Romania, 35%, and 17% in Ukraine. In Hungary, regional data show that the two counties concerned do not belong to the most visited counties. According to the results that are proportional to population the ratio of accommodations in **Borsod-Abaúj-Zemplén** county is the half (46%) of the national average, while the same rate in **Szabolcs-Szatmár-Bereg** county is only the one-fourth (23%) of the national average. Among the Slovak regions, the ratio of public accommodations in **Košický** region is roughly the half of the national average, but in **Prešovský** region it is 10 percent higher than the national average. In Romania rates of **Suceava** are close to the national average, however **Satu-Mare** and **Maramureş** both fall short by 15 percent below the national average. Among the Ukrainian regions the values in **Chernivetska** region are slightly below, in **Zakarpatska** region are on the same level, while in **Ivano-Frankivska** region is minimally higher than the national average.

Altogether it shows that the western part of the programme area hosts **more visitors** (Prešovský and Košický regions and Borsod-Abaúj-Zemplén county). The **proportion of foreign tourists** in all affected regions is lower than the national averages. The number of foreign tourists at public accommodations compared to the population is insignificant in the three regions of Ukraine. Reasons for this may include the lower permeability of the border compared to the other countries concerned.

Regarding the **average length of stay**, significant difference was observed between the regions of the three countries (Romanian data was not available). The average length of stay in public accommodations was between 1,9 to 3,2 nights in case of the regions of Hungary and Slovakia. The values of the average length of stay in public accommodations in the Ukrainian regions significantly exceeded that. In 2012, the average length of stay in Chernivetska region was 3 nights, in Ivano-Frankivska region 4,1 nights and in Zakarpatska region an average of 7,7 nights.

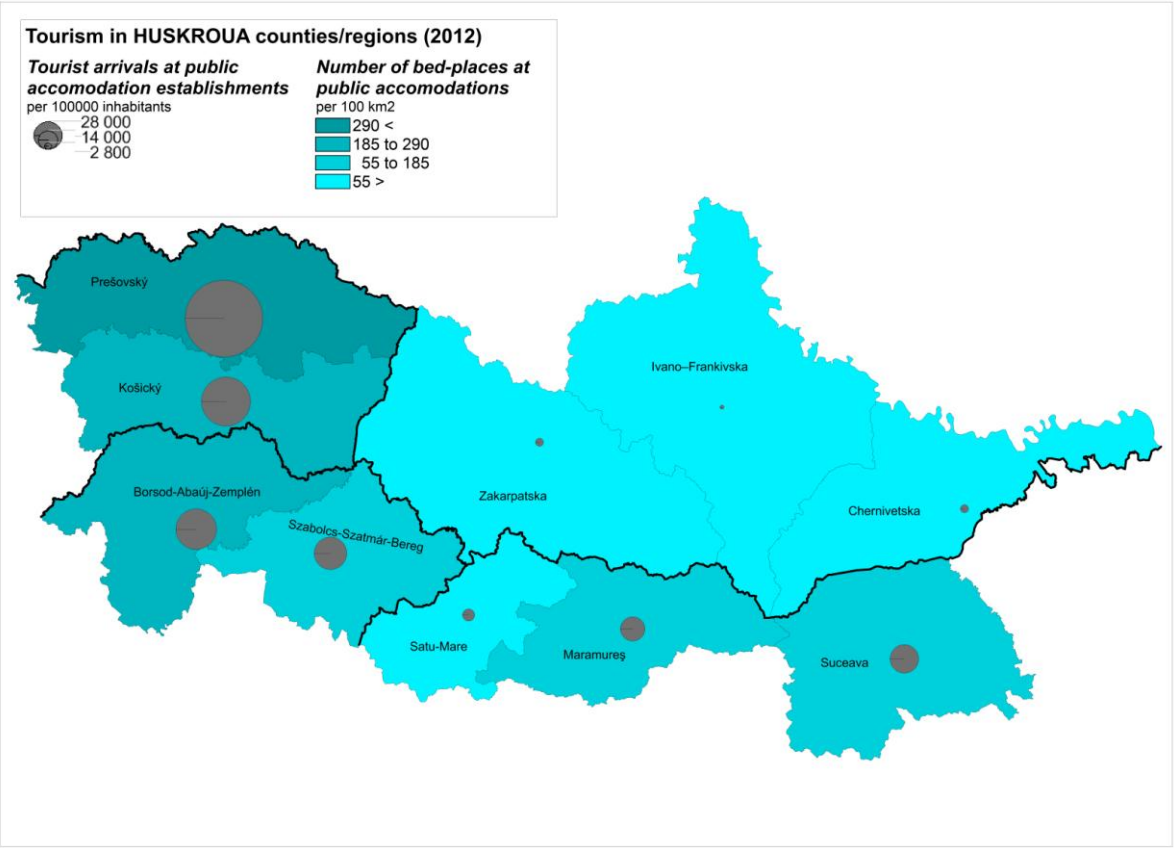


Figure 20: Tourism in the programme area (2012)
Source: HCSO, SOSR, NIS, SSSU

Touristic attractions

In the **Hungarian counties** creative touristic attractions based on cultural and historical heritage can be the bases of a competitive tourist sector. There is a need for the development of local employment capacities, support of the local market potentials, utilizing local resources. In **Borsod-Abaúj-Zemplén County** the income-generating capacity of the tourism is low and it is related to the tourism attractions. There are two **UNESCO world heritages** in Borsod-Abaúj-Zemplén: Tokaj Wine Region Historic Cultural Landscape and the Caves of Aggtelek Karst and Slovak Karst; in addition, high number of other cultural sites and values can be found here. The castles of Boldogkő, Cserépvár, Dédes, Diósgyőr (in Miskolc, the capital of Borsod-Abaúj-Zemplén), Füzér, Sárospatak, Szerencs are all very famous and visited cultural and historical sites. As natural sites the Dripstone cave of Aggtelek, Bükk National Park and Lillafüred(the latter two are very close to Miskolc, the capital of Borsod-Abaúj-Zemplén) are the most attractive places to visit in the county. There are 357 monuments, 20 museums, 60 top events per year in **Szabolcs-Szatmár-Bereg**.Szabolcs-Szatmár-Bereg County is famous for its folk architecture, folk art, music and dance traditions. Special attractions are the wooden bell towers, the 13th-century church and the coffered ceiling Csaroda Tákos Reformed Church in Mátészalka. Famous spas in the county are the Salt Lake Beach and Spa in Nyíregyháza and Szatmár-Bereg Hospital and Spa in Fehérgyarmat. There are three famous historical sites in the county: Máriapócs as natural shrine and Nyírbátor with its reformed church and the Castle of the Báthori family, and the Castle of Kisvárda.

The **Slovak regions** characterised by the landscapes and the forests are situated across the borders. **Prešov region** has numerous potentials for tourism and recreation like cultural and historical

monuments, attractive towns of Levoča, Prešov, Bardejov, Poprad and Kežmarok. Regarding the quality of cultural facilities, Prešov region produces a stable network of cultural facilities that has the similar quality and quantity as the national standard. There are five permanent theatres (2012), 13 museums, 4 galleries, 338 libraries. The Prešov region owns 358 cultural-educational facilities. Four of the 7 sites listed in the UNESCO World Heritage list in Slovakia are located in the territory of Prešov region: Bardejov Town Conservation Reserve, Wooden Churches of the Slovak part of the Carpathian Mountain Area, Primeval Beech Forests of the Carpathians and Levoča, and the associated cultural monuments. Situated in the Prešov region as part of the Tatran National Park (TANAP) the High Tatras is one of the country's most beautiful and spectacular natural sites as well as home to many rare species of flora and fauna. **Košický region** is considered to be the second largest region in the Slovak Republic. The city of Košice is the second largest city in Slovakia and has an array of cultural and historical monuments. In the southern and south-eastern part of the region stretches the Slovak Karst National Park. A number of caves and pits are classified as UNESCO heritage sites. Caves of Aggtelek Karst and Slovak Karstand Primeval Beech Forests of the Carpathians are both transboundary UNESCO world heritage sites. The region is rich in captive historical monuments especially castles or their ruins, several castles and many churches. Lower Zemplín falls is among the most visited tourist sites in the region. Slovensky Raj - Slovak Paradise (hiking, mountain biking, skiing) and the Slovensky Kras - Slovak Karst (hiking, mountain biking) are beautiful natural sights in the region. Spis Castle and its surroundings is the largest medieval castle complex in Central Europe and a UNESCO cultural world heritage site. The biggest attractions are the cultural and historical monuments of the city of Kosice, Aragonite Cave, Ice cave in Domica, Jasovská cave, Gombasecká cave, Zemplínska reservoir, Herliansky geyser, Krasna Horka castle, Betliar, Slovak Paradise, Spis Castle and surroundings, ski resort Plejsy, Vinianske mountain lake, wooden churches in the Russian Bystrej (UNESCO) and Inovce, climatic spa Štós.

The North-West region of Romania could be characterized by insufficient exploitation of tourist resources, lack of information and promotional instruments for the regional tourism and inadequately valorised valuable resources of the cultural patrimony and insufficient infrastructure for tourism and recreation. **Satu Mare County** disposes a decay of historical and cultural heritage. The main tourist attractions in the county are: the "Oaș Country", with its strong Romanian folk traditions, on the North Eastern side of the county, the Oaș Mountains, the cities of Satu Mare and Carei, Tășnad Resort, the fortresses of Ardud and Medieșu Aurit. A low level of knowledge of **natural and cultural resources with the need of promotion,**poorly developed tourist infrastructure and services, still low quality of tourist services, lack of proper territorial marketing for the promotion of Satu Mare county as a cultural and health tourist destination, lack of quality tourist information centres, lack of databases of events to be promoted, low quality of the accommodation network, low rate of camping facilities, low rate of theatre-, cinema- and museum visitors. **Maramureş County** is home to many villages where century-old traditions are still part of daily life. The inhabitants of this area have preserved, the rural culture and crafts of their Dacian ancestors. Maramureş villages are distinguished by their unique wooden churches with tall spires and shingled roofs. The local craftsmanship can be best observed in the monumental Maramureş gates, guarding the entry to the houses. Some of the most beautiful wooden gates are found in the villages of Vadu Izei, Desesti, Giulesti, Budesti, Sarbi, Barsana and Oncesti. The Wooden Churches of Maramureş - in Surdesti, Plopis, Rogoz, Ieud, Poeinile Izei, Barsana, Budesti and Desesti - have been recognized by UNESCO as some of the most important sites of world heritage. Famous tourist site is the Merry Cemetery in Sapanta with its colourfully decorated wooden crosses. Sighetu Marmatiei is an important tourist and cultural centre in the region. Maramureş is dominated by a landscape of

mountains and rolling valleys. The Gutai, Lapus, Tibles Maramureş and Rodnei Mountains are cut by passes named Huta, Gutai, Prislop, Setref, and Botiza. Three large valleys cross the region: Viseu, Iza and Mara. The Rodnei Mountains National Park, a natural reserve filled with a rich diversity of flora and fauna, has been awarded biosphere status by UNESCO. Other places worth to explore are the Vaser River Valley - the narrow gauge railway 'Mocanita' and the tarns, waterfalls, volcanic mountains, caves and the geological reserve of Creasta Cocosului.

Ivano-Frankivskaregion is a home to more than 400 preserved areas; 30 out of those are of all-national importance, the rest of a local importance. There is a strict nature reserve Gorgany that was created in 1996. There are five national parks in the region (Carpathian National Nature Park in Verkhovyna/Nadvirna, National Nature Park in Hutsulshchyna/ Verkhovyna, Halych National Nature Park in Halych, Verkhovyna National Nature Park in Verkhovyna, and National Nature Park Synyohora in Bohorodchany). There are numerous natural monuments of feature and habitat management areas.Ivano Frankivskaregion is home of numerous cultural festivals. There are numerous natural and architectural benchmarks that are scattered throughout the region.One of the famous festivals is the Ukrainian International festival of ethnic music and land art "Sheshory".On the territory of Ivano-Frankivsk Oblast are located numerous monuments of architectural heritage like the city of Halych (national preserve). The Church of the Holy Spirit located in the city of Rohatyn as well as the Manyava Skete near the village of Manyava in Bohorodchany Raion are visited sites. The oblast also accounts for some number of various wooden churches of Boykos and Hutsuls traditional architecture.In the western part of the region visitors can find the Carpathian Train that still uses the narrow gauge railway system. Train is used for its direct purpose transporting wood as well as for a tourist recreation. The biggest benchmark of the region is the Hoverla mountain, the tallest in the nation. Near the Manyava Skete the highest waterfall in Ukraineis located, the Manyava waterfall (22m). In the same Bohorodchany Raion visitors may find the local mud volcano located near the village of Starunia. The museum "Pysanka" was built in 2000 and is the only one in the world.Another interesting historical site is the cavern complex in the Dovbush Rock; the rock complex is located about 7 miles (11 km) south west from Bolekhiv near village of Bubnysche.**Zakarpatskaregion**is situated in the Carpathian Mountains of western Ukraine, the only Ukrainian administrative division which borders upon four countries: Poland, Slovakia, Hungary, and Romania. The Carpathian Mountains play a major part in the oblast's economy, making the region an important tourist and travel destination housing many ski and spa resorts.Major attractions of the region are castles and ruins. The most notable is the castles of Uzhgorod and Mukachevo, The castles of Huszt, Nagyszőlős, Nyalábvár, Nevicke, Szerednye, and Kovászó also serve as a popular attraction. Unfortunately, most of them are neglected.The region is also famous for its wooden churches in Sredne Vodyane, Verkhnye Vodyane, Danylovo, Kolodne, Krainykovo, Nyzhnie Selyshche, Olexandrivka and Sokyrnytsia.Only a few synagogues have survived from the large number of themin Transcarpathia. Two of them are still worth to note, the synagogue of Uzhgorod and Huszt. Among the castles the Bereg Petersburg Schoenborn Palace is the most beautiful, but it's worth visiting Perényi Castle in Nagyszölös, the Bethlen-Rákóczi castle in Berehove the castle of Rákóczi ("White House") in Mukachevo.In **Chernivetska region**the most famous attractions are the Residence of Bukovinian and Dalmatian Metropolitans, UNESCO World Heritage Site, Khotyn Fortress State historical-architectural preserve, and Kozmodemyanivska church (church of Cosmas and Damian).In **Ukraine** the condition of preservation of historical sites is inappropriate.A prolonged stay without appropriate care and maintenance has led most monuments to the verge of destruction, especially monuments of architecture and urban planning.Medieval castles situated in Nevytske, Serednie, Vynohradiv and Chust are in poor condition, almost on the verge of destruction. Restoration of these sites has not

been funded by the government for a long time and investments by private funds and organizations are insignificant. There is an uncontrolled restoration of churches by religious communities. About 40 percent of wooden churches in the region are in poor condition, and some of them are on the verge of total destruction. The condition of roofs, walls, foundations is problematic. There is no proper accounting system of church utensils, fire alarm, and lightning protection. Uncontrolled restoration caused a number of cases when the exterior and the interior of the monuments suffered significant damages. The current system of registration, restoration and usage of historical sites is inappropriate. There is a need to improve accounting, protection, preservation and use of cultural heritage, research, monitoring of compliance with the legislation of monument protection.

In **all regions** the information system in tourism needs development in order to make connections to the national and European information systems. Management and promotion of tourism at the regional level needs to be developed. The infrastructure to support tourism is underdeveloped and in poor technical condition. Cross-border cooperation for tourism development is insufficient. Awareness raising campaigns to the public are rare and protection of tourist attractions and visitors is low. Regional culture also needs better management to take the advantages of the opportunities.

Potentials for religious tourism

Religious tourism today is connected to cultural and heritage tourism since sacred sites, churches, monasteries and abbeys are not only places of religious rituals and prayers but they are monuments, ecclesiastical buildings and heritage sites as well. Holy places and sacred sites are nowadays being seen as tourist attractions and cultural resources. The Via Maria Pilgrimige Route in **Hungary** goes through Borsod-Abaúj-Zemplén county and **Szabolcs-Szatmár-Bereg** county. There are many accommodation possibilities along the route and numerous pilgrimages throughout the year. In the pilgrimage of **Monok** (Borsod-Abaúj-Zemplén) there is a celebration of the Holy Cross in the calvary hill every third Sunday of September. Sajópálfala is also a visited pilgrimage in Borsod-Abaúj-Zemplén. The St. Elizabeth Road Pilgrimage passes Northern Hungary and connects Sárospatak (Borsod-Abaúj-Zemplén) and Košice (Košický region). **Máriapócs** (Szabolcs-Szatmár-Bereg County) is one of the most famous places of Greek Catholic pilgrimage.

In the **Slovak** border region, the St. Anne pilgrimage site in Rudnik (**Košický** region) along the Hungarian-Slovak border, one of the largest shrines of the middle Highlands. Its history dates back to the 13th century when the local pilgrimage launched a miracle attributed to St. Anna when a little girl was born blind and her eyes were healed by a nearby spring. In **Prešovský** region, **Cervený kláštor** is a unique cultural and historical relic set in the wonderful natural environment of Pieniny under the majestic mountain 'Tri koruny'. The monastery was successfully restored in the years 1956-1966. The best building, from an architectural point of view, is the Gothic **Church of St Anton** from the end of the 14th century with one nave of unusual length restored in the Baroque style. The main altar is in the Baroque style, built in 1745. Numerous Orthodox and Greek Catholic **wooden temples** of high cultural and historic value adorn the region of Upper Zemplín is the most eastern region of Slovakia.

In **Romania**, one of the most famous religious sites, the painted monasteries of Bukovina are located in Bucovina which is a historical region currently divided between Ukraine and Romania (**Chernivetska and Suceava**), located on the northern slopes of the central Eastern Carpathians and the adjoining plains. The best-preserved monasteries are the monasteries in Humor, Moldovita, Patrauti, Probota, Suceava, Sucevita, and Voronet. Another famous site is a small church, located in the village of Arbore. Seven of these churches were placed on UNESCO's World Heritage list in 1993.

The eighth church, Sucevita, is waiting for to be added to the list. Deemed masterpieces of Byzantine art, these churches are one-of-a-kind architectural sites in Europe. Far from being merely wall decorations, the murals represent complete cycles of religious murals. The purpose of the frescoes was to make the story of the Bible and the lives of the most important Orthodox saints known to villagers by the use of images. Their outstanding composition, elegant outline and harmonious colors blend perfectly with the surrounding landscape. Remeti in **Maramureş** County owns Pauline monastery which is important from the viewpoint of tourism.

Religion has always been an important issue in **Ukraine**. For centuries, religious traditions have featured in local culture and this is certainly evidenced by the many religious sites in Ukraine. Churches, cathedrals, monasteries, synagogues and other religious sites are popular attractions for tourists visiting the country. From architectural wonders to more humble places of worship, the religious buildings in Ukraine give one a chance to ponder upon the country's history and culture through the ages. The most famous religious site in the border region is the Uzhgorod Synagogue. Since World War Two the Jewish synagogue has been forgotten as a religious institute with all related symbols removed. Instead it has taken on a new persona and is now commonly known as the famed 'Uzhgorod Concert hall'. Uzhgorod Synagogue was adopted as a concert hall due to its amazing acoustics. The Ukrainian concert hall is home to the talented Regional Philharmonic Society and the Transcarpathian Folk Choir. Most famous and visited places of worship in **Zakarpatska**: Alsósárad (Dzsublék), Husztbaranya, Husztköz, Királyháza, Munkacsevo, Uzhgorod, Uzhgorod-Gerény, in **Ivano-Frankivska**: The Church of the Holy Spirit, built in 1598, is located in the north of the Oblast in the small city of Rohatyn, in **Chernivetska**: Kozmodemyanivska church (church of Cosmas and Damian).

Local products in tourism

In **Hungary** culinary products are leading the list of products could be offered for tourist: plum jam prepared traditionally in copper pot, bread baked in the traditional outside oven. As for local crafts, the border region can be characterised by painted bottles, leather and carved wood products. **Szabolcs-Szatmár-Bereg C**ounty can be characterised in the respect of the local products for tourism by Hungarian specialities like the local brandy made from the local plum of Szatmár or apple of Szabolcs and cherry of Újfehértó and the connected local gastronomy. In **Borsod-Abaúj-Zemplén** in addition to the local food tasting, the rich history of our region four wine regions provides a wide range of wine to taste those who prefer a light white wine, full-bodied red, or even the sweet wine. Local artisans prepare gifts and everyday objects from hemp. The plum is the base for jams, marmalades, compotes and alcoholic beverages.

In the **Slovak** region, carved wooden figures, črpáks (wooden pitcher), fujaras (a folk instrument on the UNESCO list) and valaškas (a decorated folk hatchet) and above all products made from corn husks and wire, notably human figures represent the souvenirs for tourist. Also, products from local organic farming are sold as local product (jams, honey). Regarding culinaries, the traditional food products are represented by the milk products which making in Slovakia is truly a long tradition which extends to the prehistoric times. It is indirectly proven by the archaeological findings of sheep bones and ceramics for straining coagulated milk discovered in the Domica cave which date back to 2, 000 years BC. There are two types of cheese which are famous. The so-called bryndza as it is known nowadays was a result of a protected technology of grinding and mixing sheep cheese with special brine. Nowadays, Slovak products made of sheep´s milk represent products of high quality

with special characteristics. They are connected to a particular territory or place and their name is connected to their historical trademark. On the basis of these and other attributes, the Slovak Republic has actually three protected geographical indications for sheep milk products registered in DOOR: EU database of agricultural products and foods. From the geographical point of view, the area ofbryzndzaproduction is concentrated in a mountainous part of Slovakia, where there are suitable conditions for sheep breeding. Thanks to the long tradition of its production as well as its constant popularity at present,bryndza has become a part of a tourist trademark of Slovakia. It is often a part of a diet of many Slovaks not only because of its unique taste but it has several positive health effects.Another traditional Slovak product on the basis of sheep´s milk is Slovenská parenica.

In the **North-Eastern region of Romania**the landscape is filled with wild flowers is that the land is farmed on a small scale, with traditional hay making systems and the use of natural rather than chemical fertilisers. However this small scale system also makes it difficult for farmers to sell their products within the increasingly large scale and complex European agricultural system therefore local sale could be a good solution. Local milk collection and processing centres allow farmers to comply with EU food safety requirements and to market a range of local dairy products.Another growing local industry is jam using wild and cultivate fruits. A range of over twenty different jams are produced by local women from family recipes who sell them through local and sometimes national markets. There is plenty of opportunity to visit the region, stay in local homes and experience elements of rural life such herding, bee keeping, bread making, and charcoal making.**Satu Mare**County is keeping a diversity of traditions, handicraft and customs, with tourist valorisation potential. The handicraft of pottery is still being kept in Vama village, where a recognized pottery centre can be found. Sheltered by shady valleys and mountains, the able hands of the people of **Maramureş** gave birth to the art of crafting the bits and pieces of everyday life. Be it household items, decorative objects, tools, they all bear the mark of the Maramureş region and its ancestral symbols. From the clay cup and bowl, to the traditional bed throws in the festive room, from the wooden spoon to the imposing wooden gate, they all are the expression of beauty and of the spirituality that characterize the Maramureş soul. In **Suceava**county the tradition of pottery, an ancient handicraft, can be found, being practiced on these lands from old times. Presently, it is being continued by well-known pottery masters from Rădăuţi and Marginea. In the same time, another handicraft kept in Suceava County is egg painting. In Ciocăneşti village the National Festival of Painted Eggs is being organized.

In **Zakarpatska region** the industrial hemp is cultivated, and wonderful gifts - towels, tablecloths and even souvenirs – are made from it.This plum is grown in significant areas – including Hungary, Romania and Zakarpatska. Weaved baskets and traditional pottery are specialities of artisan masters in Zakarpatska. As an economic region Zakarpatskaregion generates a surplus of lumber and forest products, wine, fruit and vegetables. The mineral springs and picturesque landscapes still represent a largely undeveloped potential that is rapidly gaining popularity as an area for resorts and tourism.**Ivano-Frankivska and Chernivetska regions** can offer products grown in the Carpathian forestslike mushrooms and berries, and finely crafted wooden items, woollen clothing, linen, embroidery, woven goods, ceramics and pysankas. In the region inhabited by Hutzuls, animal skins, woodcarvings, embroidery, and weavings can be offered to the tourists as local products.

In all eligible regions the following local products can be exploited: active holidays, eco-holidays, interactive rural way of lifeholidays for students, gastronomical experiences, and holidays at wine makers, exhibition of traditions and the local culture.

Cultural events, festivals

Almost all the municipalities in **Borsod-Abaúj-Zemplén** county offer cultural programmes throughout the year for visitors, including such prominent events as the Miskolc Opera Festival, Kaláka International Folklore Festival, Zemplén Festival, Borsodi or Abaúj Arts Festival, the Harvest Festival in Tokaj involving several settlements from Hegyalja and Bükkalja. During the festival season - in addition to arts - other values can be discovered in the county, the whole county, its villages, towns, small areas burst into life. Open-air stages, churches, concert halls, castles, streets provide spaces for quality entertainment and an unforgettable experience for the participants. Numerous cultural events take place in **Szabolcs-Szatmár-Bereg** County regularly. Nyíregyháza (the county seat) has two amphitheatres to expand the cultural offer. Regarding the number of cultural events the region does not lag behind the national average. The most prominent and regularly organized festivals with international reputation are: Vidor Festival Nyíregyháza, Meeting of Theatres in Kisvárda, Tiszadob Piano Festival, Tarpa Plum Festival, Cinke Festival, Plum Jam Festival in Szatmárcseke, the Bright Days in Mátészalka, Nyírbátor Music Festival, "Taste Hungary" Festival in Nyíregyháza. These programmes go back for decades both in case of the historical and the culinary festivals, which show the activity of the county's rich cultural offerings and its values.

Satu Mare County is hosting a series of folk events related to different moments or important activities in the life of the local community. Among these one could mention: Sâmbra Oilor, festivals related to the fabrication of “pălincă” (brandy), a traditional product of the area, or the Oaş weddings, recognized for their specific folk costumes and rituals. Other (multicultural) events organized along the county are: the International Palinca Festival, Festival of Wine, gastronomic festivals, Satu Mare County Days, days of cities and communes, “Partium” Hungarian Days, Folk Festival of Nationalities from Bogdand, German Cultural Days, "No Barriers" International Cultural Festival, Halmeu Strawberries Feast, Samfest Cultural Festival, Hunting with Hounds from Mărtineşti, Anniversary of Ady Endre poet's birth etc. The immaterial patrimony of **Maramureş** is given by its rich traditions and customs. Thus, the number of major cultural events that are carrying on these traditions and customs is high, covering each month of the year with events of high interest. Among those one can mention: „Festival of winter customs - Marmaţia” from Sighetu Marmaţiei, „Horea at Prislop”, or „Sânzienele” are only of few of these events. A special place is taken by the festival – unique in the world – „The long way to the Merry Cemetery”, organised in the 2010-2014 period. Events organised in **Suceava** County are: “Sânziene Fair” in Suceava, National Festival of Trout in Ciocăneşti, Medieval Art Festival at Cetatea de Scaun Suceava, Christmas in Bucovina (organized in Suceava), Easter in Bucovina, Pilgrim in Bucovina, to Cacica and Putna, Snow Fest in Vatra Dornei.

Zakarpatskaregion is famous for its cultural events and festivals. The large number of exhibitions, fairs and festivals take place in the region every year. In January inhabitants have a chance to visit traditional fest of honey, festival “Red wine”, in February – fest “Uzhhorodska palachinta” (fair of pancakes). In spring citizens and tourists are invited to the “Sakura-fest” to witness the most beautiful period in the region – sakura blossom. Also, the following fest and festivals take place in the region: Festival of mineral water, Festival of humour and satire, “Vyshyvanka festival” (festival of national clothes), fair “Gold autumn” and many other interesting festivals and other cultural events. In **Ivano-Frankivska** region there are also many interesting cultural events worth to be visited. Such events as festival of Christmas carols, festival “Christmas in Carpathians” and other dedicated to Christmas celebrations usually take place in the region. Very interesting are exhibition “Hutsulske vesillya” (Hutsul wedding), festival “Spring ball in winter Carpathians”, theatre fest “Melpomena of Halych” and others. In spring people visit International Food Festival, many festivals, dedicated to

Easter holiday, Fest of blacksmiths; in summer – Fest of Ukrainian song, Fest of youth, Fest “Ivana Kupala”; in autumn – festival of patriotic song, festival of mushrooms, youth festival “Students’ autumn”. **Chernivetskaregion** has variety of cultural events. As in every Ukrainian region many events dedicated to Christmas are visited by citizens of the region and tourists in winter. In spring citizens and guests are invited to Bukovyna tourism fair, Fast of the family, Ukrainian national festival “Vyshyvanyy rid” (festival of national clothes); in summer - Festival of street orchestras, Beer festival, also many fairs; in autumn - Celebrating the Day of Chernivtsi, Culinary arts festival "Bukovina hospitality”, Regional folklore festival "Autumn Wedding" and others.

Organisations in tourism, information available on touristic attractions

Regarding **Borsod-Abaúj-Zemplén** County and **Szabolcs-Szatmár-Bereg** County organisations in tourism are represented by TourInform offices throughout the counties (12 in Borsod-Abaúj-Zemplén, 3 in Szabolcs-Szatmár-Bereg) and the local offices of the Hungarian Tourism Destination Management Organisations Association, local and regional tourism offices/societies and travel agencies. Information on touristic attractions is available on nationwide, thematic or local websites, and there are examples of the usage of modern technology (Tokaj: Guide@hand mobile application). The system of websites is difficult to follow and there is almost nothing is available online in English or in the neighbouring languages (Ukrainian, Slovak, and Romanian). Cooperation with national/regional/local and international tourism bodies are promoted by TDM organizations.

Regarding the **Romanian counties**, in total there are 5 tourist information centres in the North-West region: 3 in Cluj County, 1 in Bihor şi 1 in Maramureş. In June 2014 a new Tourist Information Centre was inaugurated in Satu Mare, having as mission the promotion of Satu Mare county as cultural, historical, economic and religious value in European context. Presently, there are on going projects of Maramureş County Council and local public authorities for the creation of tourism promotion and information centres is Baia Mare, Borşa, Seini, and Vişeu de Sus, as part of a tourist information and promotion network.The main tourist promotion associations from Satu Mare and Maramureş counties are: Maramureş Infoturism, the Association for the Promotion and Tourist Development Maramureş, “Natură Sănătate Turism Satu Mare” Association, and “Pro Turism” SM Association. In June 2013, in the North-West region there were 329 tourism agencies licensed by the National Authority for Tourism, out of which the greatest number in Cluj county (167), followed by Bihor (75) and Maramureş (38). In Satu Mare County a significant progress can be notice in the last few years related to the documentation of tourist objectives. A series of project were implemented – or are still on going – for the elaboration of tourist information and promotion materials, conception of tourist routes and informing/training related to the valorisation of tourist potential of some objectives in the county. Some major tourist attractions have developed information websites (e.g. Tăşnad resort www.tasnad-statiune.ro). Moreover, different information portals were developed in accordance with some specific tourist attractions – e.g. the webpage of Satu Mare Wine Route (http://vinulsatmarean.ro/) or the religious patrimony from Satu Mare and its surrounding cross-border areas – the route of Medieval Churches. The most important thing is that a joint brand was developed („Satu Mare – Hospitality is our tradition”), which is assuring coherence of all these activities.

In **Zakarpatska** region tourism development is determined as strategic direction of Transcarpathia. Annual monitoring of the tourism industry in the region confirms the positive trends in its development. They are reflected mainly in the growth of a network of spa, recreation and hotel

facilities of Transcarpathian region. One of the most popular types of tourism in the Carpathians is health tourism with the use of mineral and thermal water. Thus, many tourists visit the modern sanatorium complex "Polyana", "Susirya", "Thermal-Star," "Carpatia", “Zakarpattya” and other.As was shown by the research, in recent years in the region 13 tourist information centers have been established, which are present in almost all administration units of the region. However, existing potential not realized primarily because of the lack of a fully adapted to market conditions, government development policy in the sphere of domestic tourism. The main problems are: lack of sufficient qualified staff and specialized educational institutions for their preparation; no legislative mechanism of registration of private farms that provide rural tourism services. In **Ivano-Frankivska**region in general, the region has 96 tourist complexes, resorts and hotels (incl. private houses, used as hotels) that can simultaneously accommodate up to 8 thousand tourists.Very popular are ski resort “Bukovel”, and organizations, providing services of kayak competitions on the rivers Prut and Cheremosh and hang-gliding. The disadvantage of the tourist sector is that the owners of such organizations are oriented on wealthy consumers. The other tourists create demand on the so-called "green tourism" or “agrotourism”. Tourism Ivano-Frankivsk region is one of the most important sectors of the economy which contributes to improvement of the economic development of the region. However, the tourism and recreational facilities needs financial resources to be improved. In **Chernivtska**region there are 17 kinds of tourist and recreational facilities in Chernivtsi region. They are ski centers, hotels and tourist complexes, tourist centers, sanatoriums, resorts, recreation centres, international sports and tourist complexes. Thus, the region has many opportunities to invite many tourists from all over the world.But there are many problems in the sector. They are related to low institutional support, and as a result, the state of the industry has the following disadvantages:outdated infrastructure;outdated utility lines;worn-out electricity supply network;hotels and other places of temporary accommodation in need of reconstruction;need of reconstruction of Chernovtsy airport, which is far behind from European characteristics.

7.1.4 Environmental protection, climate change mitigation and adaptation (TO6)

Aggregate potential impact of climate change

Climate change isa significant factor influencing the future development of the EU and its neighbouringregions. Improving the capacity to adapt to climate change is high on the agenda of the European Union. In fact, two of five Europe 2020 headline targets (reducing greenhouse gas emissions and increasing renewable energy use) are directly linked to this issue. There is an ever increasing body of evidence / research results that can be applied (not ignoring some level of uncertainties when dealing with climate change projections).The ESPON Climate project[14] introduces a standard set of indicators to assess climate change and its impacts in the NUTS3 regions of the European Union.

The first indicator is the “Aggregate potential impact of climate change” shows the weighted combination of physical, environmental, social, economic and cultural potential impacts of climate change. From this perspective, 3 out of the 7regions(Prešov, Satu Mare, Suceava) face low negative

[14]ESPON Climate – Climate Change and Territorial Effects on Regions and Local Economies – Final Reporthttp://www.espon.eu/export/sites/default/Documents/Projects/AppliedResearch/CLIMATE/ESPON_Climate_Final_Report-Part_B-MainReport.pdf

impact, Maramureş, Szabolcs-Szatmár-Bereg and Košice face medium negative impact, while Borsod-Abaúj-Zemplén is in the worst category (highest negative impact).

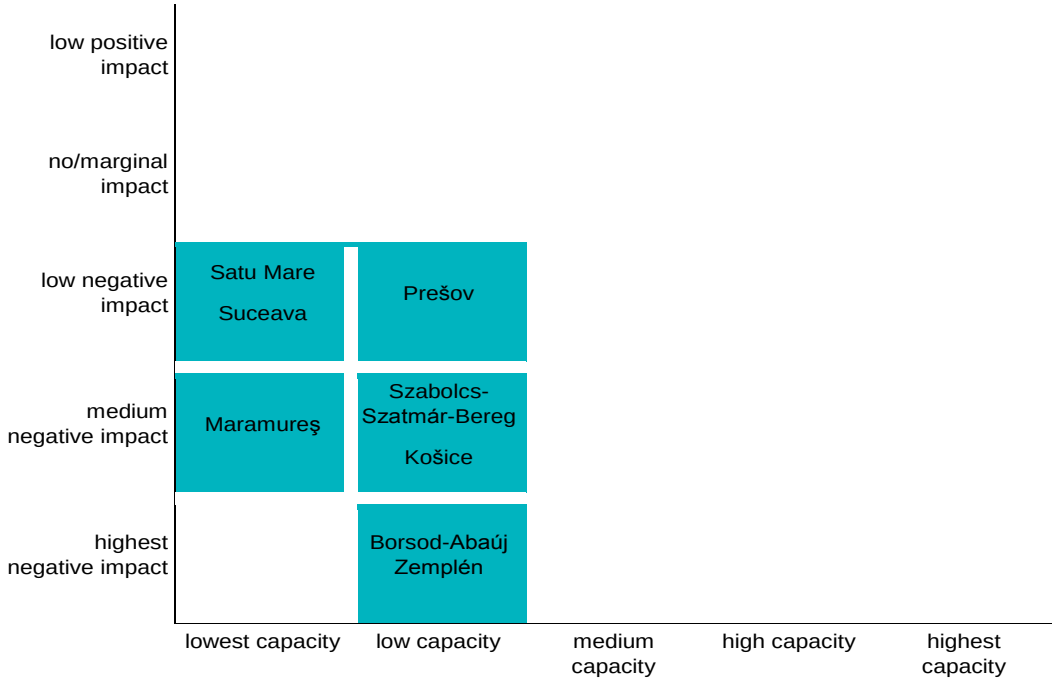


Figure 21: Aggregate potential impacts of climate change (2013)
Source: ESPON Climate – Climate Change and Territorial Effects on Regions and Local Economies – Final

Adaptive capacity

The overall adaptive capacity of the area is also a crucial indicator. Unfortunately, the eligible area does not exhibit an optimistic situation: all the Romanian counties are characterised by the lowest overall capacity to adapt to climate change – in fact, they are amongst the lowest 25% of all European and CBC NUTS3 regions, while the Hungarian and Slovakian regions have just a slightly better situation by having low overall capacity to adapt.

Vulnerability to climate change

The combination of regional potential impact and the overall adaptive capacity of the given region present its vulnerability to climate change. This complex indicator highlights a fairly critical picture: Borsod-Abaúj-Zemplén is characterized by highest negative impacts, Maramureş, Satu Mare, Szabolcs-Szatmár-Bereg and Košice exhibit medium level of negative impacts, and only Prešov, Suceava can face low negative impacts.

The ESPON Climate study introduces a climate change classification of European regions, identifying 5 different types:

- Southern-central Europe (6 regions in the programme area fall into this category)
- Northern-central Europe (it includes Prešov)
- Northern Europe
- Mediterranean region
- Northern-western Europe

Considering the climate change projections for Southern-central Europe, the affected regions can expect a strong increase in mean temperature, a strong decrease in frost days and also strong increase in summer days. With regard to precipitation, the regions can also expect strong decrease of precipitation during summer months. Predictable changes in Northern-central Europe are strong decreases in frost days and reducing number of days with snow cover.

UNESCO natural world heritage sites

The area has **2 natural heritage sites** protected by UNESCO:

1. **Caves of Aggtelek Karst and Slovak Karst**

The Caves of Aggtelek Karst and Slovak Karst – covering areas of**Borsod-Abaúj-Zempléncounty**and**Košický region**- are outstanding for the large number of complex, diverse and relatively intact caves concentrated into a relatively small area. The caves are located at the north-eastern border of Hungary and the south-eastern border of Slovakia, this exceptional group of 712 caves, recorded at time of inscription, lies under a protected area of 56,651 ha and a large buffer zone. Karst processes have produced a rich diversity of structures and habitats that are important from a biological, geological and paleontological point of view. Shaped over tens of millions of years, the area provides an excellent demonstration of karst formation during both tropical and glacial climates, which is very unusual and probably better documented here than anywhere else in the world.The caves display an extremely rare combination of tropical and glacial climatic effects; they make it possible to study geological history over tens of millions of years.The most significant cave system in the property is that of **Baradla-Domica, a 21 kms long cross-border network** richly decorated with stalagmites and stalactites, which is an important active stream cave in the temperate climatic zone and a Ramsar site. Also worth mentioning is the **Dobsina Ice Cave**, one of the most beautiful in the world. The close proximity of many different types of caves of diverse morphology, as well as important archaeological remains, makes the property an outstanding subterranean museum. Its ecosystems provide habitat for more than 500 troglobiont or troglophil species, including some which are local.

The Caves of Aggtelek Karst and Slovak Karst lie over a total area of 55,800 ha and topographically comprise limestone plateaus dissected by deep river valleys. This is the most extensively explored karst area in Europe. Hydrological conditions are characterized by a lack of surface streams, except between mountain basins, and the complex circulation of underground water. The flora is representative of both Pannonian and Carpathian elements. Approximately 70% of the territory consists of deciduous woodland dominated by hornbeam and oak.The fauna includes wolf, lynx, red deer, roe deer, wild boar, wild cat and badger. Nesting bird species include: rock bunting, black stork, corncrake, imperial eagle, dipper, Ural owl, saker falcon, short-toed eagle, honey buzzard. Of particular scientific interest are the cave and subterranean water fauna. Beetles and other insects are abundant. Cave worms are often found in sand and clay deposits whereas molluscs are associated with underground streams, and crustaceans occur including an endemic species of primitive carb. A total of 21 bat species have been identified in the Slovak Karst.

A significant aspect of the area is that the karst features of the caves contain a great deal of evidence pertaining to the geological history of the last several millions of years. The present karst landscape has been developing intermittently since the late Cretaceous period. There is one sizeable settlement (Silica) and two hamlets within the Slovak protected area and two villages (Aggtelek and Jósvafő with approximately 1,100 inhabitants) inside the Aggtelek National Park's boundaries. There is a pollution problem which is contaminating cave waters and threatening the park's ecosystem which arises from the increased use of pesticides and fertilizers in the surrounding areas and from tourist's vehicles and nearby industry.

2. **Primeval Beech Forests of the Carpathians and the Ancient Beech Forests of Germany (SK:Prešov region – UA: Zakarpatska region)**

Primeval Beech Forests of the Carpathians and the Ancient Beech Forests of Germany is a transnational composite nature site. It includes ten separate massifs located along the 185 km long axis from the Rakhiv mountains and Chornohora ridge in Ukraine over the Poloniny Ridge (Slovakia) to the Vihorlat Mountains in Slovakia (the Ancient Beech Forests of Germany also include five other locations in various parts of Germany).Primeval Beech Forests of the Carpathians covers areas of **Zakarpatska and Prešov regions**. Over 70% of the site is located in Ukraine and covers 29279 hectares in the two countries. The area includes two national parks (Uzh National Park and Poloniny National Park), a biosphere reserve, and a few habitat controlled areas (mostly in Slovakia). Both national parks compose a separate biosphere reserve, the East Carpathian Biosphere Reserve.

Figure 22: Primeval Beech Forests of the Carpathians
Source:http://commons.wikimedia.org/wiki/File:Beech-whc.jpg

#	Massif	Region	Type of nature reserve	Preserved area (ha)	Buffer zone (ha)
1	Chornohora	Zakarpattia	Carpathian Biosphere Reserve	2 476,8	12 925,0
2	Uholka / Wide Meadow			11 860,0	3 301,0
3	Svydovets			3 030,5	5 639,5
4	Maramoros			2 243,6	6 230,4
5	Kuziy / Trybushany			1 369,6	3 163,4
6	Stuzhytsia / Uzhok		Uzh National Nature Park	2 532,0	3 615,0
7	Stužica / Bukovské vrchy	Prešov	Poloniny National Park	2 950,0	11 300,0
8	Rožok		Prešov Preserved areas	67,1	41,4
9	Vihorlat			2 578,0	2 413,0
10	Havešová			171,3	63,9
			Slovak regions, total:	**29 278,9**	**48 692,6**
11	Jasmund	Mecklenburg-Vorpommern	Jasmund National Park	492,5	2 510,5
12	Serrahn		Müritz National Park	2 681,0	2 568,0
13	Grumsiner Forest	Brandenburg	Grumsiner Forest Nature Reserve	590,1	274,3
14	Hainich	Thuringia	Hainich National Park	1 573,4	4 085,4
15	Kellerwald	Hesse	Kellerwald-Edersee National Park	1 467,1	4 271,4
			TOTAL:	**36 083,0**	**62 402,2**

Figure 23: Preserved area of the Primeval Beech Forests of the Carpathians
Source:http://en.wikipedia.org/wiki/Primeval_Beech_Forests_of_the_Carpathians_and_the_Ancient_Beech_Forests_of_Germany

The Ancient Beech Forests of Germany represent examples of on-going post-glacial biological and ecological evolution of terrestrial ecosystems and are indispensable to understanding the spread of the beech (Fagus sylvatica) in the Northern Hemisphere across a variety of environments. These undisturbed, complex temperate forests exhibit the most complete and comprehensive ecological patterns and processes of pure stands of European beech across a variety of environmental conditions and represent all altitudinal zones from seashore up to the forest line in the mountains. Beech is one of the most important elements of forests in the Temperate Broad-leaf Forest Biome and represents an outstanding example of the re-colonization and development of terrestrial ecosystems and communities after the last ice age, a process which is still ongoing. They represent key aspects of processes essential for the long term conservation of natural beech forests and illustrate how one single tree species came to absolute dominance across a variety of environmental parameters.

Protected natural areas

The **Natura 2000 sites** in the cross-border area (in the Member States) involve numerous sites primarily in the northern part of the eligible area (Košický and Prešovský regions and in Borsod-Abaúj-Zemplén county) and smaller but not least important sites in Szabolcs-Szatmár-Bereg, Maramureş and Suceava counties concerning the area of the Western- and Eastern-Carpathians. The demarcation lines of protected habitats surely do not stop at the borders in reality and the Ukrainian part of the Eastern-Carpathian Mountains must involve other sites that would involve areas of similar characters as the Natura2000 sites according to the European Union's directives. The Western- and Eastern-Carpathians involve all eligible regions and counties except Szabolcs-Szatmár-Bereg County.

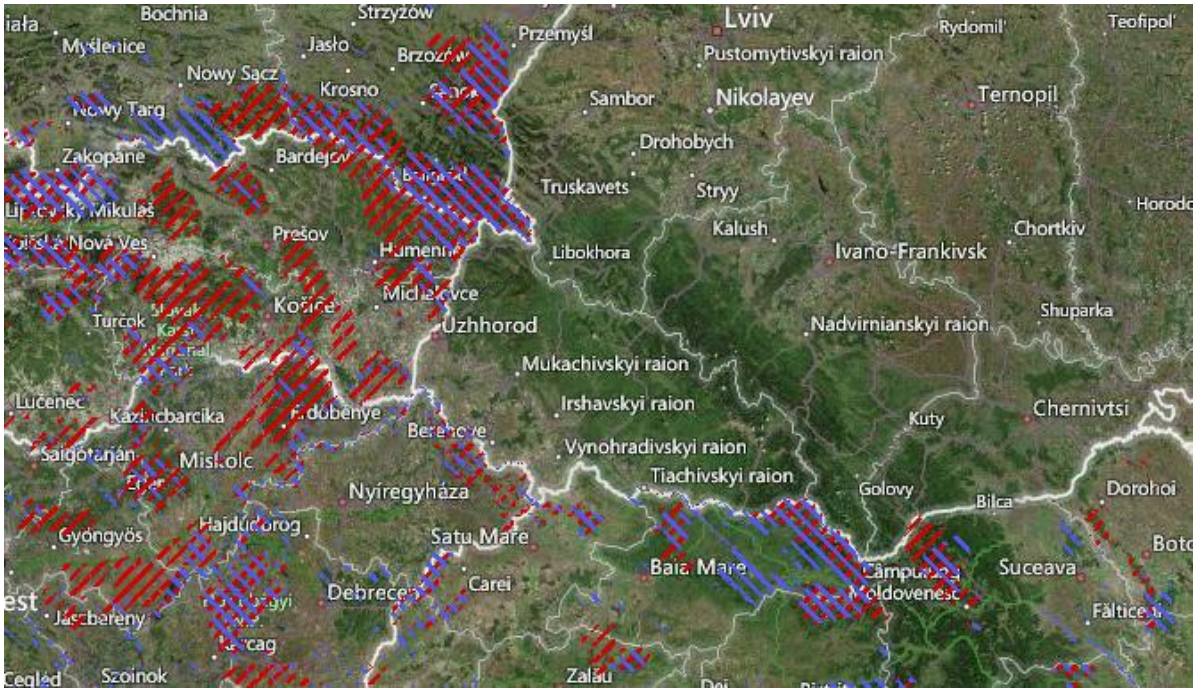


Figure 24: Natura 2000 sites in the Member States of the cross-border area (2015, blue: habitats sites, red: birds' sites)
Source: http://natura2000.eea.europa.eu

National parks and nature parks, protected landscape areas and biodiversity

Borsod-Abaúj-Zemplénis a home of 3 national parks on its territory: the Bükk National Park, the Aggtelek National Park and a small, northern part of the Hortobágy National Park in the southern tip of the county; the county also a host of 6 protected landscape areas (Lázbérci, Borsodi-Mezőségi, Kesznyéteni, Tarnavidéki, Tokaj–Bodrogzugi and Zempléni).**Szabolcs-Szatmár-Bereg** does not possess national parks but is a host of 3 protected landscape areas (Hollókői, Karancs–Medvesiand Szatmár-beregi). Besides the protected landscape areas 11 national nature conservationareasalso can be found here. Caves of the counties are protected ex-lege.**Borsod-Abaúj-Zemplén** is characterised by oak, hornbeam, oak and beech forests and alder. There are many high mountain flora elements common in the Carpathians. Unique, rare protected habitats are featuring mountain meadows rich in orchids, water marshes, the colorful rocky silicate and acid soils, blueberry beech, birch woodlands. Significant populations of big game can be found here, including the Carpathian deer and the most of the protected species of domestic mammals can be found as well. Bird life is characterized by the presence of mountain species (for example: black stork and the grouse). Viper berus also lives here. The high number of smallest of insects and other invertebrates which do not occur elsewhere in the country add to the richness and value of the mountain ecosystem. The county is also a home to avocets, gray heron, and great aigretteas feeding and resting place. 41 nesting bird species have been observed by professionals. In the ash-forests of the **Szatmár-Bereg** Plain lives the rare subalpine endemic plant the Carpathian saffron too. In the waters of the Upper Tisza region there are about 45 species of fish occur. Amphibians and reptiles worth mentioning are the marsh frog, newt, potted newt, mountain or viviparous lizard (Csaroda, Bátorliget), the spotted salamander (Lónyai- and Bockerek forest) and the Viper Berus (Lónyai-, Bockereki- and Déda forest). The White Tiszavasvári-

based Conservation Area represents outstanding natural value due to the significant bird migration, including various herons and small colonies of aigrettes.

In the **Kosice region** there are located, or partially interfere with it two national parks: Slovensky raj and Slovensky kras, 2 protected landscape areas and 140 small protected areas, of which 40 national nature reserves, 47 nature reserves, 23 national natural monuments, 18 natural monuments and 6 protected areas. Most designated protected areas are located in the district of Rožňava (35), in the district of Košice vicinity (29), Spisska Nova Ves (24) and Trebišov (16). Least designated protected areas are located in the districts of KošiceI. (3) and Gelnica (3).Natura 2000 ensures the favourable conservation status of populations of selected species of fauna and flora and the favourable conservation status of habitats.National list of proposed SPAs under the Birds Directive was adopted by the Government Resolution no. 636/2003. It contains 38 sites, of which there are 9 or interferes with the Kosice region. The proposed SPAs pays first level of protection and the protected bird areas shall be prohibited to carry out activities that may adversely affect the object of protection.Features of vegetation and species richness correspond to the natural conditions and anthropic activities in the territory. A significant factor affecting the character of the vegetation is more continental character of the climate (compared to now located further west regions), which determined the creation and existence of specific plant communities. Original composition and abundance of taxa can be observed today mostly only in hilly areas. Given the bedrock found here it provides for appearance of calcareous species. The species composition of vegetation reflects stepped topography of the Kosice region. There may allocate level plains and hilly areas up to altitude of 500 m characterized by oak and oak-hornbeam forests and lowland floodplain forests, foothill stage (sub-mountainous) of altitude 500-1000 m, originally covered with beech or beech and fir forests and lignite level to 1500 m represented by a mixed beech and fir, spruce and fir-spruce forests. In the rugged terrain (especially karst and mountainous areas) also generic inversion of plants can be observed. In the Kosice region there are the West Carpathian and Carpathian endemic species, bound to the rock, but also a steppe and grassland habitats. There are some rare species of mammals, as well as lower animal species. From the ornithological point of view the protected areas of the Kosice region represent one of the most important sites in Slovakia, but also of Europe (raptors, waders, passerines – Senne rybniky lakes). In the region there is a large species diversity of insects, bats, as well as deer. For amphibians, there are particular all four species of salamanders (frog and salamander), from the snakes very rare snorting and tree snakes. From the water and the water bound species are rare animal species such as crayfish, trout, and Carpathian brook lamprey. From hunting (furred and feathered) animals in the wild there are all important species such as deer, roe deer, wild boar, partridge, hare and the like. Of rare species whose hunting is strictly regulated, in view of the natural conditions, the largest populations of game animals are found in the district Rožňava. Nature and landscape protection means limiting interventions that may threaten, harm or destroy conditions and forms of life, natural heritage, the landscape and reduce its ecological stability, as well as the removal of such interventions. Nature conservation also means the care of ecosystems. In the Košicky region there are located, or partially interfere with it the two national parks – Slovenský raj and Slovenský kras and two protected landscape areas - Vihorlat and Latorica. The total area of large protected areas is reaching 94 666 ha, accounting for 14.02% of the region. The stringent protection of nature is realized in the 4th and 5th level of protection for small protected areas, where 137 protected areas have been declared with a total area of 9 120.85 ha, which is 1.35% of the region. The total area of protected areas with the second to fifth level of protection is 98 024,41 ha, representing 14.51% of the region without territory of NATURA 2000 sites. In the Košicky region there are 45 declared protected trees or groupsrecorded.

Fivenational parks(out of the 9 in Slovakia) and numerous national protected areas can be found in the **Prešovskýregion**: (TANAP, Nízké Tatry, Pieniny, Poloniny and Slovenský ráj). **HighTatras National Park (TANAP)** is Slovak national icon. It is an area of great natural beauty with rich variety of scenery and wildlife. Gerlachovský Peak is the highest Slovak mountain. It looms over the steep rocky hogbacks, ridges, saddlebacks, beautiful slopes and meadows. TANAP is also well known for high number of waterfalls and mountain lakes. High Tatras area is covered by deep spruce forests, dwarf pine zones and grassy uplands. Areas reaching higher altitudes than grassy uplands are mostly formed by rocks covered with lichens and mosses. TANAP is home to many rare animal and plant species called endemits. Brown bear, lynx, chamois (endemit), marmot, deer, wolf and wild boar are just examples of TANAP's fauna. You can spot a woodpecker, a blackbird, an eagle or a buzzard. All plants growing in the park area are protected. One can find edelweisses, gentians, bells and a summer ceps. Together with the neighboring Polish Tatra National Park the park became a **UNESCO biosphere reservation area** in 1993.**Nízké Tatry National Park** (Lower Tatras National Park) is Slovakia's largest national park, with very extensive rounded mountains and magnificent valleys and numerous caves.Calcifuges and calcareous flowers are represented in the Low Tatras. The protected species which grow here are edelweiss, several species of saxifrage, pasqueflower. Low Tatras are the only place in Slovakia, where a modified saxifrage and comma-shaped crimpy is growing. An interesting occurrence is Tatra ochyrea (moss) which is a Low Tatras endemic.A lot of hunted animals are living in forests of Low Tatras, represented by the deer, wild boars and roe-doe. Here living wild beasts are represented by martens, weasel, lynx, fox, wolf and in the outskirts the Mountain Wildcat. Favourable conditions are for the existence of brown bears. In the alpine zone are living typical alpine animals such as scratcher, marmot population and the population of chamois.**Pieniny** National Park lies in the Pieniny mountain range; its characteristic by remarkable stony hills. Tri koruny (Three Crowns) is the most popular and most impressive one lying on the Slovak side. It has taken centuries for rivers to hollow those beautiful canyons embellishing the park today (Dunajec River and Lesnícky potok valleys). 200-300m deep Dunajec River valley is the most impressive one. It is rightly considered the largest canyon in Central Europe. The valley is home to many aquatic as well as terrestrial animals. European Otter, beaver, deer, bear, wolf and lynx from bigger animals; lizard, grass snake, European viper, different kinds of frogs and salamander form reptiles and amphibians, and falcon, buzzard or eagle-owl form birds. Dunajec River is home to about 20 different school of fish, for example pike and trout. The park territory is also home to many endemic plant species.**Poloniny** National Park does not have very ragged relief however the altitude difference reaches as much as 1,200m (3,936ft). The area is mostly covered with fir and beech forests. Stužica Carpathian primaeval forest with 400 years old beeches lies within the park's territory. Poloniny National Park is characteristic by free-ranging herds of the European bison and Stariná- Slovak largest reservoir of drinkable water.**National Park of Slovenský raj**is situated in the eastern part of Slovakia contains one of the biggest ice caves in Europe and an attractive landscape of karstic plateaux, gorges, waterfalls and caves. The monuments that testify the oldest history of the region and the country are also here.The prevailingly spruce forest, which covers 90% of the Park area, is its most valuable asset. The base rock here is limestone and thanks to it, the local flora is remarkably varied. Animals are represented by 200 species, including the bear, lynx, wolf, deer and boar. Several species of rapacious birds nest in the rocks of the Park.Typical features are canyons, gorges and ravines (Sokol, Suchá, Belá, Piecky and Kyseľ), which form picturesque rocky scenes with waterfalls, and which were created mainly by the rivers Hnilec and Hornád. 80% of the area is covered with spruce forests combined with yew-trees.There are more than 200 caves and underground abysses. Among the caves, Dobšinská ľadová jaskyňa (Dobšinská Ice Cave) and Medvedia jaskyňa (Bear Cave) are the best known ones.The area is covered with Norway spruce (Picea abies), European beech (Fagus

sylvatica), fir, larch and Scots pine (Pinus sylvestris).Important endemic plants in the area are the Carpathian harebell (Campanula carpatica), Pulsatilla slavica, Hesperis silvestris, Liguria sibirica, and Saxifraga paniculate. Other plants found in this area are the mountain tassel flower (Soldanella montana), martagon lily (Lilium martagon), variegated monk's hood (Aconitum variegatum).

Regarding **Romanian counties**, the soil and climate conditions, the geographic position and the relief of the territory have favoured the apparition and development of some habitats of great diversity and value, which lead to the declaration of numerous natural protected areas, both of national and also of European and world-wide interest. Consequently, a number of 65 habitat types of community interest have been identified.The wild flora is characterized by 27 vegetal species of community interest, while a number of 310 animal species of community interest have been identified. Out of these 227 are birds and 83 are other animal species. As a result of this diversity, 22,04% of the territory of the region is being declared Natura 2000 site, which situates the region close to the European average. In accordance with Law no.5/2000, with Government Decision no. 1581/2005 and no. 1143/2007 in the **North-Western Region** a number of 170 natural protected areas of national interest have been declared. The total area of these protected areas is 281.845 ha, representing 7,37% out of the total area of the Region and 5,28% out of the total natural protected areas from Romania.Taken into account the total surface of protected natural areas of national interest the greatest part of these areas are situated in Maramureş county (60% out of the total surface of the county). From these areas of national interest, one could mention the Maramureş Mountains National Park (Category IUCN V - International Union for Conservation of Nature, V – Protected Terrestrial/Marin Landscape), as being the biggest one in Romania, with a 148.850 ha surface.At regional level, the Natura 2000 network comprises 71 sites of community interest (SCI) and 17 birds special protection areas (SPA), with a total surface of 724759 ha, representing 9,23% out of the total surface of Natura 2000 sites from Romania. In **Suceava** county there are 27 natural protected areas on the territory of the county exist. There a re high value of forests from ecological and economic point of view (valuable species), and the county has a rich hydrographical network, with a higher density than the national average, which could be valorised through the development of activities related to fruit growing and fishery.The biodiversity of the county is varied and rich. The nfrastructure for the administration of natural protected areas is insufficiently developed, the percentage of high quality surface waters is low, the awareness of population and economic actors concerning the importance of protected areas is low, financial and human resources for the management of protected areas, of community interest species and habitats are insufficient.

In Ukraine, in **Zakarpatska** region there are 456 nature reserves on the area of 177 thousand hectares (13,8 % of the total area of the region). There are: Uzhansky National Nature Park, National Park “Fascinated Land”, National Park “Synevyr”, Carpathian Biosphere Reserve and Regional Scenery Park “Prytysyansky”. In addition to this, there are 19 reserves of national importance, 41 reserve of local importance, 11 natural monuments of national importance, 329 natural monuments of local importance, 9 natural landmarks of local importance, 32 monuments of landscape art of local importance and 4 dendrological parks of local importance.The natural reserves of the region represent the main types of landscapes with their indigenous vegetation and therefore play a key role in shaping of qualitative environmental network and maintaining biotic and landscape diversity. The nature reserve fund of Transcarpathian region can be considered one of the best in Ukraine. At the same time there are some problems. Thus, at the moment one of the main problems in environmental preservation in the region is progressive accumulation of waste as a result of

inefficient measures of its utilization and disposal. Frequent floods caused by terrain features only complicate the situation with waste disposal. Very important is also to improve preservation of species listed in the Red Book and take measures on enhancement of public awareness on environmental protection.Forests cover an area of about 500000 hectares (this is 45% of Transcarpathia). There are about 2000 species of higher plants in the region. Most forest species are as follows: beech (58%), fir (31%), oak (7%), as well as birk, larch, alder, yew, pine, ash-tree and maple. 272 plant species of Transcarpathian region are listed in Red Book. Transcarpathia is home for 80 species of mammals, 280 species of birds, 10 species of reptiles, 16 species of amphibians, 60 fish species, 100 shellfish species. Almost half of all fresh-water fish Ukraine indwell in Transcarpathia. 168 animal species of the region are listed to Red Book.

In **Ivano-Frankivska** region the natural reserves of Ivano-Frankivsk region cover an area of 195633 thousand hectares. There are1 Natural Reserve, 3 National Parks, 3 regional landscape parks, 60 nature reserves, 81 natural monuments,5 dendrological parks, 8 monuments of landscape architecture and 195 natural landmarks. The basis of the reserve fund are national parks – they cover 44,2% of all protected areas, natural reserves – 2,8%, regional landscape parks – 24,9%, reserves - 24%. Quantitatively dominate nature monuments and natural landmarks - respectively 41,3% and 42,47% of all protected areas, but the area they cover is small (0.68 and 2.9%, respectively).Most protected areas (59,4%) are concentrated in the mountainous areas of the region, 19,3% - within the foothill areas, 21,3 % - on the plains.Significant value has the natural reserve "Gorgany" with area of 5,3 thousand hectares. The reserve was created to protect natural systems in high-mountain Carpathians. The other significant reserves in the region are Carpathian National Park (50,3 thousand hectares), which is the first and one of the largest national parks in Ukraine and which was created to protect ecosystems of Chornohora and Gorgany and natural reserve “Gustulshchyna”, with area of 32,2 thousand hectares, which preserve biodiversity of Pokutsky Carpathians.For Biodiversity Ivano-Frankivsk region is one of the richest in Ukraine.Landscape, soil and climatic conditions as well as other natural factors caused diversity and richness of flora of Ivano-Frankivsk region. The following species dominate in forests of the region: pine, fir, larch, cedar, oak, alder, cherry and walnut. Among them we can meet European cedar (age reaches 3 thousand years) and European yew (Taxus baccata) - most long-lived tree in Ukraine. The Red Book of Ukraine contains 228 plant species, which grow on the territory of the region. 56 species from those listed in the Red Book can be found only in Carpathians.In comparison with other regions of Ukraine fauna of Ivano-Frankivsk region can be characterized as much richer. There are 435 species of vertebrates (mammals - 74 species, birds - 280 species). 149 of all animal species living in the region are listed in Red Book of Ukraine.

In **Chernivetska** region more than 12% of the area of Chernivtsi region is covered by protected areas (generally in the country – 4,65%). The total number of protected areas in Chernivtsi region is 331. The most important protected areas in the region belong National Parks “Vyzhnytsy”, “Cheremotsky” and “Hotynsky”. National Parks “Vyzhnytsy” and “Cheremotsky” were created to preserve and restore natural landscapes, to conserve valuable natural objects of Carpathians of Bukovyna. National Park “Hotynsky” is created for preservation of valuable natural, historical and cultural objects of Dniester river basin. Rapid increase of number of natural preservation areas for the last 5 years (Natural parks “Cheremotsky” was created in 2009 and “Hotynsky” – in 2010) is the result of growing demand for ecotourism in the region. Development of ecotourism sector in Chernivtsi region is one of the important priorities, facing in spite of this, a range of problems. Thus, one of the important prerequisites for development of ecological tourism is necessity of creation of special organizations – entities, providing excursion and tourist services. In addition to this the sector of ecotourism requires support of authorities, and funding for elaboration of changes to relevant legal

framework, infrastructure development etc. Equally important is also ecological education of population of the region.Within the protected areas of the region grow more than 1,600 species of plants, 106 of which are listed in the Red Book, which is a quarter of all species in Red Book. Fauna of the protected areas is represented by 392 species of vertebrate and more than 1500 species of invertebrate animals, 118 of which are listed in the Red Book (31%).More than 50% of territory of Carpathians is covered by forest. 31,2% of the Chernivtsi region is covered by forest. 140 plant species, growing in the region, are listed in the Red Book.

Forests

The cross-border area (Slovak regions due to missing data are not included) owns 594.460 hectares (5.945 km2) protected natural area of national importance which **is 7.2% of the territory of the cross-border area**. Within the region the largest areas of protected natural areas are situated in **Maramureş** (24,5% of the county's territory) **Borsod-Abaúj-Zemplén** (15% of the county's territory) and **Zakarpatska** (11.5% of the region's own territory).

The distribution of proportion of protected natural areas among the 3 countries: Ukrainian regions 48.5%, Romanian counties 27.9%, Hungarian counties 23.6%.

According to the map showing the proportion of forests in the cross-border area the forest cover exceeds 35% of the territory in 6 and 45% in 3 out of 10 areas.Among the countries concerned, Slovakia is considered to be the most wooded area. Based on 2012 data, the proportions of forest cover in both Slovak regions (Košický 40%, Prešovský 49%). Ukraine also has similarly favourable endowments: 51% of the area Zakarpatska and41% of Ivano-Frankivska are forest areas but Chernivetska region has close to 30% forest cover. Counties of Romania also havemore than 40% forest cover (42% in Maramureş, Suceava 51%); however Satu-Mare countypossesses only 16%. Hungarian counties have forest cover between 20-30% (Borsod-Abaúj-Zemplén: 30%; Szabolcs-Szatmár-Bereg: 22%).

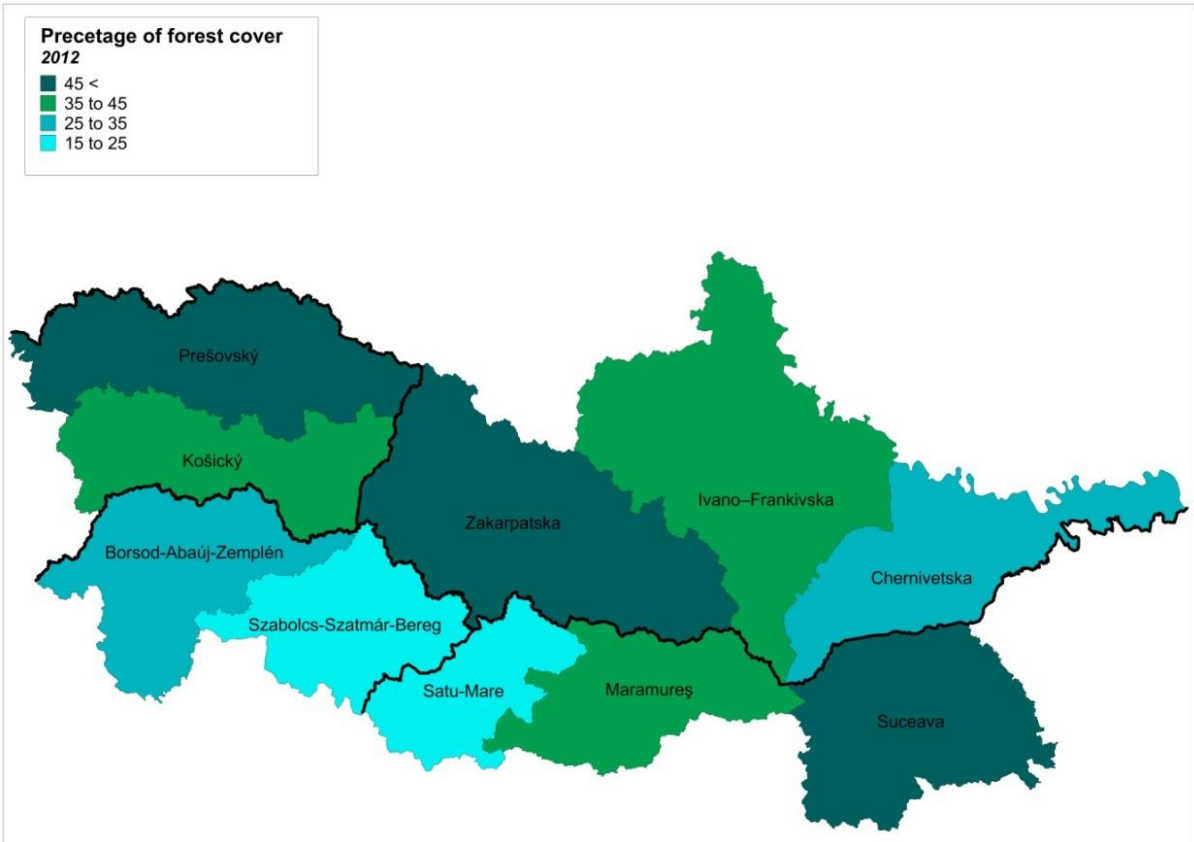


Figure 25: Percentage of forest cover in the programme area (2012)
Source: HCSO, SOSR, NIS, SSSU

Wastewater treatment

Data regarding the share of **treated municipal wastewater** is rather insufficient, but it can be stated that the proportion of treated municipal wastewater **only in the Hungarian counties is 100%**, in the **Romanian counties it is about 75-80%**. Regarding the **Ukrainian regions** in **Ivano-Frankivska** the proportion of treated municipal wastewater is **92%, the other 2 regions are lagging behind with 43-53%**. In **Prešovský region** the proportion of treated municipal wastewater is **slightly above 60%.**

According to 2011 data, the proportion of households connected **regular waste disposal system** is at least about 90% in the Hungarian and Romanian areas. Compared to this, Slovak regions have significantly lower rates around 60%. For Ukraine, this data was not available.

In **Borsod-Abaúj-Zemplén**County, the major industrial emissionsare significant compared to the national average. No waste waters are drainaged without purification; the rate of only mechanically treated waste water is much lower than the national average. The number of homes connected to the sewage network was 287336 units in 2011. 65,8% of all units are connected to the sewage system, which is below the 72,5% of the national average (source: Central Statistical Office T-Star, 2011). The rate of properties connected to the sewage network is about 55-60%. This value changes depending on the nature of the settlements: in major cities - as Miskolc, Kazincbarcika, Tiszaújváros the connection rate is typically equal to or in excess of 80-90%, while in other types of settlementsthe rate varies between 15-85%, indicating a significant dispersion. Compared to 2010 the amount of treated waste waterdecreased by 37% in the county, this value is much higher than the national average. In **Szabolcs-Szatmár-Bereg** county 112 of 222 settlementsare equipped with -

partially or entirely - public utility sewage network in 2012. Sewage systemagglomerations (small areas) have been formed by the settlements and as a result, the wastewaters of connected settlements are being cleaned in about 50 wastewater treatment plants. The proportion of households connected tothe drainage system is 52% (2012). The county's major settlements - except Nagyecsed - have partial or full channel network. The vast majority of the municipalities,gravity type collection system networkswere built. Low pressure system operates in four settlements, while a combination of the two systems in 10% of the settlements. Vacuum sewerage system is not functioning.

The persisting problem of all regions, in particular the rural ones, is the underdeveloped system of sewer networks and waste water treatment plants, which is also the cause of the high level of pollution of water courses. The share of inhabitants connected to sewerage with a waste water treatment plant in Slovakia increased but significant regional disparities also exist in this area.Development of public water supplies in **Košicky and Prešovsky region**are lagging behind the national average.

In the **Romanian regions** the regional water systems need improvement and extension and at the same time, investments are needed for waste management. The quality of environment is needed to be improved; rehabilitation of contaminated sites and biodiversity protection is supported as part of the long-term sectorial strategies. In year 2012, the connection level of population to centralized water systems was only 56,7%. The **North-East Region of Romania**(including **Suceava county**) disposes a reduced share of localities and population connected to the drinking water network - 62,13% of connected localities (73,18% at national level in 2012), 45,25% of connected population (60,15% at national level), a reduced share of localities and population connected to the sewage network - 28,44% of connected localities (in 2012); 35,36% of connected population (46,78% at national level).The **North-West Region** of Romania (including **Maramureş**and **Satu Mare**counties) can be characterized bya series of polluting factors, uncontrolled storage of waste, contaminated industrial sites.Public utility infrastructure is critical, especially in rural areas and small cities. The majority of the Romanian cities in the eligible area faceproblems like water quality and improper waste management. In **Satu Mare County** the rate of households connected to the water pipework system takes up 52% on average (90% in urban areas and only 21% in rural areas). Public utility infrastructure and waste management infrastructure are insufficiently developed, though starting with year 2011 the county waste is being transported to the regional waste deposit so the impact on the environment is significantly reduced. In **Maramureş county** problems regarding sewage waters affect especially cities, land also localities that are lacking such systems, and due to non-purged or insufficiently purged mining waters as the final closure of mines and extraction activities were not followed by the construction of sewage plants for mining waters.

Solid waste collection problems

In **Borsod-Abaúj-Zemplén** County the proportion of waste is household waste - despite the county's industrial nature - above the national average. Transported waste per capita is roughly equivalent to the national average. A significant proportion of homes involved in waste collection, which also exceeds the national average and a higher proportion of selective collection coated housing. However, the average of the amount of waste collected separately proportional to population is significantly lower than the national average. Since 2010, the waste in the county declined steadily. The county's waste management system developed in the framework of three separate regional waste management projects. The solid waste disposal sites (Sajókaza, Bodrogkeresztúr Hejőpapi) can handle all of the county's municipal solid waste. In summary, the county has no urgent needs development regarding waste management; the performance of the county landfill disposals is suitable. However, because of the principles of modern waste management (recycling, energy efficiency) the systems should be developed and updated. In **Szabolcs-Szatmár-Bereg** County the amount of municipal solid waste transported has decreased in recent years from 267663 tons to 150626 tons. Level of selective waste collection from the public municipal solid waste is 4% (takes 6th place on national level). The selective waste collection included nearly 81 thousand homes (41.4% of homes) A total of 96 settlements are involved in separate waste collection.

Maramureş County Council is presently implementing the project titled „Integrated Waste Management System in Maramureş County". County, through the improvement of services and reduction of the number of non-conform storage places in the county. The project is co-financed by the SOP Environment and will be finalized by 31.12.2015.

In **Zakarpatska region** because of the limited accessibility of the mountainous areas the existing problems with waste collection, recycling and disposal are more acute in comparison with the other regions. Problem of access to the areas lead to the problems of waste management, in particular with illegal waste dumps. In addition, a mountain river Tisza and its tributaries, which flow in Ukraine and in bordering countries – Slovakia and Hungary, indicate the need for a comprehensive approach to solving the problem of waste management in this area. The problem consists in the lack of equipment for the waste collection and transportation, recycling plants, as well as in education of population, especially living in the mountainous areas on waste collection and recycling. There is a need for construction of waste recycling plant; ordering, technical upgrading, rehabilitation and construction of landfills for the waste storage; purchase of equipment for the collection and transportation of waste (vehicles and waste containers); creation a network of points for solid waste collection; installation of units for biogas production etc. In **Ivano-Frankivska** region waste landfills in Ivano-Frankivsk region are overflowed; construction of new solid waste faces opposition from citizens who want to protect the environment and recreational areas. This speaks for the need of waste recycling plants construction.According to the statistics, none of the 27 solid waste landfills in the region aren't constructed and operated properly. Mostly the landfills are not fenced, not each entrance is paved, most landfills work in overload; waste disposal process is not everywhere respected. The landfills are a source of intense pollution of atmosphere and groundwater. In **Chernivetska region** there are 1 landfill, located in Chernivtsi, 10 dumps, located in cities and 305 dumps, located in villages. Technically, landfill doesn't correspond to requirements for safety waste storage and need to be reconstructed. Problems are also caused by some part of population, who often make illegal waste dumps. There is a need for construction of waste recycling plant; ordering, technical upgrading, rehabilitation and construction of landfills for the waste storage; purchase of

equipment for the collection and transportation of waste (vehicles and waste containers); creation a network of points for solid waste collection; installation of units for biogas production etc.

Water resources to be protected

In **Borsod-Abaúj-Zemplén**County the underwater and surface waters in the Bükk Mountains and Aggtelek Karst are highly sensitive, these are protected by law. Other protected areas are: Water Reservoir in Lázbérc, catchment area of the Bódva and Hernád, area of the local settlements connected with Tisza Lake. Important tasks are completing the drainage network of settlements in the catchment areas, and the efficient and appropriate treatment of municipal wastewater. Medical water wells located in Bogács certified Mezőkövesd and Tiszaújváros. Mineral water wells can be found in Bogács, Gönc, Miskolc, Sárospatak and Tiszaújváros. Near-surface water resources are more or less contaminated; soil and underground water almost everywhere in need of cleaning. The groundwater stocks contaminated mostly of iron, manganese, nitrate, ammonium, and bacterial contamination, water hardness problems also exist. Contamination is primarily caused by municipal and agricultural sources of pollution. The set of natural karst water resources are pure, but local pollution problems can occur.**Szabolcs-Szatmár-Bereg** county has 329,5 km long river section of which the Tisza River represents 250 km (enters top the Hungary at Tiszabecs Ukraine and leaves the county at Tiszadob), Szamos 49,5 km and River Túr 30 km length. Other major rivers are Kraszna and Lónyai Main Channel (Eastern Main Channel). Regarding the management point of view, rivers dispose favourable features, there are free water resources that can be utilized along all rivers of the county. The quality of surface and groundwater are better than the national average though it is important to stated that the quality of waters is highly depend on the quality of the river in the neighbouring country where it comes from. The water quality of the tributaries arising from across the border - the Szamos, the Kraszna, the Túr - varies widely, according to the pollution quantity and sources (industrial, mining, municipal waste) of the other country. The area of water resources ensures the water needs of the local industry and agriculture. A total of 32 thermal wells some of the with high iodide, bromide and fluoride content are located in the county.

The quality of surface waters in **Maramureş**county (in 2010) from biological point of view is generally good and moderated, except for the following water surfaces: Cisla, Cavnic, Firiza, and Ilba – having a poor state, having a biological scarcity (lack of fish) and poorly represented non-vertebrate species.

In **Zakarpatska** region a source of water for the population is river water and groundwater. In addition, considering the location of the region, rivers are cross-border, so their protection from contamination is so important. The hydrographic network of the region consists of 152 rivers; length of each is more than 10 km. They all belong to the Tisza river basin. For protection of water of this basin the special body have been created – Water management department of Tisza basin, responsible for provision within the Tisza River Basin of state policy implementation in the field of management, conservation and restoration of water resources. However, rivers of the basin are polluted, in particular through the illegal waste storage etc., and consequently needs to be protected; such pollution leads also to bad quality of drinking water (water treatment plants are also outdated and need to be reconstructed). In **Ivano-Frankivska** regionthere are 132 rivers; length of each is more than 10 km. They belong to the basins of two rivers - the Dniester and the Prut. In order to achieve good water quality, ensuring safe and efficient water use, biodiversity conservation and sustainable ecological situation in the basin in 2008 agreement on cooperation in use and protection of water resources of the Dniester river basin between the cities of Lviv, Ivano-Frankivsk, Ternopil, Khmelnytsky, Chernivtsi, Vinnytsia and Odesa have been concluded. This agreement applies to water

resources and water ecosystems of the Dniester river basin in Ukraine, including surface- and groundwater. Also in 2012 an international agreement for the protection of the Dniester river basin between Ukraine and Moldova has been signed. In **Chernivetska** region flow 75 rivers; length each is more, than 10 km. They all flow into the Black Sea. The main rivers within the region are Prut and Siret (tributaries of the Danube) and Dniester (flows into the Black Sea). The protection of the rivers is regulated by regional and national target-oriented programs and national and international agreements. Thus, in 2008 agreement on cooperation in use and protection of water resources of the Dniester river basin between the 7 Ukrainian cities have been concluded. Also in 2012 an international agreement for the protection of the Dniester river basin between Ukraine and Moldova has been signed. Nevertheless, the rivers need to be protected more intensively, to ensure good quality of drinking water. It could be done only by means of proper waste management, qualitative waste water treatment, comprehensive measures on education of population etc.

Endangered species, invasive species

In **Borsod-Abaúj-Zemplén** County the less forested southern and southwestern areas are characterized by the dominance of non-native species. Severe loss is the reductions of the high diversity hardwood forests (with high reproductive capacity) spaceaof the floodplain. The protection of the areas along the Tisza the backwaters and lakes retained afterthe regulation of the Tisza, and natural floodplain vegetation characteristic of wetlands is a national interest.**Szabolcs-Szatmár-Bereg**county, does not have national parks; however, the size of the protected natural areas and nature reserves, the third highest among the Hungarian counties. The three forest reserves (Bockerek, and Déda, Bakta) located in the county also include a number of Natura 2000 sites.

Due to the fact that some flora species are **endangered, vulnerable and rare,** they were placed on the list of protected species. Among these, one can mention the followings: Species of wild flora: Cochlearia pyrenaica, Campanula alpina, Leontopodium alpinum, Gentiana lutea, Gentiana punctata, Fritillaria meleagris, Trollius europaeus, Rhododendron kotscyi, Lychnis nivalis, Cypripedium calceolus, Pinus cembra (representing about 4,26% out of the total existing flora species from **Maramureş** county). Species of wild fauna: Rupicapra rupicapra carpatica, Marmota marmota, Lynx lynx, Tetrao urogallus, Lyrurus tetri, Aquila chrysaetos, Aquila pomarina, Corvus corax, Bubo bubo, Tyto alba gutata, Athene noctua, Asio otus, Stryx uralensis, Accipiter gentilis, Accipiter nisus, Hucho hucho (representing about 4,52% out of the total existing fauna species from Maramureş county). Threats and pressure on habitats, wild flora and fauna: infrastructure development, extension and development of human settlements, over exploitation of natural forests conducing to ecological disproportions in the mountain hydrographical basins, poaching of some species of hunting or economic interest.

Flora of **Zakarpatska** region has more than 2000 species. Of these, 237 species of flora listed in the Convention on the Conservation of European Wildlife and Natural Habitats, 22 species of flora listed in the application of the the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Total number of species, listed in the Red Book of Ukraine is 263. There are around 600 species of invasive plants in the region. The greatest diversity of endangered species is concentrated in the Tisza river basin, where, 145 species of plants are listed in the Red Book. The total number of fauna species in the region is 30 428, which is 68% of the total number of animal species in Ukraine. 163 species are listed in the Red Book of Ukraine. In recent decades a number of invasive species of mammals and fish were revealed in the region. Flora of **Ivano-Frankivska** region has over 1500 species of plants, more than half of the list of the flora of Ukraine. Almost a third of

the natural flora of Ivano-Frankivsk, i.e. 418 species, requires full or partial protection. 162 species are listed in the Red Book of Ukraine and European Red List; 211 – in the Regional Red List. There are 3 species of invasive plants in the territory of the region. Fauna: Vertebrates are 435 species, mammals - 74 species, birds - 280 species. About 200 species are in need of protection. Examples of invasive species to Ivano-Frankivsk region are well-known; they are Colorado beetle, nutria, musk-rat, black rat and other. Of the 1,600 species of flora in **Chernivetska** region 2 species included in the Convention on the Conservation of European Wildlife and Natural Habitats, and 34 species listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In general, the number of endangered species of vascular plants, algae, fungi and lichens amounted to 108. The fauna of Chernivtsi region is diverse. There are 118 species listed in the Red Book, 16 of them are listed in CITES, and 69 listed in the Convention on the Conservation of European Wildlife and Natural Habitats. In the region there are no invasive species of animals.

Energy efficiency and renewable energy

In **Borsod-Abaúj-Zemplén** County the goal is to reduce energy costs, as far as possible in parallel with the reduction of CO2 emissions and the use of locally available and renewable energy sources. The implemented "Mikrovirka" program, whith the use of local labor and local renewable energy sources built intelligently built up a so-called cooperative "Smart grid" system. In addition, in relation to forest cover dealing with the utilization of biomass for heating is particularly important, and can provide heating requirements of the local institutions and neighborhood houses. In the county, the state of the art, new biomass power generation plants can be significant for locally produced biomass, which could reduce the county's dependence on hydrocarbon energy sources. The use of biomass not only elicits imported energy, but also enhances employment. Geothermal energy is an important source of renewable energy in the county, which can also be used to produce heat and electricity. The utilization of solar thermal and electrical energy use in the county is still a local need only. The environmentally-friendly solar energy could be substantial energy resource and cost savings can be achieved at the local level. Combination of solar equipments with biomass plants technologies may cause measurable changes. In the current energy structure's renewable energy sources still play a minimal role in **Szabolcs-Szatmár-Bereg** County. However, due to the price of energy regulators and technological knowledge the use of these energy sources is increasing. In previous years, mostly the use of firewood characterized the supply and the Tiszalöki Hydropower energy as renewable energy source was used. Today, more and more solar collector appears. Outstanding growth can be observed in theuse of biomass, eg. heating plant in Mátészalka. One of Europe's largest biogas plant was established in Nyírbátor. In the field of biomass utilization Szabolcs-Szatmár-Bereg county has significant potential due to the high proportion of rural areas (however the raw materials for bio-energy are not used locally in the county). On the basis of geographical and hydrogeological structure Szabolcs-Szatmár-Bereg county endowments of geothermal energy exploration are particularly favorable especially the Tiszavasvari-Nagyhalász-Kisvárda-Fehérgyarmat-Nagyecsed-Nagykálló area.

According to the study titled „Study on the evaluation on the actual energetic potential of renewable energy sources from Romania" realised by the Ministry of Economy, the energetic potential of **Satu Mare county** is high, especially concerning hydro energetic, geothermal and biomass resources. An important reservoir in the county can be found underground, which could be exploited especially by drilling.According to the same study, as it concerns the identification of the best locations for the development of non-conventional electrical energy production, the localities of Satu Mare county can be placed in area III and are IV of solar radiation, representing a good and moderate potential,

with a solar radiation intensity between 1200 and 1300 kWh/m2/year. The projects to be developed using this type of energy source can include the creation of photovoltaic parks on agricultural lands or the installation of photovoltaic panels on buildings with individual scope.

Zakarpatska region has won first place in the energy efficiency ranking of Ukraine (Ukrainian Energy Index 2013), the results of which were presented at the Renewable Energy and Energy Efficiency Forum. The overall efficiency of energy consumption in Transcarpathia region was 64.3% of the EU level. In addition, Transcarpathian region is one of 6 regions of Ukraine, where is a special pilot project to develop strategy of energy efficiency. It employs 4 areas- Mukachevo, Svalyava, Uzhhorod, Khust, which will be selected by 2 microprojects were communities. For this project in pilot areas and the region as a whole the Strategy (program) energy efficiency on 2015-2020 years and technical documentation have been designed. However, the region is one of the few regions in Ukraine, receiving energy from generating sources, located in the territory of other regions. Thus, more than ninety percent of needs in electricity of the region are provided by Burshtynska TPS, located in the Ivano-Frankivska region. By ranking on energy efficiency and renewable energy Ukrainian Energy Index (UEI) 2013 **Ivano-Frankivska** region was determined as a region with medium "energy efficiency rate" (the region is on 11th place; its rate amounted to 58% of the EU level). Energy efficiency indicator in the region is for 3.8% higher than the average one in Ukraine. In assessing 4 areas - industry, agriculture, services, residential sector were considered. The largest share of energy consumption observed in the domestic households. According to ranking on energy efficiency and renewable energy Ukrainian Energy Index 2013 **Chernivtska** region is one of the leading regions in terms of efficient energy consumption (the region is on the 5th place). Energy efficiency indicator in the region is for 8.5 % higher than the average one in Ukraine and constitutes 62.7% of the EU level.

7.1.5 Accessibility to the regions, development of sustainable andclimate-proof transport and communication networks and systems (TO7)

Accessibility, transport

Traffic infrastructure development is one of the most important links between the countries, providing hundreds of opportunities for cross-border cooperation.

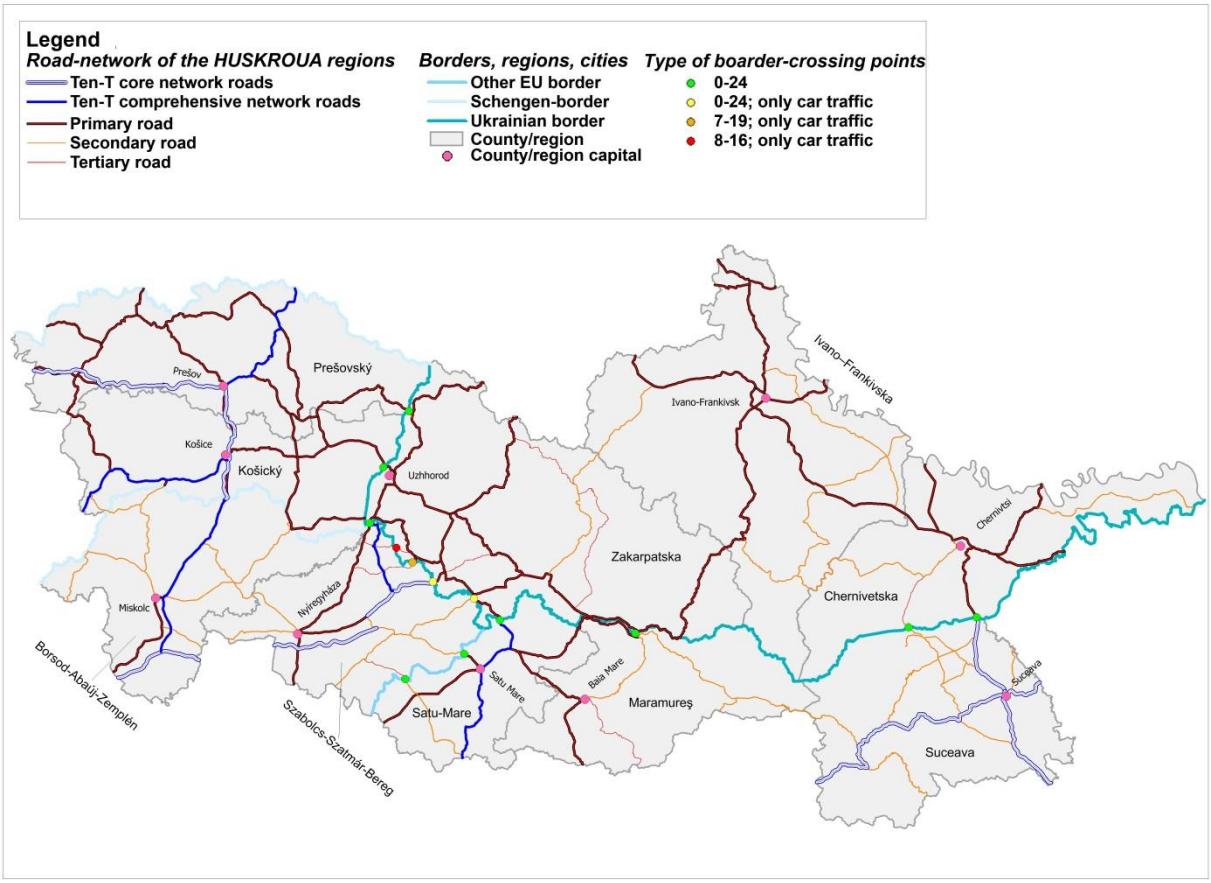


Figure 26: Public road network in the HUSKROUA region (2014)
Source:http://openmaps.eu/rastermaposmt, http://www.openstreetmap.org/#map=8/48.962/22.662

Regarding the **motorways and main roads**, in the past ten years significant improvements have been accomplished and further developments are planned to eliminate missing links (e.g. motorway D1 in Slovakia) and bottlenecks as well as to improve the quality of infrastructure. It is especially important regarding the Ukrainian regions because of the low public road density.

County/Region	Length of national public roads	% of the eligible area	Length of railway lines	% of the eligible area	% in surface of the eligible area
Szabolcs-Szatmár-Bereg	2 156	11,6	391	7,3	7,2
Borsod-Abaúj-Zemplén	2 585	13,9	510	9,5	8,7
Hungarian counties	4 741	25,5	901	25,5	15,9
Hungary	31 692		7570		
Košický	2 379	12,8	706	13,1	8,1
Prešovský	3 161	17,0	420	7,8	10,8
Slovakian regions	5 540	29,7	1126	29,7	18,9
Slovakia	18 044		3600		
Maramureş	1 783	9,6	207	3,8	7,6
Satu-Mare	1 715	9,2	218	4,0	5,3
Suceava	2 991	16,0	526	9,8	10,3
Romanian counties	6 489	34,8	951	17,6	23,2
Romania	84 185		10777		
Zakarpatska	636	3,4	604	11,2	15,4
Ivano–Frankivska	818	4,4	1384	25,7	16,8
Chernivetska	414	2,2	423	7,8	9,8
Ukrainian regions	1 868	10,0	2411	44,7	42,0
Ukraine	21 239		21700		
Eligible area	**18 638**		**5389**		

Table 7: Length and share of national public roads and railway lines compared to the territory (2012, km, %)
Source: HCSO, SOSR, NIS, SSSU

The density of the road network (based on 2012 data) in the Hungarian, Slovak and Romanian regions is 350km road per 1000 km^2. Road density is slightly lower in Maramureş, where the value is 283km/1000 km^2. Road density of the Ukrainian areas is far below these values: in all three regions concerned the value for road density is 50-60km road/1000km^2.If we take a look at the roads between the counties/regions' seats of the cross-border area, we can see the data in terms of an unpleasant average speed which varies between 58.1 and 95.3 km/hour.

	Nyíregyháza	Miskolc	Košice	Prešov	Baia Mare	Satu Mare	Suceava	Uzhgorod	Ivano-Frankivsk	Chernivtsy
Nyíregyháza		95,3 km/h	59,0 km/h	65,4 km/h	64,4 km/h	65,0 km/h	66,5 km/h	67,4 km/h	66,0 km/h	61,8 km/h
Miskolc	116 km		59,9 km/h	70,2 km/h	78,3 km/h	70,4 km/h	72,0 km/h	65,3 km/h	73,6 km/h	68,1 km/h
Košice	123 km	87 km		75,5 km/h	78,3 km/h	65,1 km/h	72,7 km/h	60,4 km/h	63,8 km/h	64,5 km/h
Prešov	157 km	124 km	37 km		79,7 km/h	83,2 km/h	73,6 km/h	63,3 km/h	65,2 km/h	65,6 km/h
Baia Mare	162 km	269 km	346 km	381 km		61,6 km/h	67,0 km/h	64,4 km/h	58,2 km/h	58,3 km/h
Satu Mare	104 km	603 km	228 km	323 km	60 km		66,9 km/h	65,0 km/h	64,7 km/h	60,0 km/h
Suceava	491 km	598 km	675 km	710 km	346 km	388 km		58,1 km/h	65,3 km/h	65,2 km/h
Uzhgorod	93 km	149 km	97 km	116 km	176 km	143 km	420 km		64,5 km/h	65,1 km/h
Ivano-Frankivsk	341 km	448 km	350 km	375 km	252 km	273 km	222 km	257 km		62,3 km/h
Chernivtsy	442 km	549 km	491 km	516 km	314 km	351 km	83 km	398 km	136 km	

Table 8: Distance and average speed between county and regional seats
Source: maps.google.com

Infrastructural inequalities are also traceable concerning the **railway lines**. Railway lines are more accessible/dense in the southwest part of the cross-border region especially in the Slovak, Hungarian areas and in Satu-Mare in Romania. There is no rail connection between Chernivetska region and Suceava county and also between Maramureş and Suceava counties. Cross-border railway connections are partly underused because of the long traffic time and the partly inadequate schedules.

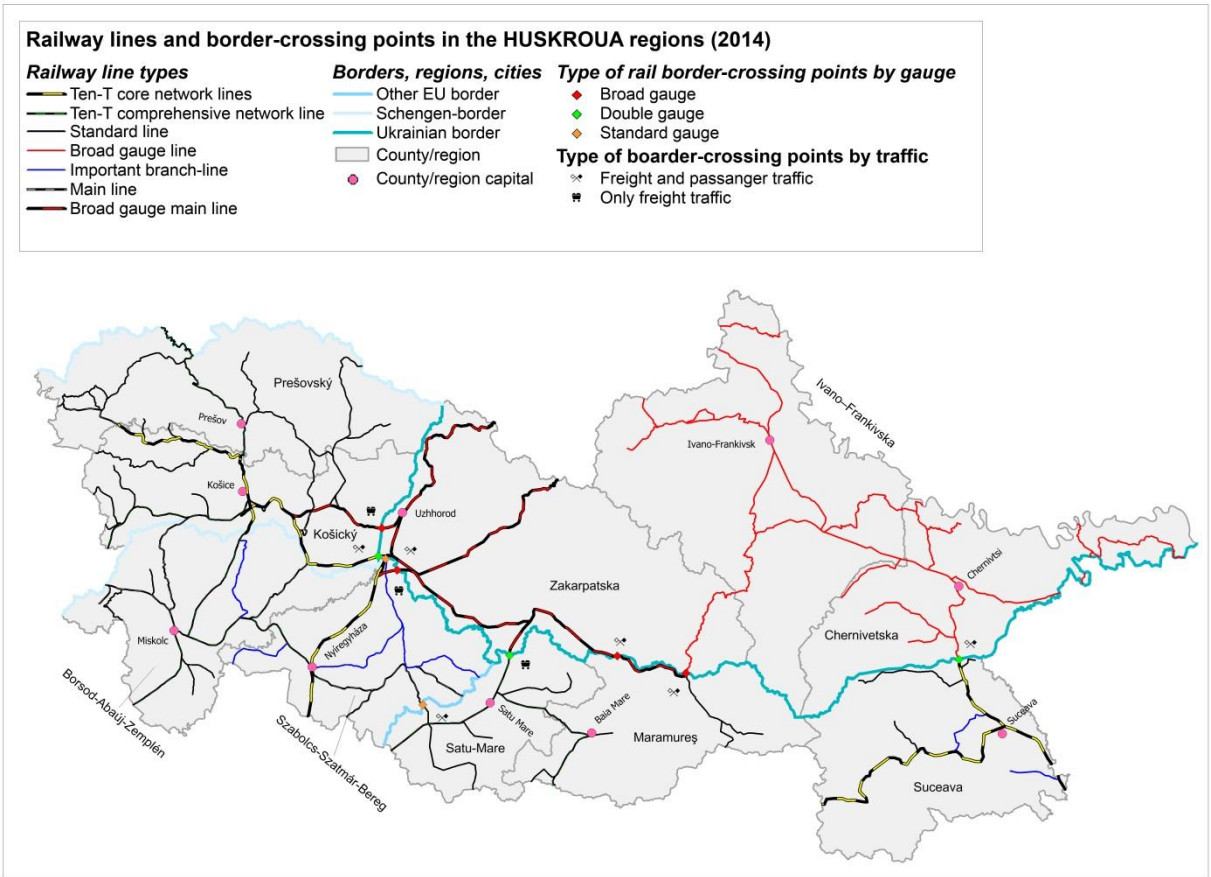


Figure 27: Railway lines and border crossing points in the HUSKROUA region (2014)
Source: http://openmaps.eu/rastermaposmt, http://www.openstreetmap.org/#map=8/48.962/22.662, http://www.openrailwaymap.org/

In **Hungary** slow traffic, bad road conditions, bottlenecks and lack of intermodal hubs can be observed in everyday life. In **Borsod-Abaúj-Zemplén** the traffic from north to the south and vica versa overburdens some sections of the road network (TEN-T corridor V.) There are 4 railway BCPs (Miskolc-Košice railway line has international importance). Railway traffic does not support daily mobility. The non-used airport of Mezőkövesd would be suitable for international flights. The TEN-T corridor V. (motorway M3) crosses Szabolcs-Szatmár-Bereg. There are railway connections to Ukraine (Záhony the largest logistic centre in CEE, Eperjeske) and to Romania (Tiborszállás). Transport sector is a main source of air pollution. EuroVelo 11 is present. Deficiencies of transport system are: motorway M49, 2x2-lane main road 4, ferry crossings, and light railway.

In **Slovakia** investments should serve to fill the gaps and missing links in the infrastructure at national level and in the cross-border region with emphasis on the sustainable, environmentally friendly and cost-effective transport infrastructuredue to the following facts: low quality of road network infrastructure, railway transport, intermodal transport, non-effective services of public transport, unserviceable integrated transport. The TEN-T corridors touch the region only without creating real North-South connections between the two neighbouring countries. In the Eastern area of the borderland there is a real need for a further North-South core network link. During the previous years, regression has been observed on rail traffic instead of expansion. However, daily commuting, strengthening of business and institutional cooperation shall force an increased integration of public

transport facilities similar to the network developed around Vienna within the framework of Centrope initiative. The major part of the borderland suffers from a lack of proper transport connections that hinder the improvement of logistic facilities. Good logistic facilities could be better used in an integrated way and by creating cross-border intermodal logistics zones.The **Prešov Self-governing region** owns 17,5% of the road network of the Slovak Republic. Out of the roads, 19,8 % are primary, 16.5% secondary, 60,8 % tertiary. Share of highways is only 2.6%. The D1 motorway is the largest motorway linking across the Slovak territory from in the east-west direction and forms the backbone axis of the road network. The D1 motorway is part of the branch of the multimodal corridor following the route Bratislava - Žilina – Uzhhorod which significantly contributes to the improvement of accessibility especially in case of the links with Ukraine. The road infrastructure in the Prešov region is characterized by a relatively high density, but with a relatively low share of higher class roads.Prešov region ranks fourth in the density of the road network within the region in Slovakia. Low density of road networks in the region is in the districts of Kežmarok, Humenné and Snina, which is significantly influenced by the topography. Due to the high volume of cargo transit between Poland and Hungary in the region, it is necessary to address the completion of the expressway R4, which would serve the international transit traffic in that direction and improve mutual availability of Košice and Prešov with Miskolc, Budapest and Rzeszow. The rail network is insufficient as it consists of 420 km of railway lines and 41 km Tatra Electric Railway. The density of the railway network in the region in miles per 1 000 km² is 46.75 kilometres. The average density of railway lines in Slovakia is 73.26 km per 1 000 km2 and Prešov has the lowest value of this indicator in Slovakia. The railway link is missing in the north-eastern part of the area in the districts of Stropkov and Svidník. In terms of air transport Prešov region has a dominant role with the international Poprad-Tatry airport.

Regarding **Košickýregion**, Kosice Airport is a public civil airport for domestic and international air traffic. It provides scheduled and non-scheduled air transport. The passport and customs control is available 24 hours per day.The current condition of the airport, due to an increase of performances is not sufficient and in the near future the airport is preparing for its expansion, i.e., building new capacities for standing and parking of aircraft at the airport Košice. Terminal for passengers is one storey air-conditioned indoor facility; part of the terminal is the connection to the existing road transport.Location of Košice International Airport is about 6 km south of the city of Kosice ands located 10 minutes from the city of Kosice, 30 minutes from Prešov and 20 minutes from Slovakia - Hungary border.The length of the road network in Košicky region is 2,379 thousands kms. The region accounts for 13.26 % for the length of the road network in Slovakia.Kosice region contributes only 10.3% on first-class roads of Slovakia. In terms of length of roads Košicky region is comparable to other regions, but has a higher proportion of lower-level roads (2^{nd} and 3^{rd} class). In the Košicky region there is along 586 km of roads II. class and 1421 km of roads III. class)and there is only a short stretch of highway. The density of the road network in relation to the size of the area in the Košicky region is lower than average in Slovakia.The trend in recent decades, suburbanization, is the main challenge for urban transport. It increases the need for individual transport modes, thereby road congestion and adverse environmental impacts. 40% of CO2 emissions and 70% of emissions of other pollutants originate from urban transport.The worst quality of 2nd class roads are in the district of Košice-okolie, Roznava, Spisska Nova Ves, and Gelnica. 1,379.46 km of the total length of roads are 3rd class (260 km) in a bad condition and 17,4 kilometres (1.26%) in a state of disrepair.The railway transport infrastructure in **Košickýregion**is characterized by a rather high density network with outdated technology; the technical basis of railway infrastructure is not sufficiently prepared to changing conditions and structure of the transport market. This situation is mainly due to the low

technical level and quality of technical base rail and by its neglected maintenance and insufficient recovery. The backbone of the railway infrastructure network consists of the so-called SR. triangle, whose arms form a line: Košice - Žilina - Bratislava and Bratislava - Zvolen - Košice. The other tracks are complementary or connecting basic corridors, and tracks of local and regional importance. Railway network is managed by the Slovak Railways (Železnice Slovenskej republiky).In the Košicky region there is no narrow-gauge railway (except recreation Children's Railway in Košice). Broad track leads from Ukraine through Maťovce to Haniska in Kosice. It was built for the transport of raw materials from Transcarpathia to US Steel Ltd. Košice. The construction length of lines operated in the Košicky region is the largest - 706 km, which constitutes 20% of the total length of the railways on the Slovak territory (3592 km).Combined transport terminal in Dobra is located on the V. Pan-European rail corridor (Venice - Bratislava - Žilina - Košice – Čierna nad Tisou - Lviv and close to the transfer station in Čierna nad Tisou, the border with Ukraine and Hungary), offers in addition to the standard services provided in terminals also the transition of goods from broad gauge to normal gauge and vice versa.In Kosice region, indicative 60% of rail stops are in a poor state of repair (no waiting rooms, no toilet, no shelter, devastated, polluted). This fact is largely affecting passengers when choosing the type of public transport (train, bus). They are mostly stops and stations without employees due to the cancellation of sale of travel documents, or reducing the workforce. Significant impact on the low number of candidates on the rail has a location of the train stops outside of built-up areas and villages without access paths, and lighting.

Romania is ranked in the last place in Europe as regards the length of highways per 100.000 inhabitants. The road transport network is mainly (90%) made of two-lane roads, which presents a high risk for accidents, 4 times higher than at the highways. The critical state of road transport infrastructure is leading to a low level of inter-connection with the main economic and urban centres, and also with other intermodal transport nodes as ports and airports. Taking into consideration the existing deficiencies, the continuation of the highway constructions is necessary, in order to finalize the road networks situated on the central TEN-T network, even as the rehabilitation, modernization and enlargement of national roads, and construction of ring roads of localities. Regarding railway transportation, the length of electrical railways was 4.020 km, representing only 37,3% out of total length of railways, while the density of lines on 1000 sqkm was only 45,2% (*Source: INSSE, 2012*). The wagon park is outdated (having more than 35 years of operation), and its use is inefficient (with a rate of utilization around 55%).The **North-East Region of Romania** can be characterized by reduced degree of modernization of county and communal roads, urban localities that are not connected primarily or secondarily to the road or railway TEN-T network.The **North-West Region of Romania** presents a relative isolation of the region in relation to the Pan-European transport corridors and the central TEN-T network, lack of highways, express ways and rapid railways to assure the connection with urban poles from other regions and countries, and the connection to the TEN-T network, reduced level of modernization of the road network, especially of county and local/communal roads, and railways, as well as lack of intermodal terminals for goods transport, low level of accessibility to some areas of the country, resulting in the low level of attractiveness reduced level of investments, and poorly developed county road network with inadequate quality. Rate of non-modernized county roads (ballast-roads and cart-roads) in comparison to total county roads is still high (25% are not surface-roads in 2012). There is a lack of facile access to TEN-T corridors, and consequently to cities, which leads to the lack of mobility concerning a significant rate of labour force from rural areas. **Satu Mare county** has a peripheral location, therefore the direct access to the major transportation corridors is not ensured. In addition, the lack of a ring-road for Satu Mare City (the major traffic node of the county) and motorways, secondary national and county roads in poor

condition can be mentioned as the disadvantages of this area. The railway infrastructure is in extremely bad condition, lacks of intermodal transport centres and other facilities and regular international flights (only inland flights to Bucharest operated by the TAROM operator).Regarding cross-border connectivity, the border of the North-Western region with Hungary is 265 km, with 4 border crossing points on road (persons and goods) and 2 railway border crossing points. Although the average distance between the border crossing points is 45 km, many settlements from the border region have reduced accessibility to these points due to the lack of connections, the degraded stage of roads or discontinuity of traffic networks.During the 2007-2013 programming period the construction of a number of 10 new cross-border roads was financed, but these can not be used until the accession of Romania to the Schengen Space.The Borş - Ártánd and Petea - Csengersima border crossing points are amongst the most used on the Hungarian border, absorbing cca.25% of the road traffic along the border (15.000 vehicles from and 11.000 vehicles to Hungary each day, out of which cca. 40% trucks).Cross-border mobility is being hindered by the lack of TEN-T connections, the suspension of works to the Transylvania highway and lack of electrification on the TEN-F line. The road and rail traffic speed is the lowest between the municipalities of Satu Mare and Nyíregyháza, on this route the average speed being 57,3 km/h on road and 29 km/h on rail.The length of the border between the North-Western region and the neighbouring Ukrainian oblasts is 250 km (185 km terrestrial and 65 km fluvial on the Tisa river). On the 162 km border line belonging to **Maramureş**county there are 3 border crossing points, out of which one is assuring the railway connection with Ukraine. From Satu Mare to Ukraine there is one border crossing point, namely Halmeu – Diakovo (on road, goods traffic and railway), which is being developed through a large scale ENPI project of 7 million EUR (titled: the development of the Halmeu-Dyakove border crossing point, financed by the Hungary-Slovakia-Romania-Ukraine Cross-border Cooperation Programme 2007-2013). The transport of people and goods on the external border of the European Union is being hindered by the reduced number of border crossing points and lack of their modernization, which is being a problem mainly to the inhabitants of Maramureş county. In the same time, one could mention the poor quality of roads and the differences between the railway gauges. Railways from the border region are also assuring links with Slovakia and Poland. The chances of the opening of new border crossing points with Ukraine are remaining reduced until the signature by Ukraine of a Partnership Agreement with the EU within the Eastern Partnership that would also ensure the access of Ukraine to the European economic space.

Zakarpatska regionis located in the south-west of Ukraine and is the geographical center of Europe.The main components of the transport space of Transcarpathia are the following: (i) favorable geographical and economical location at the intersection of the borders with Hungary, Slovakia, Poland and Romania; (ii) availability of powerful transport hub Chop-Mukachevo-Batyevo-Uzhgorod (railways, motorways, air transport, in perspective - water transport) (iii) passage of the 5th (Crete) international transport corridor (Trieste-Ljubljana-Budapest-Bratislava-Chop-Lviv); (iv) opportunities, open due to the Laws of Ukraine "On special economic zone" Transcarpathia" and "On special investment regime in the Transcarpathian region". Thus, the region is an important transportation corridor between Europe and Asia.The strategic goal is the development and establishment of border transport infrastructure through full and effective use of existing and potential transport capacities of Transcarpathian region.Traffic capacities of the region are 52 million tons of export, import and transit cargo per year. Cargo turnover of transport enterprises in 2013 amounted to 6763.6 million ton-km and increased in comparison to 2012 for 12.4%. Passenger turnover in 2013 decreased in comparison to 2012 for 8.5% and amounted to 1319.9 million pas-km.Length of motorways in the region is 3347,8 km, including 1100.4 km - national roads and 2247,4

- local roads, of which only 340 km belong to roads of I and II categories.Not less important in the region is railway transport, which serves for 42 % of cargo turnover and 40% of passenger turnover. Its infrastructure is less developed. Operational length of railways in the region is 604,4 km.One of the priorities of "Regional Development Strategy of Transcarpathian region to 2015" is “development of tourism and recreation sectors" in the region. It is necessary to restore the railway connection from village Dilove through Romanian city Sighetu-Marmatiei to the village Teresva. It would connect railway systems of Transcarpathian, Lviv and Ivano-Frankivsk regions and create access to many cities in Romania.Therefore, based on the modern requirements of international transport market it is necessary to turn the efforts on improving border transport infrastructure, which will primarily have positive impact on the economy of cross-border regions.

Ivano-Frankivska region is located in the southwest of Ukraine and has beneficial geographic and transit location. Through an extensive network of paths the region is connected with many important economic regions of Ukraine and neighboring countries in Europe, it is located in the area of international transport corridors, at the intersection of European routes. In the north of the region runs the European route E50 (France - Russian Federation), highways E40 (Venice - Kyiv) and E85 (Baltic Sea – Black Sea). The transport system of the region is represented by rail, road, air transport and includes 496 km of rail tracks, 4172,6 km of paved roads and 60,3 km of trolleybus lines. The largest share in cargo transportation accounted for road transport, but in recent years share of rail transport is growing. A similar situation is observed in the sector of passengers’ transportation. Approximate annual cargo turnover by rail and road amounted to 12.5 million tons (rail - 3.3 million tons, road transport – 9,2 million. tons) and annual passenger turnover – 99,3 million passengers (rail – 6,3 million, road (bus) - 73 million passengers, trolleybus – 20 million passengers).Since Ivano-Frankivsk region is strategically focused on the development of tourism, an important perspective and need of this subsystem is improving the long-distance bus and rail traffic in the region, as well as signing agreements with international airlines to provide cheap air transportation from EU countries.In addition to this, the transport system within the territory of the region has to be reformed.

Cherninevtska region is classified as the area with a high rate of transit, since it is the border region. Chernivtsi region has favorable transport and geographical location, a dense network of railways and roads, pipelines and power lines. The regional center has convenient railway communication with European capitals: Bucharest, Sofia, Belgrade, and Moscow. The transport system of Chernivtsi region is an important tool for achieving social, economic, political and other goals, which ensures increasing quality of life.The study of the current state of the regional transport system development and functioning shows that it has significant opportunities and capacity reserves to service both domestic and international transportation, but its quality doesn’t correspond to international standards.The state of the transport subsystem of Chernivtsi region can be characterized as unsatisfactory, despite the fact that region borders with two countries - Moldova and Romania. Network of public roads in the region consists of 2885.5 km roads, of which 117.3 km (4,1%) are the national roads and 95,6 km (3,3%) – international roads. The density of roads in the Chernivtsi region is 0.36 km per 1 m2, what is higher than the average national level (0.28 km per 1 m2). For the low level of technique of roads speaks the fact that only 0.4% of all roads (namely 10,3 km) are equipped with electric lines. Sidewalks are only on 18,5% of the roads. The total length of road markings is only 1261 km, i.e. 43,7% of the total length of roads. In addition to this, some bridges, which connect the settlements, are in disrepair (since floods in 2008, 2010). To solve the numerous problems with the transport infrastructure it is necessary to analyze state of roads and bridges in the region, to repair roads of national and local importance, to provide high-speed rail and air links, to make markings.

ICT networks and systems

Generally the usage of ICT technologies is low and underdeveloped in the programme area. Info-communication interconnectivity of the region is low-level. The usage and quality of telecommunication services is underdeveloped especially in the poorer and the mountainous regions. There are local appearances of traditional media (newspapers, radio and TV stations, online portals) though there is no common communication platform for the inhabitants of the programme area (except the programme's website in connection with the projects). The existing traditions, infrastructure of the traditional media channels and the difficulties of the usage of modern ICT technologies create opportunities for a more feasible and usable common communication platform.

In **Hungary** the broadband infrastructure is lagging behind especially in the countryside and causes disadvantages in businesses and R&D activities. In **Borsod-Abaúj-Zemplén** and **Szabolcs-Szatmár-Bereg** the number of business entities using ICT-tools is low.

In **Slovakia** investing should serve to fill the gaps and missing links in the ICT due to the following facts: low penetration of internet, insufficient level of public services and international interoperability of services, scarce interoperability of processes and efficiency of public administration services. The **Prešovskyregion** regarding the development of ICT, the use of ICT technologies in planning and decision-making is need to be developed, interconnectivity of information systems in the region is low. Slovakia belongs to the group of 19 countries that meet the requirements for comfortable use of the current ICT services. Very positive news is that the city of Košice is ranked as number 13 in the evaluation of the quality of the connection of cities and belongs to the top 38 places providing services of tomorrow. However, despite the excellent location of the Slovak cities in the **Košicky region** are large regional differences in the quality and coverage of broadband. The most widespread technology connections in the Košicky region is via fibre optic cable FTTx (44,87%). Optical networks are built by large operators (Orange and T-com), but also financially strong alternative and local operators such as Antik in Kosice. Compared with other regions, the optical connection is the most advanced in the Košice region. In other regions is dominating DSL connection that uses existing telephone network for high-speed data transmission. In the Košicky region the DSL connection is being used also largely (28,44%), the most after optical connection.The next most prevalent technology is fixed radio access FWA - WiFi, WiMAX (18.11%). It is used in larger cities where there are hotspots for users with portable devices with WiFi function. In the number of hotspots Kosice region is on 4th place in Slovakia after Bratislava, Banská Bystrica and Žilina, despite the fact that Košice is the second largest city in Slovakia. As far as it concerns the number of places where there are hotspots, Košicky region is in last place. Mobile internet enables wireless access through portable devices (mobile phone, laptop). 3G connections in Slovakia provide mobile operators Orange, T-com and O2. Availability of broadband internet have 404 municipalities (91,82%) from 440 towns and villages in Kosicky region. No access is along 36 municipalities. As for the connection method the most used is mobile connection 3G / HSxPA, hard radio access WLAN (WiFi), because this technology connects all cities. DSL is also widespread; this connection is not available only to Medzev. Regarding municipalities, the most common connections are: fixed radio access WLAN (WiFi) and FWA (WiMax), flash OFDM mobile access and DSL. The optical network is built only in 4 towns -Kosice, Michalovce, Spišská Nová Ves and Trebišov. The only municipality where the optical network is available are Smižany. Cable TV connection is only used in 3 cities: Kosice, Michalovce and Spišská Nová Ves. Information systems that are implemented at Košice Self-governing Region operate largely autonomously, without mutual sharing of common data. The most developed are systems of internal administration, covering the economic area implemented based

on SAP. Within the VUCNET project a secure communication infrastructure has been built, which allows the centralization of existing information systems of organizations founded by Kosice Self-governing Region, for which the ICT Department provides operation and user support. The support for users of the regional information system is provided by Help Desk and Call Center in the Department of ICT, which registers and solves problems.

The **North-East Region of Romania** can be characterized low percentage of dwellings possessing PC or laptop type equipment (54% out of total dwellings do not possess IT equipment in 2013), low degree of penetration of Internet services in dwellings (51% of dwellings have access to the Internet, 42% of population has never used the Internet in 2013).Regional data of the **North-Western region** are placing it on the second place on national level as it concerns the total number of telephone connections, after the Bucureşti-Ilfov region. Connections are including line and mobile telephones, and Internet connections. The three main operators of 3G Internet are declaring that they have coverage over the majority of the North-Western territory, only some mountain or rural areas are not being covered. Regarding access of businesses to IT&C in 2009, the North-Western region was situated on the 6th place among the regions as it concerns the share of personnel using PCs and PCs connected to the Internet, at a great distance from the Bucureşti-Ilfov region. Only 34,2% of the companies (other the micro enterprises) from the North-Western region had websites, at a great distance from those from the Bucureşti-Ilfov region.In 2009, the North-Western region was situated on the second place as it concerns the level of using of ITC by the SMEs from Northern Transylvania. Thus, 83,59% of firms from the region were using computers, 78,91% were using e-mails, and 79% the Internet. Regarding access to Internet in 2011, 43,3% households from Romania had access to the Internet at home, and the majority of these (78,6%) were concentrated in urban areas.In year 2011, the North-Western region was situated on the 4th place, with 45,0%, as it concerns the share of households possessing a PC at home, after the Bucureşti-Ilfov, Western and Centre regions. There was a decreasing tendency of this indicator compared to 2010 when 50,5% of households were having a computer.In year 2011, the North-Western region was situated on the 3rd place concerning the connectivity of households to the Internet, with a slight increase after 2010, following the Bucureşti-Ilfov and Western regions. In 2011, the more often used modality of connectivity to the Internet in the North-Western region was DSL (ADSL, SHDSL etc.) or other broadband connections (cable TV, UMTS), with 12,8 %. Only 9,9% of connections were GPRS (narrowband) and 9,3% by modem or ISDN.The population of the region is not really appreciating on-line purchases, so that in the North-Western region, in 2010, only 4,3% of the population aged 16-74 years had ordered or purchased on-line. In 2011, the North-Western region was placed on the 6th place from the total of 8, with 10,1%. The major part of mountain areas is not covered by data transfer through 3G networks.In **Suceava county**, there is and ascending evolution related to PC equipping and their penetration, with an increasing average rate of the volume of sales of over 50%, however remaining a penetration rate (17,1 PC-s/100 employees at the end of 2006), under the UE-15 average (approx. 40 PCs/ 100 inhabitants).In the same time, the e-banking sector has registered a spectacular development process, as banks had developed their programmes for on-line payments, while also registering an increase in the use of bank cards.In the North-Eastern region there is also an increase in the number of companies supplying hardware equipment and software, and companies processing data and databases.

In **Ukraine**the quality of telecommunication services, especially in the mountain region is poor, the number of institutional and commercial information systems and networks is insufficient, and there is inconsistency and lack of many state standards in the information sector. Internet access and internet network development are problematic. The density of fixed telephone lines in

Transcarpathian region is the lowest in Ukraine (14,8 telephones per 100 persons).Communications industry in **Zakarpatskaregion** is an important part of the infrastructure area and is at this stage of development under significant changes. With the introduction of digital technologies the quality of telephone and internet service has increased. At the current moment extensive network of Internet service providers is operating in the region. Significant reform is taking place in postal services. An extensive network of mobile communication providers has led to a decrease in fixed line services. Revenues from post and communication in 2013 amounted to 166.50 million USD. The largest income share receives sector of mobile (cellular) communications - 100.82 million USD (almost 61% of all services).There are around 10 Internet services providers in Transcarpathian region, among them "Ukrtelecom", "ISP Express", "SEVLUSH.NET" and others.The number the mobile communication services provider in the region constitutes around 7. The biggest companies, providing mobile services are "MTS", "Kyivstar", "Life" and others. In **Ivano-Frankivska region t**he development of ICT sector in Ivano-Frankivsk region is determined by the high level of competition and decreasing of demand for mobile services because of glut in the market.Number of mobile subscribers in Ivano-Frankivsk region exceeds the number of citizens. The density of mobile network coverage in urban areas depends on the density of base stations and amounts to about 20 to 500 meters. The density of mobile network coverage on the outskirts of towns and rural areas may be around 1500 - 2000 meters. Almost 99% of all administrative units of Ivano-Frankivsk region are secured by GSM standard communication. The exceptions are areas with complex geographical structure. Communication of CDMA standard covers 75% of the territory of the region. Provision of fixed-line phones as of 04.01.2014 year is 53 units for every 100 households in urban areas and 24 units for every 100 households in rural areas of Ivano-Frankivsk region. 90% of the inhabitants of cities and 30% - of villages are provided by high-speed cable Internet. The lack of high-speed cable Internet access is compensated by Internet accesses that provide mobile operators. One of the problems in development of communication subsystem in the region is the complexity of provision of high-speed cable Internet in the mountainous areas. In **Chernivtska region** in 2013 were registered 30 companies, operating in the sector of communication and media. In 2003 the base of mobile communication system included more than 1.2 million subscribers. As per 1000 inhabitants there are 1348 mobile phones. In 2014 the number of Internet subscribers increased by 15.0% and amounts to 53.2 thousand. There are problems with providing connection by various mobile operators in remote villages of the region (particularly in some villages there is only one operator). Currently, in the countryside monopoly on the provision of Internet services has Public joint stock company "Ukrtelecom", also Internet services of mobile operators are used.

The use of **ICT and the level of development of the digital society** are key to create the conditions of smart growth. The analysis of this area – just like of some other non-traditional areas – is made difficult by the scarce availability of reliable data from the appropriate geographical level.[15]

[15] None of the selected ICT indicators (number of persons employed using computer, internet and mobile internet; number of persons employed provided with mobile internet connection; persons employed provided with mobile internet connection in percentage of persons employed using internet; number of internet subscriptions; number of wireless internet subscriptions; percentage of individuals regularly using internet [every day or almost every day]) are available in each country.

7.1.6 Common challenges in the field of safety and security (TO8)

River basins

The rivers of Borsod-Abaúj-Zemplén county and Szabolcs-Szatmár-Bereg county belongs to the Tisza river basin. The Tisza begins near Rakhiv in Ukraine, at the confluence of the White Tisa and Black Tisa (the former springs in the Chornohora Mountains; the latter in the Gorgany range). From there, the Tisza flows west, roughly following Ukraine's borders with Romania, then Hungary, and finally Slovakia. It enters Hungary at Tiszabecs.The tributaries of Tisza in **Borsod-Abaúj-Zemplén**Countyare: Sajó, Hernád, Bódva, Bodrog, Hejő, Takta, Rakaca. The Sajó - before it flows into the Tisza collects the waters from Hernád and Bódva rivers. Bodrog River enters the Tisza at Tokaj. The county is rich in surface water and emerging water resources, but the level and runoff of rivers (streams) is very uneven due to the distribution of rainfalls. Besides natural water bodies, the following major reservoirs are important in the area: Lake Hámor, reservoir in Lázbérc and the Rakaca Reservoir.The Upper Tisza region in **Szabolcs-Szatmár-Bereg**County has many streams and rivers, but the Nyírség region has little surface water. The most important of River Tisza's tributaries is the River Szamos, which is also characterised by great variations in water volume. There are irrigation systems, a water barrage and a Hydroelectric power station on the Tisza at Tiszalök. Lakes of various sizes have evolved in sandy areas such as the basin of the Sóstó (Salty lake) of Nyíregyháza, whose alkaline, hydrogen carbonated waters have medicinal qualities. Many water reservoirs have been built according to local demand. Thermal waters of 55-65 °C can be brought to the surface from wells as shallow as 1 000 metres. The most important thermal water reserves are in Nyíregyháza, Kisvárda, Mátészalka and Tiszavasvári. The county's geothermal energy still awaits exploitation. The county has relatively few mineral reserves. Almost all of the large energy source transport systems cross the county.

There is relatively dense network of rivers in the **Košicky region**. They belong to the river basin of Hornád, Bodrog and Slaná that divert water into the Black Sea. The mountainous nature have upper stretches of the river Hornád, Hnilec, Bodva and Slaná, they have steep and narrow valley with inclinations of over 20%. The planar flows are characteristic for downstream sections of rivers Latorica, Laborec, Uh, downstream sections ofTopľa and Ondava, the entire section of Bodrog in Východoslovenska lowland, and Hornád and Bodva in Kosicka fold.Slovakia is the watershed of the Black and Baltic Sea and by its natural conditions like creating a roof of Europe, which drains most of the water from atmospheric precipitation from the country area. This, together with unequal distribution of water in time and space shapes water management situation of Slovakia.The main flow of the **Košicky region**represents Hornad River and its tributaries. Surface waters are polluted by sewage and industrial effluents mainly from city of Košice but also by pollution fed from the upstream part of the flow Torysa. The worst class of water quality indicator shows coliform bacteria in the group of microbiological parameters, suggesting that there is the lack of urban waste water in villages. The major sources of water pollution are public sewerage of Kosice ciry and US Steel, s.r.o. Košice. Potential sources of water pollution is inappropriate manner of disposal of waste water in the municipalities of the Košice-okolie district, where only 8.85% of the total number of municipalities have the sewage system with wastewater treatment plant. In **Prešovský region** pollution of surface water is caused mainly by poor wastewater from the public sewage and industrial production. Water quality in the main rivers in the area, i.e. Ondava and Trnávka ranges III. - V. classes in each group of indicators. For a long time the most polluted stream in the Bodrogu river basin includes Trnávka and

Somotorský channel, which are major sources of water pollution. Polluters are Chemko Strážske, Leonidas Trebišov and public sewers of towns and villages. Water quality is adversely affected by discharges of Bukocel Hencovce and public sewer of city Vranov and Topľou.In general it can be stated that all major streams and a large number of their tributaries have greatly contaminated water, from which it follows also finite nature of their use. The use of irrigation envisages continued contamination of groundwater. A specific problem in the basin of Hornád and Bodrog is the presence of sediment established in dams of Palcmanska Maša, Ružín and Zemplínska šírava, which are contaminated and may have the character of toxic waste. To improve the above situation, under the sub-measures (remediation of mining works, waste dumps and tailings, improving the management of agricultural land, etc.), is currently completing a functional sewerage systems and treatment plants.

In **Maramureş** and **Satu Mare** counties (North-West Region) the hydrographical network of the region is being dominated by the hydrographical basins of Tisa, Someş, Crişuri, Crasna, Tur and Barcău rivers. The mineral water springs (Sâgeorz, Anieş, Leghia, Someşeni, Bixad, etc.) and thermal waters (Acâş, Boghiş etc.) have a special role. Water sources from the region are, in general, of good quality, but in continuous degradation.Similarly, as it concerns the quality of surface waters in the region, this is worsening, as none of the water sources are being classified in category I (very good state) in 2011, compared with 725 km in very good state in 2006.The hydrographical network of **Suceavacounty** is totalizing 3.092 km. The density of this network is 0,361 km river/km2 territory, a superior value compared to the national average. The main rivers crossing Suceava county are: river Siret (from N to S) and its tributaries, river Suceava, Şomuzu Mare, Moldova, and Bistriţa (flowing from NW to SE). The total surface of waters in county is 5.542,63 ha (representing 0,65% of the total surface of the county), out of which 5.056,622 ha flowing waters and 486.008 ha lakes.All the rivers from the territory of Suceava county are tributaries of river Siret. The greatest water quantities are being transported by the rivers of which basins are situated in the mountain region. River Moldova has the largest hydrographical basin, being followed by river Bistriţa and river Suceava.The standing waters comprise natural lakes of small dimensions and artificial lakes arranged for complex purposes: reserves of industrial and drinking water, protection against floods, fishery, etc. The most numerous artificial lakes are the 6 lakes along river Şomuzu Mare.

Rivers of **Zakarpatska region** are geographically located and belong to the basin of one of the largest tributaries of the Danube River - the river Tisza, which is the main waterway area in the region. The total length of the river Tisza is 967 km, Ukrainian part - 262 km.The river rises in Ukraine, Transcarpathian region and flows roughly along the Romanian border and enters Hungary. After passing through Hungary, it flows into the Danube in Serbia. In early 2000, there was a sequence of serious pollution incidents originating from accidental industrial discharges in Romania. This series of incidents were described at the time as the most serious environmental disaster to hit central Europe since the Chernobyl disaster. Use of river water for any purpose was temporarily banned and the Hungarian all installations that could lead to further pollution have been closed.In the territory of Ukraine in the Tisza basin surrounding areas floods reaching high intensity, causing flooding of large areas of the region. Development of effective measures to protect the Transcarpathian region is the most important task of national importance. Indeed, for efficient solving related problems the cross-border countries have to be united, taking into consideration the fact, that flood cannot have any borders, and all territories, the river is flowing through, can be damaged.The river Prut is flowing either through territory of **Ivano-Frankivska** or **Chernivetska region**s. The river begins in Ukraine and flows on the border of Moldova and Romania till it reaches the Danube in Odesa region. There is also a Hydro-Electric Station in Snyatyn (Ukraine). Floods on the Prut River are dangerous not only for the

regions of Ukraine, but also for Romania and Moldova, where it flows. In 2008 year 65 administrative units were flooded, the river overflowed outwards covering area of 150 meters. But the flood in 2010 year was a much greater scale: the water level has been risen by about 6-7 meters. That's why it is very important to take measures on prevention such ecological disasters. Pollution: In the border observation point "Kostychany" at the end of the year was fixed the discrepancy in sanitary standards for indicator BOD (biochemical oxygen demand) which deviates from the norm in 1.3 times. In general, ecological state of surface water of the Prut river in the border area corresponds to general standards of water use. The water in the river in the border area is characterized as "moderately polluted".The other river, which flows either in the territory of Ukraine or in cross-border country, is the Dniester river. The Dniester river, which is the 3rd longest river in Ukraine and 9th in Europe, flows through territories of Ukraine (in Ivano-Frankivsk and Chernivtsi regions) and Moldova, and flows into the Black Sea forming the Dniester estuary.In recent years the quality of surface water of the basin has worsened in three main aspects of contamination - organic, biogenic and specific. Water quality varies between "moderately polluted" and " polluted".The Dniester river overflows periodically. The last severe flooding was happened in 2008 and has caused damage to surrounding areas. That fact speaks for the necessity to take measures on flood prevention in the Dniester river basin.

Floods

In **Borsod-Abaúj-Zemplén** Countythe vast majority (more than three-quarters) of the catchment areas of the natural watercourse is situated abroad, so the water quality of the transboundary rivers (Tisza, Bodrog, Sajó, Hernád, Bódva) is heavily dependent on the natural factors and human interventions of the neighboring countries. The upper section of the Tisza River and its tributaries has particularly fierce flows. Frequently, due to a heavier rainfall the border sections can indicate up to several meters of water level rise in one day in any time of year.There is no continuous flood protection system was built in the valley of the Sajó and Hernád, it is protectedby bay areas and open spaces alternate each other. The Upper Tisza Region is at a high risk regarding floods. The Tisza floods approximately in every 1,5-2 years on average, more severe floods are in every 5-6 years, extraordinary floods take place from in every 10-12 years. Especiall sensitive areas from the aspect of flods and inland water are Bodrogköz and Taktaköz which define the arablabilityof the land and the development of the settlements.Regarding the county's environmental safety, flood protection is the most important risk factor in **Szabolcs-Szatmár-Bereg** County. The county's flood threat is extremely high according to both national and international standards.The county'sspecifities that have a significant impact of floods: the bed of Tisza Riveris a series of pools, flood means the staying and storing water and that results in the slow passing and durability of significant flood levels. The flood situations on Tisza are strongly influenced by its tributaries; the outflow of the floods by the changes in water level of the Danube River.The annual peak water level can be observed in the spring and winter months. The further development of the national Vásárhelyi Plan plays an important role in solving the threatening situations; with its help the level of flood risk can be significantly reduced.

In **Košicky region** floods can occur throughout the year. In the spring and during summer floods appear most often due to a combination of precipitation and melting snow. In summer and autumn it is due to convective storms, as well as regional rainfall. In the winter time it is due to the sudden melting of snow or freezes due to flow. During floods in period of January–August 2010 in the Košicky region 170 villages were affected in the districts of Trebišov, Košice-surroundings, and Michalovce.Uncorrected river basins, damaged dams, protective equipment, etc. increase the risk in

flood damage, or may even cause further potential flood hazard. The problem associated with current flood situation is also financing of water services performed in the public interest. The situation has not improved even after transferring water from the agriculture sector to the Ministry of the Environment in 2003. There has been, however, a fundamental change that has been adopted legislation (Law no. 364/2004 on water and the Law no. 666/2004 on the protection of flood) that addresses the funding system of watercourses and drainage basins management and determine what is to be paid by the water users and by the state.The Government in order to ensure the reduction of flood risk in 2011 approved by order č.556 / 2010 of 27.8.2010 the preparation of a project Program Landscape Revitalisation and Integrated River Basin Management for the selected area of the country. In the Košicky region in the project are involved municipalities Malá Lodina and Svinica in district Košice okolie (catchment area of Hornad), and Košice city district Ťahanovce.Kosice Self-governing Region and the Agency for Regional Development Košice in cooperation with the Prešov Self-governing Region, Slovak Water Management Enterprise and Slovak Hydrometeorological Institute are implemented the project "Improving flood management and flood protection planning for the Hornád basin in Slovakia". The main objective of the project is to improve urban planning and reducing economic losses due to flooding in the basin of Hornád (in the Košice Self-governing Region territory from the water reservoir of Ružín till south of the border with Hungary).Extremely heavy rainfall and subsequent flooding, as well as long periods of drought resulting from global warming of the atmosphere, have generally increasing the frequency of occurrence in the territory of eastern Slovakia. Floods in **Eastern Slovakia** caused by extreme rainfall during local storms generally belong to the most destructive within the Slovak Republic. This requires a substantial change in access to water in the country with the need to increase its retention capacity in order to slow down runoff especially in periods with abundant rainfall and create water reserves for droughts periods. The specific problem of Eastern Slovakia, in particular of the **Prešovsky region**, is a strong danger of floods. In the years 1993 - 2005 critical situation in the region was recorded up to 10 times as a result of flood, and more than 50 people died. According to experts opinion the increased threat of flooding in Eastern Slovakia is resulting, inter alia, from improper method of land and forestry management. In particular, in the Eastern lowland, Košice, Hornád and Poprad basins and Spišsko šarišské medzihorie the large blocks arable land are prevailing with a minimum representation of eco-stabilizing elements in the landscape structure. The areas of forests an permanent grasslands have the most important role to ensure the retention capacity and ecological stability of the country. The current state of most of the rivers and their catchment areas can be characterized from the flood protection measures as follows: significantly reduction of the natural retention capacity of river basins and increasing the speed of surface runoff in the country, thereby increasing the risk and frequency of floods, erosion rates is increasing and thus results in the reduction of soil fertility (especially in mountain and foothill areas), and there was a substantial reduction of the ecological functions of watercourses and thus the degradation of the natural aquatic and wetland ecosystems. Given the fact that retention capacity of the country has a direct impact on flood hazard area, it is necessary to address this issue comprehensively in a river basin as a whole. At present, however, there are still an important part of flood control the treatment of courses, construction of reservoirs, flood protection dikes, pumping stations of internal waters and drainage channels. Special role in mitigating the effects of flood waves are in eastern Slovakia dams such as Domaša and Vihorlat (Zemplínska Šírava), Starina and dry polder Beša. Integral part of flood control measures is also provision of coordinated approach in flood protection with neighbouring countries on transboundary waters.

In the **Nort-West region of Romania** (Maramureş and Satu Mare counties) floods have the highest frequency in spring, as a result of melting snow, along with abundant spring showers, but also in summer, as a consequence of torrential showers. In spite of some hydro technical works undertaken for the protection against floods, a great number of territorial public administrations are still affected by this type of hazards. The most affected areas are the Ecedea Plain, the Lower Plain of Someş, and the plain of Criş rivers, namely Satu Mare, Maramureş and Bistriţa Năsăud counties. There are floods each year in these counties, with material damages of different size. A significant share of the region, including the mentioned three counties, is part of the Tisa Hydrographical Basin, with Ukrainian, Slovakian, and Hungarian neighbouring territories, a basin presenting one of the highest flooding risks at European level. The majority of floods are being caused by forest exploitations. **Suceava county** is representing a risk area as it concerns floods, on a surface of 51.756 ha, in regions crossed by the major rivers of the county (Suceava, Moldova, Siret), as well as in hilly areas between Dragomirnei plateau and Obcina Mare, crossed by the smaller rivers of the county flowing mainly into river Suceava.

In **Ukraine** the Tisza and its tributaries in the **Transcarpathian region** indicate the need for a comprehensive approach to solve the problem of environmental factors. The great influence on the origin and formation of human impacts of floods as those have caused a decrease in large areas of mature forest area and change their species composition, development and results of economic activity in areas endangered by floods. Activities regarding flood protection in the Transcarpathian region waterworks began in the 18th century. Some of them need to be reconstructed and renovated. Dams of different heights do not create a single complex that could provide reliable flood protection; their design does not meet modern technical requirements. The problem also lies in the fact that the current state of infrastructure and hydraulic flood control structures in the Transcarpathian region does not protect the population, industrial facilities and agricultural land from the harmful effects of water.

General phenomenon is that the **frequency and level of floods**are continuously rising. The rising of these values are clearly could be shown by river Tisza which is the biggest river in the region (flood levels had been raised even after 21 months for 3 sampling stations with more than 50 centimetres):

River	Water sampling station	Standard flood level (2010)	Standard flood level (2013)	Difference from 2010 to 2013 (cm)	Standard flood level (2014)	Difference from 2013 to 2014 (cm)
Tisza	Tiszabecs	120,96	122,74	**+178**	122,74	0
	Túr- firth	117,32	118,89	**+157**	118,89	0
	Tivadar	114,69	116,60	**+191**	116,6	0
	Szamos- firth	111,99	113,43	**+144**	113,43	0
	Vásárosnamény	111,83	113,08	**+125**	113,08	0
	Kraszna firth	111,56	112,86	**+130**	112,86	0
	Lónya	108,50	110,20	**+170**	110,2	0
	Záhony	106,17	106,84	**+67**	106,84	0
	Dombrád	102,62	103,86	**+124**	103,86	0

River	Water sampling station	Standard flood level (2010)	Standard flood level (2013)	Difference from 2010 to 2013 (cm)	Standard flood level (2014)	Difference from 2013 to 2014 (cm)
	Tiszabercel	100,30	101,26	**+96**	101,85	**+59**
	Lónyay main channel firth	99,20	100,18	**+98**	100,82	**+64**
	Bodrog firth	98,49	99,43	**+94**	99,35	-8
	Tokaj bridge	98,49	98,50	**+1**	99,3	**+80**

Table 9:Comparison of flood level values
Source: István Dajka: The Upper Tisza flood situation in the light of the new standard flood levels (2010), 16/2013. (III.12.) VM Regulation (HU), 74/2014 (XII.23.) BM regulation

Floods in the **Hungarian and Ukrainian catchment area** of the Upper Tisza became more and more intense compared to all previous floods over the last 20 years, and major flood control improvements were made. Calculations according to modelling and related to developments predict that water levels could rise nearly 20% by 2050. Climate change affects all rivers in the programme area and can only be successfully handled and fought only in cooperation of all the countries concerned.

Water resources, catchment areas

Tisza River is the major watercourse in the water network of in **Borsod-Abaúj-Zemplén**, which enters the territory at Zemplénagárd and leaves at Tiszavalk. The county's rivers belong to the Tisza River Basin. The Sajo - before it flows into the Tisza collects the waters from Hernad and Bódva rivers. Bodrog River enters the Tisza at Tokaj. The county is rich in surface water and emerging water resources, but the level and runoff of rivers (streams) is very uneven due to the distribution of rainfalls. Besides natural water bodies, the following major reservoirs are important iun the area: Lake Hámor, reservoir in Lázbérc and the Rakaca Reservoir. Drinking water and industrial water are supplied by karst water resources (eg. Szinva source, Tapolca sources). The hot water sources of the Bükk and Zemplén Mountains created the basics of spa culture in the region. There are thermal wells that created spas in Bogács, Mezőkövesd, Miskolc-Tapolca, Sajóhídvég and Sárospatak (Végardó). The water supply of rural areas is ensured by groundwaters and soil layer waters (eg. Artesian wells). The overuse of valuable karst water resources is being a serious serious environmental threatfor decades, despite the fact that rainy weather of the past few years hasfilled the largest karst aquifer rocks reserves. Besides this, another significant task is the development of areas without sewerage and the reduction of pollution resulting from inappropriate use of fertilizers and pesticides.**Szabolcs-Szatmár-Bereg** county has 329,5 km long river section of which the Tisza River represents 250 km (entres top the Hungary at Tiszabecs Ukraine and leaves the county at Tiszadob), Szamos 49,5 km and River Túr 30 km length. Other major rivers are Kraszna and Lónyai Main Channel (Eastern Main Channel).Regarding the management point of view, rivers dispose favouruable features, there are free water resources that can be utilized along all rivers of the county. The quality of surface and groundwaters are better than the national average though it is impaortant to stated that the quality of waters is highly depend on the quality of the river in the neighbouring country where it comes from.The water quality of the tributaries arising from across the border - the Szamos, the Kraszna,

the Túr - varies widely, according to the pollution quantity and sources (industrial, mining, municipal waste) of the other country.The area of water resources ensures the water needs of the local industry and agriculture. A total of 32 thermal wells some of the with high iodide, bromide and fluoride content are located in the county.

In the **Prešovsky** region there are upper sections of the main flow of Hornád, Torysa, Topľa, Ondava and Laborec, which are not yet significantly affected by anthropogenic activities. An exception is the river Poprad, the entire river basin of which is in Slovakia in Prešov region and on its 137 river kilometer passed to Poland. Also, two water reservoirs located in the Presov region, Starina and particularly Veľká Domaša significantly hydrologically, but also qualitatively affect the streams in which they lie. River basin of Poprad river includes a very important area of High Tatras mountains, where are eleven of water flows, which are being used to supply the whole area by drinking water.The water quality of these streams of water, which are the most important left tributary of the river Poprad is good, suitable after treatment for drinking purposes. A handicap is their low mineralization and also microbiological properties. Downstream of therapeutic, recreational and sports complex there is evidence of pollution of tributaries and the pollution is transported to the river Poprad.A substantial part of the groundwater resources in the Prešovsky region, according to the decree of the Ministry of Health of the Slovak Republic no. 151/2004 of 20 March 2004 on the requirements for drinking water and drinking water quality control, is satisfactory without requiring a demanding treatment. However, there are sites of groundwater resources with problematic and/or threatened quality of water, in which some sources are even proposed by Health Service for removal from use. These are the sites:

- river sediments of Cirocha river from Snina until the estuary and Laborec river from Humenné with continiuation in **Košicky** region, containing increased concentrations of iron and manganese, oil substances and aggressive carbon dioxide,
- river sediments of Ondava river from Domaša with the continuation behind the border of Prešov region infiltrate surface waters of Ondava river, leading primarily to an increase in the values of NEL, ammonium and secondary of iron and manganese,
- Poprad river sediments, with the water typically containing high levels of iron, manganese, oil products and higher temperature,
- groundwater in alluvial sediments of Topľa river showing relatively good quality. However, the increased pH, chlorides, organic matter (CODMn) and coliform bacteria.

Some of the listed components in the waters of alluvial deposits of the rivers, especially in lowland areas have a natural origin (iron, manganese, high carbon dioxide, ammonium compounds, as well as sulphates and chlorides). Most of these resources is situated into the valley plains, used mainly in agriculture. There is also the industry, settlements, roads, railways and streams in the area of which the water sources are usually contaminated.

Rivers of **Zakarpatska** region are geographically located and belong to the basin of one of the largest tributaries of the Danube River - the river Tisza, which is the main waterway area in the region. The total length of the river Tisza is 967 km, Ukrainian part - 262 km. The total basin area has 157 thousand kilometers (in the territory of Ukraine – 11.3 thousand km.). The river is formed by the confluence of the White and Black Tisa near Transcarpathian city Rakhov. Main tributaries: Apshynets, Kosovo, Teresva, Derbachka, Tereblya, Borzhava.The rivers Prut and Dniester are flowing either through territory of **Ivano-Frankivska** or **Chernivetska** regions.The Prut river is the left tributary of the Danube. The river originates from a spring on the Goverla slope. Length of the river is 967 km (in Ukraine - 272 km), basin area - 27 500 km². The main tributaries in the territory of Ukraine are: Pistinka, Rybnitsa, Cheremosh, Tlumachik, Chornyava. The Dniester river, which is the 3rd longest river in Ukraine and 9th in Europe, flows through territories of Ukraine (in Ivano-Frankivsk

and Chernivtsi regions) and Moldova, and flows into the Black Sea forming the Dniester estuary. The average annual consumption of water in the estuary amounted to 300 m³ per second. The main tributaries in the territory of Ukraine are: Stry, Svicha, Limnytsya, Zbruch, Smotrych, Ushytsya.According to the experiences of the past years, **the contamination of the rivers** crossing the border, caused by the insufficient solid waste and waste water collection treatment systems is an existing problem.

Natural and man-made disasters, emergency situations

In **Borsod-Abaúj-Zemplén** County the importance of disaster management enhanced due to the appreciation of the 2006 and 2010 floods. In 2010 Bódva broke the dam at Edelény causing huge damage to the people living there; in 2010, they floods followed each other on Sajó and its two tributaries, the Bódva and Hernád so the damns in the county should have been fortified and protected630 km long;in spite of this, Felsőzsolca and Edelény was flooded. Extreme quantity of rain and snow could easily cause emergency situations as the management and protection against these situations are not fully resolved. As it is mentioned earlier **Szabolcs-Szatmár-Bereg** County possesses an extremely high flood threat according to both national and international standards resulting from the county's specifities that have a significant impact of floods and its dependence of the neighbourung countries where the rivers stem and where flows into. Man-made disasters are not typical in both the Hungarain counties. In case of disasters and emergency situations the county departments of the National Directorate for Disaster Protection provide support. In Borsod-Abaúj-Zemplén County a civil-based rescue team has been organised to support the tasks of the national body.

Slovakia presently faces neither situations of disaster nor conflict. In the recent period some areas of the Slovak Republic were affected by floods caused by the increased storm activity. In this connection the Slovak Republic has made a considerable effort with the aim to stabilize situation and remove caused damages.The Slovak Republic has a specific mechanism to deal with disasters arising from relevant legal acts (the Act of the National Council of the Slovak Republic on Civil Protection of Population, the Concept of Organization and Development of Civil Protection by 2015, Act on Management of the State in Crisis Situations except for the Wartime and Hostilities, Act on Integrated Rescue System, Act on Fire Protection, Act on Mountain Rescue Unit, Act on Flood Protection and the other operational documents including Territory Emergency Analysis, Population Protection Plan, Evacuation Plan, Plan of material and technical equipment of civil protection units, documentation for radiological, chemical and biological measures).

Cross-border relevance of the fires in Zakarpatska region regarding the Slovak eligible regions can be stated that the NPO "Transcarpathian Agency for Investment, Innovation and Development" together with the Ministry of Internal Affairs of Slovakia and Emergency Department of Transcarpathian Regional Administration are developing early warning systems (EWS) for the population of emergency endangered regions. Project financial support is provided by the Hungary-Slovakia-Romania-Ukraine ENPI CBC 2007-2013 Programme.This project aims to intensify and deepen cross-border cooperation between the two regions: Transcarpathian region of Ukraine and Kosice region of Slovakia in readiness for emergencies caused by floods, fires and other natural disasters.The main objective of the project is to establish a joint early warning system in floodplains Uzh, Tisa, Latoritsa and Bodgor in order to reduce the risk of mortality, economic, financial losses and other damage during the floods in selected river basins.This project will have a positive impact in 27 Ukrainian cities

with a total population of 331,500 people and in 31 municipalities of Slovakia - home to 32,126 residents.The project actions include: public procurement of EWS equipment; implementation of subcontract for EWS installation works; raise of public awareness on the topic; management and administration of the newly established system. With the establishment of early warning systems, the conditions will be created for the protection of the territory and reduce the possible consequences of natural disasters, ensuring readiness of emergency divisions and facilities for the timely evacuation of people and animals, removal of property. In the Transcarpathian region 25 new population alert sirens will be managed from checkpoint in Uzhgorod. 35 new sirens in Slovakia will be controlled from an existing EWS center in Kosice.After project completion, operational activities of the newly formed EWS will be funded by Slovak and Ukrainian partners independently. Activity of common facilities will be financed on the basis of bilateral agreement, which will be signed after project completion.

In the **Romanian counties** emergency situations are being administered by the General Inspectorate for Emergency Situations (IGSU) and its subordinated structures at territorial level.15,5% out of the total of subunits are located in the region. There is a 42,35% rate of interventions on the basis of calls on regional level, compared with 38,15% rate of interventions on national level.Out of the total number of fires of 31.958 registered on national level in 2011, 3.972 were registered in the **North-Western region**, the most in Bihor county and the less in **Satu Mare county**. In 2011, in the North-Western region, SMURD[16] has intervened in22.053 cases. In the region SMURD units are equipped with 2 reanimation ambulances of SMURD type, 31 ambulances type B and 8 ambulance type C. The best equipped counties are Bihor (with 12 crews) and Cluj (with 11), while Satu Mare having only 3 crews and Sălaj 2. In the latter two counties the number of interventions is also low. In the North-Western region there are a total number of 84 units of public and private SVSU[17], being organized according to legislation in operation.The number of units from the region is situated over the national average of 16 SVSU in Bistriţa-Năsăud county (22), in Maramureş (19) and in Satu Mare (17) and below the national average in Cluj and Bihor (each with 12 units), respectively Sălaj (3).The equipment for emergency interventions is not distributed equally in territory, and their state is not satisfactory, more than 60% of these being outdated. In addition, there is lack of coordination of the services offered by the regional emergency hospital, the emergency units from county hospitals and the emergency system (ISU, SMURD, SVSU, mountain rescue etc.). Finally, there is lack of integrated call centres for emergency interventions, so that the objective of assuring a certain minimal standard duration for emergency situations in the region could not be fulfilled, this contributing to the increase of regional territorial inequalities.

Zakarpatska region has a border with Slovakia, Hungary, Romania and Poland. Such location and peculiarities of landscape of the region let evaluate possible natural disasters as potentially dangerous for cross-border regions. Talking about fires, we can conclude, that they always are dangerous for territories of cross-border countries, especially when border shares territories with forest plantations. Thus, the Romanian Maramureş Mountains Natural Park, which borders with Carpathian Natural Park, is under risk in case of fire on Ukrainian territory and vice versa. But, the most of border areas of both countries is protected by the river Tisa, which separate countries and serve as a natural border. The same natural mechanism of fire prevention is on the border with Hungary. The Slovak-Ukrainian border is less covered by forest, consequently the probability of fire spread is also less. The exception is the northern borders of Transcarpathian region, where National

[16]Mobile Service for Emergency Reanimation and Rescue Mobile Service for Emergency Reanimation and Rescue
[17]Volunteer services for emergency situations

Park “Uzhansky” is located. From Slovak side it borders with National Park “Poloninu” and from Polish – with Bieszczady National Park. This forest area can foster fire spreading if such disaster will happen in the territory of any of 3 cross-border countries.In **Zakarpatska**region4 emergency situations have occurred in the region in 2014.According to statistic data, Zakarpatska region is one of the regions with the highest rate of danger. Thus, emergency situation in the region are caused mainly by natural factors. This is determined by geographical location of the region – being located in mountainous landscape and in the basin ofTisza river, administrative units of the region subject to frequent flooding, snowbreaks, earthquakes. One of the main objectives is to improve emergency warning systems and mechanism of emergencies prevention.According to the information provided by the State Emergency Service of Ukraine, 2 emergency situations of natural origin have been registered in **Ivano-Frankivska** region in 2014, which is less than in 2013. During an emergency situation 19 persons have been injured. Also, 1865 fires have been registered, what is on 200 more, than in 2003. In general, Ivano-Frankivsk region is one of 5 regions with the smallest number of emergencies in Ukraine. For the last year in **Chernivetska** region there has been only 1 emergency situation registered. It was disaster of natural origin. Thus, Chernivtsi region is one of the most safety regions in Ukraine.For 2014 year 1271 accidents occurred in the region, which is less, than in last year (1384). Because of the geographical location of region there is a danger of flooding. In Ukrainein the recent years the number of fires in Zakarpatska region has significantly increased. It could be stipulated by a range of problems in this field: inconsistency of fire protection systems and the requirements of the law, technological obsolescence of fire safety equipment, insufficient public awareness on safety measures, etc.

Crime

Looking at the number of registered crimes in the cross-border area there is a decreasing trend in their number in the Hungarian counties, Slovak regions and Romanian counties. However the number of crimes significantly increased from 2012 to 2013 in all three Ukrainian regions (in Zakarpatska increased by 79%, in Ivano–Frankivska by 56% and in Chernivetska by 46%).

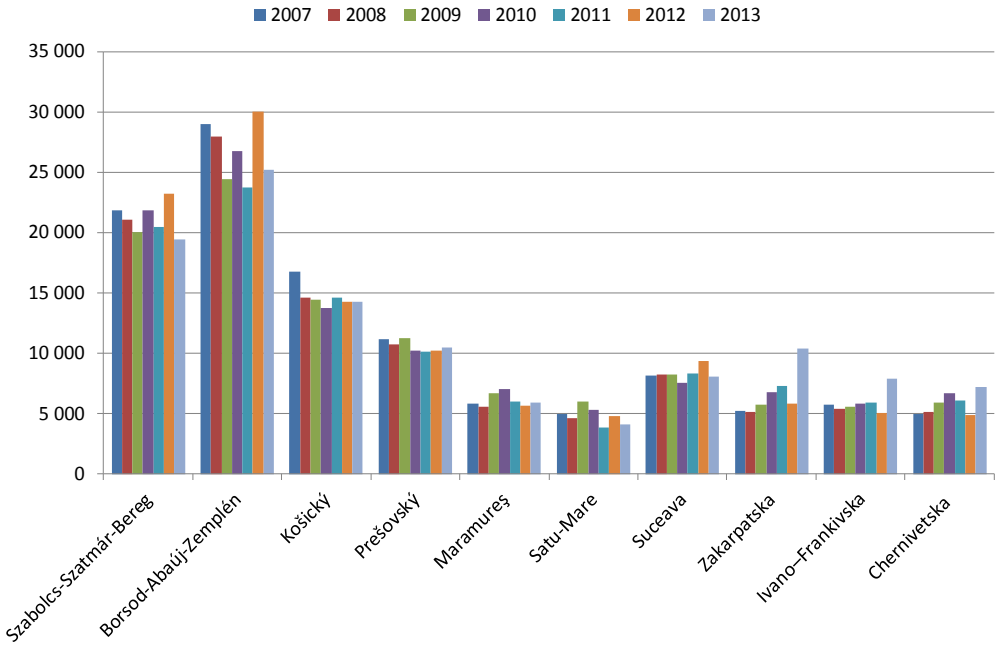


Figure 28: Number of registered crimes (2007-2013)
Source: HCSO, SOSR, NIS, SSSU

The number of registered crimes per thousand inhabitants is under the national average in all 4 border areas. In 2013 its number is the highest in the Romanian counties (approx. 1.150 crimes) which are followed by the Ukrainian regions (570-820 crimes), Hungarian counties (around 360 crimes) and the Slovak regions (120-180 crimes).

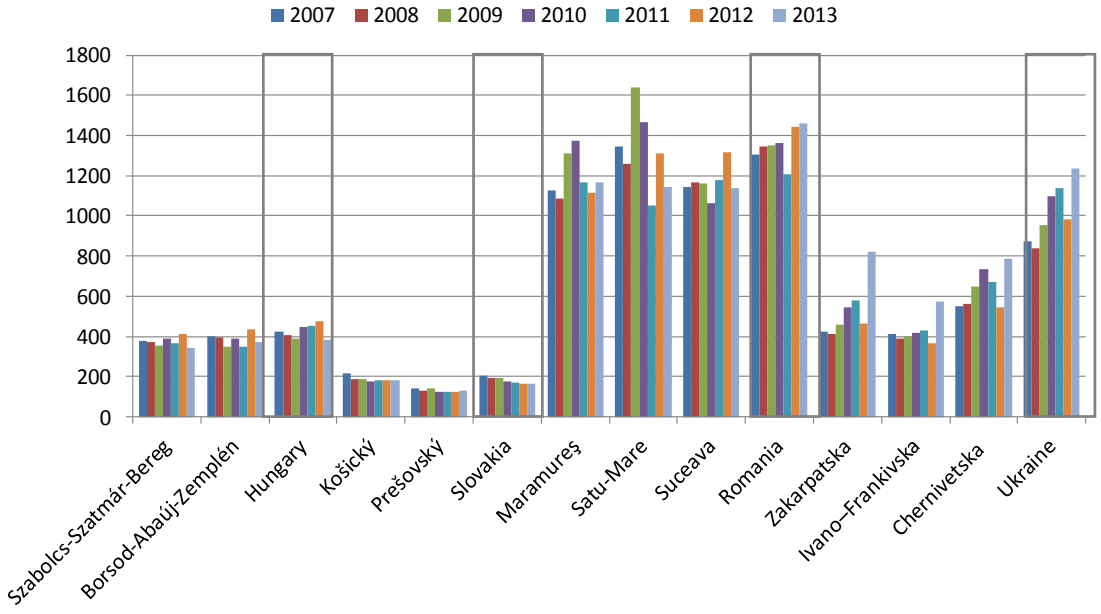


Figure 29: The number of registered crimes per thousand inhabitants 2007-2013
Source: HCSO, SOSR, NIS, SSSU

The map below shows the connection between the value of GDP per capita and the number of registered crimes per thousand inhabitants – in the counties with more GDP per capita the number of crimes per 1000 inhabitants is also less; the Romanian counties stand out with their extremely high values.

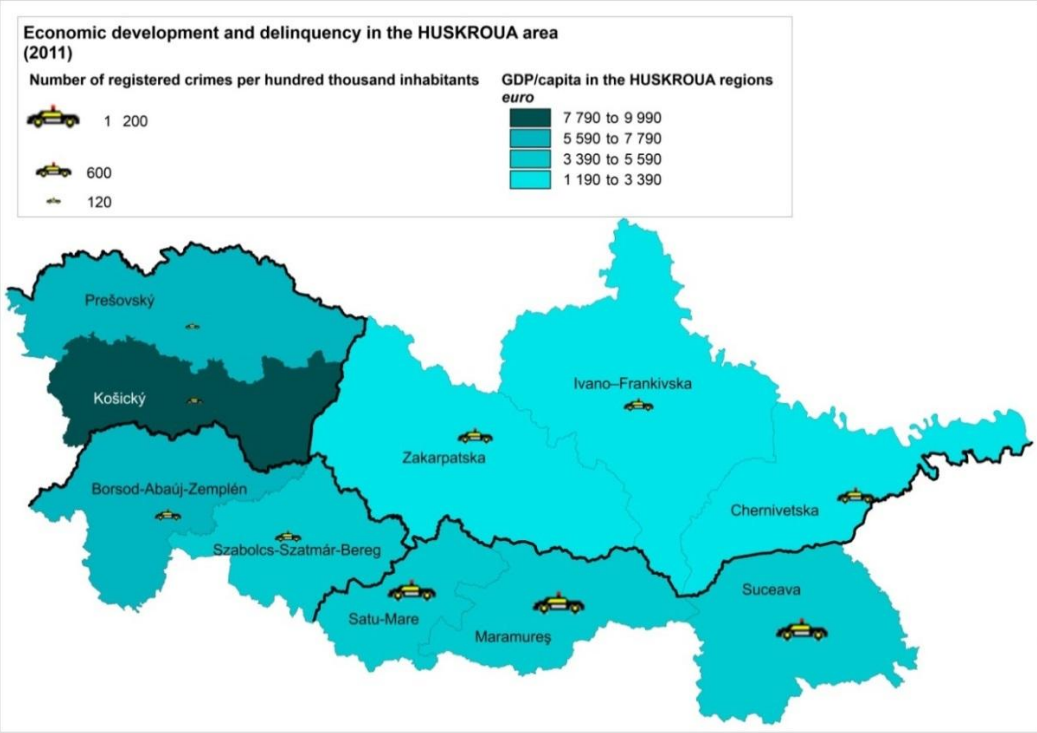


Figure 30: Economic development and delinquency in the programme area (2011)
Source: HCSO, SOSR, NIS, SSSU

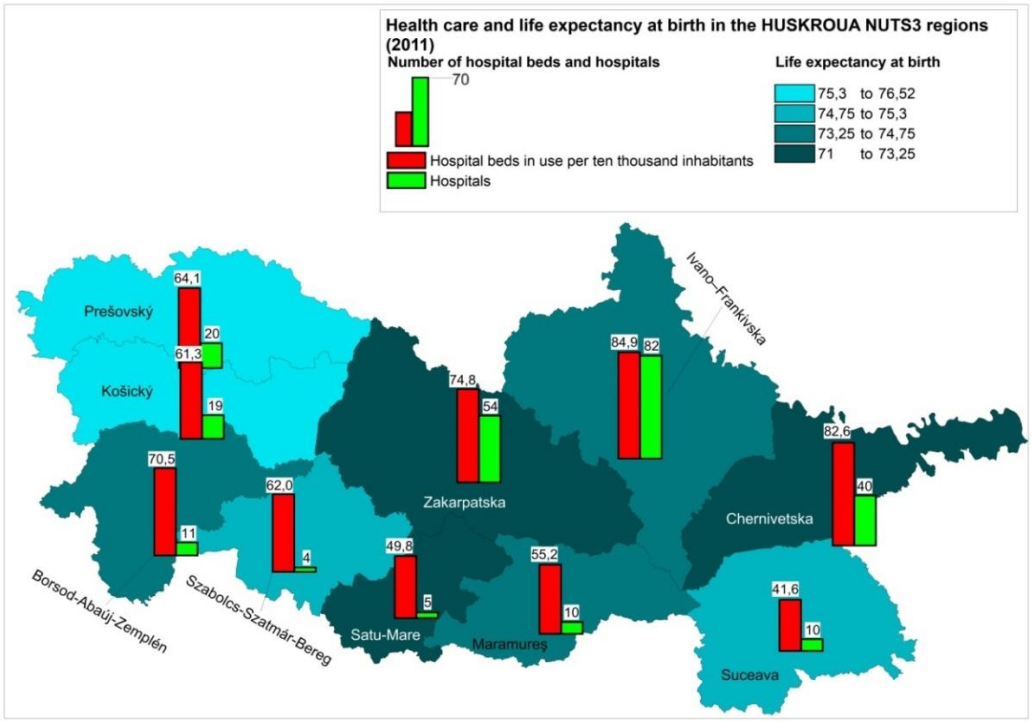


Figure 31: Health care system and the life expectancy at birth (2011)
Source: HCSO, SOSR, NIS, SSSU

Health infrastructure, public health and social care services

In **Hungary** there is a great need for the development of health infrastructure and public health services (especially for people in disadvantaged situation). The number of hospital beds per 10,000 inhabitants is relatively high in **Borsod-Abaúj-Zemplén**county. In **Szabolcs-Szatmár-Bereg**county there are 4 hospitals, 16 ambulance stations but the health status of the population is worse than the national average.

The health status of the population of **Slovakia** is not very favourable. It is influenced by a particular lifestyle, deterioration of the environment in some regions, unemployment, social situation and inappropriate living conditions of the parts of population (marginalized groups, Roma ethnicity). This is compounded by the lack of education of these parts of population, economic stagnation and economic crisis and the lack of integration of the Roma.Slovak health has persistent problems of excessive use of outpatient care, undeveloped overnight hospital care, preferring the institutional health care in economically underdeveloped regions.High financial demands of the health system are affected by the poor energy management related to poor state of buildings where medical equipment is located.Health, despite the financial underdevelopment threatening the stability of the system, the availability and quality of the performance, fulfils its mission and tasks. In health, there has been a change of legislation and property ownership, increase the financial burden on population health expenditure, reduced the availability of health services, increased cost of health care providers, but did not increase their income. In the **Prešov Self-government Region** the level of health care provision in the county hospitals is insufficient. General medical care in **Kosicky region** is sufficient in number. Weaker representation is mainly in the southern and northern areas of the Trebišov district and southern areas Rožňava and Michalovce districts. Health care providers in the fields of general practitioner for adults, general practitioner for children and adolescents, gynaecology and dentistry, were based on the territorial principle divided into health districts. That division has been undertaken during the year 2008. At present the number of providers of general outpatient care sufficient.According to the Government Regulation no. 640/2008 Z.z. on the minimum public network of health care and in terms of the analysis of the Ministry of Health carried out in the year. 2009, the minimum public network of providers of first aid medical services (LSPP) in Kosicky region is oversized.Specialist medical care is concentrated mostly in the county town and district centers. Its concentration in the smaller settlements, mainly depending on the size of the population is lower. At present, the actual number of providers of specialized outpatient care is adequate.

In the **North-East Region of Romania**the level of poverty among the Romanian regions is the highest– the highest rate of poor population from Romania (23% in 2011). There are urban-rural disparities regarding medical care (56,9% of the inhabitants are living in rural areas and are deserved by 11,6% of the total medical employees in 2012; also 37 doctors/10.000 inhabitants in urban areas and 4 doctors/10.000 inhabitants in rural areas in 2012). Medical units lack of special equipment especially in small cities. In the **North-West Region of Romania** the amplification of the poverty and social exclusion is a phenomenon, especially in Romany communities, including urban segregation in some districts of great cities. Although public emergency services benefited from a series of European financing for the acquisition of intervention equipment, the majority of the buildings and their equipment are in an advanced stage of deterioration. The under-dimensioned educational, health and social infrastructure is hindering social inclusion and development of human capital. Health services are provided in poor infrastructural conditions and are not adapted to the needs of

beneficiaries. In many cases, emergency county hospitals lack of modern equipment. Besides health services, investments in social care services are also necessary. Medical and social care services are predominantly concentrated in urban areas. The poverty phenomenon is reaching alarming rates, the rate of poverty and social exclusion risk reaching 40,3% (relative poverty) in 2011.**Satu Mare County** can be characterized bya number of beds in hospitals per 1000 inhabitants significantly lower than the national and regional average; a number of general practitioners per 1000 inhabitants (1,42) significantly lower than the national (2,3) and regional average (2,62) – *in 2009,* low level of life expectancy showing the reduced efficiency of healthcare in the county, still poor level of development of the healthcare infrastructure, migration of qualified heath care personnel. Social care services are predominantly concentrated in the county capital and lack of medical care institutions/cabinets can be observed in the rural localities.

In **Zakarpatska** region as of 01/2015 network of health care institutions includes 25 regional hospitals, 11 centers of primary medical care, 15 district hospitals and 7 municipal hospitals, 3 district clinics, 1 municipal clinic, 1 district dispensary, 2 district dental clinics, 278 outpatient clinics of general practice and family medicine and 285 feldsher-midwife stations. Further progress in the region becomes reorganization of primary medical care on the basis of family medicine. The public health sphere needs to be modernized and reformed due to European standards of insurance medicine; medical equipment in the health care institutions has to be substituted for the modern.
The region is also famous through its numerous sanatoriums, providing services of medical rehabilitation. In **Ivano-Frankivska** region the network of regional healthcare institutions includes regional hospitals, 7 regional and district children's hospitals and centres, 2 infectious diseases hospitals, 2 oncologic dispensaries, 6 midwifery clinics, 7 tuberculosis prophylactic centres, 3 mental health clinics, 6 dental clinics, 267 outpatient clinics, as well as network of dispensaries and feldsher-midwife stations. There are also many sanatoriums and health-resorts in the region. But there are many problems in public health sector in the region. To provide qualitative health care services, existing outdated medical equipment has to be substituted, medical institutions have to be modernized, modern technologies of data storage has to be introducted. The number of health care institutions in **Chernivetska** region constitutes 40 institutions (hospitals, clinics, dispensaries, midwifery clinics, tuberculosis prophylactic centres, mental health clinics, dental clinics etc.), 258 outpatient clinics, as well as network of dispensaries and feldsher-midwife stations. There are also many sanatoriums and health-resorts in the region. As in many medical institutions in Ukraine, the available equipment also needs to be modernized.

Diseases

In the **Slovak regions**, the proportion of HIV-infected remains low and non-epidemic. This also applies to high-risk population of injecting drug users. In 2008, however, was recorded low number of test subjects from this population, the tests identified three HIV-positive drug users.Mortality of the population in the last decade is affected by changes in the dynamics of mortality both positive and negative. This is particularly the mortality rate for priority groups of diseases, including cardiovascular diseases, cancers, respiratory diseases, diseases of digestive system and diseases from external causes. The epidemiological situation in Slovakia confirmed that the incidence of tuberculosis is still under control. Slovakia is within European context the country with little or medium appearance of the TBC disease.According to the National Institute of Tuberculosis, Lung Diseases and Thoracic Surgery in Vyšné Hágy, which is a data processor for the national registry, in 2013 reported a total of 401 cases of tuberculosis (256 men and 145 women). Compared to 2012 is an increase of 56 cases. The number of new cases was 341. In 60 cases it was a recurrence of tuberculosis. The most prevalent form of TBC is pulmonary tuberculosis (344 cases). In 57 cases it

was an extrapulmonary form, most commonly tuberculosis of the spine (17 cases), tuberculous pleurisy (11 cases), urinary-genital organs (6 cases), or extrathoratic lymph nodes (7 cases). The area with the highest incidence of this disease is the Prešov region. The lowest prevalence is recorded in the Trnava region. In the pediatric population under 14 years tuberculosis occurred in 38 cases. In 2013 7 patients died of tuberculosis, 27 cases were registered as the death of a patient with TBC.According to the geographical distribution in the Slovak Republic the areas with the highest incidence of TBC are the eastern regions of Slovakia (records from 2009) - Prešov Region 17.72 incidences / 100,000 inhabitants, followed by the Košice Region with 16.88 incidences / 100 000 inhabitants. In these areas, the situation is associated with a high rate of unemployment and tuberculosis there remains a serious social problem.The Slovak Republic belongs in the recent years to the Member States of the European Union with the lowest incidence of HIV infection. However, since the beginning of 21 century it is observed upward trend in the incidence of new cases of HIV infection. In 2013 it was recorded the highest ever number of cases in one calendar year (83 cases, the incidence of 1.5 cases of HIV infection per 100 000 inhabitants of the SR) in comparison with 2012 (50 cases, the incidence of 0.9 per 100 000) was the rise in the incidence of cases by 66%.In the first half of 2014 a trend in the incidence of new cases of HIV infection did not continue strongly upward. Contrary there was a slight decrease compared to the same period last year. From 1.1. 2014 to 30.6.2014 it was diagnosed and epidemiologically investigated 37 new cases of HIV infection. 3 cases of acquired immunodeficiency syndrome (AIDS) were diagnosed and no death of patient with HIV infection case was reported. All cases occurred among the Slovak citizens, there was no evidence of HIV infection in the case of foreigners. Since the start-up of monitoring of cases of HIV / AIDS in the SR in 1985 until 30.6.2014 it was registered 676 cases of infection with human immunodeficiency virus among the Slovak citizens and foreigners. Of the 549 cases of citizens of the Slovak Republic, there were 472 men and 77 women. The 77 individuals (66 men, 11 women) underwent HIV infection to AIDS stage and recorded 51 deaths were recorded by HIV-infected persons (41 of them at the stage of AIDS). The majority of HIV infections in Slovakia was recorded in a group of men having sex with men and homosexual intercourse acquisition of infection was determined in 64.5% of cases. Heterosexual contact transmitted 24.0% of infections, 2.2% by injecting drug use (most of the 12 cases acquired outside the Slovak Republic), 0.2% by blood transfusion (one case of the disease outside the Slovak Republic in 1986) and in 9.1% of cases the transfer method was not specified. Most HIV-infected people are living in larger cities and the highest cumulative incidence of HIV infection has long been in the Bratislava region.

Among the factors that lead to an epidemic situation is the lack of stability, stress, financial problems, job loss, an increase in the number of people suffering from alcoholism and drug addiction. The spreading indicator of HIV/AIDS in **Zakarpatskaregion** remains the lowest in Ukraine. As of October 1, 2014 this indicator was 27.8 per 100 thousand inhabitants of the region. In comparison to this, the average indicator, reflecting the situation with HIV in Ukraine was 323.7 per 100 thousand inhabitants. As of November 1, 2014 357 HIV-infected persons, including 88 patients with AIDS (7.2 per 100 thousand inhabitants) have been registered. Also, there are 34 children, born by HIV-infected mothers, in 28 of which the HIV diagnosis is not yet confirmed. During 10 months of 2014 in Transcarpathian region 61 new HIV infection contamination incidents (4.9 per 100 thousand inhabitants) have been registered. The AIDS was diagnosed in 36 persons (2.9 per 100 thousand inhabitants). For 9 months of 2014 compared to the corresponding period in 2013 epidemic situation in the region has changed. The negative is the fact that the spread of AIDS causes complications in epidemic situation with tuberculosis since tuberculosis is a common co-infection of AIDS. In 2014 115 people died of tuberculosis. The average number of tuberculosis infected persons in region does not

exceed 60 per 100 thousand inhabitants. As for the alcohol and drugs, according to statistics the western regions of Ukraine belong, to the regions with low level of alcohol and drug dependency. Thus, number of patients with mental disorders caused by alcohol consumption in Zakarpatska region amounted to 1300 (around 106 per 100 thousand inhabitants). This is 2 times less than, for instance, in Kiev region, which is leader in Ukraine by this indicator.The spreading indicator of HIV/AIDS in **Ivano-Frankivska region** is twice higher, than in Zakarpatska: 58,0 per 100 thousand inhabitants. But, nevertheless, the region belongs to regions with low HIV-infection rate in Ukraine. For the time of the observation the epidemic 1022 of HIV-infected persons have been registered. As of 01/01/2013 669 HIV-infected persons, including 168 AIDS patients have been registered by regional centre for preservation of AIDS. In the last years the increasing of HIV-infection spreading in the region is noticed. The epidemic of HIV/AIDS affects the most workable and reproductive population groups of the region. Most incidents of HIV-infection contamination in the region have been registered in persons aged 25-49 years.What concerns TB, the region also belongs to regions with low level of morbidity. Number of tuberculosis infected persons varies between 60 and 80 persons per 100 thousand inhabitants. By indicators of alcohol and drug dependency Ivano-Frankivska region belongs to regions with small number of addicted persons. Indeed, the region is considered as the most safe and favorable region in Ukraine (primarily because of low level of crime).The spreading indicator of HIV/AIDS in **Chernivetska region** constitutes 82.4 per 100 thousand inhabitants. Chernivtsi region belongs to the regions with low HIV-infection rate and low mortality from AIDS-related diseases.Since the detection of the first incident of HIV contamination in 1994 and till it was officially registered 1260 incidents of HIV infection (in Ukraine - 255 975), including 292 incidents of AIDS (in Ukraine - 71 221), 141 death incidents of AIDS (in Ukraine - 33 672), 223 children born by HIV-infected women (in Ukraine - 42 655).By indicator of TB infection, region belongs to the regions with lowest number of infected people – less, than 60 per 100 thousand inhabitants. The similar situation can be observed in the sphere of alcohol and drug prevention – Chernivtsi region is one of the most “healthy” regions. For example, number of patients with mental disorders caused by alcohol consumption in the region amounted to 636 (around 70 per 100 thousand inhabitants), what is the lowest in Ukraine.

Smuggling and black market

In the **Slovak regions**, the crisis has meant that people are poorer, but the demand for certain goods, such as for medicines, it is still the same, so people looking for cheaper ways to get to them, which feeds trafficking. Until recently, trade in illegal goods mainly focused on luxury products, particularly women's accessories, jewellery and watches. Today, however, because of poverty extends to everyday objects as mentioned pharmaceuticals, but also cosmetics, electronics, spare parts and even food.In the case of trafficking, it is the world's most common drug trafficking, illegal prostitution, as well as illegal logging and trade in animals, alcohol, tobacco, violations of copyright protection, trade, fuel and so on.Cigarette smuggling through Slovakia-Ukraine border not only leads to a large tax losses, but also increases health risks given the dubious tobacco unknown origin contain. Action at national, European and international level should reduce incentives for smuggling, improve coordination and use of resources, exchange of information and encourage countries of origin to the fight against cigarette smuggling. Supply chain security should be enhanced and smuggling would face tougher sanctions.Black trade in goods in Slovakia is constantly flourishing. The custom office introduced intensive control of customs officers especially at the external borders of the European Union. Slovak market has particular problem with products with added consumption

tax, which are tobacco, alcohol and mineral oils.The primacy of the illegal trade is so constantly tobacco and its products. They are imported mainly from the former Soviet Union countries.On the second place of the interests of black trades is liquor and third most profitable area of their business is the import of live endangered wildlife. Price one animal is determined by various aspects such as: the origin, nature and rarity of the animal or the difficulty of transportation. The price of one imported animal can climb up to the 5 thousand euros.Slovakia, despite the booming black market is not exporting black products abroad. However, it becomes also a transit country. An estimate of the total price of the goods annually smuggled to Slovakia is not made public. The goods to reach Slovakia from abroad are traded on the black market. Illegal trade has flourished over Slovakia, it has no center. Goods which are subject to excise duty and subject of breach of customs legislation forfeit the state and are then discarded.

Because of favorable location of **Zakarpatska, Ivano-Frankivska and Chernivetska regions** on the border with European countries regions face many problems of illegal trade. Illegal are different spheres of economy of the regions: currency market, land market, alcohol, fuel market, market of tobacco products etc. Because of political situation in Ukraine, primarily of currency fluctuations, volume of trade on the black market and smuggling is only increasing. Unstable economic situation in the regions stimulates an increase of black market of currency. State Border Service carries out comprehensive measures to meet the objectives to combat smuggling and corruption in the regions.