



**EX-ANTE EVALUATION and  
STRATEGIC  
ENVIRONMENTAL  
ASSESSMENT for the  
Operational Programme of  
the Danube Transnational  
Co-operation  
Programme 2014-2020**

**SCOPING REPORT OF SEA**



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Final version

*This report is conducted within the framework of the Ex-ante evaluation and Strategic Environmental Assessment of the Operational Programme of the Danube Transnational Co-operation Programme 2014.*

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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).

The assessment object of the SEA is the Operational Programme of the Danube Transnational Co-operation Programme 2014.

## **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 trans boundary context (1991) (the Espoo Convention)
- Protocol on Strategic Environmental Assessment (2003)
- CPR Regulation No 1303/2013, especially Article 54 (Evaluation-General Provisions), Article 55 (Ex-ante evaluation)
- ETC Regulation No1299/2013, including Article 8 (Content adoption and amendment of cooperation programmes) and Article 16 (Indicators for the ETC goal);
- ERDF Regulation No1301/2013;
- EC Guidance document on ex-ante evaluation, - - European Regional Development Fund European Social Fund and Cohesion Fund -January 2013;
- EC Guidance document on monitoring and evaluation - European Regional Development Fund and Cohesion Fund – Concepts and recommendations, January 2014;
- Report from the Commission to the Council the European Parliament, the European Economic and Social Committee and the Committee of the Regions on the application and effectiveness of the Directive on Strategic Environmental Assessment (Directive 2001/42/EC)

- EC Guidance on the implementation of the Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.

#### The legal frame in the Danube Region partner countries:

Austria	<p>Protokoll über die strategische Umweltprüfung zum Übereinkommen über die Umweltverträglichkeitsprüfung im grenzüberschreitenden Rahmen</p> <p>Implementation of directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment (Umsetzung der Richtlinie 2001/42/eg des Europäischen Parlaments und des Rates über die Prüfung der Umweltauswirkungen bestimmter Pläne und Programme)</p>
Slovak Republic	<p>the Act No. 24/2006 Coll. on environmental impact assessment and on amendments to certain acts applies, which entered into force on 1st February 2006. It regulates comprehensively the environmental impact assessment, strategic documents assessment and impact assessment of constructions, installations and other activities on the environment.</p>
Czech Republic	<p>Act No. 100/2001 Coll. on Environmental Impact Assessment and Amending Some Related Acts (Act on Environmental Impact Assessment), as amended by Act No. 93/2004 Coll.</p>
Germany	<p>Act on Public Participation in Environmental Issues according to EC guideline 2003/35/EG (Gesetz über die Öffentlichkeitsbeteiligung in Umweltangelegenheiten nach der EG-Richtlinie 2003/35/EG)</p> <p>Act on Amending Provisions on Legal Remedies in Environmental Issues according to EC guideline 2003/35/EG (Gesetz über ergänzende Vorschriften zu Rechtsbehelfen in Umweltangelegenheiten nach der EG-Richtlinie 2003/35/EG Umwelt-Rechtsbehelfsgesetz – Umweg)</p>
Hungary	<p>2/2005 (I.11) Government Decision on the SEA</p>
Slovenia	
Romania	<p>the Government Decision no.1076/8.07.2004. for setting up the environmental assessment procedure of certain plans and programmes</p>

	<p>“Manual on the completion of the environmental assessment for plans and programmes” – 2006, approved by Ministerial Order no. 117/2006. (other relevant normative acts: OM 480/2006, OM 995/2006)</p>
<b>Ukraine</b>	
Bulgaria	Regulation on the terms and procedure for Environmental Assessment of plans and programmes (Загл. ИЗМ. – ДВ, бр. 3 от 2006 г.)
Croatia	Regulation on strategic environmental assessment of plans and programmes
<b>Serbia</b>	
<b>Bosnia and Herzegovina</b>	
Montenegro	Law on Strategic Environmental Assessment (Official Gazette of Montenegro, no. 80/05, 59/11); Regulation on the Organization and Operation of Public Administration ("Off. Gazette of Montenegro", no. 05/12, 20/13) Article 46 line 14
Republic of Moldova	the law on the environmental assessment and environmental impact assessment, Nr. 851 din 29.05.1996

**The environmental assessment shall be carried out** since the characteristics of the Danube Transnational Co-operation Programme 2014 fulfil the categories and requirements which determine the necessity for the Strategic Environmental Assessment procedure, due to the following reasons:

- The Operational Programme of the Danube Transnational Co-operation Programme 2014 is a programme which is determined to be likely to have significant environmental effects according to Article 3(3) and 3(4) of the SEA Directive. The determination of the likely significance of effects is detailed in chapter 3.
- The Operational Programme of the Danube Transnational Co-operation Programme 2014 is subject to preparation and adoption by national and regional authorities in the partner countries, and prepared for adoption through legislative procedure by the Governments.
- The Operational Programme of the Danube Transnational Co-operation Programme 2014 is required by legislative provisions.

- The Operational Programme of the Danube Transnational Co-operation Programme 2014 is financed by the European Union and by national Governments.
- The Operational Programme of the Danube Transnational Co-operation Programme 2014 is prepared for several sectors detailed in chapter 2.
- The Operational Programme of the Danube Transnational Co-operation Programme 2014 sets a framework for future development consent of projects in Annexes I and II of the Directive EIA.

### **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 Danube Transnational Co-operation Programme 2014, it 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 in order to:

- **ensure the high level protection of the environment**

The scoping is the first step within the Strategic Environmental Assessment process. Present scoping report determines the framework of the environmental assessment, and also contains the statement on screening. In accordance with this thematic approach, the scoping report includes the background information needed:

- information on the content of the programme
- overall information on the area
- definition of the relevant geographic area and timeframe
- identified environmental problems and legal background
- concept of assessment
- definition of the appropriate environmental indicators that will be the basis of the SEA
- definition of methods to evaluate the positive and negative impacts
- definition of the method of generating and evaluating reasonable alternatives
- information on the SEA process, involvement of responsible bodies, sources of information

The proposed structure of the SEA report is also set out in the relevant section on the basis of the requirements of the SEA Directive.

The aim of the scoping report is to identify the main areas of intervention, to summarize the relevant regulatory background, and the methodology planned to be applied during the environmental assessment, while the SEA report itself is to be prepared on the basis of the 1st final draft of the Operational Programme, including the approved Thematic Objectives.

As the relevant legislation is slightly different in case of each environmental element (e.g. legislation and regulations covering more implementation areas, mainly in the field of nature and soil protection) the scoping report includes detailed legislative references. 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 prescriptions.

During the assessment, basic data information is to be gathered from European databases, supplemented by conclusions of the Regional Analysis of the Danube Region. Involving the relevant authorities and stakeholders, the necessary information will be available in the SEA evaluation, covering the 2014-2020 (+2 years) period.

- **contribute to the integration of environmental aspects into the preparation and adoption of the Danube Programme with special regard to the promotion of sustainable development**

**The present report serves as an input for the authorities to decide upon the necessity of the SEA and to consult on that. Based on the results a decision will be made on the scope and the level of specification of the environmental report.** The scoping report will be finalised on the basis of the comments received from the environmental authorities. On the basis of the comments from the authorities, clear suggestions will be given to the Programming Committee and to the planners of the Operational programme with the purpose to integrate the environmental considerations into the Programme for the sake of fostering sustainable development.

In order to meet these requirements, the Scoping Phase consists of the following process elements:

The determination whether the Operational Programme imposes adverse environmental impacts, determination of the scope and the details of the ENV report

drafting the scoping report

consultation with environmental authorities

integration of the remarks collected during the public ...

elaboration of the final scoping report



The scoping report is based on the “Regional analysis of the Danube Region” (version dates on 10th March 2014), on the decision of the 7th meeting of the Danube Programming Committee in Ljubljana concerning Thematic Objectives and Investment Priorities (25-26th March 2014), and on the Draft Operational Programme Version 1.0 30<sup>th</sup> April 2014.

## 2. ASSESSMENT FRAMEWORK AND GEOGRAPHICAL AREA

### 2.1. THE ASSESSMENT FRAMEWORK

#### The Danube Programme

On 6th October 2011 the European Commission adopted a draft legislative package for the Cohesion Policy for the funding period 2014 - 2020. According to it, European Territorial Cooperation will be continued and even reinforced as a separate cohesion goal. The Danube Programme is meant to be a new transnational programme, which is to contribute to the implementation of the Macro Regional Strategy for the Danube Region as well. The European Union Strategy for the Danube Region (EUSDR) adopted by the European Commission in December 2010 provides an overall framework for parts of the Central and South East Europe area aiming at fostering integration and integrative development.

#### The geographic frame for SEA:

The Danube Region covers 12 countries (9 EU countries: Austria, the Slovak Republic, the Czech Republic, Hungary, Slovenia, Romania, Bulgaria and Croatia as well as 5 non-EU-member countries: Serbia, Bosnia and Herzegovina, Montenegro and the Republic of Moldova) plus the 'Danubian' regions of Germany and Ukraine.



**INTERREG B cooperation area 2014-2020**

Source: European Commission,  
as proposed on 18th December 2012  
Geometrical basis: GFK MACON

### Time frame for SEA:

The time frame of the SEA - for those development trends which are related to the expected state of the environment and the possible impacts on environmental issues - is the programming period 2014-2020 plus two years.

## 2.2 DANUBE PROGRAMME STRATEGY

According to the Communication from the Commission to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions on the European Union Strategy for the Danube Region (COM (2010) 715 final, Brussels, 8.12.2010), the Danube Region faces major challenges and opportunities in the fields of mobility, energy, environment, special risks, socio-economic questions, security, serious and organised crime.

The main mission of the territorial programmes of the European Union is to contribute to the delivery of EU 2020 Strategy for smart, sustainable and inclusive growth, to improve and strengthen territorial, economic and social cohesion and to contribute to territorial integration.

In order to achieve a higher degree of territorial integration, the Danube Transnational Cooperation Programme 2014 “will act as a policy driver and pioneer to tackle common challenges and needs in specific policy fields where transnational cooperation is expected to deliver good results through the development and practical implementation of policy frameworks, tools and services and concrete pilot investments” (Draft Operational Programme Version 1.0 30<sup>th</sup> April 2014. chapter 1.1.1.1 Role of the Cooperation Programme and Mission).

The regional analysis gives an overview on the current situation of the Danubian area, and identifies the real territorial needs of the region, the potential investments can be based on. Thematic priorities of the Danube programme have been pre-selected in line with the relevant EC legislation, the national priorities of Partner States, and reflect the challenges and opportunities of the programme area:

- 1b
- (5b)
- (6b), 6c, 6d, 6f
- 7b, 7c, 7e
- 11 (a, b)

TO1 Strengthening research, technological development and innovation

1b: promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing

capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies

#### TO5 Promoting climate change adaptation, risk prevention and management

5b: promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems

#### TO6 Preserving and protecting the environment and promoting resource efficiency

6b: investing in the water sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the Member States, for investment that goes beyond those requirements

6c: conserving, protecting, promoting and developing natural and cultural heritage

6d: protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure

6f: promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution

#### TO7 Promoting sustainable transport and removing bottlenecks in key network infrastructure

7b: enhancing regional mobility by connecting secondary and tertiary nodes to TEN-T infrastructure, including multimodal nodes

7c: developing and improving environmentally-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

7e: improving energy efficiency and security of supply through the development of smart energy distribution, storage and transmission systems and through the integration of distributed generation from renewable sources

#### TO11 Enhancing the institutional capacity of public authorities and stakeholders and an efficient public administration

enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration

## 2.3. OBJECTIVES AND AREAS OF INTERVENTION

On the bases of the pre-selected thematic objectives and investment priorities of the programme the following Priority Axes, specific objectives and fields of actions are proposed in the first Draft Operational Programme Version 1.0 30<sup>th</sup> April 2014. (The detailed content of the thematic objectives and investment priorities have not been approved by the Programming Committee yet, but the selection indicates the potential investments.):

Priority Axes	Thematic Objectives	Investment Priorities	Specific objectives	Fields of actions
PA1	TO 1 Research & Innovation	1b (6f)	SP 1: Building more balanced innovation capacities in the Danube region and contribute to a positive change in innovation performance.	F 1: Eco-innovation F 2: Collaborative university system F 3: Knowledge transfer F 4: Cluster policy F 5: Social innovation F 6: Skilled entrepreneurship
PA2	TO 6 Environment, resource efficiency	6c	SP 2: Strengthen common approaches to valorise the natural and cultural heritage in a sustainable way.	F 7: Cultural diversity F 8: Sustainable tourism
		6d (5b)	SP 3: Strengthen effective approaches to preservation, restoring and management of large-scale bio-corridors and wetlands to contribute to the stability of ecosystems.	F 9: Integration of ecological networks and green infrastructures F 10: Integrated flood risk management F 11: Climate change adaption
PA3	TO 7 Transport	7b	SP 4: Improve regional connectivity to the TEN-T infrastructure through systematic preparation of strategic investments in cross-border transport infrastructure and missing links and bottlenecks and accompanying capacity-building for better planning, implementing and managing cross-border investment projects.	F 12: Regional connectivity to the TEN-T
		7c	SP 5: Prepare the ground for sustainable transport solutions including rail and inland waterways investments, modal integration, intelligent transport and sustainable transport in urban areas in order to reduce the environmental impact of transport in terms of greenhouse gas emissions and local pollution.	F 13: Integration of low carbon transport systems F 14: Environment friendly metropolitan transport & mobility
		7e	SP 6: Better coordinate the development of smart energy distribution systems in order to make the significant investments of regions in renewable energy sources, energy efficiency and smart grids more efficient and contribute to the security of energy supplies.	F 15: Smart distribution F 16: Security of energy supplies
PA4	TO 11	11 acc.	SP 7: Strengthen policy	F 17: Social dimension / labour

	Governance	ERDF Reg.	development in areas with major societal challenges through improved cooperation and capacity building of public bodies and other stakeholders and the creation of powerful cross border information- and planning tools.	market F 18: Social dimension / education & training F 19: Social dimension / migration F 20: Social dimension / Inclusion of Roma F 21: Civil society development F 22: Metropolitan networks
		11 acc. ETC Reg. Article 7	SP 8: Strengthen the skills (capabilities) and resources (capacities) of institutions and actors to implement the EUSDR in a more effective way.	F 23: Support to PACs F 24: Financing fund F 25: Focal Point

## 2.4. THE OUTLINE OF THE PROGRAMME AREA FROM ENVIRONMENTAL POINT OF VIEW - CHARACTERISTICS OF THE AFFECTED TERRITORY

### Bio-geographical and ecological regions

The Danube River Basin belongs to six biogeographical regions according to the different climate and altitude conditions. The continental biogeographical region covers the Black Forest, the Bohemian Forest, the Romanian Plain, the North-Eastern ranges of the Dinaric Alps, the low-lying parts of the Balkan Mountains, the Transylvanian Plateau and the Moldavian Plateau, ranges of the Carpathians, the Rhodope, the Alps and the Dinaric Alps, the Pannonian Basin dominated by the Great Hungarian Plain. The Mediterranean biogeographical region is situated along the coastline of the Adriatic Sea with various topographical features. In the Eastern part of the Danube Delta, in the wider environment of the Danube region, the Steppic biogeographical region is situated. The smallest biogeographical region of the examined area is a narrow region along the coast of the Black Sea.

Main habitat types of the continental area are the agricultural and cultivated habitats (51,46 %) followed by the woodland and forest habitats (41.52%), while in the coastal region heathland and scrub habitats are the typical land cover. The agricultural utilisation is typical of the fertile lowland areas along the rivers, in higher area forestry utilisation and semi-natural areas are characteristic. The basin of the Danube is also home to the longest marshland of the continent. Large stretches of reeds grow on the bed of Danube, these reedbeds in the Danube are among the largest in the world. Stippa grass can be found in the sandy areas on the banks of Danube. The Letea forest along the river contains several other plants. Many different species of water lilies grow in the river.

The fauna of the region is also very rich. Regarding the number of species, birds are the most widespread in all of the biogeographical regions followed by the mammals. The highly diverse ornithological fauna of the Danube Basin and especially its delta, counts over 250 species of

birds. Some 110 species of fish are to be found in the Danube River as well as in the hundreds of lakes, streams and channels in the delta. Danube Delta represents a very favourable place for the development of highly diverse flora and fauna, unique in Europe, with numerous rare species. It hosts 23 natural ecosystems, but due to the extent of wetlands the aquatic environment is prevalent; the terrestrial environment is also present on the higher grounds of the continental levees, where xerophile ecosystems have developed.

### **Biodiversity**

Aquatic biodiversity is facing an increasing risk. Invasive alien species are negatively impacting the natural fauna and flora in many rivers and lakes. Also, nutrients flowing off the land, as well as poor land use and land management like the straightening of rivers, detachment of floodplains and fragmentation of habitats through dams and weirs increase the degradation of habitats and loss of species. The fishery of the Danube River Basin in all is not significant compared to the European scale, the region cannot be considered to be overfished.

Among the 1079 Natura 2000 areas (156,361 km<sup>2</sup>) of the EU member states situated in the Danube River Basin 716 (73,023 km<sup>2</sup>) were assigned according to the Habitats Directive, and further 294 (73,872 km<sup>2</sup>) according to the Birds Directive. 44 protected areas (5,810 km<sup>2</sup>) were established for the purpose of bird protection and the protection of habitats. Slovenia, Bulgaria, Slovakia and Hungary assigned Natura 2000 areas in a ratio above the EU27 average compared to their own areas. Based on the implementing indicator of the Habitats Directive only Germany, Bulgaria and Austria are equal to or above the EU27 average.

Though the planned forestry is sustainable in the region, illegal logging may represent a serious risk to biodiversity as well as increase the risk of soil erosion and forest fires. The extent of the illegal logging in Serbia, Montenegro and Moldova can even reach 10-35% of the total forest utilisation. In last decades the change in the land-cover of the Danube Region resulted a very high proportion of artificial areas (above 5% with except of Slovenia) increasing the fragmentation of the habitats. To lower biodiversity risks, proportion of grasslands, croplands and pastures, organic farming should be increased in the agricultural land use.

Comparing the global ecological indicators the ecological balance is in every relevant country negative, which means that countries utilise their environmental resources in a higher ratio than they would be available for them. However, the ecological balance of the region is slightly better than the European average.

### **Hydrography**

From hydrographical point of view most important area is the Danube catchment area (which is 801.463 km<sup>2</sup>.) with the major tributaries: Inn (515 km), Morava (329 km), Drava (720 km), Tisza (966 km), Sava (861 km), Great Morava (430 km), Iskar (368 km), Siret (559 km) and Prut (950 km). Important lakes having a territory higher than 100 km<sup>2</sup>: Lake Balaton, Lake Neusiedl, Yalpug-Kugurlui Lake System, Razim-Sinoe Lake System.



Many Danubian tributaries are important rivers in their own right, navigable by barges and other shallow-draught boats. There are three artificial waterways built on the Danube: the Danube–Tisa–Danube Canal (DTD) in the Banat and Bačka regions (Vojvodina, northern province of Serbia); the 64 km Danube–Black Sea Canal (between Cernavodă and Constanța in Romania) and the Rhine-Main-Danube Canal (about 171 km), linking the North Sea to the Black Sea. The Danube is classified as an international waterway, part of the Pan-European transport corridors and TEN-T networks (Priority Project 18 ). It is important to foster eco-efficient Danube engineering and sustainable shipping.

In recent decades, many dams and locks were built that interrupt the natural flow of the river, problems from pollution endanger its rich biodiversity and extensive land changes cause floods and droughts in many places. Common water management and ensuring an adequate water quality are extremely important in case of cross-border rivers. Management plans regarding the catchment areas have been performed for the full length of the Danube as well as the larger cross-border catchment areas of Tisza, Sava, Drava, Danube Delta and the Black Sea. The common water management can contribute to flood mitigation; also water pollution can be decreased or avoided.

In the programme region, there are 11 fairly large, cross-border water supplies. Most of the groundwater and drinking water supplies are in good conditions. However, the drinking water supplies situated in Southern Hungary and the Little Hungarian Plain are in bad conditions and are endangered by high arsenic and nitric concentration).

### **Climate change**

The Danube is the second-largest river basin of Europe. Due to its large expanse from west to east, the Danube crosses three climatic zones: the Atlantic climate with high precipitation, the continental climate with lower precipitation and cold winters and the Mediterranean climate. The study for the climate change of ESPON has covered five climate change regions in Europe regarding the exposure. Based on the study, the potential importance of climate change is the highest in Bulgaria, in some areas of the Romanian Carpathians, in the Little Hungarian Plain and Slovenia. A moderate effect can be expected in many areas of the Danube River Basin.

The increase of the concentration of greenhouse gases is the most significant effect among the processes of human origin which has impact on the climate. The gas emission of the Danube River Basin was favourable in most of the relevant countries in 2008 except for the Czech Republic and Slovakia. The increase of the formation of extreme water balance situations can be considered as an expectable effect of the climate change. In recent years, many flood records have been beaten also in Central Europe, consequently, in the areas of the Danube and its tributaries. The flood statistics between 1998 and 2009 reveals that the density of the forming floods can be mainly related to relief properties and not to rivers.



## 2.5. IDENTIFIED ENVIRONMENTAL PROBLEMS

The choice of environmental issues is based on the SEA Directive. The environmental situation analysis is to be prepared for all environmental issues identified. The identified environmental issues and key focus points regarding the targeted territory are the followings, 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:
<p><b>Water (surface waters, ground waters)</b></p>	<p>Regarding the status and protection of waters, the following aspects will be taken into consideration:</p> <p><b>Sustainable water resource management (water quantity, quality, groundwater vulnerability and surface-water sensitivity):</b></p> <p>Pollution from domestic, agricultural and industrial sources is still a major concern, either directly through discharges (effluents) or indirectly from the spreading of nitrogen fertilisers and pesticides or through leaching from old landfills or industrial sites (e.g. chlorinated hydrocarbons, heavy metals). Diffuse sources are having an increasing impact on groundwater.</p> <p>In some regions, the severity and frequency of droughts can lead to water scarcity situations; overexploitation of available water resources can intensify the consequences of droughts.</p> <p><b>Flood risk management:</b></p> <p>Extensive land changes (river and lake regulation, straightening of rivers, detachment of floodplains) and climate change cause floods and droughts in many places. Within the region the quantity of the precipitation is unevenly distributed during the year and the volume of surface and soil runoff varies along the Danube. Common water management can contribute to flood mitigation, besides, water pollution can be decreased or avoided.</p> <p>Improvement of data collection and monitoring system for a more accurate assessment of water resource balances (quantity, quality) is needed.</p> <p><b>Drinking water treatment and wastewater management, water quality improvements:</b></p> <p>Development and completion of wastewater collection and treatment systems, water distribution network is needed.</p> <p>Compliance of water supplies, compliance for drinking water from small supplies, and risk-based approach for more effective quality control (drinking water quality parameters and values) has to be promoted.</p> <p><b>Key environmental problems:</b> pollution and overexploitation of water resources, increasing flood risk, inadequate water and wastewater</p>

	<p>treatment facilities in some parts of the region</p> <p><b>Focus points to be stressed regarding the targeted territory:</b> Prevention of significant losses of pollutants from technical installations and prevention and/or reduction of the impact of accidental pollution incidents is needed.</p> <p>Measures have to be taken to improve river continuity and the reconnection of adjacent floodplains and wetlands.</p> <p>Appropriate controls over the abstraction of fresh surface water and groundwater and impoundment of surface waters (including registers of water abstractions) must be put in place in the whole region.</p>
<p><b>Soil and geological medium</b></p>	<p>Main threats to soil are: erosion, local and diffuse contamination, loss of organic matter, loss of biodiversity, compaction and other physical soil deterioration, salinization, floods and landslides, and sealing.</p> <p>In the Danube Region the proportion of artificial areas are very high (above 5% with except of Slovenia) and is continuously increasing. This means loses of fertile soils due to urbanisation and industrialisation, which means irreversible soil losses and soil degradation. Though the planned forestry is sustainable in the region, Illegal logging may represent a serious risk to biodiversity as well as increase the risk of soil erosion and forest fires.</p> <p>Pollution from direct or diffuse sources means still a high risk for the soils.</p> <p>Thermal water management (heat-pump systems, thermal water utilizations for heating and agricultural purposes and geothermal power plants probably established in the future) can cause damage in the geological medium.</p> <p><b>Key environmental problems:</b></p> <p>soil erosion, acidification groundwater pollution, soil salinization</p> <p><b>Focus points to be stressed regarding the targeted territory:</b> Sustainable land-use and agriculture, reduce waste generation, increase waste recovery and recycling, promoting reduction of waste generation, increase waste recovery and recycling, promoting of sustainable use of material resources.</p>
<p><b>Biodiversity, flora, fauna</b></p> <p><b>NATURA 2000</b></p>	<p>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 have to be overviewed.</p> <p>Agriculture, industry, infrastructure development, regulation and more intense use of rivers, spread of invasive alien species as well as high level of tourism are threatening biodiversity.</p> <p>Protection of ecosystems, more precisely taking into consideration the principle of sustainable development in managing natural resources is a key issue.</p>

	<p><b>Key environmental problems:</b> invasive alien species, degradation of habitats and loss of species</p> <p><b>Focus points to be stressed regarding the targeted territory:</b> NATURA 2000 maintenance plans, common management off cross-border ecosystems and habitats, High Nature Value (HNV) farming and forest management (describes some of the oldest and most biodiversity rich farming and forestry systems)</p>
<p><b>Air and Climate factors</b></p> <p><b>Climate Change</b></p>	<p>Regarding the air quality the main environmental issues are:</p> <p>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.</p> <p>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.</p> <p>Climate change cause floods and droughts. The increase of the concentration of greenhouse gases is the most significant effect among the processes of human origin which impact on the climate.</p> <p><b>Key environmental problems:</b> air pollution, excessive use of fossil fuels, water scarcity and droughts.</p> <p><b>Focus points to be stressed regarding the targeted territory:</b> Integration of water management into other sectoral policies such as agriculture, energy, cohesion and health; implementation of water scarcity and water efficiency indicators, sustainable and green transportation, support of economies aiming at low carbon dioxide emission</p>
<p><b>Landscape</b></p>	<p>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).</p> <p>The development of the transport network, change in land use, logging and fires are the main reasons for the fragmentation of ecosystems and deterioration of landscape.</p> <p><b>Key environmental problems:</b> High proportion of artificial area (above 5%), enlargement of the transport network.</p> <p><b>Focus points to be stressed regarding the targeted territory:</b> landscape respects should be emphasized in regional (waste disposal, transport network development, flood management) and urban planning, help the</p>

	<p>protection of natural and cultural heritage by strengthening the guarding system and responsibility for common-pool resources.</p>
<p><b>Population and human health</b></p>	<p>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.</p>
	<p><b>Key environmental problems:</b> strong east-west inequalities in accessibility to the essential public services within the region</p> <p><b>Focus points to be stressed regarding the targeted territory:</b></p> <p>Prevention and reduction of diseases and negative health impacts caused by environment-related threats, reduce existing disparities in accessibility to the essential public services.</p>
<p><b>Material assets, cultural heritage including architectural and archaeological heritage</b></p>	<p>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.</p>
	<p><b>Key environmental problems:</b> climate change will expectably have an unfavourable effect on some of the world heritage sites</p> <p><b>Focus points to be stressed regarding the targeted territory:</b></p> <p>Protection and preservation as well as sustainable management and planning of European cultural and natural heritage.</p>
<p><b>Energy resources</b></p>	<p>Although the Danube region has good conditions for green energy utilization, high level of consumption, low energy efficiency, high share of fossil fuels in final consumption is typical, especially in the eastern regions.</p> <p>While there is a relatively high rate of biomass energy and hydropower utilization, lack of other alternative renewable energy sources is dominant, the smart grid construction is slow in the majority of the region.</p>
	<p><b>Key environmental problems:</b> low energy efficiency, high share of fossil fuels in final consumption</p> <p><b>Focus points to be stressed regarding the targeted territory:</b></p> <p>Improvement of energy efficiency and the increase of use of renewables, development and macro-regional integration of different energy networks and of the internal market</p>
<p><b>Mobility and transport</b></p>	<p>The trans-European transport network crosses the region in multiple axes. The missing cross-border links and the weak multimodality impede the intensification of east-west and north-south trans-European economic cooperation, and the expansion of a network economy. Road goods transport is still dominant and its share is growing. Eastern Europe and the</p>

	<p>Balkans have worse vehicle coverage, less efficient and less sustainable transport systems. The Rhine-Danube trans- European axis is a high traffic waterway. Navigability varies on different segment of the Danube.</p>
	<p><b>Key environmental problems:</b></p> <p>Significant environmental risks and impacts due to river regulations, uncoordinated port management, lack of integrated and multimodal transport systems on the southern south-eastern part</p> <p><b>Focus points to be stressed regarding the targeted territory:</b></p> <p>Common river management and ensuring an adequate water quality, developing transnational environment-friendly and low-carbon transport systems.</p>

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

Taking in consideration the main objectives of the programme and the characteristics of the region, most important issue of the area is water management and the biodiversity of the Danube river basin. The air and climate issue and the climate change is also a key issue. Water dependent sectors such as agriculture, forestry, navigation and water related energy production are likely to suffer under the projected future conditions.

Environmental issues	Current state of the environment	Likely future trends
<p><b>Water (surface waters, ground waters)</b></p>	<p>The Danube Region is rich in water resources. With the increasing global importance of water – if properly managed – water resources offers excellent potentials for both touristic and energy generation purposes - and certainly carry some risks of flood and pollution.</p> <p>Adapting the WFD, the water management of the region is based on river basins and the area should aim to achieve good status in all bodies of surface water and groundwater by 2015, respectively by 2027 at the latest. Realisation of this achievement by 2015 is not feasible according to the Danube River Basin District Management Plan (14 December 2009).</p> <p>Out of the water bodies in the entire DRBD (Danube River and DRBD Tributaries) 40 % of the water bodies are designated heavily modified due to significant physical alterations causing a failure of the good ecological status. 28% of the river water bodies achieved good ecological status or ecological potential and 64 % achieved good chemical status.</p>	<p>Improvement of data collection and monitoring system for a more accurate assessment of water resource balances (quantity, quality) is needed. This could bridge the gap between measures on the national level and their agreed coordination on the basin-wide level to achieve the overall WFD environmental objective. Common water management can contribute to flood mitigation, besides, water pollution can be decreased or avoided.</p> <p>Prevention of significant losses of pollutants from technical installations and prevention and/or reduction</p>

	<p>Assessing the lake water bodies, 43% achieved good ecological status and 29% good chemical status. The state of coastal water bodies is the worst, as none achieved good ecological status; furthermore, all water bodies failed good chemical status.</p> <p>The state of groundwater is more favourable. Out of 11 transboundary GWBs of basin-wide importance (22 national parts evaluated), good chemical status was observed in all national parts of 8 transboundary GWBs (73%). In two additional transboundary GWBs, poor chemical status was observed in one national part. In only one GWB were all national parts found to be in poor status. Altogether, poor chemical status was identified in four out of 22 of the evaluated national parts of the 11 transboundary GWBs. Nitrates were the cause of the poor classification in every case.</p> <p>Out of 11 transboundary GWBs (22 national parts evaluated), good quantitative status was observed in all national parts of 9 transboundary GWBs (82%). In two transboundary GWBs, good quantitative status was observed in only one national part. The poor quantitative status is caused in two cases by the exceeding of available groundwater resources; in one case by damage to terrestrial ecosystems and in one case by damage to surface waters (springs). In the case of the national part of one GWB, former mining activities still have an impact on the quantitative status.</p> <p>Extensive land changes (river and lake regulation, straightening of rivers, detachment of floodplains) and climate change cause floods and droughts in many places.</p> <p>57 % of the DRB population live in urban areas. The share of population connected to public water supply in some countries is less than 51% (e.g. Ukraine) In many countries water supply networks are in poor condition due to faulty design and construction, lack of maintenance and ineffective operation. Leakage is generally high. The extent of piped drinking water supplies to households varies between urban and rural areas, with rural populations in some countries less well provided. The share of the population connected to public sewer system varies from 15% in Moldova to 95% in Germany.</p> <p>The region has remarkable geothermal capacity, but currently this is mainly used in spas. The use of geothermal energy (like heat-pump systems, thermal</p>	<p>of the impact of accidental pollution incidents is needed. Measures has to be taken to improve river continuity, reconnection of adjacent floodplains/wetlands</p> <p>Appropriate controls over the abstraction of fresh surface water and groundwater and impoundment of surface waters (including registers of water abstractions) must be put in place in the whole region.</p> <p>A properly balanced groundwater use has to be achieved, taking into account the conceptual models for particular groundwater bodies, and should not exceed the available groundwater resource.</p> <p>Reactivation of former wetlands and floodplains should be promoted to achieve increased water retention along with good surface water status.</p> <p>Common approach in assessment of flood-prone areas and flood risk mapping is needed, to increase public awareness of the areas at risk from flooding, to provide information of areas at risk to give input to spatial planning and to support management and reduction of the risk to people, property and the environment.</p> <p>Scientific research is required to further elucidate the impacts of UTES (Underground Thermal Energy Storage) on groundwater. Cross-sectoral subsurface planning is required to minimize</p>
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	<p>water utilizations for heating and agricultural purposes and geothermal power plants) represents a low rate in the energy sector.</p>	<p>negative conflicts between UTES and other subsurface interests; and EU-wide guidelines and standards are required for quality assurance and control when installing UTES systems.</p>
<p><b>Soil and geological medium</b></p>	<p>In last decades the change in the land-cover of the Danube Region resulted a very high proportion of artificial areas (above 5% with except of Slovenia) increasing the fragmentation of the habitats.</p> <p>It is estimated that Europe loses between 8 and 10 km<sup>2</sup> of fertile soils per day due to urbanisation and industrialisation, which means irreversible soil losses and soil degradation. Though the planned forestry is sustainable in the region, Illegal logging may represent a serious risk to biodiversity as well as increase the risk of soil erosion and forest fires.</p> <p>Pollution from domestic, agricultural and industrial sources is still a major concern, either directly through discharges (effluents) or indirectly from the spreading of nitrogen fertilisers and pesticides or through leaching from old landfills or industrial sites Diffuse sources are having an increasing impact on soil.</p> <p>Decrease in groundwater levels can also cause soil quality problems, where there is a risk of over-exploitation of water (e.g. irrigated agricultural area, mining, thermal water use)</p>	<p>Major soil functions need to be maintained on the highest possible level. These are (according to Thematic Strategy for Soil Protection (EC 2006a,b): food and other biomass production, storing, filtering and transformation of materials, habitat and gene pool of living organisms, physical and cultural environment for humankind, source of raw materials, acting as a carbon pool, archive of geological and archeological heritage.</p> <p>Reduce waste generation, increase waste recovery and recycling, promoting of sustainable use of material resources has to be promoted.</p>
<p><b>Biodiversity, flora, fauna NATURA 2000</b></p>	<p>Main habitat types of the continental area are the agricultural and cultivated habitats (51,46 %) followed by the woodland and forest habitats (41.52%), while in the coastal region heathland and scrub habitats are the typical landcover. The basin of the Danube is also home to the longest marshland of the continent. The highly diverse ornithological fauna of the Danube Basin and especially its delta, counts over 250 species of birds. Some 110 species of fish are to be found in surface waters of the region.</p> <p>Aquatic biodiversity is facing an increasing risk. Invasive alien species are negatively impacting the natural fauna and flora in many rivers and lakes. Also, nutrients flowing off the land, as well as poor land use and land management like the straightening of rivers, detachment of floodplains and fragmentation of habitats through dams and weirs increase the degradation of habitats and loss of</p>	<p>Stresses that human interference causes in the processes of nature should be reversed as much as possible compensated for and, in the future, prevented.</p> <p>NATURA 2000 maintenance plans should be completed; common management off cross-border ecosystems and habitats has to be improved.</p> <p>Supporting of High Nature Value (HNV) farming and forest management (describes some of the oldest and most biodiversity rich farming and forestry systems).</p>



	<p>species.</p> <p>Among the 1079 NATURA 2000 areas (156,361 km<sup>2</sup>) of the EU member states situated in the Danube River Basin 716 (73,023 km<sup>2</sup>) were assigned according to the Habitats Directive, and further 294 (73,872 km<sup>2</sup>) according to the Birds Directive. 44 protected areas (5,810 km<sup>2</sup>) were established for the purpose of bird protection and the protection of habitats. Slovenia, Bulgaria, Slovakia and Hungary assigned NATURA 2000 areas in a ratio above the EU27 average compared to their own areas.</p> <p>In last decades the change in the land-cover of the Danube Region increased the fragmentation of the habitats.</p>	<p>Restoration of wetland areas which are in direct contact with aquifers.</p> <p>Prevention of deterioration of groundwater quantity as well as the deterioration of dependent terrestrial ecosystems.</p>
<p><b>Air and Climate factors</b></p> <p><b>Climate Change</b></p>	<p>With reference to air quality the main pollution sources are related to transports, industrial activities and winter heating in some part of the region. Less important contributions for CO and PM10 emissions are coming from the agriculture, forest and livestock farming sectors.</p> <p>The increase of the concentration of greenhouse gases is the most significant effect among the processes of human origin which impact on the climate. The emission of the Danube River Basin was favourable in most of the relevant countries in 2008 except for the Czech Republic and Slovakia.</p> <p>Based on the study on Climate Change in the Danube Basin prepared by International Commission for the Protection of the Danube River (ICPDR) the increase of the air temperature is expected with a gradient from northwest to southeast, annually and in all season. Changes in the seasonal runoff pattern, triggered by changes in rainfall distribution and reduced snow storage and increasing evapotranspiration are predicted (especially in the Mediterranean and south-eastern areas). Droughts, low flow situations and water scarcity are likely to become more intense, longer and more frequent; an increase of water temperature and increased pressures on water quality are expected</p>	<p>Implementation of water scarcity and water efficiency indicators, sustainable and green transportation, support of economies aiming at low carbon dioxide emission has to be promoted.</p> <p>Integration of water management into other sectoral policies such as agriculture, forestry, navigation and water related energy production has to be performed.</p> <p>Joint actions regarding climate change are connected to sustainable growth in the frames of EU policies.</p>
<p><b>Landscape</b></p>	<p>The Danube Region has diverse landscape properties. The macro region-wide richness of natural resources pose as an outstanding potential for the diversification of rural development.</p> <p>Measures that impact on the creation of an integrated landscape, especially the rehabilitation of environmentally degraded areas, and the new,</p>	<p>Integration of landscape management into regional, town planning, cultural, environmental, agricultural, social and economic policies should be adopted.</p> <p>Increasing awareness of the</p>



	<p>antropogenous activities integrated into nature, and the implementation of traditional forms of agriculture (animal grazing, field management).</p> <p>The development of the transport network, change in land use, logging and fires are the main reasons for the fragmentation of ecosystems and deterioration of landscape.</p>	<p>value of landscapes, their role and changes to them promoting training and education in landscape policy, protection, management and planning.</p> <p>Ensure protection of natural and cultural landscape (e.g. by revitalization of brownfields, increasing the proportion of grasslands, croplands and pastures, organic farming within the agricultural land use).</p>
<b>Population and human health</b>	<p>The region is featured of disparity according to surveyed issues of the social cohesion (e.g. ageing, migration, natural increase, social, ethnic and labour force migration), the slope from North-West to South-East is observed almost in every surveyed aspect. There are strong east-west inequalities in accessibility to the essential public services. It is an aim to reduce the number of diseases due to harmful environmental effects by mitigating the pollution of environmental factors (e.g. air quality, access to clean water, noise )</p>	<p>Measures should be taken in order to achieve the health and well-being object of the 7th Environmental Action Programme (EAP).</p>
<b>Material assets, cultural heritage including architectural and archaeological heritage</b>	<p>The region has large number of cultural heritage sites with common cultural roots; large number of natural heritage sites with similar natural endowments large number of world heritage sites.</p> <p>Certain heritage sites may be in danger due to climate change. The comparative heritage sites lose their attractiveness to other tourist attractions.</p>	<p>Protection and preservation as well as sustainable management and planning of European cultural and natural heritage.</p>
<b>Energy resources</b>	<p>Although the Danube region has good conditions for green energy utilization, high level of consumption, low energy efficiency, high share of fossil fuels in final consumption is typical, especially in the eastern regions.</p> <p>While there is a relatively high rate of biomass energy and hydropower utilization, lack of other alternative renewable energy sources is dominant, the smart grid construction is slow in the majority of the region.</p>	<p>The exploitation of significant potentials in other green energies such as geothermal, wind and solar energy will be carried out.</p> <p>The development and macro-regional integration of different energy networks and of the internal market has to be promoted in order to have more favourable prices and to reduce energy dependency.</p>
<b>Mobility and transport</b>	<p>Western regions and Central-European capital cities have a good accessibility between each other and the economic backbone of EU. Lack of integrated and multimodal transport systems on the southern</p>	<p>Developing transnational environment-friendly and low-carbon transport systems.</p>

	<p>south-eastern part can be observed.</p> <p>The Rhine-Danube trans- European axis is a high traffic waterway. Navigability varies on different segment of the Danube.</p>	<p>Sustainable development of waterways.</p>
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## 2.6. RELEVANT PLANS, PROGRAMMES AND ENVIRONMENTAL PROTECTION OBJECTIVES

The SEA analysis identifies the key international documents in terms of the environment link with the Operational Programme of the Danube Transnational Co-operation Programme 2014. The list of relevant international legal and policy framework is presented in ANNEX 2. The table represents the relevant environmental objectives derived from the presented framework and guiding questions for each environmental issue.

The table in ANNEX 2 also represents the connection of the environmental issues to the TO's of present OP.

The Operational Programme reinforces the targets of the Europe 2020. The Operational Programme contributes to the sustainable growth, aims to reduce energy consumption and to increase the use of renewable energy. **The following thematic objectives and investment priorities contribute to the Climate change and energy sustainability targets of the EU by 2020.**

EU2020 target	Envisaged thematic objectives and investment priorities
greenhouse gas emissions 20% <b>(or even 30%, if the conditions are good)</b> lower than in 1990	TO7 Promoting sustainable transport and removing bottlenecks in key network infrastructure  7b: enhancing regional mobility by connecting secondary and tertiary nodes to TEN-T infrastructure, including multimodal nodes  7c: developing and improving environmentally-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
20% of energy from renewables	TO7 Promoting sustainable transport and removing bottlenecks in key network infrastructure  7e: improving energy efficiency and security of supply through the development of smart energy distribution, storage and transmission systems and through the integration of distributed generation from renewable sources
20% increase in energy efficiency	TO6 Preserving and protecting the environment and promoting resource efficiency  6f: promoting innovative technologies to improve environmental

	<p>protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution</p> <p>6d: protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure</p> <p>TO7 Promoting sustainable transport and removing bottlenecks in key network infrastructure</p> <p>7e: improving energy efficiency and security of supply through the development of smart energy distribution, storage and transmission systems and through the integration of distributed generation from renewable sources</p>
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The Operational Programme also contributes to EU transport policies, to the TEN-T with its TO7 Promoting sustainable transport and removing bottlenecks in key network infrastructure.

### 3. DETERMINING THE LIKELY SIGNIFICANCE OF EFFECTS

The effects of the Danube Transnational Co-operation Programme 2014 have been determined by the specificity of the programme and the type of actions planned as likely significant, have cumulative nature according to the criteria of the European Directive 2001/42/EC on the assessment of effects of certain plans and programmes on the environment –ANNEX II.

According to the characteristics of the Danube Transnational Co-operation Programme 2014:	
- the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources	considerably
- the degree to which the plan or programme influences other plans and programmes including those in a hierarchy	even tempered
- the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development	considerably
- environmental problems relevant to the plan or programme	to a high degree
- the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection)	facilitates this type of implementation
According to the characteristics of the effects:	
- the probability, duration, frequency and reversibility of the effects	widely
- the cumulative nature of the effects	widely cumulative
- the transboundary nature of the effects	in respect to the partner countries
- the risks to human health or the environment (e.g. due to accidents)	risk exists
- the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)	widely
- social and economic processes are assumable that may have environmental	considerably

consequences indirectly	
- the effects on areas or landscapes which have a recognised national, Community or international protection status	interventions may affect protected areas
<b>According to the value and vulnerability of the programme area – likely to be affected:</b>	
- due to the specific natural characteristics or cultural heritage	such areas may be affected
- due to the exceeded environmental quality standards or limit values	such areas may be affected
- due to intensive land use (such as areas of intensive agricultural or forestry growing, production, areas with dense population, etc.)	such areas may be affected

The Danube Transnational Co-operation Programme 2014 puts the main focus on the protection of the environment and meeting climate change challenges, on the support of transport, research and technological developments. The potential impacts are refereeing also to environmental purposes and to sustainable development.

## 4. DEFINING THE SCOPE OF THE ASSESSMENT

### 4.1. 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 international regulatory standards. 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.

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.

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).

The following table provides the overview of the proposed indicators for each environmental issue. (The final indicators for the environmental report will be determined by the availability of reliable data, the final thematic objectives and investment priorities, the proposed actions of the operational programme.)

Environmental issue	Relevant environmental objectives and possible indicators
Water (surface waters, groundwaters)	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Reducing organic, nutrient and hazardous substance pollution, prevention</p>

	<p>of accidental pollution incidents</p> <p>Improvement of the ecological and chemical status of surface waters and groundwater</p> <p>Promoting sustainable use of water resources by appropriate controls over the abstraction of fresh surface water and groundwater</p> <p>Prevention from and reduction of flood risks (Common approach in assessment and mapping of flood-risk)</p> <p>Promotion of management of urban waste water (increasing the proportion of connection to sewage system and WWT)</p> <p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- Gross nutrient balance of water bodies</li> <li>- Water exploitation index (WEI)</li> <li>- Number of flood events</li> <li>- Percentage of people connected to waste water collection and treatment</li> </ul>
<p><b>Soil and geological medium</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Prevention and reduction of soil contamination</p> <p>Help to maintain soil functions on the highest possible level (according to Thematic Strategy for Soil Protection (EC 2006a,b)</p> <p>Promoting sustainable land-use (e.g. supporting of High Nature Value (HNV) farming, revitalization of brownfields, recultivation of old landfills)</p> <p>Reduce waste generation, increase waste recovery and recycling.</p> <p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- Progress in management of contaminated sites</li> <li>- Number of projects</li> <li>- Trend in generation of municipal waste</li> </ul>
<p><b>Biodiversity, flora, fauna</b></p> <p><b>NATURA 2000</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Protection and promotion of natural habitats (e.g. within the NATURA 2000 network)</p> <p>Help to decrease the fragmentation of habitat or species (both aquatic and terrestrial), promoting green infrastructures, restoration of wetland areas which are in direct contact with aquifers.</p> <p>Help to stop and prevent the spread of invasive alien species.</p> <p>Promotion of common management off cross-border ecosystems and habitats</p> <p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- number/extension of affected NATURA 2000 sites (No., km<sup>2</sup>)</li> </ul>



	<ul style="list-style-type: none"> <li>- extent of established corridors and/or ecosystems (km<sup>2</sup>)</li> <li>- number of affected species (No.)</li> <li>- number of generated projects (No.)</li> </ul>
<p><b>Air and Climate factors</b></p> <p><b>Climate Change</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Reduction of air pollution (e.g. to prevent acidification, eu-trophication and ground-level ozone pollution)</p> <p>Reduction of the GHG emissions (min. 18 % below 1990 in the period 2013-2020).</p> <p>Improving common risk assessment and management system for natural and industrial risk sites connected to climate change.</p> <p>Help to decrease vulnerability to the climate change (e.g. sustainable water resource management, green infrastructures, use of drought tolerant plants)</p>
	<p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- Progress towards emission limit targets of the Kyoto Protocol</li> <li>- Measured value of GHG emissions (per country)</li> <li>- Number of projects.</li> <li>- Number of projects, number of management plans, reports</li> </ul>
<p><b>Landscape</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Increasing awareness of the value of landscapes, their role and changes to them promoting training and education in landscape policy, protection, management and planning.</p>
	<p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- Number of projects.</li> </ul>
<p><b>Population and health</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p> <p>Prevention from environmental noise exposure .</p> <p>Prevention and reduction of diseases and negative health impacts caused by environment-related threats.</p> <p>Reduce existing disparities in accesibility to the essential public services.</p>
	<p><b><u>Proposed indicators and dimensions:</u></b></p> <ul style="list-style-type: none"> <li>- Complaints about noise exposure</li> <li>- Environment-related diseases</li> <li>- Proportion of people with accessibility to the essential public services.</li> </ul>
<p><b>Material assets,</b></p>	<p><b><u>Environmental objectives relevant to the Danube programme and to the programme area:</u></b></p>

<b>cultural heritage including architectural and archaeological heritage</b>	Protection and preservation as well as sustainable management and planning of European cultural and natural landscape Promoting of sustainable use of material resources
	<b>Proposed indicators and dimensions:</b> <ul style="list-style-type: none"> <li>- World Heritage List</li> <li>- World Heritage in Danger list</li> <li>- Use of material resources</li> </ul>
<b>Energy resources</b>	<b>Environmental objectives relevant to the Danube programme and to the programme area:</b> Improvement of energy efficiency (by 20% by 2020 ) Increase of use of renewables (20 % of renewable energy by 2020)
	<b>Proposed indicators and dimensions:</b> <ul style="list-style-type: none"> <li>- Progress in energy efficiency</li> <li>- Share of renewable energy to final energy consumption</li> </ul>
<b>Mobility and transport</b>	<b>Environmental objectives relevant to the Danube programme and to the programme area:</b> Reduction of carbon emissions deriving from transport (by 60 % by 2050) Promotion of environmentally sustainable transport (rail and inland navigation)
	<b>Proposed indicators and dimensions:</b> <ul style="list-style-type: none"> <li>- Emission values per mode of transport</li> <li>- Transport volume in relation to GDP</li> </ul>

## 4.2. BASELINE INFORMATION

Information needs to be collected in the frame of the environmental assessment to identify the environmental issues and trends that characterise the Danube Region. This provides the bases for identification and monitoring of environmental effects of the programme. The data used in the environmental report will be based on statistical sources.

Determination of initial status has to be based on proper regional/ territorial database, according to NUTS-classification.

The data collection can be based on EUROSTAT data in the European Economic Area, and in the EU-Candidate countries. Besides the EUROSTAT database, on-line database of the partner countries can be applicable. Former contains mainly national data, while the latter can be used to gain regional/territorial information on the relevant eligible area.

In the non-member states the national statistical data will be also applied, on the understanding, that the statistical classification and data are comparable. World Bank and UN statistics could also provide comparable indicators.

For specific (e.g. environmental) information, special databases are available, depending on the given scope, e.g. national reports on the state of the environment or nature conservation data or equivalents to these in the different partner states on the field of nature protection, Nature Conservation Information System for map displaying the protected areas, Air Quality Protection Information System.

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

## 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 <sup>2</sup> ) number of affected species (No.) extent of established corridors and/or ecosystems (km <sup>2</sup> )	

### 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 derived from environmental protection objectives derived from environmental policies at EU and national level. A catalogue in a table 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 over complexity 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															
		Soil and geological medium				Biodiversity, flora, fauna Natura 2000				etc.							
Priority axes 1	Thematic objective ..																
Investment priority ...		L++	K+	K+	L+	K+	O	L+	K+	O	L	K++	L+	K+	O	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 O 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 all cases 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		
Water: -	Soil and geological medium: -	Biodiversity, flora, fauna, NATURA 2000: +
Air and climate factors: -	Landscape: o	Population / human health: o
Material Assets etc.: o	Waste and material resources: +	Energy resources: o
Mobility and transport: +		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, in 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.

## 6. SEA PROCEDURE

The SEA process is planned with the following steps:

Timing planned	Steps of the SEA Procedure	Documents for the undertaken steps
<b>SCOPING PHASE</b>		
Preconditions: <ul style="list-style-type: none"> <li>Accepted territorial analysis and final thematic objectives and investments priorities</li> </ul>		
April 2014	Scoping phase – the elaboration of the scoping report	Scoping report
April 2014	Screening stage – involved in the scoping stage	Screening statements are involved in the scoping report
May 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 the partner countries with the availability of the scoping report
Jun 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
<b>ENVIRONMENTAL REPORT</b>		
Preconditions: <ul style="list-style-type: none"> <li>Final draft OP, any delay in the preparation of the OP means delay for the drafting of the SEA report</li> </ul>		
Jun 2014	Interviews with the most important stakeholders (authorities, ministries)	Interview drafting  Interview minutes
20 days from the	Elaboration of the environmental report	final Draft OP



availability of the final draft OP		Draft report
expectedly July 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
expectedly July 2014	Announcement of public hearing 60 days before the public debate	Draft announcements
expectedly July 2014	Official information of the finalization of the draft environmental report Start of the consultation with 60 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
expectedly Sept 2014	Public hearing/debate	Minutes of the workshop
<b>FINAL ENVIRONMENTAL REPORT and finalisation of the process</b>		
expectedly Sept 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
expectedly Sept 2014	Decision on the report and OP in the partner countries	Official letter and decision
expectedly Sept 2014	Official notification on the decision	Official letter
expectedly Sept 2014	Publication of the final environmental report and SEA statement	Publication

## 6.1. CONSULTATIONS

The SEA Directive 2001/42/EC requires that during the SEA procedure consultation should be carried out twice.

### **Consultation on the Scope:**

According to Art.5 (4) of the SEA Directive the Scoping Report has to be consulted with the relevant environmental authorities in order to receive their professional opinion on the draft scoping report. Environmental authorities have 30 days to send their remarks in English language. 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 a summary 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 are required to be made available to the relevant authorities and the public.

In case of the present Operational Programme, consulted authorities will be the respective Ministries of Environment or its equivalent in the state concerned.

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

- Notification to be sent out to the environmental authorities in the partner countries: official starting day of the consultation
- E-mail invitation of main stakeholders to participate in the consultation
- Announcements in newspapers in partner countries where it is necessary on the opening of the consultation process
- The draft environmental report and the OP draft as well as an announcement document will be published on the Programme's website by the future MA
- Consultation to be held in all concerned countries: 60 days will be available to comment on the draft environmental report. The 60-day-period starts from the publication of the documents on the Programme's website. The deadline for the consultation will be indicated in the announcement. Non-reception of comments will be considered as

approval of the document. Comments are to be made in written form and in English language either on the web-page or in e-mail.

- Collection and processing of comments
- Public debate will be organised after the 60-day-consultation. The public debate will be announced 60 days before its date.
- Preparation of a proposal on how the received comments would be integrated into the Programme or refused (with justification)
- Amending the programme: according to the result of the consultation process
- 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 website<sup>1</sup> where the documents will be available: <https://www.nth.gov.hu/en>
- Comments could be sent to the following e-mail address: [danube@nth.gov.hu](mailto:danube@nth.gov.hu)
- Language of the public debate **is 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 every partner state the public authority responsible for the Danube Transnational Programme will serve as a first contact point for the future Managing Authority. The responsible public authority for the Danube Transnational Programme in every partner country will send the official requests for participation in the consultation for the national SEA responsible authorities.

The public authorities will make the information/announcement available on the officially designated website of their countries, and will send the official notification for consultation to national authorities as well as to stakeholders. These first contact points will take steps for announcing it in the media if necessary (central or local media may be also used).

In case translation of the documents is required into a language other than English, it is to be carried out at national level.

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<sup>1</sup> Website of the Office for National Economic Planning (hosting the future Managing Authority)

### List of public authorities responsible for the SEA process:

Austria	Federal Chancellery Ministry of Environment
Slovak Republic	Ministry of Environment of the Slovak Republic
Czech Republic	Ministry of the Environment of the Czech Republic - Department of EIA and Integrated Prevention, Unit of SEA
Germany	Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung e. V.
Hungary	National Inspectorate For Environment, Nature and Water Ministry of Rural Development
Slovenia	Ministry of Agriculture and the Environment - Environment Directorate
Romania	Ministry of Environment and Climate Change - Generale Directorate for Environment Directorate for Pollution Control and Impact Assessment Impact Assessment Unit
<b>Ukraine</b>	
Bulgaria	Ministry of Environment and Water of Republic of Bulgaria (MoEW ) Ministry of Health Directorate „Public Health”
Croatia	Ministry of Environmental and Nature Protection - Sector for Assessment on the Environment and Industrial Pollution Ministry of Regional Development and EU funds
Serbia	Department for Environmental Planning and Management, Ministry of Energy, Development and Environmental Protection
Bosnia Herzegovina	Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina - Sector for Natural Resources, Energy and Environmental protection
Montenegro	Environmental Protection Agency of Montenegro Ministry of Health ( <a href="http://www.mzd.gov.me/en/ministry">www.mzd.gov.me/en/ministry</a> )
Republic of Moldova	Ministry of Environment of Republic of Moldova

### **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 gives the opportunity to the stakeholders (i.e. institutions, environmental agencies, NGOs, representatives of the public and those target groups that will be potentially affected by the possible environmental impacts of the implementation of the Operational Programme) to express their opinion.

# ANNEX 1: PROPOSED STRUCTURE OF THE SEA REPORT

## **1. NON-TECHNICAL SUMMARY**

### **2. SCOPE**

- background
- sources of information used for the preparation of the environmental evaluation, limitations of the method applied, difficulties
- involvement of the bodies responsible for the protection of the environment and the concerned public, and taking account of their opinions and consideration during the preparation of the environmental evaluation, as well as a summary justification;
- relationship with other parts of the planning process;

### **3. BACKGROUND**

#### *3.1. Programme justification and purpose*

#### *3.2. Alternatives*

#### *3.3. Environmental policy, legislative and planning framework*

- outline of the programme content, main objective
- legislative, geographical, and time frame

### **4. ENVIRONMENTAL BASELINE STUDY**

- environmental characteristics of the area likely to be affected
- a description of the elements of the current environmental conditions relevant for the plan or program
- identification of the environmental characteristics that are likely to be significantly affected by the implementation of the plan or program;
- a description of other characteristics of the environmental conditions
- a description of the current environmental conflicts and problems

### **5. APPROACH AND METHODOLOGY**

#### *5.1. General approach*

#### *5.2. Geographical or environmental mapping units*

#### *5.3. Assumptions, uncertainties and constraints*

### **6. IMPACT IDENTIFICATION AND EVALUATION**

- evaluation of the measures included in the operational programme
- an assessment of the factors and causes of the direct or indirect environmental effects
- a prognosis of the likely environmental effects and consequences of implementing the plan or program
- special emphasis will be given on environmental issues, flora, fauna, soil, water, air, NATURA 2000 areas, quality of life, transport and mobility, population and human health, natural and cultural heritage, biodiversity and climate change, material assets, landscape, energy

### **7. ANALYSIS OF ALTERNATIVES**

- evaluation of the operational programme alternatives and the identification of the environmentally acceptable alternatives

## **8. MITIGATION OR OPTIMISING MEASURES**

- environmental efficiency of the operational programme

## **9. INDICATORS AND INSTITUTIONAL CAPACITIES**

### **10. CONCLUSIONS AND RECOMMENDATIONS**

10.1. *General conclusions*, Effectiveness from the environmental point of view

10.2. *Recommendations for programme formulation*

10.3. *Recommendations for programme enhancement*

- proposals on environmental measures, provisions, conditions and criteria that should be taken into consideration

### **11. SEA MONITORING AND FOLLOW UP MEASURES**

- proposals for monitoring the likely environmental effects and for other required measures

## **12. TECHNICAL APPENDICES**

### **13. OTHER APPENDICES**

- recommendations on specific impact identification and evaluation methodologies to be used in the SEA report
- proposal for timeframes and resources needed for the SEA report

## ANNEX 2: LIST OF RELEVANT LEGAL AND POLICY FRAMEWORK INCLUDING GUIDING QUESTIONS

Protected good	Relevant EU Legislation and Policies	Relevant environmental objectives	Guiding questions	Connection with Thematic objectives and investment priorities ** - strong connection * - existing connection O – neutral relationship
Water (surface waters, ground water)	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) Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) Stockholm Convention on POPs Floods Directive (2007/60/EC) The ICPDR Action Programme on Sustainable Flood Protection The ICPDR Danube River Basin District Management Plan 2009 Review of the EU Sustainable Development Strategy COM (2009) 400	Reducing organic, nutrient and hazardous substance pollution, prevention of accidental pollution incidents Improvement of the ecological and chemical status of surface waters and groundwater Promoting sustainable use of water resources by appropriate controls over the abstraction of fresh surface water and groundwater Prevention from and reduction of flood risks (Common approach in assessment and mapping of flood-risk) Promotion of management of urban waste water (increasing the proportion of connection to sewage system and WWT)	Will the programme have effect on pollution prevention and reduction on water bodies? Will the programme have effect on the increasing of ecological and chemical status of surface waters and groundwater? Will the programme help the sustainable water resource management? Will the programme help the sustainable water resource management? Will the programme help flood risk mitigation? Will the programme help increasing the connection rate to sewage system and WWT in the region?	TO1 IP1b O  TO5 IP5b **  TO6 IP6b ** TO6 IP6c ** TO6 IP6d * TO6 IP6f **  TO7 IP7b ** TO7 IP7c * TO7 IP7e *  TO11 *
Soil and geological	Soil Thematic Strategy (COM (2006) 231)	Prevention and reduction of soil contamination	Will the programme affect the increasing of soil quality?	TO1 IP1b O



<p>medium</p>	<p>Proposal for a Soil Framework Directive (COM (2006) 232)                  Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)                  Directive 2008/98/EC on waste Landfill of waste (99/31/EC)                  Hazardous Waste (91/689/EEC)                  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 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 Framework Directive (2008/98/EC)                  Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)                  7th Environmental Action Programme</p>	<p>Help to maintain soil functions on the highest possible level (according to Thematic Strategy for Soil Protection (EC 2006a,b)                  Promoting sustainable land-use (e.g. supporting of High Nature Value (HNV) farming, revitalization of brownfields, recultivation of old landfills)                  Reduce waste generation, increase waste recovery and recycling.</p>	<p>Will the programme help to maintain soil functions on highest possible levels?                  Will the programme promote sustainable land use?                  Will the programme reduce waste generation, increase waste recovery and recycling?</p>	<p>TO5 IP5b *                  TO6 IP6b **                  TO6 IP6c **                  TO6 IP6d **                  TO6 IP6f **                  TO7 IP7b **                  TO7 IP7c *                  TO7 IP7e *                  TO11 **</p>
<p>Biodiversity, flora, fauna                  NATURA</p>	<p>Habitats (92/43/EC)                  Birds (79/409/EEC)                  EU 2020 Biodiversity Strategy</p>	<p>Protection and promotion of natural habitats (e.g. within the NATURA 2000 network)</p>	<p>Will the programme have an effect on promotion and protection of natural habitats?</p>	<p>TO1 IP1b O</p>

<p>2000</p>	<p>UN Convention on Biological Diversity Ramsar Convention IUCN Global Species Programme 2006/44/EC Fish Directive 2006/113/EC Shellfish Directive 2009 Review of the EU Sustainable Development Strategy COM (2009) 400 COM(2006) 302 (on an EU Forest Action Plan 2007-2011);</p>	<p>Help to decrease the fragmentation of habitat or species (both aquatic and terrestrial), promoting green infrastructures, restoration of wetland areas which are in direct contact with aquifers. Help to stop and prevent the spread of invasive alien species. Promotion of common management off cross-border ecosystems and habitats</p>	<p>Will the programme effect the decrease of habitat and species fragmentation? Will the programme help to stop and prevent the spread of invasive alien species? Will the programme promote the common management off cross-border ecosystems and habitats?</p>	<p>TO5 IP5b ** TO6 IP6b ** TO6 IP6c ** TO6 IP6d ** TO6 IP6f ** TO7 IP7b ** TO7 IP7c * TO7 IP7e * TO11 **</p>
<p>Air and climate factors Climate change</p>	<p>EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC) Thematic Strategy on Air Pollution (COM (2005) 446)* EU Strategy on Climate Change” Winning the battle against global climate change” (COM (2005) 35) Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998 Directive 2010/75/EC on industrial emissions (IPPC, LCP) Stockholm Convention on POPs European Climate Change Programme</p>	<p>Reduction of air pollution (e.g. to prevent acidification, eutrophication and ground-level ozone pollution) Reduction of the GHG emissions (min. 18 % below 1990 in the period 2013-2020). Improving common risk assessment and management system for natural and industrial risk sites connected to climate change. Help to decrease vulnerability to the climate change (e.g. sustainable water resource management, green infrastructures, use of drought tolerant plants)</p>	<p>Will the programme have an effect on the reduction of the air pollution? Will the programme have an effect on the GHG emissions? Will the programme effect the improvement of common risk assessment and management system for natural and industrial risk sites connected to climate change? Will the programme help to decrease vulnerability to the climate change?</p>	<p>TO1 IP1b * TO5 IP5b ** TO6 IP6b ** TO6 IP6c * TO6 IP6d ** TO6 IP6f ** TO7 IP7b ** TO7 IP7c ** TO7 IP7e ** TO11 *</p>

<p>Landscape</p>	<p>European Landscape Convention 2000 UNESCO World Cultural and Natural Heritage Convention 1972</p>	<p>Increasing awareness of the value of landscapes, their role and changes to them promoting training and education in landscape policy, protection, management and planning.</p>	<p>Will the programme increase awareness of the value and role of landscapes?</p>	<p>TO1 IP1b O TO5 IP5b ** TO6 IP6b * TO6 IP6c ** TO6 IP6d ** TO6 IP6f ** TO7 IP7b ** TO7 IP7c ** TO7 IP7e ** TO11 **</p>
<p>Population and human health</p>	<p>Environmental Noise Directive (END) (2002/49/EC) WHO Night Noise Guidelines for Europe (2009) EU Health for Growth Programme (2014-2020) (COM (2011) 709) EU Health Strategy "Together for Health" (2008-2013)* WHO Parma Declaration on Environment and Health 2010 7th Environmental Action Programme</p>	<p>Prevention from environmental noise exposure . Prevention and reduction of diseases and negative health impacts caused by environment-related threats. Reduce existing disparities in accessibility to the essential public services.</p>	<p>Will the programme have an effect on noise exposure prevention? Will the programme affect the prevention and reduction of diseases and negative health impacts caused by environment-related threats? Will the programme reduce existing disparities in accessibility to the essential public services?</p>	<p>TO1 IP1b ** TO5 IP5b * TO6 IP6b * TO6 IP6c ** TO6 IP6d * TO6 IP6f ** TO7 IP7b ** TO7 IP7c ** TO7 IP7e **</p>

				TO11 *
Material assets, cultural heritage including architectural and archaeological heritage	UNESCO World Cultural and Natural Heritage Convention 1972 European Landscape Convention 2000	Protection and preservation as well as sustainable management and planning of European cultural and natural landscape Promoting of sustainable use of material resources	Will the programme promote the sustainable management and planning of European cultural and natural landscape? Will the programme promote the sustainable use of material resources?	TO1 IP1b O TO5 IP5b * TO6 IP6b ** TO6 IP6c ** TO6 IP6d ** TO6 IP6f ** TO7 IP7b * TO7 IP7c * TO7 IP7e * TO11 **
Energy resources	Energy Efficiency Directive (2012/27/EU) Renewable Energy Directive (RED) (2009/28/EC) Energy Efficiency Action Plan (2011) EU Climate and Energy Package 2020 7th Environmental Action Programme	Improvement of energy efficiency (by 20% by 2020 ) Increase of use of renewables (20 % of renewable energy by 2020)	Will the programme have an effect on improvement of energy efficiency (by 20% by 2020 )? Will the programme have an effect Increase of use of renewables (20 % of renewable energy by 2020)?	TO1 IP1b * TO5 IP5b * TO6 IP6b * TO6 IP6c * TO6 IP6d ** TO6 IP6f ** TO7 IP7b **

				<p>TO7 IP7c *</p> <p>TO7 IP7e **</p> <p>TO11 *</p>
Mobility and transport	<p>Climate and Energy Package 2020 White paper 2011 - Roadmap to a Single European Transport Area</p>	<p>Reduction of carbon emissions deriving from transport (by 60 % by 2050)</p> <p>Promotion of environmentally sustainable transport (rail and inland navigation)</p>	<p>Will the programme have an effect on reduction of carbon emissions deriving from transport (by 60 % by 2050).</p> <p>Will the programme have an effect on Promotion of environmentally sustainable transport (rail and inland navigation)?</p>	<p>TO1 IP1b O</p> <p>TO5 IP5b O</p> <p>TO6 IP6b *</p> <p>TO6 IP6c **</p> <p>TO6 IP6d *</p> <p>TO6 IP6f **</p> <p>TO7 IP7b **</p> <p>TO7 IP7c **</p> <p>TO7 IP7e **</p> <p>TO11 *</p>

## ANNEX 3: CONSULTATION AND COMMENTS RECEIVED ON THE SCOPING REPORT

To be included following the consultation phase.

Comments from the Environmental Authorities and other stakeholders	Answer on the Comment	Is there consistency between the comment and the scoping statements?
	Answer:  Related chapter:	

