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SCOPE AND SYLLABUS

for performing the

STRATEGIC ENVIRONMENTAL ASSESSMENT

for the Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period

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This report is conducted within the framework of the Ex-ante evaluation and Strategic Environmental Assessment of the operational programme of the Hungary-Romania cross-border area for the 2014-2020 programming period.

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1. INTRODUCTION

In the new programming period of the European Union (2014-2020) the role of ex ante evaluation is reinforced, mainly because of the strong orientation of Cohesion Policy towards effective contribution to the three priorities of EU 2020 Strategy, i.e. smart, sustainable and inclusive growth and linked targets. In line with this aim the **Common Provision Regulation** (No 1303/2013 of European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006) requires an ex ante evaluation to be carried out for each programme, in order to improve its quality and design that should also verify that objectives and targets set in the programmes can be reached. Where appropriate, the ex-ante evaluation shall incorporate also the requirements for Strategic Environmental Assessment (SEA) done in line with Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive). This is the case of the future programme for cooperation on the border region between Romania and Hungary, as well.

The assessment object of the SEA is the Operational Programme for period 2014-2020 of the cross-border eligible area of Hungary and Romania.

The main **legal frame for SEA in this programme context:**

- European Directive 2001/42/EC on the assessment of effects of certain plans and programmes on the environment
- Convention on Environmental Impact Assessment in a transboundary context (1991) (the Espoo Convention)
- Protocol on Strategic Environmental Assessment (2003)
- In Hungary the 2/2005 (I.11) Government Decision on the SEA
- In Romania the Government Decision no.1076/8.07.2004. for setting up the environmental assessment procedure of certain plans and programmes (other relevant normative acts: OM 117/2006 , OM 480/2006, OM 995/2006)

Under Article 3(3) and 3(4) of the SEA Directive, environmental assessment is required for certain categories of plans and programmes only where they are determined to be likely to have significant environmental effects. The characteristics of the Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period fulfils the categories and requirements which determine the necessity for the Strategic Environmental Assessment procedure, due to the following reasons:

- The Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period is subject to preparation and adoption by national and regional authorities in Hungary and Romania, and prepared for adoption through legislative procedure by the Governments.
- The Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period is required by legislative provisions.

- The Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period is financed by the European Union and by the Hungarian and the Romanian Government.
- The Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period is prepared for several sectors detailed in point 2.2. and 2.3. and it sets a framework for future development consent of projects in Annexes I and II of the Directive EIA, and Annexes of the 2/2005 (I.11) Government Decision on the SEA, and also fulfils the requirements of the Government Decision no.1076/8.07.2004. in Romania. (details given in chapter 3.1. and 3.2.)
- The Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period is likely to have significant effect on the environment (details given in chapter 3.1. and 3.2.)

1.1 Purpose of the Scoping Report

The Strategic Environmental Assessment based on the SEA Directive EU/2001/42 aims at assessing the impact on the environment of the Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period and is an integral part of the whole programming process. Therefore the SEA has to be carried out during the preparation of the programme and has to be completed before the approval and submission to the Commission.

The scoping is the first main step within the Strategic Environmental Assessment which is to be implemented within the programming procedure. This scoping report represents this first step and aims to determine the framework for the environmental assessment, and represents the statement on screening. In accordance with this thematic approach, the scoping report includes:

- overall information of the eligible area (Chapter 2.2)
- definition of the relevant geographic area and time period (Chapter 2.1)
- identified environmental problems and legal background (Chapter 4.)
- concept of assessment (Chapter 4.5, 6.)
- define the appropriate environmental indicators that will lead the processes in the SEA (Chapter 4.3.)
- define methods of evaluation of the positive or negative effects (Chapter 4.5.)
- defining the method of generating and evaluating reasonable alternatives (Chapter 4.)

The structure of the SEA report is also determined in the relevant section (Chapter 5.).

The aim of scoping report is to identify the main areas of intervention, summarizing mainly the relevant regulation background, and the methodology planned to be applied in the environmental assessment, while the SEA report will be prepared by the 1st draft Operational Programme, with the approved Thematic Objectives.

As the relevant legislation is slightly different from each environmental elements (e.g. laws and regulations cover more implementation area, mainly in the field of nature and soil protection), the scoping report includes objective and legislative approach (see Chapter 2. and 4.). While the purpose of the scoping report is to determine the current environmental state and the objectives to be achieved, the relevant indicators are defined in accordance with the legislative issues.

During the assessment, basic data information is gathered by national and European database, supplemented by the Strategic Territory Analysis (STA) report's conclusions.

Involving the relevant authorities and stakeholders, the necessary information will be available during the SEA evaluation, covering the 2014-2020 (+2 years) period.

This report serves for authorities for deciding upon the need for the SEA process and consultation on that, deciding upon the scope and level of detail of the information within the environmental report, and serves as a preparatory report for decision of third countries weather the implementation of the programme is likely to have significant effects on the environment in those states.

2. Determining the subject of the programme to the SEA

2.1 The outline of the programme

The time frame for SEA in this programme context:

The time frame for the description of the development trend related to the expected state of environment and the possible impacts on the environmental issues is the funding period 2014-2020 plus two years, in which all funded projects of this period have to be finalised, i.e. until the year 2022.

The geographical frame for SEA in this programme context:

The eligible area includes four counties in Hungary (Szabolcs-Szatmár-Bereg, Hajdú- Bihar, Békés and Csongrád), and four counties in Romania (Satu Mare, Bihor, Arad and Timiş). The overall area is about 50.000 km2, representing 15.2% of the two countries' territory (23.7% of Hungary and 11.9% of Romania, resp.). The number of population is almost 4 million people, representing 12.7% of the two countries' inhabitants.

Protected areas

The eligible area is abundant in protected environmental areas, namely 159 Natura 2000 territories from which the vast majority is located in the Hungarian counties (http://www.eea.europa.eu/data-and-maps/data/natura-2000). The largest natural reserves of areas in the eligible area are in Hajdú-Bihar (Hortobágy) and Bihor (Apuseni Mountains).

In recent years several measures have been implemented in the eligible area aimed at nature protection, including Hungarian-Romanian state-level cooperation, including liquid and solid waste disposal, rainwater drainage and treatment as well.

Because of the large numbers of Natura2000 areas, protection of the natural environment has to be a key issue in the eligible counties.

Air quality, main pollution sources

The air quality in the eligible area is mainly good or average. In the eligible Hungarian counties the quality of the air is better than the national average, due to the low rate of industry, while in the relevant Romanian counties it is average or mainly good. Higher air pollution can be found mainly in and around major cities and close to main roads.

Water management

Main pollution sources of surface and ground water are from human activities such as direct and indirect forms of municipal waste water discharge and diffuse pollution. Nitrate, phosphorous, ammonium) comes from agricultural or industrial/ waste disposal activities, but non-treated surface runoff can also cause this type of pollution.

Some parts of the public drinking water supply does not comply with the quality standards – such as regarding the boron, arsenic and ammonium concentration – furthermore, in case of more parts of the supply system the iron, manganese and nitrate content of the water exceeds the relevant thresholds.

The environmental state of the natural surface waters is good overall. The quality of Hungarian surface waters is determined by their stem from across the border. In the case of waters which forms the boundary or cut the boundary, in the past 10 years the water quality indicators has shown improved quality in 65%, while 35% has indicated a negative trend, so an overall improvement in the quality of water can be observed.

In the researched Romanian counties the average length of drinking water pipe network increased from 1537 km to 2258 km between 2005-2011. The length of the sewerage pipe network increased from 607 km to 811 km. In the four Hungarian counties sewerage pipe network increased by 18 to 33%. The development of the drinking water network is not so significant ranging from 0 to 5%, because the rate of utility in the area was already over 95% and the drinking water supply was already satisfactory.

In 2011 in 40 settlements (out of 79) of Békés county the drinking water quality did not fulfil the legal requirements because of its extremely high arsenic and nitrite content. In the same year in Csongrád a national program aiming drinking water quality improvement was in progress.

In order to solve the problem, a complex improvement program is implemented in worth of 51 billion HUF (supported projects between 2007-2013) in the affected Hungarian counties.

At the Romanian side of the border the most significant water management issues identified in the Ier Valley / Cris river area are pollution caused by human communities and agricultural activities. The catchments area Ier / Cris has established a program of action that includes both basic measures and additional measures to achieve environmental objectives set for all water bodies in Romania.

There are a number of 126 water catchments of groundwater for consumption in the Cris basin area, of which, 89 catchments areas have sanitary protection established under the Government Decision 930/2005. One of these catchments (the Water Company Oradea) operates larger flows of 1.5 million m^3/year.

In summary: significant improvements were realized in the field of water infrastructure development between 2005 and 2011 in both countries. Improving drinking water quality (decreasing arsenic concentration), complex programs are in progress in the affected settlements. In connection with the significant presence of water resources, water management issues have to be an important asset of the area.

Soil quality, level of soil degradation

The soil quality of the eligible area is from average to good in general; the types of soil provide favourable conditions for agricultural activities.

Major sources of soil degradation include soil erosion due to wind, erosion due to water, landslides (especially in the hill areas, on grass lands and on deforested lands, and in the areas neighbouring the surface mining excavations), drought, regular excess of humidity in the soil. Other significant degradation factors are the extraction of mineral resources and the oil extraction industry (e.g. in Bihor, Arad, Timiş).

Waste management

The amount of municipal solid waste per capita in both countries is lower than the EU average. The same trend is observed in the case of packaging waste per capita as well.

The level of coverage with regular waste collection services is about 85-90 % in the relevant counties of the eligible area, the rate is significantly higher in the urban areas than in the rural areas.

In compliance with EU standards, the regional waste management systems in both countries have been developed in recent years. Simultaneously with the installation of modern waste disposal systems, the recultivation of small municipal landfills started and mostly finished.

Recycling rate of municipal solid waste is lower in Romania than in Hungary, and the rate is substantially below the EU average in both countries. The rate of recycled and composted municipal solid waste is steadily increasing for years, due to the increasing use of selective waste collection.

The ratio of hazardous waste out of the total waste in Hungary is around the EU average (3.7%), while Romania has the lowest rate in the EU.

The elimination and disposal of illegal landfills will remain a key task in the area.

Energy

Romania had a total installed electricity-generating capacity of an estimated 23,452 MW, but much of the existing installed capacity is over 20 years old, and 26% is actually non-operational. In Hungary currently 19 big power plants and more than 270 small power plants (under 50 megawatts) operate with a built-in total capacity of 9,000 megawatts. The Hungarian power plant portfolio is also considerably outdated: the big power plants have an average age of more than 24 years; in the case of the small ones this is more than 10 years, which means that the average age is some 22 years. Regarding the distribution of the consumption by fuels, Romania relies mainly on natural gas while the share of renewable energies is remarkably high comparing to the Hungarian (8%) and EU27 (10%) data.

Romania is committed to investing heavily in energy in 2013-2020, including in the planned reactors 3 and 4 at Cernavoda, and in renewable resources including the €1bn investment in the Tarnita-Lapustesti hydropower plant, as well as the hydropower plants at Galati, Braila, Doicesti and the mini-hydropower plants in the Olt basin. For Hungary, the improvement of the energy efficiency will be the main priority, as the country is poorly endowed with natural resources and has to import more than half of its energy needs.

In the year 2010 the share of renewable energy in the gross final energy consumption was 8.7% in Hungary and 23.4% in Romania. In accordance with the Europe 2020 targets, the former aims to reach a share of 13% by 2020. On the other hand, Romania is committed to satisfy 24% of its energy need from sustainable, renewable sources. The Hungarian and Romanian counties have abundant water resources that can be used to produce hydroelectric power. However, in Hungary only 1% of the total renewable energy generated comes from hydroelectric facilities while in Romania this ratio is much more favourable (25%) significantly exceeding also the EU average (16%).

In Hungary the hydroelectric power station of Tiszalök – which is located in Szabolcs-Szatmár-Bereg county – is the most important such plant of the Great Plain. The power station generates approximately 45 million kWh/a renewable energy annually from the Tisza River. In Csongrád county 191 thermal wells operate with 46% agricultural and 15% industrial usage. Békés county has 136 fully functioning thermal wells that serve the agriculture and tourism by providing water for 24 thermal baths. Furthermore, merely 87% of the Hungarian exploitable water that can be used to generate geothermal energy is located on the Great Plain. The construction of the hydroelectric power station of Békésszentandrás

– located on the Kőrös river in Békés county – started in 2011 and from its completion it will be able to ensure the targeted renewable energy rate for 54,000 people with the annual electricity production of 8.6 GWh.

Romania has a great potential in exploiting geothermal energy and one of the most important source is located in Bihor county mainly in the area around Oradea city where the use of this energy type dates back to hundred years.

Hungary has a great potential in geothermal energy production. However, only 0.28% of the total energy consumption is ensured with geothermal energy, and geothermal energy is not converted into electricity.

Because of the favourable irradiation data, utilization of solar energy is suitable in the eligible counties.

Romania is one of the 15 member states that have more than 1GW of installed wind plant capacity (exactly 1,905 GW) in 2012. The country was able to double its installed capacity between the year 2011 and 2012 thanks to extensive investment.

The extract of environmental respects from the draft SWOT analysis of the Programme (in accordance with the 4th National Environmental Programme) is presented in Annex 1.

2.2 Objectives and areas of intervention

The proposed strategic objectives of the programme have been presented in a Common Territorial Strategy (indicated as the 1st draft, and not yet approved by the Joint Working Group):

SO1: Development of cross-border mobility and elimination of key transport infrastructure bottlenecks

SO2: Joint adaptation to climate change, protecting the environment and the natural values

SO3: Support to cross-border business cooperation

SO4: Increasing employment in the border area

SO5: Coordinated development and use of healthcare and emergency-response capacities

SO6: Cross-border tourism development

SO7: Enhancing cooperation of people, communities and institutions

Based on the Common Territorial Strategy's suggestions, the programme is proposed to have the following priority axis and key areas of intervention, as discussed on the 12th December 2013 6th Joint Working Group Meeting. (The priority axes and the detailed content of those have not been approved by the Joint Working Group finally, those are under decision, but indicate the possible priority axes.)

Priority Axes	TO	Investment Priority	Key Area of Intervention
PA1: Supporting the shift towards low carbon economy	4. Supporting the shift towards a low-carbon economy in all sectors	4/a promoting the production and distribution of energy derived from renewable energy sources;	KAI A1.1: Support to the production and distribution of renewable energy

		4/c supporting energy efficiency, smart energy management and renewable energy use in public infrastructures, including in public buildings and in the housing sector;	KAI 1.2 Support to improving energy efficiency in public buildings
PA2: Joint protection and efficient use of common values and resources	6. Protecting the environment and promoting resource efficiency	6/b Addressing the significant needs for investment in the water sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the MS, for investment going beyond those requirements	KAI2.1: Cross-border water protection and management
		6/c Conserving, protecting, promoting and developing natural and cultural heritage	KAI 2.2: Protection and promotion of joint cultural, historic and natural heritage as tourism destinations
PA3: Improve sustainable cross-border mobility and remove bottlenecks	7: Promoting sustainable transport and removing bottlenecks in key network infrastructures	7/b Enhancing regional mobility through connecting secondary and tertiary nodes to TEN-T infrastructure, including multimodal nodes	KAI 3.1: Cross-border road development linked to TEN-T
		7/c Developing and improving environment-friendly (including low-noise), and low-carbon transport systems including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility	KAI 3.2: Strengthening sustainable cross-border mobility
PA4: Improve employment and promote cross-border labour mobility	8: Promoting sustainable and quality employment and supporting labour mobility	8/a supporting the development of business incubators and investment support for self-employment, micro enterprises and business creation	KAI 4.1: Developing cross-border business cooperation
		8/b supporting employment friendly growth through the development of endogenous potential as part of a territorial strategy for specific areas, including the conversion of declining industrial regions and enhancement of accessibility to and development of specific natural and cultural resources	KAI 4.2: Promoting complex development of specific territories

PA5: Promoting social inclusion and combating poverty and any discrimination	9: Promoting social inclusion and combating poverty	9/a Investing in health and social infrastructure which contribute to national, regional and local development, reducing inequalities in terms of health status, and transition from institutional to community-based services	KAI 5.1: Joint health-care development
		9/b support for physical […] economic and social regeneration of deprived urban and rural communities and areas;	KAI 5.2 Integrated development of deprived rural and urban communities
PA6: Promoting cross-border cooperation between institutions and citizens	11: Enhancing institutional capacity and an efficient public administration support of actions in institutional capacity and in the efficiency of public administration	11/b Promoting legal and administrative cooperation and cooperation between citizens and institutions	KAI 6.1: Strengthening cross-border institutional co-operations
		11/b Promoting legal and administrative cooperation and cooperation between citizens and institutions	KAI 6.2: Strengthening cross-border people-to-people, community-to-community cooperation

2.3 Sectors that the programme covers

PA Supporting the shift towards low carbon economy and the PA Joint protection and efficient use of common values and resources focuses on the protection and development of utilizing resources, including natural, cultural and built heritage. While the eligible area is abundant in surface and ground water, integrated water management steps are required in the future. The implementation has to cover rehabilitation of natural waters, flood-protection (if possible under the selected Thematic Objective), agricultural and energy generation use of water, protection of the common water basin. The production and the use of renewable energy will definitely turn up, not only in one PA, but also in horizontal way.
It is also important to support investments in joint nature and national heritage protection (rehabilitation, species protection, nature trails, know-how transfer, etc.). Initially, the conditions of self-sustainment have to be ensured.
The PA covers the environmental, nature protection and water management sectors.

PA Improve sustainable cross-border mobility and remove bottlenecks focuses on the improvement of cross-border mobility, which includes the development of the road infrastructure and environment-friendly transport systems as well. While mobility is a key issue in cross-border co-operation, it requires proper transport infrastructure (direct lines, different kinds of transport, multimodal links, etc.)
The PA mainly affects the transport development sector, and – due of its significant strategic and environmental features – affects several other sectors, such as: environmental, settlement planning and health care sectors.

PA Promoting social inclusion and combating poverty deals with the improvement of healthcare, focusing on balancing the supply system, in order to decrease "healthcare migration". The PA is also proposed to deal with supporting cross-border business cooperation, mainly in the agricultural field. The **PA Improve employment and promote cross-border labour mobility** is also planned for the development of business cooperation with employment focus.

PA Promoting cross-border cooperation between institutions and citizens aims to strengthen the institutional cooperation of administration in the fields of healthcare and emergency response capacities. The PA also deals with cooperation between citizens/communities and institutions.
Depending on the future operative steps and sources, PA3 and PA4 mainly affect the public health and agricultural (rural development) sectors, including public transport issues.

3. Determining the likely significance of effects

3.1 Framework for future EIA development

Due to the recent Hungarian legal background, environmental concerns are present during the permitting processes. Depending on the expected environmental effect, the environmental authority participates either as partner- or attending authority (Typically, during permitting of smaller volume building processes the local notary is the attending authority).

As seen in the above-mentioned summary, Priority Axes demand strategic approach. Due to this fact, and while the aims cover a large eligible planning area, the specific operative steps have to be implemented under supervision of environmental authorities.

Due to the recent Romanian legal background the impact evaluation of some public and private projects with effects on the environment is regulated by the Government Decision nr. 445/08.04.2009. The application methodology of environmental impact assessment for public and private projects was approved by the Common Order nr. 135/76/84/1284 from 2010 of the Ministry of Environment and Forests, the Ministry of Internal Affairs, the Ministry of Agriculture and Rural Development and the Ministry of Regional Development and Tourism.

According to GD 445/2009 all projects requiring the EIA procedure (projects significantly present in PA1, PA2 and PA3) are subject of a request for development consent and for their environmental impact assessment before issuing this approval.

The procedure for environmental impact assessment is preceded by an initial evaluation of the project realised by public authorities for environmental protection, which identify location of the project in relation to protected natural areas of community interest, if the project is within the List of projects subject to environmental impact assessment (annex nr. 1) or if the project is within the List of projects for which the necessity of an environmental impact assessment has to be established (annex nr. 2) or if the project does not fit in these lists.

The environmental impact assessment will be required for projects in Annex 1 of GD445/2009 and for the projects in Annex 2 of GD445/2009 for which the public authority for environmental protection decided, after the screening stage based on an examination of the case, using the criteria provided in Annex 3 of GD445/2009, the need of environmental impact evaluation. The environmental impact assessment for projects subject to legislation on integrated pollution prevention and control (IPPC) includes the requirements of Law no.

278/2013 regarding industrial emissions. These projects are listed in Annex 1 of the mentioned regulation.

For any project, that is not directly related to or necessary for the management of protected natural areas of community interest, but can significantly affect the area, alone or in combination with other projects, and that is subject to environmental impact assessment, the report of the environmental impact assessment includes the conclusions of the study regarding the appropriate assessment according to Government Emergency Ordinance no. 57/2007 relating to the regime of protected natural areas, natural habitats protection, flora and fauna, with subsequent amendments. The methodological guide for the adequate evaluation of the potential effects of plans or projects on protected natural areas of community interest was approved by Order MMP no. 19/2010.

The evaluation procedure of the environmental impact assessment is headed by the central or regional public authorities for environmental protection, involving central and local public authorities, as appropriate, with specific duties and responsibilities in environmental protection. The central public authority for environmental protection guide and coordinate the environmental impact procedure for projects with significant cross-border potential by applying the Law 22/2001 ratifying the convention on environmental impact assessment in cross-border context, done at Espoo on 25 February 2001.

According to the GD no. 314/2005 on the EIA and IPPC permitting process, there are three main types of activities in accordance of their environmental effects:

- preliminary assessment required activities
- activities which require environmental impact assessment (EIA)
- IPPC-obligated activities

Without knowing the given operative project, it is hard to predict which type of permitting process will have to be applied, and what type of permit (IPPC, or environmental permit) will be required for the given investment. It is also clear, that environmental permit is needed for establishment of infrastructural facilities and/or environmental related activities. Therefore, environmental permitting processes will be significantly present in case of PA1-PA2 projects.

Generally, the following scenarios can be expected:

- Environmental impact assessment : agriculture, fishing, mining, electricity production, surface and ground water utilization, transport, water treatment (large volume)
- IPPC-permitting: large volume combustion, waste utilization, establishment of large volume livestock, etc.

Overall, it is expected, that all projects implemented under PA1 or PA2 will require either environmental or IPPC permit.

The foreseen EIA activities under the key areas of interventions (the priority axes, the areas of interventions and the detailed content of those have not been approved by the Joint Working Group finally, those are under decision, but indicate the possible activities foreseen.):

KAI	Activities foreseen
KAI A1.1: Support to the production and distribution of renewable energy	1. Support to small-scale renewable energy production facilities. 2. Support to the development of local distribution systems of renewable energy.

KAI 1.2 Support to improving energy efficiency in public buildings	1. Support to the refurbishment of public infrastructure - in order to increase energy efficiency.
KAI2.1: Cross-border water protection and management	1. Investment into improving water quality 2. Protection and utilization of the common water basin 3. Investment into water quality and quantity monitoring, management 4. Identification of polluting sources, the necessary measures to reduce water pollution also caused by waste
KAI 2.2: Protection and promotion of joint cultural, historic and natural heritage as tourism destinations	1. Rehabilitate and preserve cultural, historic, and natural heritage including historic buildings 2. Development of thematic routes built around cultural, historic and natural values 3. Creation and rehabilitation of facilities based on the sustainable use of common geothermal potential of the cross/border area
KAI 3.1: Cross-border road development linked to TEN-T	1. Building, rehabilitation and upgrading of roads with cross-border impact 2. Improving the accessibility of TEN-T network from the cross-border area
KAI 3.2: Strengthening sustainable cross-border mobility	1. Coordinated development of key railway and tram-train lines connecting major cities in the eligible area, 2. Development of cross-border public transport services, 3. Development of key conditions of cross-border bicycle transport
KAI 4.1: Developing cross-border business cooperation	1. Establishment and development of cross-border business infrastructure facilities - industrial parks, business incubators, clusters and others. 2. Establishment of cross-border physical and online marketplaces, logistical capacities to promote the wider use of local (mainly food) products
KAI 4.2: Promoting complex development of specific territories	The following (already existing) activities may be moved under this KAI (with some rewording): 2.2.2. development of thematic routes built around cultural, historic and natural values 3.1.1. Building, rehabilitation and upgrading of new cross-border roads with cross-border impact 4.1.1. Establishment and development of cross-border business infrastructure facilities - industrial parks, business incubators, clusters and others.
KAI 5.1: Joint health-care development	1. Investment to improve health-care infrastructure and equipment 2. Know-how exchange and joint capacity development 3. Development of cross-platform central telemedical, e-health infrastructure,
KAI 5.2 Integrated development of deprived rural and urban communities	1. Integrated development of deprived rural areas (with special emphasis of joint poor areas). 2. Social urban rehabilitation of segregated urban areas.

KAI 6.1: Strengthening cross-border institutional co-operations	There is no foreseen EIA activity under this area of intervention.
KAI 6.2: Strengthening cross-border people-to-people, community-to-community cooperation	There is no foreseen EIA activity under this area of intervention

3.2 Environmental effects at regional and transboundary level

The Hungary-Romania eligible area is an area inhabited by nearly 4 million people that exhibits important differences between the two sides of the border, between various parts of the region and also between urban and rural areas.

Despite major advancements in recent years, including Hungary's and then Romania's accession to the European Union, as well as the use of (though fairly modest amount of) EU funds to improve the conditions of cross-border cooperation, the state border is still a major obstacle, and the eligible area is far from operating as one single eligible area: there are still a number of physical and also soft obstacles to extended cooperation. In addition to these obstacles, there are also many untapped potentials. Thus any initiative, aimed at enhancing cooperation should (also in accordance with the relevant ETC draft regulation) focus on removing the most important obstacles and the better use of some of the key joint potentials.

Harmonization of regulations, rules, protocols and elimination of unnecessary administrative obstacles are all measures that do not cost a lot of money, but can have major positive impacts.

3.3 Characteristics of the affected territory

The eligible area has a diverse natural environment and is rich in protected areas - among others, many NATURA 2000 areas. Generally, the pollution level is modest, although the dynamic industrial development on the Romanian side includes a potential risk of increasing pollution. Solid waste is a problem in the entire area - currently only a very limited part is reused or recycled. Most of the solid waste is dumped in landfills, though recultivation is taking place and selective waste collection increases gradually. Drinking water is of good quality, although in certain parts high arsenic and nitric concentrates create problems. In Romania, insufficiencies of the sewage system create a major risk and require intervention.

The area is also rich in surface waters, with generally good water quality, which offer excellent potentials for both touristic and energy generation purposes - and certainly carry some risks of flood and pollution. In addition, the eligible area has a remarkable geothermal capacity, but currently this is mainly used in spas, thus it is an untapped potential for generating renewable energy. In general, the Romanian side is more advanced when it comes to generating renewable energy - in addition to surface waters and geothermal water, the area has strong solar potential, and the use of wind energy can also be considered in certain areas.

While the area has good potential for generating energy from renewable sources, the potential negative impacts of climate change still pose an important risk. Unfortunately, most of the area has modest adaptive capacity and thus is quite vulnerable to climate change. More active steps need to be taken in this field, harmonized also on cross-border level.

The current level of cross-border traffic is fairly limited the existing infrastructure can cope with this level of traffic without major problems.

Unfortunately, the majority of border-crossings happen by passenger cars and lorries, the most polluting forms of transport. Railway plays an insignificant role; the railroad infrastructure has been rundown, even between the large cities with extremely long access times, while bus public transport is practically non-existent. The eligible area is well provided with airports, but these are not part of a cross-border multimodal system that would contribute to the more efficient utilization of these capacities.

The NATURA 2000 network established by the European Union covers a significant part of the eligible border area. This network is an interconnected European Ecological Network with the aim of preserving the biodiversity through the protection of the types of natural habitats as well as the species of wild flora and fauna of Community interest, and assisting for the sustainable maintenance and restoration of their favourable conservation status. The network consists of areas designated by the EU guidelines: 1) about the Important Bird Areas (IBA) (directive on the conservation of wild birds; 79/409/EC); 2) about the Special Areas of Conservation (directive on the conservation of natural habitats and of wild fauna and flora; 43/92/EC).

The dedicated sites of the two countries concerned are:

- Hungary: http://www.natura.2000.hu/index.php?p=termegorze&nyelv=hun
- Romania: http://www.natura2000.ro/

National parks and the landscape protection areas (LPA) in Hungary account for nearly 9% of the total co-operation area. There are two national parks: the Hortobágyi National Park (which is also part of the World Heritage), and Körös-Maros National Park that countinues on the Romanian side with Cefa Natural Park; and 6 landscape protection areas, including the Bihari-Sík LPA, the Hajdúsági LPA, the Közép-Tiszai LPA, the Szatmár-Beregi LPA, the Mártélyi LPA and the Pusztaszeri LPA. In Romania, the total surface covered by Natural Parks (13) and Biosphere Reserves (“Danube Delta”) is 1.687.512 ha (121.780 ha maritime surface), which represents 7% of the total terrestrial country surface. In the programme area, there are parts of Natural Park Apuseni (Bihor county), the Natural Park of the Low Meadow of Mures (Arad county) and more than 40 small areas identified under the Natura 2000 Programme (Special Protected Areas and Sites of Community Interest – see in the above map). There are also many other smaller natural protected zones, according to the national legislation.

Another major natural resource of the area is thermal water, which is available across the entire co-operation area. The cross-border Hungarian-Romanian border area is very rich in high quality therapeutic thermal water. There is an abundance of spa resorts throughout the area; some of these resorts have even acquired international reputation, e.g. Baile 1 Mai and Felix Spa in Romania, Debrecen, Hajdúszoboszló and Gyula in Hungary.

In the mountainous and hilly areas of the Romanian part there are also other diverse subsoil natural resources, including ores (iron, copper, zinc, lead, uranium), precious metals – gold and silver, and also construction materials (sand, granite, clay and marble). Regarding the subsoil natural resources there are significant levels of oil and gas production in Hungary and Romania, as well. Geothermal water and natural resources of carbon dioxide are also exploited.

3.4 Characteristics of the environmental effects of the programme

Background of the planning of catchment areas: Countries have to prepare plans for the catchment areas in order to preserve the good quality of the water. The flow direction of the water is from the direction of Romania, so it is Hungary's primary interest that only such developments would be implemented on the Romanian catchment areas which do not endanger the quality of water.

The following rivers establish natural connections between the Romanian and Hungarian parts: Tur, Somes, Krasna, Barcau, Crisul Repede, Crisul Negru, Crisul Alb and the Mures. All of the rivers are flowing into the Tisa. These rivers play an important role in the preserving of biodiversity, some of them in tourism (e.g.: Tur), or watersupply for the industry (e.g.: Crisul Repede and Somes); furthermore, after proper treatment they are also used as drinking water. They are not used, however, for water transportation or for agricultural irrigation or for energy production, mainly because of their small size. The unique gallery-forests alongside the rivers create special natural values for the area with their rich animal, bird and vegetable life.

The border area is characterised by clean natural environment, the level of various forms of pollution is relatively low.

The abundance of rivers carries the risk of floods, and river pollution has also been an issue. Major projects are implemented in both countries, mainly in the field of flood prevention; it is important though, to co-ordinate this development and complement flood prevention facilities with properly functioning joint warning systems, as well. River pollution is also an issue that requires common actions.

Another important risk factor is the occasional excessive inland waters. Here again, integrated interventions are required.

Finally, the former existence of major sources of industrial pollution and the increasing trend of domestic waste in the co-operation area call for joint actions in the field of waste management.

4. Defining the scope of the assessment

4.1 Relevant plans, programmes and environmental protection objectives

The SEA analysis identifies the key national and international documents in term of the environment linked with the Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period.

Other plans or programmes may already dealt with issues, that might be significant to the present Operational Programme of the Hungary-Romania cross-border area for the 2014-2020 programming period.

The list of relevant national and international legal and policy framework is presented in ANNEX 1. The table represents the relevant environmental objectives derived from the presented framework and guiding questions for each environmental issue, the connection to the PA's of the present OP.

4.2 Identified environmental problems

The environmental situation analysis is to be prepared for all environmental issues identified. The identified environmental issues and the key focus points regarding the targeted territory are the following with pointing out the key environmental problems of the area affected by the programme:

Environmental issues	Key environmental problems and focus points related to the Programme and the affected territory:
Biodiversity, flora, fauna **Natura 2000**	Measures regarding the preservation of the diversity of natural habitats, the protection of endangered plant and animal species, natural resources, ecological networks within biogeographically regions, Natura 2000 and the diversity of the biosphere. Protection of ecosystems, more precisely taking into consideration the principle of sustainable development in managing natural resources.
	Key environmental problems: Land use is often not adapted to the natural conditions. Improper industrial waste management is a serious environmental risk in certain parts of the border area. The risk of floods in certain parts of the eligible area is still high. In spite of previous interventions, pollution of some rivers remains a problem. Landfills are still the primary way to get rid of solid waste. There are outdated power plants on both of the borders. **Focus points to be stressed regarding the targeted territory:** Landscape-conserving farming of the High Natural Value (HNV), Less Favoured Areas (LFA) and Natura 2000 network; HURO CBC Programme should promote the conservation of the landscape patterns which are of vital importance for natural flora and fauna, namely biodiversity should be performed at landscape level. The Cross-Border Region is abundant in protected environmental areas, namely 159 Natura2000 territories from which the vast majority is located in the Hungarian counties. The Hungarian part comprises more than 8500 km2, or approx. 17% of the total CBR territory. The largest natural reserves of areas in the CBC Region are in Hajdú-Bihar (Hortobágy) and Bihor (Apuseni Mountains).
Soil and geological medium	Examination of the processes that cause (usually harmful) changes in the mechanical and chemical structure of the soil. Measures taken to prevent erosion and deflation, the two most significant mechanical processes that cause soil degradation. Measures taken to prevent soil acidification and soil salinization, the two most significant chemical processes that cause soil degradation
	Key environmental problems: Major sources of soil degradation include soil erosion due to wind, erosion due to water, landslides (especially in the hilly areas, on grasslands and on deforested lands, and in the areas neighbouring the surface mining excavations), drought, regular excess of humidity in the soil. Other significant degradation factors are the extraction of mineral resources and the oil extraction industry (e.g. in Bihor, Arad, Timiş).

	Focus points to be stressed regarding the targeted territory: very diverse soils, measures to be taken depending on the soil type, factors of soil degradation: over-motorisation (soil compaction, erosion, air pollution), fertilizer system, pesticides, crop-increasing substances, inadequate cultivation method and agro-technology. There is a need for professional tillage, organic matter management, use of environment-friendly fertilisers and pesticides adequate to the agro-ecological endowments, animal and floral manure as well as the establishment of the appropriate crop structure.
Water (surface waters, groundwaters)	Regarding the status and protection of waters, the following aspects will be taken into consideration: Development of urban wastewater collection and wastewater treatment, complex water protection investments, improvement of oxygenation, nutrient balance and water quality indicators concerning rivers and lakes. In case of underground water systems decreasing the polluting effects of harmful sources of pollution, furthermore, the issue of securing fragile operating and potential drinking water bases. Reduction of the concentration of natural organic matter found in drinking water. Flood control, river and lake regulation, groundwater and local water damage prevention. Implementation of development and engineering interventions to prevent water damage.
	Key environmental problems: Main pollution sources of surface and ground water derive from human activities such as direct and indirect forms of municipal waste, water discharge and diffuse pollution (nitrate, phosphorus, ammonium) which comes from agricultural or industrial waste disposal activities, but non-treated surface runoff can also cause this type of pollution. Relatively high risk of large scale pollutions. Relatively high risk of large scale flood. Risks of cross-border surface water pollution. Uncoordinated exploitation of thermal water lead to overuse and decreasing stocks. **Focus points to be stressed regarding the targeted territory:** the pollution degree of **surface waters** primarily depends on land use, the quality of agricultural machinery, naturalness of surface water systems, cultivation methods, crop structure, the quality and quantity of used fertilisers, pesticides and reclaiming materials, timing of the use thereof. The damage caused by floods and excess surface waters can be reduced by change land use, development of wetland habitats, afforestation, establishment of rational and integrated management of excess surface waters and supporting plain landscape management. There is a need for the modernisation of livestock farms, transformation of machinery stock and fuel storage facilities, adequate management of liquid manure and agricultural wastes, outer and inner integrated establishment and maintenance of drainage. The interventions providing the achievement of good ecological state of waters by adequately selected agro-technological operations should be preferentially supported. The pollution of **groundwaters** is closely connected with surface land use. Stopping of further increase in nitrate concentration of groundwaters can be ensured by the compliance and enforcement of nitrate sensitive areas regulation.

	The risk of groundwater pollution and the degree of pollution can be reduced by following measures: change in land use, afforestation, establishment of wetland habitats and fish ponds, establishment of rational and integrated surface water management, Natura 2000 grants, organic farming, modernisation of livestock farms, spreading of extensive animal management, modernisation of machinery stock and fuel storage facilities, adequate management of liquid manures and agricultural wastes, prevention of the development of stagnant waters. The area is also rich in surface waters, generally of good water quality, which offer excellent potentials for both touristic and energy generation purposes - and certainly carry some risks of flood and pollution. In addition, the CBR has a remarkable geothermal capacity, but currently this is mainly used in spas, thus it is an untapped potential for generating renewable energy. In general, the Romanian side is more advanced when it comes to generating renewable energy - in addition to surface waters and geothermal water, the area has strong solar potential, and the use of wind energy can also be considered in certain areas.
Air and Climate factors **Climate Change**	The change in quality of air and climatic factors due to individual measures, in detail the reduction of the concentration of pollutants emitted in greater amounts, sulphur-dioxide, nitrogen-oxides, carbon-monoxide, carbon-dioxide and solids; the mitigation or elimination of pollution situations that exceed the limits temporarily but more and more often. Mitigating the effects causing global air pollution that are caused by the burning of fossil fuels, by certain industrial and agricultural activities, and by the use of ozone-damaging and greenhouse materials.
	Key environmental problems: Negative impact of climate change, more frequent weather extremities result in increased risks of floods and drought. The main pollution sources in the CBR are: Traffic – road traffic is responsible for the large quantity of suspended and depositing particles. Industry – burning installations, thermal power stations (in Bihor, Arad, Timiş), hydrocarbon mining (in Csongrád, Békés), production of ceramic items (brick, tile, in Békés, Bihor), etc. Agricultural sources – uncontrolled burning of dry vegetation, odour emissions of farming / composting, dispersed pesticide / fertilizer, harvesting, crop drying and storage. Household sources – heating (burning wood, coal, gas, etc.). **Focus points to be stressed regarding the targeted territory:** change in land use, the nature-like afforestation (larger and area protecting wood belts); choosing the right agro-technical practice, replacing fossil fuels at local and small enterprise levels (biomass, bioethanol, biodiesel etc.), reducing the emission of methane (modernisation of livestock farms); reducing the motorised passenger and freight transportation; Integrating river basin management; modernisation of forest management (regarding floods, excess surface waters and droughts); applying environment-friendly irrigation, spreading drought tolerant cultures or changing land use, strengthening the integrated approach by CBC programme The main pollution sources in the CBR are: Traffic – road traffic is responsible for the large quantity of suspended and

	depositing particles. Industry – burning installations, thermal power stations (in Bihor, Arad, Timiş), hydrocarbon mining (in Csongrád, Békés), production of ceramic items (brick, tile, in Békés, Bihor), etc. Agricultural sources – uncontrolled burning of dry vegetation, odour emissions of farming / composting, dispersed pesticide / fertilizer, harvesting, crop drying and storage. Household sources – heating (burning wood, coal, gas, etc.).
Landscape	Measures that impact on the creation of an integrated landscape, especially the rehabilitation of environmentally degraded areas, and the new, antropogenous activities integrated into nature, and the implementation of traditional forms of agriculture (animal grazing, field management).
	Key environmental problems: The inadequately allocated infrastructural developments not carrying local landscape characters (e.g. roads, buildings) could endanger landscape values. It is to be feared that significant development resources contribute to the rapid degradation of both countries landscape values and the landscape character (this process has already been lasting for seven decades). **Focus points to be stressed regarding the targeted territory:** land use and spatial structure are of paramount importance in terms of landscape diversity and landscape ecological stability, namely the operation of landscape ecosystem. The connection of nature-friendly land use patches has actively beneficial impacts on spatial structure. The establishment of nature-friendly locations(e.g. afforestation and wetland habitats) and their fitting into ecological corridors, the connection of forest blocks as well as the bridging and eliminating of ecological barriers should be taken into account. The establishment and reservation of the mosaic pattern of land use should be promoted. There is a need to consider the change in cultivation method in the case of nature-friendly land use forms (forests, grasses, reed, water body), or planting on them carefully, according to the local conditions.
Population and human health	The factor means the mitigation of those impacts that endanger the economic and social wellbeing, health of the population. It is an aim to reduce the number of diseases due to harmful environmental effects by mitigating the pollution of environmental factors, and by disseminating environmentally conscious forms of behaviour and conduct.
	Key environmental problems: The level of cross-border “health-migration” is a phenomenon that is difficult to quantify, as only certain parts of the treatments are delivered officially through the public health-care systems. Still, from interviews conducted in the eligible area we can conclude that every year significant number of Romanian citizens travel to Hungary to use the services of Hungarian health-care institutions. Official figures from the Hungarian National Health Insurance clearly support this notion. **Focus points to be stressed regarding the targeted territory:** The health-care system of the area is quite unbalanced: in Hungary, the general condition and the level of equipment of health-care facilities (especially hospitals) is better than on the Romanian side. This results in "health-care migration" - many Romanian residents living in the proximity of the border are travelling to Hungary for treatments - but this process is not properly

	organized or coordinated, and its financing is also problematical (even though the related EU directive will enter into force soon). On the long run, better coordination of patient flow, creating a system enabling cross-financing, harmonization of development between the relevant hospitals, improvement of general quality of facilities in Romania in order to mitigate migration pressure would be beneficial. Improving of life quality: the development of agricultural, environmental and urban infrastructure, the integrated protection of built, natural and cultural heritage of rural settlements, supporting the programmes of rural communities for population retaining capacity and increasing revenues and the improvement of rural employment conditions. The touristic utilisation of the local and regional landscape-natural and cultural heritage attractions improve the disadvantageous employment conditions of rural regions. A local methodological guideline should be elaborated for the supporting possibility of countryside tourism support.
Material assets, cultural heritage including architectural and archaeological heritage	All man-made facilities, objects, and buildings of cultural significance, monuments, museums, etc. whose damage caused by environmental pollution causes material and intangible loss to the population.
	Key environmental problems: The main challenges of the tourism sector include both infrastructural and organisational deficiencies, in Hungary and Romania alike. Insufficient infrastructure (poor quality or missing roads, lack of touristic road signs) complicate the accessibility of certain destinations. While the spas and other infrastructure elements related to health tourism are quite developed in Hungary, this is not the case on the Romanian side of the border; tapping the touristic potential of thermal water is hindered by the run-down infrastructure. In general, the quality and availability of tourism services is poor, with the exception of the primary touristic centres. A further problem is the continuous degradation of the cultural-artistic heritage. In addition to infrastructural deficiencies, there are other issues that hinder the better use of touristic potential, including the insufficient and not properly coordinated promotion of touristic values and the lack of information and tourist maps. In certain Romanian counties the level of infrastructure development of the mountain areas is insufficient; the network of chalets and rest-houses is limited. Coordination across the border is also largely lacking – many of the natural and historic values, touristic facilities are standalone attractions, rather than integral parts of a solid package. This is a problem, as these values in themselves are not attractive enough to increase the number of tourists. Co-financed from the current programme, there are some initiatives to establish cross-border touristic programme packages, providing promising initial results. **Focus points to be stressed regarding the targeted territory:** The cross-border area is rich in **touristic attractions** - both in **cultural** and in **natural** heritage. Arad: well-balanced relief (the hill-plain-mountain alternation), natural protected areas, historic and architectural monuments (citadels, castles, monasteries, churches), watermills, ethnographic centers, etc. Békés: Körös, Berettyó rivers, burial mounds, castle and spa of Gyula, etc.

	Bihor: 4 main rivers (Crişul Repede, Crişul Negru, Barcău, Ier), lakes, waterfalls, caves, Apuseni Mountains National Park, natural protected areas, architectural and historic monuments (eg. religious buildings, wooden churches), etc. Csongrád: Tisza, Körös, Maros rivers, historical site of Ópusztaszer, archaeological sites, protected monuments (e.g. in Szeged, Hódmezővásárhely, Csongrád), etc. Hajdú-Bihar: Hortobágy Natural Park (World Heritage), old burial sites, Árpád-era temple ruins, churches, bridges (e.g. nine-arch stone bridge in Hortobágy), the largest spa in Europe (Hajdúszoboszló), etc. Satu Mare: remarkable natural landscapes, old cultural institutions (eg. North Theatre in Satu Mare), historical sites (e.g. cathedral, churches, reservation of the free Dacians, castle of the Karolyi family in Carei, open-air museum in Negreşti Oaş), etc. Szabolcs-Szatmár-Bereg: Tisza River, Szatmár-Bereg region, medieval churches, watermill, castles (e.g. Szabolcs, Tiszadob, Vaja), spa, village museum and zoo in Nyíregyháza-Sóstó, etc. Timiş: karst relief, natural reservations, medieval castles and citadels, architectural and monastery structures (e.g. Timişoara), etc. In addition to physical places, attractions, a rich tradition of touristic events and festivals (gastro, music, theatre, dance, wine and other drinks, ethnography, religious, etc.) has been developing in the area in recent years.
Interrelationship between the mentioned protected goods	Presentation of cases of investigation where the joint, inseparable impact of two or more out of the 1-7 factors has to be considered. Specifically: The CBR has a diverse natural environment, and is rich in protected areas - among others, many NATURA 2000 areas. Generally, the pollution level is modest, although the dynamic industrial development on the Romanian side has a potential to risk increase pollution. Solid waste is a problem in the entire area - currently only a very limited part is used, the rest are dumped in landfills, though recultivation is taking place and selective collection increases gradually. Drinking water is of good quality, although in certain parts high arsenic and nitric concentration causes a problem. In Romania, insufficiencies in the sewage system are a major risk and require intervention. While the area has good potential for generating energy from renewable sources, the potential negative impacts of climate change still pose an important risk. Unfortunately, most of the area has modest adaptive capacity and thus is quite vulnerable to climate change. More active steps need to be taken in this field, harmonized also on cross-border level. Given the currently different key challenges for the two sides, elaborating a good Operational Programme that really works will require compromises from both parties.

The current state of the environment and the likely future trends are presented as follows:

Environmental issues	Current state of the environment	Likely future trends
Biodiversity, flora, fauna **Natura 2000**	The eligible area is abundant in protected environmental areas, namely 159 Natura 2000 territories from which the vast majority is located in the Hungarian counties. The Hungarian part comprises more than 8500 km2, or approx. 17% of the total eligible area. The largest natural reserves of areas in the eligible area are in Hajdú-Bihar (Hortobágy) and Bihor (Apuseni Mountains). Environmental cooperation between the two countries is led by the Expert Group for Environment within the Hungarian-Romanian Joint Commission, which was founded in 2003. A recent flagship of the cooperation and example of the countries' successful efforts, is the upgrade of the Cefa Natural Park (Natura 2000 territory) into a national park which directly connects the Romanian side to the Hungarian Körös-Maros National Park, forming jointly 13 000 hectares of national park territory. The main data of NATURA 2000 sites: Total number of Special Protection Areas (SPAs) in Hungary 56 (area is 13 741 km2), in Romania 108 (area is 29 851 km2), Total number of Sites of Community Importance (SCIs), in Hungary 477 (area is 14 413 km2), in Romania 298 (area is 32 806 km2). Besides the Natura 2000 areas, we should also take a closer look at the carbon dioxide emissions of the two countries as one of the most relevant indicators of environmentally sustainable development. Under the Kyoto Protocol, Hungary has undertaken to reduce its GHG emissions by 6% compared to the average of the years 1985-198736. Romania set an 8% reduction goal on the base year of 1989. After reaching its Kyoto target for the first commitment period (2008-2012), Hungary – and Romania as well – accepted the minus 20% target for the next session (2013-2020). According to that, one can see from Figure below that the total CO2 emissions from fuel combustion: • Rapidly decreased since 1990 in **Romania**, reaching its lowest level	The systems of natural and semi-natural areas, the ecological corridors and surrounding areas form a coherent ecological network system. The EU 2020 Biodiversity Strategy sets out specific targets for ecosystem services, maintenance and re- establishment of spatial planning and the integration of green infrastructure. The base of green infrastructure is the national ecological network, including protected areas, Natura 2000 sites. It covers more than 36% of the country. Preserving the ecological values of these areas is essential. The main risk factor is human intervention, but it is also important to prepare against certain natural influences. The natural and cultural values are mainly endangered by intensive agriculture, illegal material gain, and infestation by invasive species. Constructive co-operation between different authorities and more effective involving of different stakeholders (farmers, authorities, municipalities, NGOs, and academic institutions) is necessary. Natural areas, land ownership are predominantly based on public property, which is an effective method of protecting

	of 76.9 Mt in 2010 (46% of the 1990 CO2 level). However, an increasing trend can be experienced from 2010 on, with a projection of 86.4 Mt of CO2 for 2020 (51.7% of 1990). • On the other hand, the **Hungarian** emission-numbers stagnate within the 48 – 57 Mt range (74% - 87% of the 1990 level) with a major decline from 2008 to 2009 (from 53 Mt to 48 Mt). The trend seems to remain flat for the coming years as well.	natural values. According to the 1995. XCIII. law, it is necessary to continue the restoration of protected, privatized natural areas, which progress depends basically on funds required for state ownership. It is essential to rehabilitate the degraded habitats, growing areas with the involvement of farmers as much as possible. In the future, special attention should be paid to climate change on habitats and living communities, and the rehabilitation and reconstruction tasks as well.
Soil and geological medium	The soil quality of the eligible area is from average to good in general; the types of soil provide favourable conditions for agricultural activities (the soil quality is the best in the eligible area in Békés and Arad counties). Major sources of soil degradation include soil erosion due to wind, erosion due to water, landslides (especially in the hill areas, on grass lands and on deforested lands, and in the areas neighbouring the surface mining excavations), drought and regular excess of humidity in the soil. Yet other significant degradation factors are the extraction of mineral resources and the oil extraction industry (e.g. in Bihor, Arad, Timiş). Processes related to soil contamination are closely related to the condition of the water and air pollution as well. Soil pollution resulted from anthropogenic activities in the area is caused mainly by agricultural (pesticides, livestock origin) and industrial (hydrocarbons, ethylene, ammoniac, sulphur dioxide, chlorides, fluorides, oils, radioactive materials, waste product deposits, etc.) sources. Based on estimates of the European fertilizer manufacturers association (Fertilizer Europe) the amount of active ingredients of fertilizer per one hectare of agricultural land is the highest in the Netherlands and Germany (147 and 134 kg/ha), and the lowest is in Portugal and Romania (30-30	The overall condition of soils is favourable, but the agriculture-affected areas are endangered by functionality reducing, fertility degradation (e.g., erosion, wind erosion, loss of organic material set) risks. Degradation processes occur due to improper land use, resulting increasing costs of agricultural production , ecological/water balance (increasing drought sensitivity) circles break-up , build-up of hazardous substances (food safety), and water , drinking water contamination. Implementation of integrated nutrient management practices plays an important role in sustainable land use. The expansion of infrastructure, industry and settlements leads to significant land permanently withdraw from agricultural production and long-term soil sealing.

	kg/ha). The Hungarian value is 55 kg/ha (2010).	Removing of humus and different pollution sources also lead to the degradation of soils. Soil is the basis of food production and environmental protection, and preserving biodiversity in the impact of climate change.
Water (surface waters, groundwaters)	The eligible area is rich in water resources – both surface water and groundwater. With the increasing global importance of water – if properly managed - this could be an important common asset of the area. The area is also rich in surface waters, generally of good water quality, which offer excellent potentials for both touristic and energy generation purposes - and certainly carry some risks of flood and pollution. In addition, the CBR has a remarkable geothermal capacity, but currently this is mainly used in spas, thus it is an untapped potential for generating renewable energy. In general, the Romanian side is more advanced when it comes to generating renewable energy - in addition to surface waters and geothermal water, the area has strong solar potential, and the use of wind energy can also be considered in certain areas. The pollution of groundwaters is closely connected with surface land use.	There is a need for the modernisation of livestock farms, transformation of machinery stock and fuel storage facilities, adequate management of liquid manure and agricultural wastes, outer and inner integrated establishment and maintenance of drainage. The interventions providing the achievement of good ecological state of waters by adequately selected agro-technological operations should be preferentially supported. Stopping of further increase in nitrate concentration of groundwaters can be ensured by the compliance and enforcement of nitrate sensitive areas regulation. The risk of groundwater pollution and the degree of pollution can be reduced by following measures: change in land use, afforestation, establishment of wetland habitats and fish ponds, establishment of rational and integrated surface water management, Natura 2000 grants, organic farming, modernisation of livestock farms, spreading of extensive animal management, modernisation of machinery stock and fuel storage facilities, adequate

		management of liquid manures and agricultural wastes, prevention of the development of stagnant waters. The first phase of the Drinking Water Quality Improvement Program (ensuring adequate boron, fluoride, nitrate, arsenic and ammonium quality in drinking water) is expected to be carried out in 2015. The second phase (final solution of ensure limits of arsenic, boron, fluoride, nitrate and ammonium, as well as iron, manganese and lead) will be completed later, depending on the available funds. Appropriate risk management of water acquisition and distribution is also an important part. The lack of maintenance of water supply systems leads to microbiological and / or chemical contamination. Lack of reconstruction of water utilities jeopardizes the safety of the service as well. Based on the 2011. CCIX law, the integration of operating organizations is in progress.
Air and Climate factors **Climate Change**	Ambient air quality has to be monitored throughout the entire territory of all EU Member States. In the 2000-s the greenhouse gas emission per unit of energy use declined continuously in most of the EU member states, including Hungary and Romania as well. In recent years the air pollutants form heating has been reduced as a result of a major change in energy source. The air quality in the eligible area is mainly good or average. In the relevant Hungarian counties the quality of the air is better than the national average, due to the structure of the economy (low rate of industry), while in the relevant Romanian counties it is average or mainly good (even though industrial activity and energy sectors are significant). Not surprisingly,	Ambient air quality is moderately contaminated nationwide. The air quality mainly depends on quantity and quality of fuels, applied combustion technologies, and traffic emission. Along the roads, where settlements affected by heavy traffic, NOx and particulate content (PM10) emission exceeds exposure limits periodically, and the ground-level ozone pollution also shows upwarding trend.

	locations where air pollution is higher can be found primarily in and around major cities and close to main roads. The main pollution sources in the eligible area are: • Traffic – road traffic is responsible for the large quantity of suspended and depositing particles. • Industry – burning installations, thermal power stations (in Bihor, Arad, Timiş), hydrocarbon mining (in Csongrád, Békés), production of ceramic items (brick, tile, in Békés, Bihor), etc. • Agricultural sources – uncontrolled burning of dry vegetation, odour emissions of farming / composting, dispersed pesticide / fertilizer, harvesting, crop drying and storage. • Household sources – heating (burning wood, coal, gas, etc.). Climate changes – and its potential negative effects – are important risks influencing the future development of EU regions. It is not surprising, thus, that improving the capacity to adapt to climate change is high on the agenda of the European Union. In fact, two out of five Europe 2020 headline targets (reducing greenhouse gas emissions and increasing renewable energy use) are directly linked to climate change. While reliable hard data and information are still fairly scarce regarding climate change, fortunately 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 introduces a standard set of indicators to assess climate change and its impacts in Europe. 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, 5 out of the 8 counties (Arad, Bihor, Csongrád, Szabolcs-Szatmár- Bereg and Timis) face medium negative impact (the second worst category), Bihor and Satu Mare faces low negative impact, and only Csongrád county can expect no or marginal impact. The adaptive capacity of the area is also a crucial issue. Unfortunately, the eligible area does not exhibit a positive picture: all the Romanian counties are	During the heating period NOX, PM10 pollution causes health problems (smog). Therefore it is essential to develop the network measurement tool system in order to provide appropriate database (35% of the measuring units older than 15 years). In recent years, environmental regulation started to focus on PM10 pollution, due to the increased health risks. In 2011, a cross-sectoral action plan has been accepted to reduce small particulate matter (PM_{10}) under the exposure limits. One of the major challenges in the following period is to reduce the particulate matter emission from residential combustion plants. It is also essential to eliminate the deficiencies related to the implementation of particle pollution reduction efforts in traffic emission. New pollutant emissions regulations have to be developed, implemented and enforced to reduce residential and transport pollutant emission. While the most effective way is prevention, all activities must be developed and implemented in order to minimize the emission of pollutants to a minimum degree.

	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 their Hungarian counterparts have just a slightly better situation by having low overall capacity to adapt. The combination of regional potential impact and the overall adaptive capacity of the given region present its vulnerability to climate change. Unfortunately, this indicator highlights a fairly unfavourable situation: all four Romanian counties plus Szabolcs-Szatmár-Bereg are characterized by medium level (second worst) negative impacts, Hajdú-Bihar and Csongrád exhibit low level of negative impacts, and only Békés county can exhibit no or marginal negative impacts. The ESPON Climate study introduces a climate change typology of European regions, defining 5 distinct categories: • Southern-central Europe (all the eight counties in the eligible area fall into this category) • Northern Europe • Nothern-Central Europe • Mediterranian region • Northern-western Europe Considering the climate change projections for Southern-central Europe regions, the eligible area 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 region can also expect strong decrease of precipitation during summer months.	
Population and human health	The cross border counties have an aggregate population of 4 million people. Based on the most recent data available in the Eurostat database (2011), the vast majority of the countries' population is between the age of 15 and 64. The share of population over 65 years is the highest in Békés, surpassing both the national and regional average. As the ageing of the European population is one of the main themes of WHO/Europe's 2012 activity, it is also worth looking at the change of the	Noise: The objective of strategic noise maps, which have been prepared in the recent years is to assess the current noise conditions, predict the future noise situation and determine the number of residents affected. The noise maps are also basis for

	share of elderly people (65+) within the total population. According to the latest population census (2011) we can see that the counties do not have such a large proportion of people above the age of 65. However, considering the data from 2005, this proportion is increasing in the eligible area. There is a minor decreasing trend experienced in Arad and Timiş. The number reaches significantly higher levels in Békés and Csongrád; the latter surpasses even the EU27 average (and both counties surpass the Hungarian national average). The data concerning birth and mortality rates as well as life expectancy at birth are suitable indicator for the general health situation of the society. The data of the latter are deep below the EU-average (females – 82.9 years, males – 77 years) in both countries. Counties with high ratio of disadvantaged population show a little bit more unfavourable picture. In 2011 31% of the total Hungarian population were at risk of poverty, severely materially deprived or living in households with very low work intensity, while this indicator reaches 40.3% in Romania. Both figures are far above the EU average; however, trends are more favourable in Romania as the percentage of people at risk of poverty or social exclusion has been declining since 2007, while the contrary is observable in case of Hungary. The number of severely deprived people is 2,278 thousand and 6,286 thousand in Hungary and Romania. Housing cost overburden rate – defined as the circulatory percentage of the population living in a household where the total housing costs represent more than 40% of the total disposable household income – is 11.8% in Hungary and 9.9% in Romania. In 2011 the percentage of the population living in an overcrowded household was 47.1% in the former and 54.2% in the latter country; both significantly underperforming the EU mean value of 16.9%. According to international researches poverty mainly affects children. Increasing activity and employment rate is very important to reduce (child) poverty. It also requires, inter alia, development and operation of infant nurseries. A closer look at the facilities and staff of the hospitals: In Hungary 8.1 beds were available per 1,000 citizens in 2012. The numbers show decreasing trend between 2000 and 2011, utmost in Csongrád. The number of doctors of the country was 34,736 in 2011; concerning the	the action plan. The action plan includes the technical, organizational and spatial planning measures to reduce the noise level of the most affected areas. The available noise maps also show that - despite the efforts made so far - traffic noise is still one of the most trouble-causing activity.

	Hungarian counties of the eligible area, the majority of them, 2,272 people worked in Hajdú-Bihar. With this, 4.4 doctors were available per 1,000 citizens on national level. Poor health-care indicators partly reflect serious structural problems in the Hungarian health-care system, including an excessive supply of hospital beds for acute care, as well as a shortage of beds for long-term illnesses. In Hungary, currently there are 175 hospitals which is a relatively high number compared to the population. Out of this, 22 are located in the Hungarian part of the eligible area. The biggest ones are the university and county hospitals, namely Jósa András Hospital in Nyíregyháza (Szabolcs-Szatmár-Bereg), Hospital of the University of Debrecen (Hajdú-Bihar), Hospital of University of Szeged (Csongrád) and Réthy Pál Hospital in Békécsaba (Békés). In Romania, 503 operational hospitals can be found – from the 54 hospitals of the eligible area the biggest ones are Spitalul Județean (Satu Mare), Spitalul Clinic Județean (Arad), Spitalul Clinic Județean de Urgență Oradea and Spitalul Clinic Municipal Oradea (Bihor), Spitalul Județean Timi□oara and Spitalul Clinic Județean de Urgență Timi□oara (Timiş). The largest reductions in the availability of hospital beds were recorded – together with other countries – in Romania, which may reflect, among others, economic constraints, increased efficiency through the use of technical resources, a general shift from inpatient to outpatient treatments, and shorter periods spent in hospital following an operation. In line with the significantly decreasing expenditures, there were 6.3 hospital beds available per 1000 citizens in 2012 which is a relatively low number. Moreover, 2.5 doctors are available per 1,000 citizens. Between 2000 and 2012 the number of Romanian citizens registered in the Hungarian healthcare system shows a steady growth until 2010, then a slight decline, but still remains solid. It is also clear, that the healthcare institutions located in the Hungarian counties of the eligible area are important recipients of this health-related migration: more than 32 % of all Romanian patients registered in Hungary (4763 out of 14222; over 60 % of the in-patients and only 20% of the out-patients) received treatment in the eligible area in 2012.	

	The county with by far the highest number of patients from Romania is Csongrád, but Szabolcs- Szatmár-Bereg and Hajdú-Bihar are also important, with Békés playing less significant role. Interestingly, while in Csongrád the number of Romanian patients has doubled between 2000 an 2012, Szabolcs-Szatmár-Bereg has demonstrated the most "dynamic growth": an almost fivefold increase in the number of Romanian patients in the same period. While there is clearly a migration process in place, its financing by the National Health Insurance is also problematic: though the related EU directive will enter into force on October 25, 2013, there are no specific bilateral regulations and systems in place to ensure the efficient implementation of the Directive. Between 2007 and 2013 18 cross-border health projects were established in the eligible area. These aimed at all parts of the health system: prevention, diagnostics, surgery, acute care, rehabilitation.	
Material assets, cultural heritage including architectural and archaeological heritage	The eligible area is rich in **touristic attractions** - both in **cultural** and in **natural** heritage. One can find here a diverse pool of attractions: the entire eligible area has quality thermal water and remarkable natural landscapes, as well as numerous nature conservation areas. The cultural heritage of the area includes various historical monuments, churches, original ethnographical and folklore elements. Built on the excellent geothermal conditions, the various well-established spa facilities are also important touristic attractions. The most prominent (cultural and national) touristic attractions - values - in the eligible area include (without being exhaustive): • Arad: well-balanced relief (the hill-plain-mountain alternation), natural protected areas, historic and architectural monuments (citadels, castles, monasteries, churches), watermills, ethnographic centres, Neptun Beach in Arad, etc. • Békés: Körös, Berettyó Rivers, burial mounds, castle and spa of Gyula, etc. • Bihor: 4 main rivers (Crişul Repede, Crişul Negru, Barcău, Ier), lakes, waterfalls, caves, Apuseni Mountains National Park, natural protected areas, architectural and historic monuments (eg. religious buildings, wooden churches), spas of Băile Felix and Băile 1 Mai, etc.	Development of ecotourism is a particular challenge, and also a great opportunity for the attendants of the natural values. The structure of ecotourism is special, because it is not just connected to visitors' demand, but primarily to the protection of environmental values and related services. The greatest demand is for simple, nature-friendly accommodation, traditional local food and professional leadership. Nature parks and other non-governmental organizations –related ecotourism is growing steadily, although ecotourism is not targeted solely to protected areas. The concept of nature park is based on the coordinated development of natural and built environment , with the cooperation of local governments , NGOs and the general public. The self-organized development cooperation contributes the development of

	• Csongrád: Tisza, Körös, Maros rivers, historical site of Ópusztaszer, archeological sites, protected monuments (e.g. in Szeged, Hódmezővásárhely, Csongrád), etc. • Hajdú-Bihar: Hortobágy Natural Park (World Heritage), old burial sites, Árpád-era temple ruins, churches, bridges (e.g. nine-arch stone bridge in Hortobágy), the largest spa in Europe (Hajdúszoboszló), etc. • Satu Mare: remarkable natural landscapes, cultural institutions (eg. North Theatre in Satu Mare), historical sites (e.g. cathedral, churches, reservation of the free Dacians, castle of the Karolyi family in Carei,open-air museum in Negreşti Oaş), spa of Tăşnad, etc. • Szabolcs-Szatmár-Bereg: Tisza River, Szatmár-Bereg region, medieval churches, watermill, castles (e.g. Szabolcs, Tiszadob, Vaja), spa, village museum and zoo in Nyíregyháza-Sóstó, etc. • Timiş: karst relief, natural reservations, medieval castles and citadels, architectural and monastery structures (e.g. Timişoara), spa of Buziaş, etc.	nature and landscape values, through local attractions presentation. In 2013 7 nature parks have ministerial consent to the title.

4.3 SEA Objectives

In general, the purpose of environmental objectives is to improve the environmental indicators. More specifically, the objectives of the individual intervention areas (in accordance with different environmental elements) are determined by national and international regulatory standards.

In both legislation (Hungarian and Romanian), specific and detailed orders (e.g. limits) are typically regulated by ministerial implementing regulations. Therefore, the assessment and categorization of emerging tasks between 2014-2020 is recommended to carry out based on the sectorial (industry-specific) legislation. Thus the fulfilment of the regulations (laws, programs, EU directives etc.) is verifiable.

Tracking the achievement of environmental goals should be implemented by various indicators. Depending on the particular area of intervention, outcome or effect indicators are proposed. The former measures the direct impact (e.g. environmental quality improvement, quantified indicators), while the latter takes into consideration long-term, indirect effects. Use of effect indicators are suggested at strategic planning level, while during the follow up legal regulations' fulfilment (including compliance with EU directives), the use of outcome indicators is recommended.

There is no significant difference between the two countries' legal system in the field of environmental regulatory. The relevant EU directives and policies have adopted into national legislation, both in statutory and regulatory level.
There is a slight difference in the regulation of some environmental elements. As for example, the concept of "impact area" is defined in more Hungarian decrees (See air quality protection - emission impact area; Noise protection - noise impact area). On the other hand, standards for the protection of land are regulated in more Romanian laws, while the Hungarian legislation deals with the relevant regulations in one law.
There are no significant procedural differences between the two countries in the field of authorization. Multi-step licensing permitting process is typically required to be carried out in both countries.
Hungary: preliminary study, and/or IPPC/environmental impact assessment (EIA);
Romania: preliminary investigation and/or environmental impact assessment (EIA)/ appropriate assessment (AA). The EIA for projects subject to legislation on integrated pollution prevention and control (IPPC) includes the requirements of Law no. 278/2013 regarding industrial emissions.
The licensing process also involves more administrative authorities, depending on the permitting process, the institutional background is available in both countries. On this basis, the implementation and control of the objectives, legal and institutional background is provided.
During the 2014-2020 planning period, the conservation/restoration/protection of biological diversity and issues relating to climate change should be emphasized. It is particularly important that these aspects have to be reflected in the strategic planning level. According to the "Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment", it is critical to identify the key issues from a climate change and biodiversity perspective early in the SEA process to ensure that they are assessed effectively throughout the process.
Based on the previously mentioned the adaptation of relevant international standards into domestic law has been completed, biodiversity and climate change policies have been

adapted to the national laws and regulations. The former is typically governed by laws on nature protection / town-planning, the latter is mainly related to air protection legislation.
In other words, there is no specific biodiversity and climate change-related law or decree in the two countries ' legal systems, but the principles are emphasized in the environmental policies.
It is necessary to identify the areas of intervention in strategic planning and the assignment of the monitoring indicators. What could be the main areas of intervention?
The key issues relating to biodiversity: maintenance of ecosystems, reducing the effects of habitats, population sizes, species/genetic diversity etc.
There are two conceptual interventional areas in climate change related issues, such as mitigation and adaptation. Main issues in mitigation can be energy demand reduction, decrease of greenhouse gas emissions, forestry. Key issues in the adaptation area can be preparing for extreme weather conditions (drought, excess water protection – amelioration).

Environmental issue	Relevant environmental objectives and possible indicators
Biodiversity, flora, fauna **Natura 2000**	Protect and improve the conditions and functions of terrestrial, aquatic eco-systems against anthropogenic degradation, habitat fragmentation and deforestation Preserve the natural diversity of flora, fauna and habitats in the protected area and potential Natura 2000 sites Avoid damage to designated wildlife and geological sites and protected species Identify threatened ecosystems outside protected areas Migration corridors identified as being important for ecological or evolutionary processes
	Proposed indicators and dimensions: - number of generated projects (No.) - number/extension of affected NATURA 2000 sites (No., km^2) - number of affected species (No.) - extent of established corridors and/or ecosystems (km^2)
Soil and geological medium	Limit point and diffused pollution of soil and facilitate soil protection from water and wind erosion. Limit the effects on geological SSSIs (Sites of Special Scientific Interest) and Regionally and Local Important Geological Sites (RIGS) Reduce waste generation, increase waste recovery, and facilitate recycling of all waste.
	Proposed indicators and dimensions: - number of projects generated dealing with site remediation (No.) - quantity of rehabilitated soil (m^3) - increase of protected soil affected by erosion (km/km^2) - reduction of waste generation (tons/year) - amount of waste recycled or reused (tons)
Water (surface waters, groundwaters)	Sustainability of water resources, protection of groundwater as sources of drinking water, systematic improvement of the chemical and ecological state of European waters until 2015 etc. Reducing the effects on aquifer recharge and water supply Limit water pollution from point and diffuse pollution sources. Reducing the effects of flood regimes and extreme rainfall events - amelioration

	Proposed indicators and dimensions: - number of delineated vulnerable groundwater resources (No., km^2) - number of projects dealing with elimination of pollution sources (No.) - number of projects dealing with the protection of groundwater resources (No.) - length of protected areas affected by flood and rainfall (km, km^2) - extension of area affected by amelioration (km^2)
Air and Climate factors **Climate Change**	Decrease emission causing climate change Maintain and improve the quality of ambient air within the limits set by the legal norms Minimize the impacts on the air quality reduce the need to travel Applying lower energy demand processes Sustainable transport methods Investment in forestry and biodiversity
	Proposed indicators and dimensions: - emission of air pollutants, such NO_X, CO, PM_{10} [$\mu g/m^3$] - reduction of GHG pollutants' emission in CO_2 equivalent (t_{CO2eq}/year) - affected inhabitants' number in the impact area with exceeded emission limits (No.) - number of projects generated (No.) - sites generated by forestry and biodiversity (No., km^2)
Landscape	Ensure protection of natural and cultural landscape (e.g. by revitalization of brownfields) Facilitate energy generation from renewable resources Protect and improve the conditions and functions of terrestrial, aquatic eco-systems against anthropogenic degradation, habitat fragmentation and deforestation
	Proposed indicators and dimensions: - number of projects in brownfields (No.) - extension of areas affected by revitalization (km^2) - energy produced from renewable energy sources (MWh/year) - extent of protected natural or cultural landscape (km^2)
Population and health	Facilitate improvement of human health by implementing measures aimed at pollution prevention and mitigation of old burdens (e.g. brownfields, mining waste, etc.) Protect and improve the condition of settlements with respect to transport noxes, particular noise and vibration Protect and improve the condition of settlements with respect to noise
	Proposed indicators and dimensions: - number of projects dealing with improvement of human health (No.) - number of inhabitants living in the affected areas with exceeded noise limits (No.) - number of generated strategic noise maps (No.)
Material assets, cultural heritage including architectural	Ensure protection of natural and cultural landscape by revitalization of brownfields and protection of natural habitats from fragmentation due to traffic corridors Identifying vulnerable infrastructure/property affected by extreme weather

and archaeological heritage	conditions (e.g. rainfalls, flood)
	Proposed indicators and dimensions: - number of revitalized brownfields (No., km^2) - number of projects dealing with protection/rehabilitation of cultural heritage infrastructure

4.4 Baseline information

Information needs to be collected in the frame of the environmental assessment to identify the environmental issues and trends that characterise the Hungary-Romania Cross Border Area. This provides the bases for identification and monitoring of environmental effects of the programme.

Determination of initial status has to be based on proper regional/ territorial database. Depending on the indicators' type various type of databases are available to determine the information needed.

In Hungary for general statistic information, the Eurostat database, and/or the Hungarian Central Statistical Office on-line database can be applicable. Former contains mainly national data, while the latter (http://statinfo.ksh.hu/Statinfo/index.jsp) can be used to gain regional/territorial information on the relevant eligible area.

In Romania for general information, also the Eurostat, and /or Romanian National Institute of Statistics (http://www.insse.ro/cms/) who are Official statistics in Romania is organized and coordinated by the National Institute of Statistics, specialized body of central general government, legal entity, subordinated to the Government and coordinated by the minister who coordinates the Government General Secretary.

For specific (e.g. environmental) information, special databases are available, depending on the given scope.

Determining the base values on the field of nature protection, the Hungarian Ministry of Rural Development's „Nature Conservation Data" (yearly published report) can be applied. The document contains key information about the areas of conservation and legislation on the proposed measures. The Nature Conservation Information System is also a useful tool for map displaying the protected areas, providing information on the complex strategic planning (http://geo.kvvm.hu/tir/)

For Romania determining the base values on the field of nature protection, the *Ministry* of *Environment* and *Climate Change* by *National Agency for Environmental* Protection „**National report on the state of environment in 2012**" (yearly published report) can be applied http://www.anpm.ro/Mediu/raport_privind_starea_mediului_in_romania-15. Another document can be accessed from http://www.anpm.ro/Mediu/biodiversitate-14; the document contains key information about the areas of conservation and legislation on the proposed measures.

Background documents, provided by responsible State of Secretaries (e.g. river basin management plans, national environmental program)

Specific sector databases, based on reporting obligations and/or monitoring system measures. Air quality data can be gathered by Air Quality Protection Information System (LAIR, http://okir.kvvm.hu/lair/), and Hungarian Air Quality Network (http://www.kvvm.hu/olm/index.php?lang=en). Former is based on emission reports and technical parameters; the latter contains information about emission measuring system.

For Romania – *Delegate Minister* for *Water*, Fisheries and *Forests* http://ape-paduri.ro - The Water Resources Department of the Ministry is responsible for policy development and legislation related to the implementation of the WFD and ICZM Recommendations.

National Administration 'Apele Române' (NAAR) operates in coordination of the Ministry of Environment and Climate Change and is responsible for the implementation of policies and legislation related to water management.

Specific sector databases, based on reporting obligations and/or monitoring system measures. Air quality data can be gathered by Air Quality Protection Information System http://www.calitateaer.ro/

The environmental assessment will carry out the quantified information, the target or comparator value, and the source of information for the indicators.

4.5 Methods of the assessment

The core of the assessment process is the following question: "How does the situation of the relevant protected goods in the cooperation area improve or deteriorate in comparison to the non-implementation of the programme (zero option), if the measures of the programme in the cooperation space are implemented?"

The description of the status quo and the development trend results from a comparison of the zero option and the programme impact. This has to be elaborated by means of an analysis of the present situation and the description of the possible development based on reasonable assumptions.

Comparison of trend and programme impact

Protected good	Trend in „zero option"	Development with the programme	Indicative Monitoring indicators	Data sources and basis
Biodiversity, flora and fauna Natura 2000	-	+	number of generated projects (No.) number/extension of affected NATURA 2000 sites (No., km^2) number of affected species (No.) extent of established corridors and/or ecosystems (km^2)	

Key for Comparison of trend and programme impact

++	Very positive development	--	Very negative development
+	Positive development	o	No change
+/-	Positive and negative development	=	No Assessment possible
-	Negative development		

The guiding questions for each environmental issue are deprived from environmental protection objectives derived from environmental policies at EU and national level – both Hungarian and Romanian. A catalogue in a tabular shows the concerning protected goods including relevant laws, regulations etc. and the guiding questions, which have to be answered during the assessment. The catalogue is presented in Annex 2.

During the investigation process with environmental objectives in the impact matrix the sustainability conditions system determined by the 1st step means the columns of the table in a simplified, short version. The lines are created on the basis of the development

objectives in the action plan. Each matrix field shows that a certain condition impacts on which objective, and the intensity and direction of their relationship. A requirement of similar impact matrices is clarity, their main flaw in general is the overcomplexity of the relationship indications. Since the matrix is indicative primarily, very often the explanation of the fields cannot be omitted, the indications only need to show the direction and strength of the relationships.

	Environmental issues															
	Biodiversity, flora, fauna Natura 2000				**Soil and geological medium**				**etc.**							
Priority axes 1 **Thematic objective ..**																
Investment priority ...	L++	K+	K+	L+	K+	0	L+	K+	0	L	K++	L+	K+	0	L+*	L++

Key:

L – existing relationship, in practice as well
K – relationship direction that can be or shall be established, undeveloped or not established in practice until now
*: O there is relevant negative impact of the specific sustainability factor, this impact is detailed in the textual assessment of the matrix.
O – neutral relationship
++ very positive relationship from the aspect of environmental sustainability
+ positive relationship from the aspect of environmental sustainability
- - very negative relationship from the aspect of environmental sustainability
- negative relationship from the aspect of environmental sustainability

The comparison between the development objectives and environmental priorities is the vital task of the SEA. This task can be efficiently performed by the analysis of the impact matrix. Referring to the indication key of the matrix the relationships presented are marked by L, while the ones not presented in the text (depending whether they do or do not exist in reality, or it would be desirable to establish them) are marked by 0 or K. In case L or K is used, we pay special attention because the performance of a certain component may trigger opposite impacts as well, which are detailed in the explanation.

Taking into consideration the long-term goals is important because the specific activities involved in investments, construction projects, due to their nature, in almost every case damage the environment, but the expected positive results of said investments considerably outweigh the one-off negative impacts. When analysing the environmental impacts of specific measures we outline the alternatives that can be applied to strengthen positive investment impacts and to mitigate potential negative environmental impacts.

Furthermore presumably considerable impacts on the environment need to be elaborated and the proposed measures need to be presented, that are planned in order to prevent, to

reduce and to compensate as far as possible for the considerably harmful environmental impacts. This step will be done at the level of single priorities

Description of impacts and measures

Priority axis: Nr. X **Investment priority: X.X**		
Biodiversity: +	Soil: -	Water: -
Climate: +	Air: -	Landscape: o
Human health/population: o	Material Assets etc.: o	Interrelationship between the mentioned protected goods
Description of the likely considerable impacts on the environment:		
Measures to reduce and/or to compensate the considerably harmful environmental impacts:		
Comments on the relevant guiding questions:		

Reasons for the choice of the alternatives need to be examined: The investigation of all alternatives (examination reasonable alternatives according to the SEA Directive, Art.5) comprises the gradually elaborated draft of the programme) and the “zero option” (non-implementation of the programme). The assumption is that the final version of the programme is the best alternative as it has been improved in an iterative way through the cooperation among programming, ex-ante evaluation and SEA. The elaboration and assessment of further alternatives would only be reasonable, if they can be actually implemented and, thus, are a relevant basis for decisions.

The next step is a description of the way, the environmental assessment has been undertaken and the provision of evidence of difficulties which have occurred during the compilation of information.

Monitoring measures need to be set up: In the framework of the SEA appropriate indicators have to be proposed, which can depict the development of the concerned protected good in a clear and comprehensible way. In order to provide the services in an efficient and sustainable way and in order to assure a high quality, the used indicators should be closely interlinked with the existing databases.

During the elaboration of the environmental report particular attention has to be paid to the coordination with the Managing Authority and with the drafting of the programme document.

5. Structure of the SEA report

1. NON-TECHNICAL SUMMARY

2. SCOPE

6. SEA Procedure

The SEA process is planned with the following steps:

Timing planned	Steps of the SEA Procedure	Documents for the undertaken steps
Nov - Dec	Scoping phase – the elaboration of the	Scoping report

2013	scoping report	
Nov - Dec 2013	Screening stage – involved in the scoping stage	Screening statements are involved in the scoping report
Feb 2014	Notification letter for environmental authorities in both countries on the scoping report, Publication of the scoping report The start of the scoping consultation with 30 days	Invitation and notification letter for environmental authorities and responsible departments of ministries in both countries with the availability of the scoping report
Feb 2014	Notification letter for third countries on the SEA process and ask for decision on entering into consultation or not	Notification letter with the availability of the scoping report Official letters from the third countries
March 2014	Finalisation of the scoping report and the structure of the environmental report based on the received comments on the scoping report	Final scoping report including the summary of the received comments Archive comments
Jan – March 2014	Interviews with the most important stakeholders (authorities, ministries)	Interview drafting Interview minutes
Apr - May 2014	Elaboration of the environmental report	1th Draft OP Draft report
May 2014	Announcement of public hearing 60 days before the public debate	Draft announcements
June 2014	Official information of the finalization of the draft environmental report Start of the consultation with 45 days Publication of the environmental report and the draft OP	Invitation and notification letter for environmental authorities and responsible departments of ministries in both countries with the availability of the environmental report and the draft OP Invitation e-mail to stakeholders
July 2014	Public hearing/debate	Minutes of the workshop
July 2014	Elaboration of the final draft of the environmental report taking into consideration the received comments	Final draft environmental report including the summary of the received comments Archive comments
Aug 2014	Decision on the report and OP in both countries	Official letter and decision
Aug 2014	Official notification on the decision	Official letter
Aug 2014	Publication of the final environmental report and SEA statement	Publication

6.1 Consultations

The SEA Directive 2001/42/EC requires that the environmental authorities and the public of the partner states have to be consulted within the SEA Procedure. Within the SEA Procedure of the Operational Programme for period 2014-2020 of the cross-border eligible area of Hungary and Romania consultation have to be carried out two times.

Consultation action on the Scope:

According to Art.5(4) of the SEA Directive the Scoping Report must be consulted with the relevant environmental authorities in order to receive their professional opinion on the draft scoping report. Environmental authorities will have 30 days to send their remarks. The possible remarks of the environmental authorities will be integrated into the final scoping

report and into the environmental report. Non-reception of comments will be considered as approval of the document.

The results of this consultation phase will be summarized in an overview table which will be attached to the final scoping report in Annex 3.

Consultation actions on the environmental report:

According to Art.6 and Art.7 of the SEA Directive the Environmental Report and the Programme must be made available to the relevant authorities and the public.

In the case of the relevant Operational Programme the relevant authorities would be the respective Ministries of Environment or their corresponding structure in the state concerned.

The Environmental Report will be accessible for consultation at the same time with the draft Operational Programme (SEA Directive - Article 6.2 and Annex 1). Subsequent to the consultation responses collected, an explanation shall be given showing how the Environmental Report and consultation replies have been taken into consideration in the Operational Programme (SEA Directive - Article 8). Steps of the process:

- Two announcements in newspapers in both countries on the opening of the consultation process
- Send the notification to environmental authorities in both countries: starting day for the "official" consultation
- E-mail invitation of main stakeholders to participate in the consultation
- The draft environmental report and the OP draft as well as an announcement document will be published on the Programme's website by the MA/JTS
- Consultation held in both countries – 45 days will be available to send remarks on the draft environmental report. Non-reception of comments will be considered as approval of the document. Comments are to be sent back in written form and in English on the web-page of the MA/JTS or in e-mail also.
- Collection of comments
- Public debate will be organised after the submission of the OP including the environmental report to the environmental authorities, and after the open consultation phase of 45 days. The public debate will be announced 60 days before its date.
- Making a proposal on how to integrate the comments into the programme and why not including certain comments
- Amending the programme: according to the result of the consultation process in both participating countries
- Drafting the information note / Statement

Technical information to be applied under the consultation steps:

- The documents will be available in English language and in PDF format.
- The Programme's website where the documents will be available: https://www.huro-cbc.eu
- Comments could be sent to the following e-mail address: seaconsultation2020@huro-cbc.eu
- Language of the public debate will be English

The Programme document should include a chapter on the SEA procedure and describe how the consultation was done in the participating countries and how it affected the final programme.

List of Authorities to be involved in consultation acts in HUNGARY:

Permanent actors

- Hungarian National Council on the Environment

Regarding the protection of the environment, nature and the landscape:

- National Inspectorate For Environment, Nature and Water
- Upper-Tisza Regional Inspectorate For Environment, Nature and Water
- Tiszántúl Regional Inspectorate For Environment, Nature and Water
- Lower-Tisza Regional Inspectorate For Environment, Nature and Water
- Hortobágy National Park Directorate
- Körös-Maros National Park Directorate

Regarding the protection of the environment and urban health:

- public health administration bodies of the Government Offices in the four affected counties

Office of the Chief Medical Officer (National Public Health and Medical Officer Service)

Regarding the protection of woodlands, soil, the quantitative protection of agricultural land and the protection of the agri-environment:

- Ministry of Rural Development

The following actors will be involved by the reason of their environmental reference to the thematic objectives of the OP: (to be finalized after the decision on the thematic objectives of the OP)

Actors involved when affected

Regarding the local protection of the environment and nature

- notaries of the local government of the settlement

Regarding the protection of the built environment

- chief architects of the department for construction of the Government Offices in the four affected counties

Regarding the quantitative protection of waters

- Upper-Tisza Regional Inspectorate For Environment, Nature and Water
- Tiszántúl Regional Inspectorate For Environment, Nature and Water
- Lower-Tisza Regional Inspectorate For Environment, Nature and Water

Regarding the protection of forests

- forestry directorates of the Government Offices in the four affected counties

Regarding the protection of soils

- plant and soil protection directorates of the Government Offices in the four affected counties

Regarding the quantitative protection of arable lands

- cadastral agencies of the Government Offices in the four affected counties

Regarding the protection of geological values and mineral reserves

- Mining District Authority of Miskolc
- Mining District Authority of Szolnok

Regarding the protection of natural characteristics of natural health-giving factors and health resorts

- National Directorate of Health Resorts and Thermal Spas of the National Chief Medical Officer's Administration

Regarding the protection of cultural heritage (protection of monuments, archaeology)

- cultural heritage protection office of the Government Offices in the four affected counties

Regarding the chemical safety
- National Institute of Chemical Safety

Regarding the prevention of major industrial accidents
- directorates of emergency management of the Government Offices in the four affected counties

Regarding the protection of geological and mineral wealth:
- Ministry of National Development

Regarding the protection of the natural conditions of natural medical factors, health resorts:
- Ministry of Human Resources

Regarding the protection of cultural heritage (protection of historic buildings, archaeology):
- Ministry of Human Resources

Regarding the protection of the built environment
- Ministry of Internal Affairs

Regarding chemical safety:
- Ministry of Human Resources

Regarding the prevention of serious industrial accidents:
- National Directorate General for Disaster Management
- County Local Self Governments:
- Szabolcs-Szatmár-Bereg County
- Hajdú-Bihar County
- Békés County
- Csongrád County

Affected counties:
- Szabolcs-Szatmár-Bereg county
- Hajdú-Bihar county
- Békés county
- Csongrád county

List of Authorities to be involved in consultation acts in ROMANIA:

Ministry of Environment and Climate Change

to the Technical departments of the Ministry of Environment and Water Management
and
to the SEA responsible department within MEWM -General Directorate for Pollution Control, Impact Assessment

- National Authority for Tourism
- Ministry of Public Finance
- Ministry of Economy and Commerce
- Ministry for Communications and Information Technology
- Ministry of National Education
- Ministry for Public Health
- National Agency for Small and Medium Enterprises
- Ministry of Regional development and Public Administration
- Ministry of Agriculture, Forest and Rural Development

- Ministry of Transport

County Councils:

- Satu Mare County
- Bihor County
- Timis County
- Arad County

Public participation

The involvement of stakeholders and the involvement of the public in the SEA process will be a key element in the consultation process. The consultation process will give opportunity to key groups and institutions, environmental agencies, NGOs, representatives of the public and those groups that potentially affected by the likely environmental impacts of implementing the Operational Programme to express their opinion.

7. Expected environmental effects on third countries

According to Art.7 of the SEA Directive the likely significant effects of the Operational Programme must be taken into consideration in relation to those third countries which territories will be affected by the implementation of the Operational Programme for period 2014-2020 of the cross-border eligible area of Hungary and Romania.

The next table shows the planned priority axes and thematic objectives in relation to the foreseeable negative effects on third countries, the expected cross-border impacts of the implementation of activities under the investment priorities, and the need for reducing the negative effects.

In relation to the territory of the Operational Programme for period 2014-2020 of the cross-border eligible area of Hungary and Romania the effects on third countries need to be examined related to Ukraine and Serbia.

Priority axes 1: Supporting the shift towards low carbon economy
Thematic objective 4: Supporting the shift towards a low-carbon economy in all sectors
Expected cross-border impacts on third countries:
As environmental friendly solution used than no significant negative impact foreseen.
Provisions:
No provisions needed.
Priority axes 2: Joint protection and efficient use of common values and resources
Thematic objective 4: Protecting the environment and promoting resource efficiency
Expected cross-border impacts on third countries:
The sustainable use of the natural resources, the efficiency of the environment and nature protection

have positive effect both locally and globally.
Provisions:
No provisions needed.
Priority axes 3: Improve sustainable cross-border mobility and remove bottlenecks
Thematic objective 7: Promoting sustainable transport and removing bottlenecks in key network infrastructures
Expected cross-border impacts on third countries:
Infrastructure development is one of the most important links between the two EU member states, providing hundreds of opportunities for cross-border cooperation. The TEN-T network improvement got high priority in the last years within the EU. The projects planned in the framework of the Operational Programme for period 2014-2020 of the cross-border eligible area of Hungary and Romania do not affect Ukraine and Serbia, therefore their effects are not relevant.
Provisions:
No provisions needed.
Priority axes 4: Improve employment and promote cross-border labour mobility
Thematic objective 8: Promoting employment and supporting labour mobility
Expected cross-border impacts on third countries:
The programme does not have significant effect for a third country (Ukraine, Serbia) due to the situation of employment and labour force of the cross-border region. The activities foreseen under the priority axes do not have significant effect to third counties as the establishment and development of cross-border business infrastructure facilities, like industrial parks, business incubators, clusters, and establishment of cross-border physical and online marketplaces, logistical capacities to promote the wider use of local (mainly food) products. Possible activities supporting employment friendly growth through the development of endogenous potential as part of a territorial strategy for specific areas do also have very limited effects on third countries and not in environmental terms. The main focus and expected result of activities under this priority are connected to the employment. In terms of sectors, there are a significant number of employed people in the agriculture sector, especially in the Romanian counties. The number of jobs in the Hungarian counties overall exceeds the national average for agricultural, public administration and household activities. All Romanian counties exceed their national average in industry, with Arad (RO) and Timis (RO) exhibiting especially large numbers. National indicators show a significant difference in overall employment in the agricultural service sector, which is visible in a county comparison, too. The negative effects of the economic crisis can be seen in the cross-border region's macroeconomic indicators as well. The GDP increase has stopped, and the number of employed people began to decrease in 2007.
Provisions:
No provisions needed.

Priority axes 5: Promoting social inclusion and combating poverty and any discrimination
Thematic objective 9: Promoting social inclusion and combating poverty
Expected cross-border impacts on third countries:
The projects planned in the framework of the HURO CBC 2014-2020 do not affect Ukraine and Serbia, only the inhabitants of the eight eligible cross-border counties. In 2011 31% of the total Hungarian population was at risk of poverty, severely materially deprived or living in households with very low work intensity, while this indicator reaches 40.3% in Romania. Both figures are far above the EU average; however, trends are more favourable in Romania as the percentage of people at risk of poverty or social exclusion has been declining since 2007, while the contrary is observable in case of Hungary. The number of severely materially deprived people is 2,278 thousand and 6,286 thousand in Hungary and Romania. The activities foreseen in this priority axes are investments to improve health-care infrastructure and equipment, soft activities like know-how exchange and joint capacity development, or development of cross-platform central telemedical, e-health infrastructure do not have expected negative effect on the environment.
Provisions:
No provisions needed.
Priority axes 6: Promoting cross-border cooperation between institutions and citizens
Thematic objective 11: Enhancing institutional capacity and an efficient public administration support of actions in institutional capacity and in the efficiency of public administration supported by the ESF
Expected cross-border impacts on third countries:
The projects planned in the framework of the HURO CBC 2014-2020 do not affect Ukraine and Serbia, therefore their effects are not relevant.
Provisions:
No provisions needed.

ANNEX 1: The extract of environmental respects from the draft SWOT analysis of the Programme (in accordance with the 4th National Environmental Programme)

Strength	Weaknesses
- Significant unique natural values. The eligible area is rich in protected environmental areas (159 Natura 2000 territories) - Good quality, attractive natural environment (especially regard to Hajdú-Bihar, Bihor, Arad and Timiş counties), significant strategic land and water resources - The main roads and regarding the motorways, in the past ten years have gone through significant development , especially on the Hungarian side - There are five international airports in the region (Debrecen, Arad, Oradea, Satu Mare, Timişoara) - Increasing rate of appropriate waste water treatment due to the installation of modern waste disposal systems in the eligible area - The amount of renewable energy obtained from biomass and renewable wastes is far above the European average (67 %) both in Hungary (90%) and Romania (72 %) - Effective water damage system - transboundary water agreement ensures risk prevention of floods and inland waters - Decreasing water consumption. - Extensive network of higher education institutions in the border area (with special regard in Debrecen, Szeged, Oradea, Arad and Timisoara) - Increasing number of initiatives in-cross border cooperation, growing number of environmental non-profit organizations (institutions, NGOs, different administrative levels) - Overall reduction of air pollutant emission - Improving conditions of access to environmental information	- The risk of floods in certain parts of the eligible area is still high - Improper industrial waste management is a serious environmental risk in certain parts of the border area - In spite of pervious interventions, pollution of some rivers remains a problem - Landfills are still the primary way to get rid of solid waste - Outdated power plants on both of the borders - In the eligible area 5 out of 8 counties are facing medium negative impact of climate change, while only have low adaptive capacity low proportion of good ecological quality stream and still water - Significant extension of polluted and degradation processes affected areas - Land use are often not adapted to the natural conditions - Slow implementation of recent policies due to lack of resources - Lack of operational funds, decreasing number of employees in the environmental authorities - Difficult integration of environmental considerations - Effectiveness and environmental performance of funds is often not known - Increasing dust emission - Water quality problems - The amount of green areas that are not appropriate

Opportunities	Threats
- EU environmental regulations require joint actions in environmental protection - The improving connections of the two states have a positive impact on the border regions - The eligible area has a rich joint water base – surface and underground, including thermal water, water resources are being appreciated - The eligible area has a favourable potential in exploiting renewable energy, such as biomass, geothermal, hydropower and solar energy - Availability of funds for developing renewable energy producing facilities protection of natural resources is declared in Constitution - More effective integration of environmental protection, nature conservation and water protection aspects of EU policies - Reducing consumption due to the economic crisis - GMO restriction - Growing demand for healthy food and a clean, safe environment - Appreciation of innovation and knowledge transfer	- Relatively high risk of large scale pollutions - Relatively high risk of large scale flood - Risks of cross-border surface water pollution - Uncoordinated exploitation of thermal water lead to overuse, decreasing stocks - Negative impact of climate change, more frequent weather extremities result in increased risks of floods and drought - Not sufficient investment in outdated power plants can danger the economic activities of the eligible area - Unused renewable energy resources can result a higher dependence status of the eligible area in energy consumption development priorities often "overwrite" the efficient use of resources approach and the application of life-cycle analysis - Short-term interests are highlighted in strategic level decision-making - External environmental costs do not appear in investment costs - Quantified environmental performances facilitating the decision-making (e.g. side effects, value) are insufficient; environmental/economic approach is not applied (except for fining)

Annex 2: List of relevant national and international legal and policy framework including guiding questions

Protected good	Relevant environmental objectives	Relevant EU Legislation and Policies	Relevant Romanian Legislation and Policies	Relevant Hungarian Legislation and Policies	Guiding questions	Connection with Priority Axes
Biodiversity, flora, fauna	Protect and improve the conditions and functions of terrestrial, aquatic eco-systems against anthropogenic degradation, habitat fragmentation and deforestation Preserve the natural diversity of flora, fauna and habitats in the protected area and potential Natura 2000 sites	Habitats (92/43/EC) Birds (79/409/EEC) 78/659/EEC on the quality of fresh waters needing protection or improvement in order to support fish life 79/923/EEC on the quality required for shellfish waters COM(2006) 302 (on an EU Forest Action Plan 2007-2011); EU is a party to the Convention on Biological Diversity (CBD) (1993)	GD no. 1460/2008 approving the National Strategy for Sustainable Development – Horizont 2013 - 2020 – 2030 (Of.J. no. 824/08.12.2008); Law no. 13/1993 (Of.J. no.62/25.03.1993) for Romania's accession to the Convention on the conservation of wildlife and natural habitats in Europe, adopted in Bern on september 19 1979; Law no. 13/1998 ratifying the Convention on the conservation of migratory species of wild animals, adopted in Bonn on june 23 1979 – Of.J. no. 24/26.01.1998; Law no. 5/1991 ratifying the Convention on wetlands of international importance, especially as aquatic birdl habitat, adopted in Ramsar, on 2 February 1971, Of.J.	Law no. 2007. CXXIX on protection of soil Law no. 2009. XXXVII on the forest, the forest conservation and forest management Law no. 1998. XXVIII. on protection and Welfare of Animals Law no. 1997. XLI on the fishing and angling Law no. 1996. LV on wildlife conservation, wildlife management and hunting Law no. 1996. LIII on protection of nature Law no. 1995. LXXXI on the promulgation of the Convention on Biological Diversity GD no. 275/2004 on nature conservation areas of Community importance GD no. 67/1998 on restrictions and prohibitions on protected and strictly protected aquatic communities MO 14/2010 on land involved in nature conservation areas of	Which Natura2000 sites will be affected? Will there be measures to protect the natural diversity of fauna and flora against the impact of renewable energy sources usage and new power plants location (e.g. building wind turbine)?	PA1: Supporting the shift towards low carbon economy PA2: Joint protection and efficient use of common values and resources PA3: Improve sustainable cross-border mobility and remove bottlenecks PA4: Improve employment and promote cross-border labour mobility PA5: Promoting social inclusion and combating poverty PA6: Promoting cross-border cooperation between institutions and citizens

			no. 18/26.01.1991 Law no.58/1994 ratifying the Convention on Biological Diversity (CBD); - Law no. 89/2000 ratifying the Agreement on the conservation of the african-aurasian migratory aquatic birds – Of. J. no. 236/30.05.2000; - Law no. 90/2000 for Romania's accession to the Agreement on the conservation of bat flowers in Europe. Of. J. no. 228/23.05.2000; - Law no 389/2006 (O.J no. 879/27.10.2006) ratifying the framework convention on protection and sustainable development of the Carpathians, adopted in Kiev on 22 Mai 2003 and Law 137/2010 (O.J. no.477/12.07.2010) ratifying the Protocol on conservation and sustainable use of biological diversity and landscape diversity, adopted and signed in Bucharest on 19 June 2008;	Community importance		

			-Government Emergency Ordinance no. 57/2007 (Of.J. no. 442/29.06.2007)on the protected natural areas, natural habitats, wild flora and fauna adopted by Law no. 49/2011 (Of.J no.262/13.04.2011), with subsequent amendments; -Law no.5/2000 regarding the national system of protected areas (Of.J.no.152/12.04.2000); . -G.D no. 1284/2007H.G. nr.1284/2007 (M.O. nr. 739/31.10.2007) regarding the establishment of special ptotection avifaunistic areas as integrated part of the european ecological network Natura 2000 in Romania, amended by G.D. no. 971/2011 (Of. J no. 715/11.10.2011); -Order M.M.D.D. no.1964/2007 (Of.J. no. 98/07.02.2008) regarding the creation of the protected area of sites of community importance as integrated part of the ecological network Natura 2000 in Romania, amended by Order M.M.P. no. 2387/2011 (Of. J no.846/29.11.2011) GD no.230/2003			

			(Of.J.no.190/26.03.2003) on the delimitation of the biosphere reserves, national parks and natural parks and the setting – up of their administrations; The Order of Minister of Agriculture, Forests, Waters and Environment no. 552/2003 (Of.J.no.648/11.09.2003) for the approval of the internal zoning of national and natural parks from the point of view of the conservation of the biological diversity necessity; GD no.2151/2004 regarding the establishment of new protected areas (Of.J.no.38/12.01.2005). (Of.J.no.24/11.01.2006); - G.D. no. 1586/2006 (Of.J. no. 937/20.11.2006) for the Classification of some protected areas in the category of wetlands of international importance; - Order MMGA no. 604/2005 (Of.J. no. 655/22.07.2005) for Classification approval of caves and cave sectors – natural protected areas; The Order of Minister of Environment and Water Management no.			

			207/3.03.2006 for the approval of the Standard Data Form and the manual for Natura 2000 (Of.J.no284/29.03.2006); -MMP Order no. 19/2010 (Of. J no.82/08.02.2010) approving the methodological Guide for proper assessment of the potential effects of plans and projects on protected natural areas of community interest ; MMSchC Order no.1470/2013 (Of.J no.441/19.07.2013) approving the methodology for awarding custody and administration of protected areas, with subsequent amendments; – Forest code adopted by Law no. 46/2008 (Of.J no.238/27.03.2008), with subsequent amendments; -Law no. 407/2006 (Of.J. no.944/22.11.2006) on hunting and wildlife fund, with subsequent amendments; - Government Emergency Ordinance no. 23/2008 (Of.J. no.180/10.03.2008) on fishing and aquaculture			

			adopted by Law no.310/2009 (Of.J. nr.680/09.10.2009), with subsequent amendments; -Order no. 159/1266 2011 (Of.J. no. 511/19.07.2011) approving the conditions to practice fishing recreational/sporting, the regulation to practice fishing recreational/sporting and the models and fishing permits recreational/sporting in protected natural areas			
Soil	Limit point and diffused pollution of soil and facilitate soil protection from water and wind erosion. Reduce waste generation, increase waste recovery, and facilitate recycling of all waste.	Framework Directive on Waste (75/442/EEC) Landfill of waste (99/31/EC) Packaging and packaging waste), as amended by Directive 2004/12/EC Hazardous Waste (91/689/EEC) Incineration of waste (2000/76/EC) Prepared Mining Waste Directive Stockholm Convention on POPs EC is a party to the Basle Convention, Regulation No. 259/93 (EC) The Council Decision 2003/33 establishing criteria and procedures for the acceptance of	-G.D. no.870/2013 (Of.J no.750/04.12.2013) approving the National Waste Management Strategy 2014 – 2020; -Law no. 211/2011(Of.J. no.837/25.11.2011) on waste regime ; GD No 349/2005 (Of.J.no.394/10.05.2005) on the landfill of waste Order of the Minister of Environment and Water Management No 95/2005 on defining of the criteria which must be fulfilled by waste in order to be found on the specific list of a landfill and the National List of accepted	Law no. 2012 CLXXXV. on waste Law no. 2000. XXV on chemical safety GD no. 219/2004 on protection of groundwater GD no. 98/2001 on activities related to hazardous waste GD 442/2012 on packaging and waste management related actions MD 20/2006 on waste disposal, as well as certain rules and conditions for the landfill MD 3/2002 on the incineration of technical specifications, operating conditions, and in the incineration process emission limits	Will revitalization of brownfields be supported? Will new technologies for clean-up be developed or acquired?	PA2: Joint protection and efficient use of common values and resources

		waste at landfills pursuant to Article 16 of and Annex II to Directive 99/31/EC • Directive 2010/75/EC on industrial emissions (IPPC)	waste for each class of landfill (Of.J.no.194/8.03.2005); Order of the Minister of Environment and Water Management No 757/2004 on the approval of the Technical Norms regarding the landfill of waste (Of.J.no86/26.01.2005). GD no.621/2005 (Of.J.no.639/20.07.2005) on the management of packaging and packaging waste -GD no. 856/2008 (Of.J. no.624/27.08.2008) on the management of waste from extractive industries; - O.M no. 344/708 2004 (Of.J. no.959/19.10.2004) approving technical Norms on environmental protection and in particular the soil, when sewage sludge is used in agriculture; -Law no. 261/2004 (Of.J. no.638/15.07.2004) ratifying the Convention on persistent organic pollutants, adopted at Stockholm on 22 May 2001; -G.D. no.53/2009			

			(Of.J.no.96/18.02.2009) for the National Plan for the protection of groundwater against pollution and deterioration; -Law no..278/2013 (Of.J no.671/01.11.2013) on industrial emissions;			
Water	Sustainability of water resources, protection of groundwater as sources of drinking water, systematic improvement of the chemical and ecological state of European waters until 2015 etc. Limit water pollution from point and diffuse pollution sources.	Water Framework Directive (2000/60/EC), Nitrates Directive (91/676/EEC), Urban Waste Water Treatment Directive (91/271/EEC), Directive 2010/75/EC on industrial emissions (IPPC) Water Policy (2000/60/EC) Stockholm Convention on POPs	Water Law no.107/1996 as amended by Law no.310/2004, Law no.112/2006,Law 146/2010,Law 283/2011,Law 187/2012 and GEO 69/2013; GD no.351/2005 on the approval of the Action Program for reducing the pollution of aquatic environment and groundwater caused by the discharge of some dangerous substances (Of. J no. 428/20.05.2005), as amended by GD no.783/2006 (Of. J no. 562/29.06.2006,GD no. 210/2007,GD no. 1038/2010 and GD no. 707/2013; -O.M. no.161/2006 (Of.J. no.511 bis/ 13.06.2006) approving the Norms regarding the classification of surface water quality to determine the ecological status of water bodies;	Law no. 1995. LVII on water management GD no. 27/2006 on the protection of waters against pollution caused by nitrates from agricultural sources GD no. 221/2004 on certain rules of river basin management GD no. 220/2004 on the protection of surface water quality GD no. 123/1997 on water resources, the long-term water resources and water facilities for drinking water supply protection GD no. 38/1995 on public utility potable water supply and the disposal of sewage public utility GD no. 219/2004 on protection of groundwater	Does the programme have an influence on the water quality within the meaning of the Water Framework Directive? Does the programme have an influence on the hydro-morphology of the river systems? Does the programme have an influence on the sustainable use of the resource water? etc.	PA1: Supporting the shift towards low carbon economy PA2: Joint protection and efficient use of common values and resources PA6: Promoting cross-border cooperation between institutions and citizens

			GD no.188/2002 (Of.J.no.187/20.03.2002) on the approval of the norms regarding the wastewater discharge conditions in the aquatic environment, , as amended by GD no 352/2005 (Of.J.no.398/11.05.2005) and GD no 210/2007 (Of.J.no.187/19.03.2007); -G.D. no.964/2000 (Of.J. no. 526/25.10.2000) approving the Action Plan for the protection of waters against pollution caused by nitrates from agricultural sources; -G.D. no.80/2011 (Of.J. no.265/14.04.2011) approving the National management for the international portion of the Danube river basin on Romania's territory			
Air and climate factors	Decrease emission causing climate change Maintain and improve the quality of ambient air within the limits set by the legal norms Minimize the impacts on the air quality	Emission Ceilings (2001/81/EC) Directive 2010/75/EC on industrial emissions (IPPC, LCP) Fuels (98/70/EC, 99/32/EC) VOC (94/63/EC, 99/12/EC) Non-Road Mobile Machinery (97/68/EC) Directive 2008/50/EC on ambient air quality and	-Law no. 104/2011 (Of.J. no.452/28.06.2011)on ambient air quality; Law no.271/2003 for ratification of the Gothenburg Protocol National Reducing Plan for sulphur dioxide and nitrogen oxides emissions and powders from large combustion plants and the measures take on account the conformation of the limit	GD no. 31!62005 on the EIA and IPPC permitting process GD no. 306/2010. (XII. 23.) on protection of air MD no. 4/2011. (I. 14.) VM of the Minister of Rural Development on ambient air quality limit values and the emission limit values of stationary point sources of air pollutants; MD no. 6/2011. (I. 14.) VM	Will projects aimed at the reduction of air pollution and the improvement of air quality be supported? Will projects reduce air pollution in urban areas with regard to limit values of SO2, NOx and PM10 or the target values (for ozone) defined in the air quality framework	PA1: Supporting the shift towards low carbon economy PA2: Joint protection and efficient use of common values and resources PA3: Improve sustainable cross-border mobility and remove bottlenecks

		cleaner air for Europe Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air Stockholm Convention on POPs Gothenburg Protocol 1999 European Climate Change Programme Decision No. 93/389/EEC for a Monitoring Mechanism of Community CO2 andOther Greenhouse Gas Emissions Proposal of the Taxation of Energy Products Directive Emission Trading Directive and Linking directive UNFCCC and Kyoto Protocol	values for the emission, approved by Joint Ministerial Order MEWM 833/13.09.2005, MEC 545/26.09.2005 MAI 859/2005 (Of.J.no.888/4.10.2005); - Law no.8/1991 for ratification the Convention on long-range transboundary air pollution, done at Geneva on 13 November 1979 (Official J. nr. 18/26.01.1991); - GD no.568/2001 (republished in Of.J.no.595/29.08.2007) on setting up the technical requirements for limiting the VOC emissions resulting from storing, loading, unloading and distribution of petrol from terminals to service stations, amended by GD no.958/2012 (Of.J.no.689/05.10.2012); Order of the Minister of EWM no. 781/2004 on the approval of Methodological Norms regarding the measurement and analyses of volatile organic compounds resulted from storage and loading/ unloading of petrol at terminals	of the Minister of Rural Development on the rules governing the checking, controlling and evaluation of ambient air quality and the emission of stationary sources of air pollutants;	directive and its daughter directives (BAT, EMAS, ISO)?	

			(Of.J.no.1243/23.12.2004); Order of the Minister of Industry and Resources no. 337/2001 approving the Norms regarding the technical inspection of the installations, equipment and devices used for reducing VOC emissions resulted from storing, loading, unloading and distribution of petrol from terminals and service stations (Of.J.no.10/10.01.2002), as amended by Order of the Minister of Economy and Commerce no.122/2005 (Of.J.no.324/18.04.2005) and Order of the Minister of Economy no. 728/2013 (Of.J.no.271/14.05.2013); -G.D. no.440/2010 establishing measures for the emission limitation of certain pollutants from large combustion plants (Of.J. no.352/27.05.2010); -Law no.278/2013(Of.J. no.671/01.11.2013) on industrial emissions			
Landscape	Ensure protection of natural and cultural landscape (e.g. by revitalization of brownfields) Facilitate energy	European Landscape Convention	Law no. 363/2006 (Of.J. no.806/26.09.2006) approving the national Spatial Development Plan - Section I – Transport Networks;	Law no. 1997 LXXVIII on protection of built environment Law no. 1996 XXI. on regional development and land settlement	Will it promote public and private involvement in solving environmental issues? Will waste/landfill recovery, land recycling	PA1: Supporting the shift towards low carbon economy PA2: Joint protection and efficient use of common values and resources

	generation from renewable resources Protect and improve the conditions and functions of terrestrial, aquatic eco-systems against anthropogenic degradation, habitat fragmentation and deforestation		• Section II - Water, approved under Law 171/1997; • Section III - Protected areas, approved under Law 5/2000; • Section IV - Settlement network, approved under Law no.351/2001; • Section V - Natural risk areas, approved under Law no.575/2001; National Strategy for Sustainable Development of Romania, Horizons 2013 - 2020 - 2030 approved by G.D. no. 1460/2008 (Of.J.no. 824/08.12.2008	MD 253/1997 on national town planning and building requirements	be supported?	PA3: Improve sustainable cross-border mobility and remove bottlenecks PA6: Promoting cross-border cooperation between institutions and citizens
Population and health	Facilitate improvement of human health by implementing measures aimed at pollution prevention and mitigation of old burdens (e.g. brownfields, mining waste, etc.) Protect and improve the condition of settlements with respect to transport noxes, particular noise and vibration Protect and improve the condition of settlements with respect to noise	Quality of water intended for human consumption (98/83/EC) Protection of ground water against pollution caused by certain dangerous substances (80/68/EEC) Landfill of waste (99/31/EC) Waste regime (75/442/EEC) Noise (2000/14/EC) The action plan of the EU Community Public Health Program for 2003-2008, which was adopted by Decision No. 1786/2002 of the European Parliament and Council	Law no.458/2002 (republished in Of.J.no.875/12.12.2011) on the quality of drinking water; GD no.351/2005 on the approval of the Action Plan for reduction of the pollution of aquatic environment and groundwater, caused by the discharge of certain dangerous substances (Of.J.no.428/20.05.2005), as amended by GD no.783/2006(Of. J no. 562/29.06.2006), GD no. 210/2007(Of. J.no. 18//19.03.2007),GD no.1038/2010 (Of. J.no. 746//9.11.2010),G.D.	GD 284/2007 on certain rules of protection against ambient noise and vibration GD 280/2004 on assessment and management of environmental noise GD 25/2002 on the National Urban Waste Water Collection and Treatment Implementation Program GD no. 201/2001 on drinking water quality requirements and control arrangements MD 25/2004 on strategic noise maps, and detailed rules for the preparation of	Will human health be improved due to activities supported? Will projects aimed at the reduction of noise pollution be supported? Will human health be improved due to the activities supported?	PA3: Improve sustainable cross-border mobility and remove bottlenecks PA5: Promoting social inclusion and combating poverty PA6: Promoting cross-border cooperation between institutions and citizens

		WHO (1998) The "Health for All in 21st Century" Strategy; European Sustainable Cities European Regional/Spatial Planning Charter ('Torremolinos Charter'), adopted in 1983 by the European Conference of Ministers responsible for Regional Planning (CEMAT) The European Commission Green Book for the future policy on noise, (1996) Aalborg Charter	no.707/2013 (Of. J.no. 597/25.09.2013); -G.D. no.1756/2006 (Of.J. no.48/22.01.2007) on the limitation of noise emission in the environment caused by equipment for outdoor use; DG no 321/2005 for reassessment and management of the environmental noise (republished in Of.J. no.19/10.01.2008), modified by G.D. no.1260/2012(Of.J no.15/09.01.2013); GD no.188/2002 (Of.J.no.187/20.03.2002) on the approval of the norms regarding the wastewater discharge conditions in the aquatic environment, as amended by GD no.352/2005 (Of.J.no.398/11.05.2005) and GD no 210/2007 (Of.J.no.187/19.03.2007;	action plans MD 27/2008 on determining the ambient noise and vibration limits		
Material assets, cultural heritage including architectural and archaeological heritage	Ensure protection of natural and cultural landscape by revitalization of brownfields and protection of natural habitats from fragmentation due to traffic corridors		Law no.363/2006 (Of.J. no.806/26.09.2006) approving the national Spatial Development Plan - Section I – Transport Networks; • Section II - Water, approved under Law 171/1997; • Section III - Protected	Law no. 2001. LXIV. on protection of cultural heritage amended by Law no. 2012 CXCI.	Will there be measures to protect natural and cultural landscape? Will projects aimed at the protection of national heritage be supported?	PA1: Supporting the shift towards low carbon economy PA2: Joint protection and efficient use of common values and resources PA5: Promoting social inclusion and combating poverty

			areas, approved under Law 5/2000; • Section IV - Settlement network, approved under Law no.351/2001; • Section V - Natural risk areas, approved under Law no.575/2001; - Government Ordinance no.43/2000 (republished in the Of.J. no. 951/24.11.2006) regarding the protection of archaeological heritage and declaration of some archaeological sites as areas of national interest, as amended; - Law no. 422/2001 (republished in Of.J. no. 938/20.11.2006) regarding the protection of historical monuments , modified by E.G.O 77/2009 (Of.J. no. 439/26.06.2009), by Law 261/2009(Of.J. no.493/16.07.2009), by Law 329/2009 (Of.J. no. 761/09.11.2009),by E.G.O no. 43/2010(Of.J. no.316/13.05.2010), by E.G.O no. 12/2011 (Of.J. no. 114/15.02.2011),by Law no.187/2012 (Of.J. no.757/12.11.2012);			

Annex 3: Consultation and comments received on the Scoping Report

Will be included after consultation phase.

Annex 4: Consultation with third countries

Will be included after consultation phase.