



# Strategic Environmental Assessment

Practice-Orientated Training for Policy Makers,  
Administration Officials, Consultants and NGO Representatives

TRAINING MANUAL

EaP GREEN PROGRAMME



# Content

Introduction .....	3
Overview matrix: SEA tasks .....	5
Case Study: Regional Development Programme of Rumburec Region.....	6
Case Work A: Link programme and SEA .....	11
Case work B: Determine the right issues and scope of assessment.....	16
Case work C: Analyze the baseline trends .....	24
Case work D: Analyze proposed development priorities .....	28
Case work E: Assess cumulative impacts of proposed activities and their optimization .....	33
Case work F: Use effective means of participation .....	40
Case work G: Ensure reflection of SEA results in decision-making as well as an adequate management and monitoring system for implementation .....	45
Annex 1: IAIA Performance Criteria of SEA.....	48
Annex 2: Sources & Key references on SEA.....	50

## Introduction

### Background

Strategic Environmental Assessment (SEA) is a primary tool for ensuring that environmental, including health, considerations are thoroughly taken into account in the development of plans and programmes. SEA promotes sustainable development by mainstreaming the environment into economic and social development and integrating green economy and sustainable consumption and production targets into strategic decision-making process.

During recent years Belarus indicated determination for adoption of SEA into the national legislation, and with the help of international assistance conducted several pilot SEA projects. In 2013 ECE together with UNDP and UNEP started a project “Managing Environment and Security Risks with Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA)” funded by the Environment and Security Initiative. The objective of the project is to build administrative capacity and enhance legal and institutional development for applying SEA and transboundary EIA procedures to projects and plans subject to environment and security challenges in Belarus.

In order to increase prospects for Belarus to systematically apply SEA for plans and programmes in accordance with the UNECE Protocol on Strategic Environmental Assessment to the of the UNECE Convention on Environmental Impact Assessment in Transboundary Context (Espoo Convention), UNECE, UNDP and UNEP in close cooperation with the Ministry of Natural Resources and Environment Protection Belarus will organize a series of three local level training workshops to provide a step-by-step guidance on application of the SEA as a tool in the strategic decision-making on regional and local levels.

The technical advice and training on SEA in Belarus are part of a broader technical advice and capacity building project funded in the framework of the EaP GREEN Programme “Greening economies in the European Union’s Eastern Partnership countries”.

### About the training approach and the training manual

The training employs innovative methods by intensively exploiting opportunities for action learning and group work. In line with the casework methodology of the Harvard Business School, the training focuses on practical approaches to SEA. This methodology allows discussions on locally appropriate SEA approaches (based on insights put forward by the participants). Furthermore, conclusions will be formulated through joint debate rather than providing ‘ready-made’ teaching messages. Using different materials, participants of the training will design and apply an SEA to the Regional Development Programme of the the fictitious “Rumburec Region”.

This training is based on the OECD Development Assistance Committee (DAC) Guidance: Applying Strategic Environmental Assessment. Good Practice Guidance for Development Co-operation, Paris 2006 (<http://www.seataskteam.net>) and the UNECE Resource manual to support Application of the UNECE Protocol on Strategic Environmental Assessment (<http://www.unece.org/env/sea/>) and it promotes the provisions of UNECE Protocol on Strategic Environmental Assessment.

The training manual was developed by a consultant team consisting of Jiri Dusik, Alfred Eberhardt and Felipe Perez supported by Harald Lossack, Axel Olearius and Jan-Peter Schemmel (GTZ).

The fictitious case study on the Regional Development Programme of the Rumburec Region has been prepared by Martin Smutny and Michal Musil (Integra Consulting Ltd.)

Welcome to the fictitious “Rumburec Region”!

### **Understanding SEA**

*(According to OECD SEA Guidance)*

*“SEA refers to a range of ‘analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter inter linkages with economic and social considerations’ SEA can be described as a family of approaches which use a variety of tools, rather than a single, fixed and prescriptive approach. A good SEA is adapted and tailor-made to the context in which it is applied. This can be thought as a continuum of increasing integration: at one end of the continuum, the principle aim is to integrate environment, alongside economic and social concerns, into strategic decision making; at the other end, the emphasis is on the full integration of the environmental, social and economic factors into a holistic sustainability assessment.”*

# Overview matrix: SEA tasks

“Typical” planning of plans, programmes and policies (P/P/P), the preparatory, analytical and participatory tasks of SEA and the principal steps of SEA (OECD)

“Typical” strategic planning of P/P/P (depend on context)	Preparatory, analytical and participatory task within SEA (SEA Training)	Principal steps of SEA (according to OCDE SEA Guidance, 2006)
Planners →		← SEA experts
<p><b>Identification of current problems and issues</b></p> <p><b>Formulation of objectives and priorities of the programme</b></p> <p><b>Formulation of measures to implement the strategy</b></p> <p><b>Propose implementation and monitoring arrangements</b></p>	<ul style="list-style-type: none"> <li>• Link P/P/P and SEA, design appropriate strategy for SEA</li> <li>• Determine the right issues and scope of assessment</li> <li>• Analyze the baseline trends</li> <li>• Assess proposed <u>development priorities</u> and their alternatives</li> <li>• Assess cumulative impacts of proposed <u>activities</u> and propose their optimizing</li> <li>• Use effective means of participation</li> <li>• Ensure reflection of SEA results in decision-making as well as sufficient management and monitoring system for implementation</li> <li>• Manage SEA efficiently within budgetary and time constraints</li> </ul>	<p><b>1. Establishing the context for the SEA</b></p> <ul style="list-style-type: none"> <li>• Screening + planning of SEA</li> <li>• Setting objectives</li> <li>• Identifying stakeholders</li> </ul> <p><b>2. Undertaking the SEA and preparation of SEA report</b></p> <ul style="list-style-type: none"> <li>• Scoping (in dialogue with stakeholders)</li> <li>• Collecting baseline data</li> </ul> <p><i>Undertaking analyses</i></p> <ul style="list-style-type: none"> <li>• Identifying alternatives</li> <li>• Identifying how to enhance opportunities and mitigate impacts &amp; risks</li> <li>• Quality assurance</li> <li>• Reporting</li> </ul> <p><b>3. Informing and influencing decision-making</b></p> <ul style="list-style-type: none"> <li>• Making recommendations (in dialogue with stakeholders)</li> </ul> <p><b>4. Monitoring and evaluating</b></p> <ul style="list-style-type: none"> <li>• Monitoring decisions taken on the PPP</li> <li>• Monitoring implementation of the PPP</li> <li>• Evaluation of both SEA and PPP</li> </ul>

# Case Study: Regional Development Programme of Rumburec Region

## Overall Context

### ***Geography***

The Rumburec Region is located in the north of the Centia Republic with a total area of 3,163 km<sup>2</sup>. The Region occupies 4% of the area of the Centia Republic, making it the second smallest region in the country. The territory includes the northern part of the Trechov kotlina basin, Mizerske hory (the Mizera Mountains), the western part of Rakonoce (the Giant Mountains) including their foothills, and the eastern part of Rumické hory (the Rumice Mountains). The northern part of the region has a 20-km border with the Federal Republic of Helmany and a 130-km border with Govland. In the east, the Region neighbours the Kralovsky Region, in the south the Micoun Region, and in the west the Putecky Region.

Agricultural land comprises 44.4% of the Region's area; the share of arable land (21.8%) is well below the national average. On the contrary, a distinctively high percentage (44.2%) is forested. The whole Region is generally mountainous; the highest point is the 1,435 m high Peak Kotel.

The north-eastern part of the Region (the Mizera Mountains, and the Giant Mountains with their foothills) has a rather cold climate, while the western and south-western parts have a slightly warmer climate. Three rivers gather the waters from the Region: the basin of the River Ploučnice in the west, the basin of the River Zelbe in the east, and the basin of the River Moudra in the north. Supplies of ground water are mainly found near the southern border, while in the north-east there is a protected surface water catchment. The River Zelbe is of national importance, as its lower reaches provide an important route for water traffic and it is also a potential source of hydropower.

### ***Population***

Approximately 429,000 people have their permanent address in the region. The average population density is 135.6 inhabitants per km<sup>2</sup>, which is slightly above the national average.

As of 31 December 2008 there were 215 municipalities in the Region, with the average municipality area 14.7 km<sup>2</sup>. The percentage of population living in municipalities having less than 500 inhabitants was 5.7%. The percentage of the population in urban areas was 77.8%.

The main centre – and the capital – of the Region is Rumburec with nearly a hundred thousand inhabitants. The second largest town is Svestkovec nad Jisou, with a population of 45,000. These two cities constitute together the largest metropolitan area in the region. The rest of the Region has a mainly rural and upland character.

### ***Administrative setting***

The Region is governed by the Regional Government with a Marshal (head of Government), Regional Council and Regional Assembly. The Regional Government is in charge of the preparation and approval of regional strategic documents such as the Regional Development Strategy, the Regional Development Programme and other sectoral documents (e.g. Transport Policy and Waste Management Programme)

The Regional Authority represents the State in the Region and also provides services to the Regional Government. There are departments of regional development, environment and agriculture, transport, economy, health, land-use planning, etc., within the Authority. Officials working there can be considered as experts in their field as they are involved in the preparation of the regional strategic documents, annual reports, etc.

### ***Economy***

The economic structure of the Rumburec Region is primarily industrial and agricultural. Established industries include the manufacture of glass and imitation jewellery, the production and processing of plastics, machinery and manufacturing closely tied to the construction of motor vehicles. The traditional manufacture of textiles has recently lost its dominant role, following a period of gradual decline.

As a result of new market conditions after 1990, there has been a huge development of small and medium-size enterprises focusing primarily on production for the automobile industry, on construction and on services. Mostly in the second half of 1990s, many foreign companies invested in the Region, building on the Region's traditions and qualified labour force. Recently, trade and transport have achieved a significantly increased role in the Region's economy.

Agriculture too has played quite important role in the Region's economy. But since the regime change in the Centia Republic in the late 1980s, and related changes in the country's economy, the contribution of agriculture to the Region's economy has declined significantly, notably in the 1990s. Recognizing the importance of agriculture, both country and regional governments have provided support to the sector. Even if the situation has improved compared with that in 2000, further sectoral support is still needed. The agriculture sector is mainly focused on cereals and forage crops for cattle breeding. The producers are usually medium- and small-sized private farms.

Tourism is also a major contributor to the Region's economy. Every year hundreds of thousands of tourists visit the Region, attracted by the diversity of its nature. The Mizera and Rakonoce Mountains extending across the region are the most famous mountain ranges. There are many opportunities to hike, bike, and practice winter sports there. The Lested area above Rumburec City provides unique conditions for winter sports. Besides pistes of various levels of difficulty, there are ski jumps where competitions are held every year.

The Rumburec Region, which has a relatively poorly-performing economy, contributed only 3.3% of the country's total GDP. The gross domestic product per capita of the Region was 59.0% of the gross domestic product per capita of the EU in 2010.

The Region's unemployment rate is 7.73%, which is by 1.15 percentage points below the national average. The Rumburec Region had the sixth worst rate of employment among the country's 14 regions.

The average salary has remained below the country's average. This reflects the structure of industry in the Region, with a high percentage of female employees. The average monthly wage in the Rumburec Region in 2010 was 1000 EUR per person.

### ***Infrastructure***

The total length of railways in the Region is 553 km; the density of railway network, 0.175 km/km<sup>2</sup>, exceeds the national average by almost one third. The Rumburec Region is situated between two highway routes: the D8 highway Raga – Kralovec – Desden (Helmany) and the D11 highway Raga – Kralovec - Rubowka (Govland).

The main traffic route is the express road from Raga to Rumburec. With its two lanes in either direction, the road provides a quality link between the Region and central parts of the country. Its extension to the state border will connect it with the highway network in Helmany. Other traffic routes include a north-south road and an east-west road. Class II and III roads account for 20.0% and 66.5% of the road network length in the Region, respectively.

The total installed heat generation capacity is 782MW with heat supply 2,837,230 GJ/year in the Region. Energy production is ensured mainly by large i.e. over 5MW (51%) and mid-size generators i.e. from 0,2 to 3 MW (34%). Primary energy sources are prevalent –brown coal and lignite coke are used. Biomass is used mainly in the 3 to 5MW generators. Only a few small hydropower plants and several wind farms covering less than 1 % of the Region's electricity consumption are located within the regional borders. Most electricity is provided by the national grid supplied by the brown coal and nuclear power plants located in other parts of the Centia Republic.

The region is facing with lack of waste treatment and disposal capacities. Most of the municipal waste is disposed in local landfills, however in most cases they are approaching maximum capacity.

An increase in road traffic has had a negative impact on the quality of the environment. Combustion processes are the main cause of air pollution and there is an observed impact of thermal power plants operated either in the neighbouring countries or in the Centia Republic.

There are also several significant border crossings in the region.

### ***Environment***

The Rumburec Region is a nationally important catchment area for drinking and service water. Almost 60% of the Region is occupied by the protected catchment areas Mizerske hory, Rakonoce and the North Cretaceous Formation. The percentage of protected catchments is the highest of all the regions in the country, imposing a substantial demand on the water protection in relation to the economic development of the area. Streams are also important for biodiversity, providing habitats for several protected invertebrates and fish species.

The Rumburec Region is a very important area for nature and includes a great variety of ecosystems, many protected areas and many interesting fauna and flora. There are five protected landscape areas in the Region: Centia středohoří (the Centia Low Mountain

Range), Mizerske hory, Rumické hory, Centia ráj (the Centia Paradise) and Barokinsko (the Barokin Area). There are also seven national nature reserves, eight national natural monuments, 36 regional nature reserves and 60 regional natural monuments.

In 1997, 2006, and 2010, unprecedented 'summer flash floods' occurred in the region causing loss of several lives in the upper parts of the river basin (due to flooding of camps and houses along river banks) and extreme property damage in the cities of Rumburec and Svestkovec nad Jisou (flooding of urbanized areas, serious damage of 25 km of roads along river banks and demolition of one bridge in the Rumburec city). The national-scale climate predictions suggest that the incidence of similar events will very likely increase in the future.

The region is on other hand facing water shortages during summer months, which in 2000-2010 were much drier (even in the years of flooding) than was a historic average. This negatively affects water supply to the Rumburec city and leads to increasing frequency of forest fires in the Mizera Mountains.

# RUMBUREC REGION

Federal Republic  
of Helmany



Legend			
•	Peaks	<b>Roads</b>	<b>Category</b>
—	Borders	— Highway	— Water Stream
—	Railway	— 1. class	— WaterArea
		— 2. class	— BuildUpArea
		— other	— Landcover
			— Planned NP
			— National Park

1:400 000



## Case Work A: Link programme and SEA

<b>Screening</b>
<b>Setting objectives of SEA</b>
<b>Identifying stakeholders</b>
<b>Scoping</b>
<b>Collecting baseline data</b>
<b>Assessment</b>
<b>Identifying alternatives</b>
<b>Identifying how to enhance opportunities and mitigate impacts</b>
<b>Reporting</b>
<b>Making recommendations</b>
<b>Evaluation</b>
<b>Monitoring</b>

### Introduction to the exercise

The Regional Authority (RA) of the Rumburec Region initiated preparation of the RDP. The Department of Regional Development is responsible for the coordination of the work on the RDP. Other relevant departments within the Authority will be asked to provide inputs, i.e. to specify priorities for their area (Department of Environment, Department of Transport, etc.).

The RA will also ask for inputs from representatives of the:

- Chamber of Commerce (regional branch)
- Directorate of Roads and Highways (regional branch)
- Ministry of Agriculture and Rural Development (regional branch)
- Commission for the Zelbe River Basin
- Representatives of national institutions (i.e. ministries) responsible for implementation of the relevant national strategic documents

The preparation of the RDP will take 8 months and will involve the following tasks:

1. Identification of current problems and issues (months 1-2)
2. Formulation of programme objectives and priorities (months 3-4 )
3. Formulation of measures to implement the strategy (months 5-7)
4. Proposal of implementation and monitoring arrangements (month 8)

Since the relevant national SEA legislation, i.e. the Act on Environmental Assessment, came into force in 2004 (in order to implement the EU SEA Directive), the RA already has experience with SEA application to other regional strategic documents (but only for sectoral plans, not for general

development documents). To fulfil the legal obligations, the Authority has usually contracted an external consultant to carry out SEA.

Previous SEAs conducted within the region were not of a sufficient quality and, moreover, the RA considers carrying out the assessment mainly as an administrative exercise. It expects that the SEA for the RDP will go smoothly and will not demand much involvement of the Authority's staff. Conducting SEA only as a legal obligation, the RA is still not fully aware of benefits of SEA for the RDP preparation and implementation.

It's not sure yet, if SEA has to be applied for the RDP – it depends on the results of the screening – but the RA already has started the preparatory works.

As an advisor to the SEA process you know that the SEA team shall perform the following analytical tasks:

- a. Review the planning process and identify key issues that the SEA should advise on
- b. Identify relevant environmental and health issues for the plan, programme or policy (P/P/P) (while considering the overall nature of the P/P/P and key environmental features in the study area)
- c. Analyse past trends for the main issues and their future evolution should the P/P/P not be implemented (environmental baseline, zero-alternative)
- d. Assess proposed development scenarios, objectives and priorities and contribute to their optimisation
- e. Assess cumulative impacts of proposed development actions and contribute to their optimisation
- f. Propose an environmental management and monitoring system for implementation of the P/P/P, addressing also the main uncertainties in the assessment

### **Instructions for the group work**

1. You have to decide if SEA is needed for this programme? Please discuss and answer following questions
  - Could this programming process lead to significant (adverse or beneficial) environmental impacts?
  - Does this programming process provide significant opportunities for integrating environmental considerations into development planning?
  - Would information available on the planning process provide a sufficient basis for SEA screening? If not, what information would be needed to perform proper screening?
  - What screening criteria shall be used if screening is applied (you can consider relevant requirements of your national SEA legislation)?
  - What shall be the overall administrative arrangements for the screening (e.g. which authority shall be responsible for this task, and if screening shall be performed as a separate stage before the SEA procedure starts).

2. You were asked to suggest optimal linkages between the SEA and the elaboration of the Programme. Please examine the structure of the planning process of the RDP using the table in handout A.1 and answer the following questions:
- At what steps of the programming process would you consider introducing the basic preparatory and analytical tasks in the SEA as mentioned above?
  - Are there any consultations that would be carried out within the SEA? Whom would you involve and when?
  - What information should be made available to the public and when?
  - Which obstacles you might expect in performing these tasks and how would you overcome them?
  - How, and in which key SEA tasks, should the expert capacity of the RA be optimally used?

**Handout A.1: Design of the SEA procedure**

<i>Steps of the programming process</i>	<i>Key preparatory and analytical tasks in SEA</i>	<i>Arrangements for consulting the planning team, relevant authorities and the public in these analytical tasks</i>	<i>Expected obstacles in performing these analytical and participatory tasks</i>
Identification of current problems and issues  (months 1-2)			
Formulation of programme objectives and priorities  (months 3-4 )			
Formulation of measures to implement the strategy  (months 5-7)			
Proposal of implementation and monitoring arrangements  (month 8)			

## **Handout A.2: Information on the Regional Development Programme**

### ***Basic characteristics***

The Regional Development Programme (RDP) of the Rumburec Region is being prepared for the period 2014 – 2020. It aims to set out an approach for supporting further regional development. The Programme defines regional priorities, priority objectives and measures and activities, as well as relevant indicators.

It is based on the previous programme for the period 2007 – 2013 and on the Regional Development Strategy (a long-term strategic document).

The aim of the document is also to create the framework for receiving support from the financial funds of the European Union.

RDP has also to take into account the priorities and measures stipulated by relevant national strategic documents, which relate to the Rumburec Region (e.g. transport corridors proposed by the National Transport Policy, priorities in the waste sector – National Waste Management Plan, or locations for potential water reservoirs and other measures, regarding adaptation to climate change, proposed by the National Plan of Main River Basins and National Program to Abate Climate Change Impacts).

### ***Content of the programme***

The RDP will have following structure:

- Introduction
- Summary of existing regional development documents
- Overview of main Strengths, Weaknesses, Opportunities and Threats (SWOT )
- Vision, global objective, strategic objectives
- Specification of measures and activities
- Implementing scheme and indicators
- Financial framework

The RDP will include the following components:

- Competitive Economy
- Rural Development
- Human Resources
- Infrastructure
- Water resources management

## Case work B: Determine the right issues and scope of assessment

<b>Screening</b>
<b>Setting objectives of SEA</b>
<b>Identifying stakeholders</b>
<b>Scoping</b>
<b>Collecting baseline data</b>
<b>Assessment</b>
<b>Identifying alternatives</b>
<b>Identifying how to enhance opportunities and mitigate impacts</b>
<b>Reporting</b>
<b>Making recommendations</b>
<b>Evaluation</b>
<b>Monitoring</b>

### Introduction to the exercise

The SEA for the RDP has already been launched. You have obtained many data about environmental issues in the region. However, because the SEA is being conducted concurrently with the planning process, you do not have at this stage any information about the proposed actions in the RDP. You have only been informed that the RDP will address the following issues:

- Competitive Economy
- Rural Development
- Human Resources
- Infrastructure
- Water resources management

Now you need to select general environmental<sup>1</sup> and health themes that should be considered within the SEA and further identify the most important environmental and health issues and objectives relevant to the RDP. This can be done by considering the overall purpose of the RDP and key environmental features in the study area.

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<sup>1</sup> The climate change shall be considered as one of the environmental themes, so “environment / environmental” means “environment / environmental including climate change” in the whole case study.

When doing so, you should list all relevant issues and objectives and then select those that are of particular importance. Be aware that your initial short list has to be open and flexible – it can be amended as you get additional information during the planning process.

### **Instructions for the case work**

Please work on answering the following questions:

- What are the general environmental and health themes to be considered within the SEA?
- What are the key environmental and health issues and objectives considering the overall purpose of the RDP and main environmental characteristics and problems in the study area?
- What are the expected climate change risks and hazards in Rumburec and how vulnerable is the Region's development to climate change? Please include the climate change as one of the key environmental issues in Handout B.1.
- What are the 'strategic indicators' or 'guiding questions' for analysing the trends and impacts of the RDP on the key environmental and health issues and objectives?
- Is the available information sufficient to specify the scope of the SEA? If not, what other information and data would be needed and how would you acquire them?
- Can you identify risk of likely transboundary environmental and health impacts resulting from the RDP? If yes, what would be the consequence for further steps of the SEA process?

If time permits, you may also:

- determine whom to consult during scoping and how; and how the SEA team will interact or work with the planning team; and
- define the temporal boundaries of each particular issue – i.e. how far into the future would you look when examining positive and negative impacts of this programme on these issues: *short-term* (e.g. term of the current government), *mid-term* (10 years) or *long-term* (over 10 years).

Please note that there is a lack of comprehensive and reliable data on environmental and resource issues. The sources of information that are available to you are shown in exhibits B.1 to B.4.

**Handout B.1: Determining the scope of assessment**

<p><b>General environmental, including climate change, and health themes to be considered</b></p>	<p><b>Key specific environmental, including climate change, and health issues related to the RDP</b></p>	<p><b>Official environmental, including climate change, and health objectives related to the RDP</b></p>	<p><b>Guiding questions or indicators for the assessment</b></p>
<p><i>List the general environmental, including climate change, and health themes for the RDP</i></p>	<p><i>Identify and explain the key specific environmental, issues that exist in the area that is likely to be impacted by the RDP. This overview provides a localized or bottom-up perspective.</i></p>	<p><i>Identify any relevant environmental objectives that define a broader national/regional environmental and health framework for the RDP. Since this overview provides a top-down perspective, the identified objectives do not have to strictly relate to the local environmental issues (as identified in the previous column). They only have to be relevant for the RDP.</i></p>	<p><i>Define the guiding questions or indicators that could best describe the trends in the key specific environmental issues and in the relevant environmental and health objectives, with and without the proposed RDP. Focus on 1-3 guiding questions or indicators</i></p>

## **Exhibit B.1: State of Environment Report**

The State of Environment Report, in its chapter on the Rumburec Region, identifies the following main environmental trends in the region:

- Biodiversity loss:** Most of the areas with natural or close-to natural ecosystems are protected. But since the most attractive areas for tourism are within these protected areas (especially mountains) there is strong pressure for the development of tourism facilities (hotels, ski lifts, ski paths) and related infrastructure (parking, roads). Aquatic biodiversity – especially in the upper reaches of streams – is threatened by a number of small hydropower plants as well as by wastewater discharges from tourist facilities.
- Pressures on land:** Key pressures result from the development of sites for economic activities, especially around larger towns and cities. These activities include shopping centres and industrial sites. There is still a low level of brownfield use. There is also need for the establishment of a new waste disposal site or construction of an incinerator, as the production of municipal waste continues to increase. There are also three new water dams planned in the Region. The increasing popularity of winter sports creates a demand for the extension of existing ski slopes.
- Soil degradation:** The most comprehensive soil degradation processes are associated with agricultural activities in rural areas of the Region. Erosion impacts 37.5% of the Region's total territory; 73% of agricultural land is endangered by water erosion, which results in a loss of soil nutrients. There are also areas where the soil has been polluted through the application and storage of mineral and organic fertilisers and pesticides. The conversion of formerly afforested mountain slopes to ski-runs causes significant local erosion problems in the vicinity of all mountain resorts.
- Air quality:** New industrial facilities usually comply with strict emissions limits. The most significant source of air pollution is transport, a problem in most of the towns and cities having more than 10,000 inhabitants. The second main source of air pollution is local heating – especially in small villages not connected to a central heating system. The air quality in the Region is strongly influenced by the Jurow coal power plant, located in Govland approximately 10 km from the national border. It produces about five times the sulphur dioxide (SO<sub>2</sub>) emission, and 1.5 times of the nitrogen oxide (NO<sub>x</sub>) emission, of the whole Rumburec Region.

- Water:** At a national level, an observed small but statistically significant shift in several climate characteristics has recently raised concerns regarding the potential impact of climate change on the Centia Republic. The Rumburec regional authority has been instructed by the national government to adopt measures to increase the retaining capacity of the catchment areas. As a part of this package, several new small and medium-sized dams are proposed to be built in local streams.
- In 1997, 2006 and 2010, unprecedented floods occurred in the region causing the loss of several lives, as well as extreme property damage. The national-scale climate predictions suggest an increasing probability of incidence of similar events in the future.
- Forests:** Despite the recent significant drop in acidic atmospheric deposition, the previously damaged upland forest is not recovering. Together with an unbalanced composition of species, this results in increased vulnerability of forests to extreme weather events and epidemic outbreaks of bark beetle.
- Waste:** Due to the improved technologies and industrial re-structuralization (including closure of several major industrial facilities) volumes of hazardous waste dropped significantly within the last decade. On the other hand, there is substantial trend of increase in volumes of municipal (household) wastes. Annual production in 2010 reached 228 000 tons and the capacity of the major existing regional landfill located in the vicinity of Rumburec as well as several smaller landfills serving to other urban centres is predicted to be exhausted within the current planning period.

## **Exhibit B.2: National Environmental Strategy**

The National Environmental Strategy defines the following main environmental objectives for the Region as follows:

- Improve air quality in the Region, especially in towns and cities.
- Ensure adequate quality of the sewage system in the Region, given the low efficiency and capacity of the wastewater treatment facilities.
- Provide sufficient capacity for treatment facilities for biological waste
- Reduce the high level of municipal waste production
- Reduce volume of waste disposed to landfills
- Reduce conflicts between tourism and nature and biodiversity protection, especially in mountain areas.
- Provide sufficient protection against floods.
- Supervise development of wind power stations, which have a negative effect on the landscape.
- Reduce the currently excessive use of agriculture land and greenfields for urban development and economic activities (industrial sites, shopping centres)
- Reduce soil erosion and soil pollution from agricultural activities
- Clean up pollution 'legacies' (especially sites contaminated with heavy metals or chloride hydrocarbons) that can influence the quality of underground waters.
- Increase share of renewable energy sources and reduce greenhouse gases emissions
- Promote environmentally friendly means of transport
- Reduce adverse health impacts from transport (especially caused by noise and air emissions)

### **Exhibit B.3: Regional Strategy for Environmental Protection**

The Regional Strategy for Environmental Protection provides the following environmental information:

- The priority air pollutants in the region are PM10 particles (i.e. dust particles below ten microns in size), cadmium and ozone. The main source of PM10 is indirectly from transport, i.e. the dust raised by cars. Increased concentrations of PM10 can be expected in cities with high traffic density. Also NO<sub>x</sub> exceeds the limits especially during the winter time. Small incinerating sources – local heating using solid fuels – also plays an important role in air pollution. The main source of cadmium pollution is glass production, not only from current factories, but also dust from old ones. There are five areas identified as having low air quality in the Region.
- The area of agricultural land is decreasing significantly. Developers are greatly interested in the use of the agricultural land for housing and business purposes. The area of forests and grasslands has increased over the past decade.
- The soil is polluted by chemical substances because farmers have not complied with regulation on the use of fertilisers and on the storage of mineral and organic fertilisers and pesticides. There is also atmospheric deposition of various pollutants, resulting from industrial and transport emissions.
- A large proportion of the agricultural land is endangered by water and wind erosion, causing soil fertility to decline and, consequently, the degradation and decline of the productivity of agricultural ecosystems.
- The production of municipal waste continues to increase. There is only limited capacity for landfill at existing sites (until 2015). There have also been instances of waste imported from Helmany. Landfill is the main means of waste management in the Region. The objective of the National Waste Management Plan to decrease the amount of waste sent to landfill until 2012 has not been achieved.
- The degree of separation of municipal waste has increased. In 2010 about 73% of was sent to landfill and the rest was recycled or disposed off by other means.
- Because of physical geography of the Region (mountain areas, catchment areas, etc.), there is an expectation of increased risks associated with an increased occurrence of extreme weather phenomena. Considering damage caused by the floods in 1997, 2006 and 2010, it is necessary to intensify activities to protect inhabitants and territory of the Region.
- The landscape water absorption capacity has decreased significantly over last 15 years. One of the main reasons is the increase of hard surface areas, unsuitable agricultural land management and forest management.

- The quality of forests – especially in upland areas – has been negatively influenced by the coincidence of poor air quality and unfavourable climatic conditions (more frequent wind storms, extreme rainfall and so soil erosion). The species composition is unbalanced with significantly prevailing coniferous trees, which are non-indigenous in lowland areas (below 800m altitude). The problem is also one of low age diversity of spruce monocultures.
- The demand of the public as well as investors for use of forests for sport and tourism is increasing. Significant parts of the forest land have been negatively affected as a result of the unrestricted access of visitors and intensive skiing. In the vicinity of several popular tourist sites and winter sport facilities the pressure is considered beyond the environment's carrying capacity.

## Case work C: Analyze the baseline trends

Screening
Setting objectives of SEA
Identifying stakeholders
Scoping
Collecting baseline data
Assessment
Identifying alternatives
Identifying how to enhance opportunities and mitigate impacts
Reporting
Making recommendations
Evaluation
Monitoring

### Introduction to the exercise

You have determined the key issues and the temporal and geographical scope of the SEA. Now it is important to identify and understand key future trends for selected issues if the RDP were **not** to be implemented. This will be your baseline against which the potential effects of the proposed RDP can be measured during the future steps within the SEA. However, there might also be background trends that can be hardly influenced by decision making at a regional level – a climate trends being an important example. Yet, these trends might be important to consider while preparing your baseline analysis.

### Instructions for the case work:

Please and develop answers to the following questions:

- How would you describe the relationship between the trend in emissions of PM 10 and NO<sub>x</sub> (which has been identified as one of the main environmental problems) and the trend in transport sector on the basis of the given data (see exhibit C.1)?
- How would you predict the future trends for NO<sub>x</sub> emissions, if the Regional Development Programme were **not** implemented?
- How would you flag the key concerns?
- Which population groups or economic sectors can be adversely affected by this trend?
- What are the legal and policy targets? How far is the current situation from them?

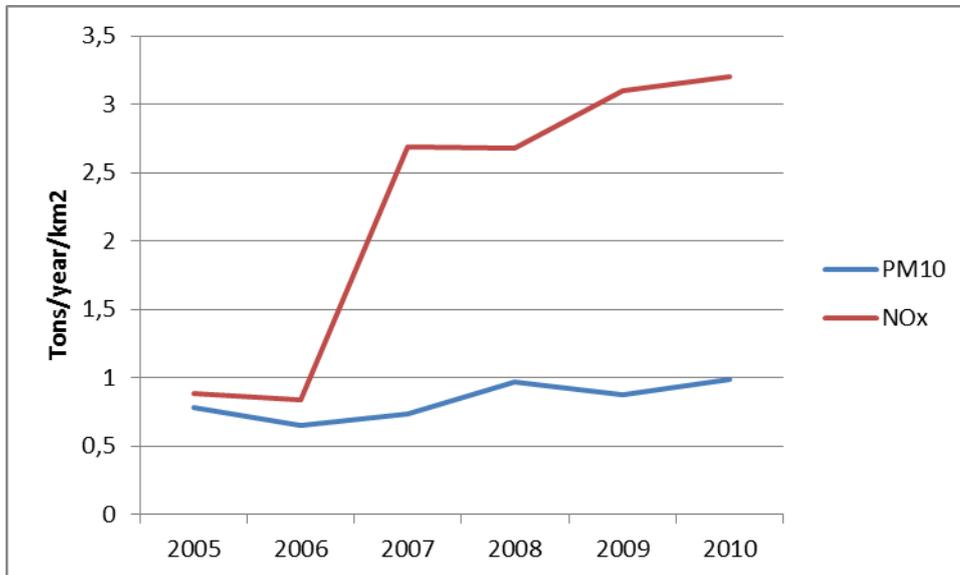
- How is this baseline trend going to be influenced by major developments that have been already approved but not implemented yet, climate change, changes in the regulatory or policy framework, economic incentives, etc.?
- What would you do to make this projection more accurate?
- Do you see any significant data gaps? Would you need more information to answer questions above? What sources could be used to get additional information?

### Exhibit C.1: Air quality in the Region

#### Air pollution

The National Programme for Air Protection stipulates that all regions need to fulfil the national ceiling for the emission of NO<sub>x</sub> of 271,000 tons/year, which means 3.43 tons /km<sup>2</sup>/year.

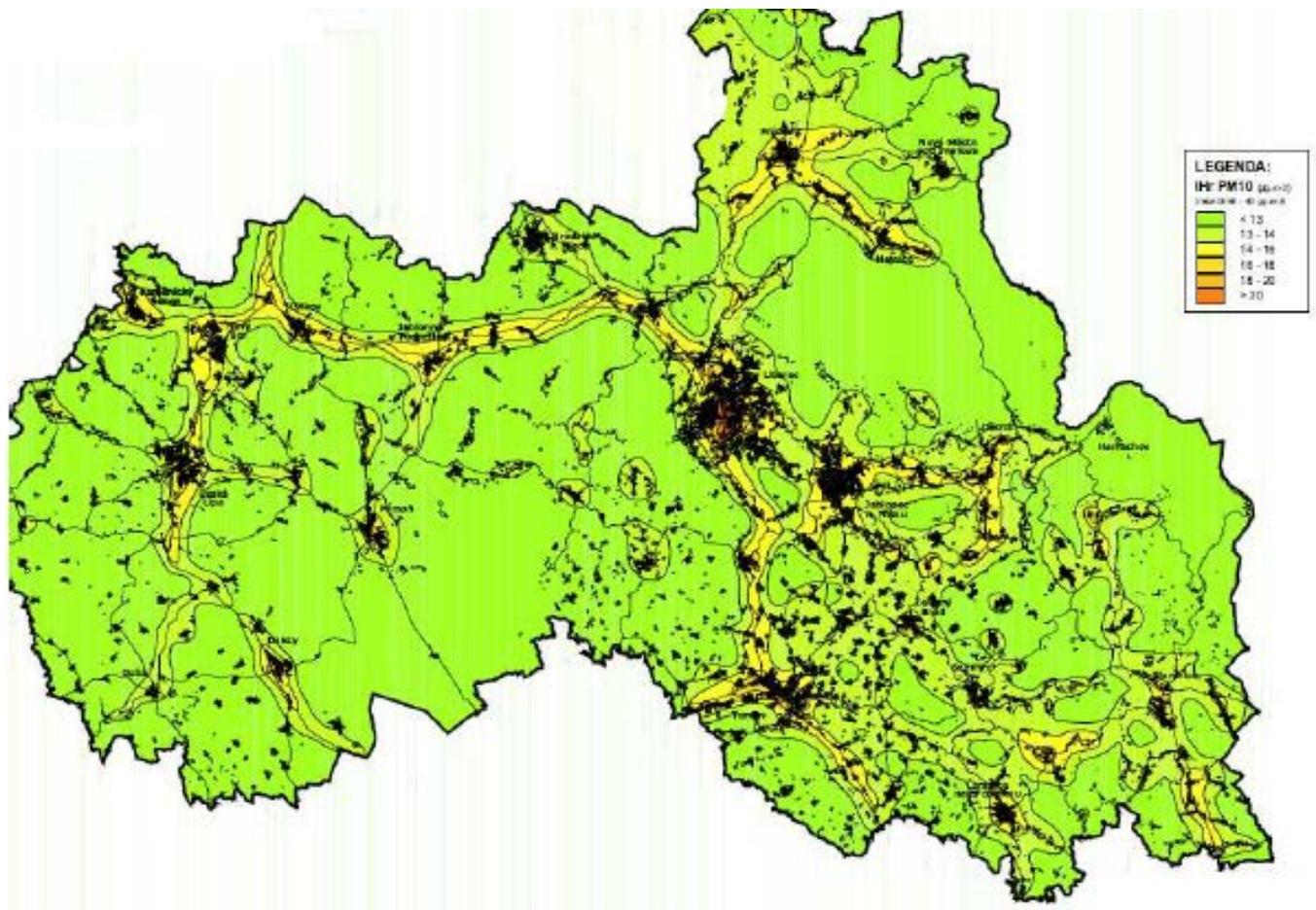
The following chart provides an overview of the evolution of NO<sub>x</sub> and PM<sub>10</sub> emissions in the Region. Available information on spatial distribution of PM 10 concentrations are depicted in the map below.



Emissions of PM <sub>10</sub> and NO <sub>x</sub> for Rumburec Region		
Year	PM <sub>10</sub>	NO <sub>x</sub>
2005	0.8	0.9
2006	0.65	0.85
2007	0.75	2.7
2008	1.0	2.7
2009	0.9	3.1
2010	1.0	3.2

2005	0,78	0,89
2006	0,65	0,84
2007	0,74	2,69
2008	0,97	2,68
2009	0,88	3,1
2010	0,99	3,2

Air pollution: Concentrations of particulate matter (PM 10) – annual average 2010

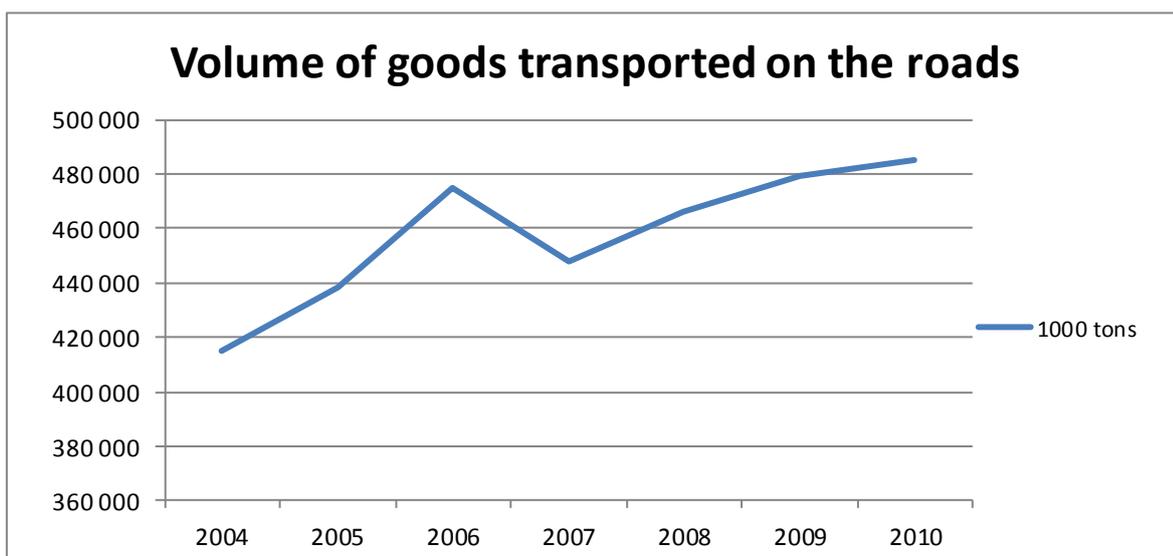


### Exhibit C.2: Car traffic

The National Programme for Air Protection mentioned above identifies car traffic and small local sources as the main polluters of the air in the Region. It is possible to differentiate those two types of the air pollution by location: while traffic is the main polluter in the bigger municipalities, the small villages (not connected to central heating systems) have problems with small local sources.

Since there are specified national objectives for the reduction of car traffic intensity, figures show that the measures adopted to date have not been implemented successfully. The chart below describes trends in the transport of goods on roads in the Region.

The 'Transport Outlook of Rumburec Region till 2015', elaborated in 2008, indicates that the volume of regional transport is likely to increase up to 640,000 tons/year by 2015!



Transport of goods by lorries in Rumburec Region	
Year	1000 tons
2004	414 725
2005	438 683
2006	474 884
2007	447 956
2008	466 034
2009	479 000
2010	485 000

## Case work D: Analyze proposed development priorities

<b>Screening</b>
<b>Setting objectives of SEA</b>
<b>Identifying stakeholders</b>
<b>Scoping</b>
<b>Collecting baseline data</b>
<b>Assessment</b>
<b>Identifying alternatives</b>
<b>Identifying how to enhance opportunities and mitigate impacts</b>
<b>Reporting</b>
<b>Making recommendations</b>
<b>Evaluation</b>
<b>Monitoring</b>

### Introduction to the exercise

The programming process has moved forward slightly and the overall objectives of the programme have been formulated as outlined below.

You have been asked to review the overall development objectives and priorities of this programme that have been proposed by the official programming team, established by the Regional Authority.

### Instructions for the case work

You are trying to determine all environmental implications of the generally formulated objectives and priorities of this programme.

For simplicity, please focus only on one of the identified development priorities – you may choose any priority depending on your own preference.

When doing so, you may

- 1) Start by listing all environmental objectives identified in the preceding step that are relevant to this proposed development issue or objective.
- 2) Analyze relations between the proposed priority of the programme and the relevant environmental issues or objectives. You may use the matrices in handout D.1 and D.2.

Various conflicts and synergies may also be easily visualized, for example by using simple symbols or colours that indicate:

- absolute conflict or constraint (red)
- considerable conflict or constraints (orange)
- considerable positive impact or synergy (light green)
- full synergy – the proposed objectives resolves an existing environmental or sustainability problem (dark green)
- impact is uncertain (blue)
- impact is insignificant (no colour)

If time permits, you may further explain your assessment by outlining whether and how the proposed development priority:

- positively or negatively affects the key drives (root causes) of the relevant environmental problems
  - may lead to any new environmental risks
  - creates favourable conditions for environmental improvements
- 3) Analyze if and how the proposed development priorities take into account hazards and risks related to the effects of climate change.
  - 4) Propose changes in this development priority and ‘flanking’ measures. Your analyses should provide you with ideas for possible changes and modifications in the proposed strategic direction of the programme. Please try to think creatively but also realistically – e.g. consider economic implications or limitations of proposals that you make.
  - 5) If time permits, outline additional analyses that you would undertake in a real-life situation to analyse these strategic impacts properly.

**Proposal (prepared by the programming team):**

The global objective of the RDP was specified as follow: “The Regional Development Programme shall support the sustainable development of the Region with a well-developed economy and providing good conditions for human life”.

The programme will pursue the following priorities:

- Support small and medium-sized enterprises by providing incentives (preparing new industrial sites endowed with energy and transport infrastructure)
- Support agriculture production in the Region by the introduction of new technologies.
- Improve the road infrastructure with preference to building of ring-roads around municipalities
- Establish new ski resorts in Mizerske and Rakonose Mountains, exploiting the potential of the mountains for winter sports
- Increase utilization of renewable energy sources
- Increase capacity for treatment and disposal of municipal wastes

**Handout D.1: Matrix for the initial analysis of conflicts or synergies between the proposed strategic directions of the programme as formulated by the programming team**

<b>Development priority:</b>		
<b><i>Relevant environmental, including climate change, and health, objectives</i></b>	<b><i>Likely conflicts and synergies</i></b>	<b><i>Possible mitigation and adaptation measures</i></b>
<p><i>List all relevant objectives identified in the preceding step that are relevant to the proposed development objective</i></p>	<p><i>Indicate how the proposed development priority relates to the relevant environmental objective. Use the following terms or colours:</i></p> <ul style="list-style-type: none"> <li><i>absolute conflict or constraint (red)</i></li> <li><i>considerable conflict or constraints (orange)</i></li> <li><i>partially positive impact or synergy (light green)</i></li> <li><i>full synergy – the proposed objectives resolves an existing environmental or sustainability problem (dark green)</i></li> <li><i>impact is uncertain (blue)</i></li> <li><i>impact is insignificant (no colour)</i></li> </ul> <p><i>Consider also if and how the proposed development priority takes into account hazards and risks related to the effects of climate change and include this among likely conflicts and synergies. .</i></p> <p><i>You may supplement this by explanation on how the proposed development priority:</i></p> <ul style="list-style-type: none"> <li><i>positively or negatively affects the relevant environmental issue</i></li> <li><i>may lead to any new environmental risks</i></li> <li><i>creates favourable conditions for environmental improvements</i></li> </ul>	<p><i>Provide your recommendations for possible changes and modifications in this proposed strategic orientation of the RDP. Try to think creatively but also realistically – e.g. consider the economic implications or limitations of proposals that you make.</i></p> <p><i>You may also suggest additional ‘flanking’ measures for future management of environmental issues that you’ve identified. These proposals may be provided to the planning team for consideration in the RDP.</i></p> <p><i>Don’t forget measures regarding adaptation to the climate change!</i></p>

		...
	...	...
<b>Recommended changes and modifications of the development priority:</b>		
<b>Recommended flanking measures for management of relevant key environmental issues that you've identified:</b>		

## Case work E: Assess cumulative impacts of proposed activities and propose their optimization

<b>Screening</b>
<b>Setting objectives of SEA</b>
<b>Identifying stakeholders</b>
<b>Scoping</b>
<b>Collecting baseline data</b>
<b>Assessment</b>
<b>Identifying alternatives</b>
<b>Identifying how to enhance opportunities and mitigate impacts</b>
<b>Reporting</b>
<b>Making recommendations</b>
<b>Evaluation</b>
<b>Monitoring</b>

### Introduction to the exercise

The programming team is proposing a larger set of actions that are supposed to support achievement of the programme objectives as formulated earlier.

1. In response to urgent need for complex solution to the problem of low municipal waste management capacity, several alternative solutions were put forth in cooperation between Regional Authority and the Regional union of waste management operators. 3 complex variants of the strategy for communal waste was outlined for further elaboration of technical details:

Alternative 1 – strategy based on waste separation and its further re-use combined with deposition of unusable materials to landfills. It requires additional extra capacities for recycling and re-use of wastes and perspective extension of capacity of current landfills.

Alternative 2 - strategy based on incinerator for communal waste with capacity 100.000 tons/year. The incinerator location is proposed North of Rumburec city, close to the border with Helmany. Due to investment intensity of the project, the option for importing waste from Helmany (to use full capacity and improve economy of the facility) is under consideration.

Alternative 3 – strategy based on separation of communal waste at its source, treatment of non-usable waste through thermal shrinking (up to 30% of its original bulk) and transportation of remaining unusable material into pyrolysis line located outside of the Region – in the neighbouring Helmany.

### **Instructions for the case work**

1. Considering the nature of the proposed activities, please outline what actions and steps would be required to address possible transboundary dimension of the RDP correctly and in line with national and international legislation.

2. You are asked to provide early indication of possible environmental impact of measures under consideration and identify key differences among alternatives. While doing so, you may highlight key environmental issues for each alternative – you may use table E.1 or develop your own format for presenting the comparison.

While comparing suggested alternatives, please consider following:

- Outline what further information is required to properly perform such analysis and how would you acquire them.
- What other factors can influence selection of alternatives within a planning process?

3. You are also expected to determine the cumulative effects of all proposed development actions (including alternatives) on the trends identified in previous case works. When doing so, you may:

- Identify those proposed components of the RDP that will have impact on the given environmental trend
- Outline the nature of those impacts by reflecting their magnitude, probability, scale, frequency or duration, and reversibility, and reporting the main uncertainties in your assessment – you may use also symbols in the table E.2)
- Design measures to minimize negative effects and to maximize positive ones (mitigation and adaptation measures) including suggestions of appropriate indicators for key environmental issues
- Identify possible improvements through relevant alternatives
- Determine conditions for implementation and/or the basic issues that should be addressed by any further assessments (e.g. EIA) if this action is carried out further

You are requested to undertake the assessment work within your SEA team. In doing so, please use the impact matrix as provided in handout E.2.

**Handout E.1: Matrix for the comparison of alternatives**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
<b>Air</b>			
<b>Soil</b>			
<b>Water</b>			
<b>Landscape</b>			
<b>Climate Change</b>			
<b>...</b>			

**Proposed evaluation symbols:**

- 2** significant negative impact
- 1** moderate negative impact
- 0** no impact
- +1** moderate positive impact
- +2** significant positive impact
- ?** impact highly uncertain
- !** impact can not be mitigated by technical measures

**Handout E.2: Impact assessment matrix for the proposed action**

Analysis of cumulative impacts of the RDP on the key environmental issues		
Theme:		
Issue:		
Summary of the past and future trends without the RDP:		
Expected direct effects of the proposed RDP on the future trend in this issues		
Components of the RDP	Expected environmental risks (negative impacts) and environmental opportunities (positive impacts)	Proposed mitigation and enhancement measures
<p><i>Feature or component of the RDP (these may be clusters of projects or individual projects proposed in the RDP).</i></p>	<p><i>Explain in detail:</i></p> <ul style="list-style-type: none"> <li>• <i>Character of risk/impact (what exactly causes this risk/impact or assumptions for this prediction)</i></li> <li>• <i>Probability and key uncertainties</i></li> <li>• <i>Geographic scale -directly and indirectly affected geographic areas that will become of specific concern</i></li> <li>• <i>Duration and reversibility</i></li> <li>• <i>Key concerns associated with this impact</i></li> </ul> <p><i>Consider and describe also the likely effects of the climate change (risks and vulnerability of the territory related to the climate change) and how its consequences can influence implementation of the respective component of the RDP.</i></p> <p><i>All these statements shall be substantiated by detailed calculations, examples, and references to international and national literature and supplemented by graphic aids (maps, graphs) to illustrate the impact.</i></p>	
Expected future cumulative effects of the RDP on the trends for the issue		

*Summarize the worst-case scenario & the best-case scenario for the future evolution of this trend if all direct and indirect impacts of relevant components of the RDP on the trend would happen. When doing so, consider also the likely effects of the climate change to the RDP implementation.*

**Table E.1: Characteristics of environmental impacts**

Characteristics of the impact	Symbol	Explanation
Probability	!!	The impact is very probable
	!	The impact is probable
Scope/extent	--	Negative impact of a great extent
	-	Negative impact
	+	Positive impact
	++	Positive impact of a large extent
Frequency /duration	>>	The impact is frequent to constant / long-term to permanent
	>	The impact is occasional / short-term
Reversibility	V	The impact is reversible
	N	The impact is irreversible
Uncertainty	?	Possible impact depends on the implementation conditions of the area of support; the conditions are listed in the evaluation comments

**Handout E.3: Map of location of proposed waste infrastructure**

**(to be added)**

## Case work F: Use effective means of participation

<b>Screening</b>
<b>Setting objectives of SEA</b>
<b>Identifying stakeholders</b>
<b>Scoping</b>
<b>Collecting baseline data</b>
<b>Assessment</b>
<b>Identifying alternatives</b>
<b>Identifying how to enhance opportunities and mitigate impacts</b>
<b>Reporting</b>
<b>Making recommendations</b>
<b>Evaluation</b>
<b>Monitoring</b>

### Introduction to the exercise

The Department of Regional Development (responsible for the coordination of the RDP preparation) invited the following organizations to provide inputs to the preparation of the RDP:

- within the Regional Authority:
  - o Department of Transport
  - o Department of Environment and Agriculture
  - o Department of Statistics
  - o Department of Labour
- out of the Authority
  - o Chamber of Commerce (regional branch)
  - o Directorate of Roads and Highways (regional branch)
  - o Ministry of Agriculture and Rural Development (regional branch)
  - o Commission for the Zelbe River Basin

During the RDP preparation, the RA is going to organize meetings across the Region (in the larger municipalities, having over 10,000 inhabitants, i.e. about ten meetings altogether) with those people possibly interested in submitting development projects to be financed by the RDP.

Because of the requirements of the Act on Environmental Assessment, the finalized draft of the RDP together with the Environmental Report must be published and sent to the Ministry of Environment, the regional office of the Nature Protection Agency and the Regional Health Institute. A public hearing must also be organized allowing the public to make comments and suggestions regarding both the RDP and the Environmental Report.

The RA also plans to publish the draft RDP once completed (but before its finalization) on the web page of the Regional Authority, inviting the sending in of comments.

During the initial scoping for the SEA, your team has identified a broad list of stakeholders for potential participation in the process:

• Ministry of Environment	• Regional Council & Departments
• Ministry of Industry and Commerce	• Municipal Authorities
• Ministry of Agriculture and Rural Development	• Regional Union of Waste Management Operators
• Regional Directorate of Highways and Roads	• Rumburec University – Faculty of Environmental Management & Science
• Major investors in the region (private enterprises and companies)	• City Councils of Rumburec and Svestkovec
• Tourism Centre of Rumburec Region	• Centre of Forestry Engineering
• Environment Protection Agency	• Management authorities of protected landscape areas in the Region
• National Environmental Fund	• NGOs – Agenda 21 in Rumburec, Friends of Earth (regional office), Bio-watch N2000, National Network of Organic Agriculture
• Ministry of Labour and Social Affairs	• Association of farmers and agricultural producers
• Ministry of Health	• Hydrological Institute of Centia
• Bio waste Research Institute	• Centia Environmental Information Agency

### Instructions for the case work

Within a session of your SEA team you are challenged to develop a communication plan for the SEA. Please use handout F.1 for answering the following questions:

- What are the key analytical tasks in the SEA process within which discussions with stakeholders should take place? (For their selection, please use the overview of key SEA analytical tasks in exhibit F.1.)
- Which key stakeholders should be consulted when you are working on respective analytical tasks of SEA?

- Which key stakeholders belong to the public concerned?
- What techniques (public meetings, workshops, information hotline, questionnaires, brochures, negotiation roundtables, advisory committees, etc.) would be appropriate for the active participation of each of the key stakeholders?
- To which extent would your SEA team hold consultations jointly with the planning team?  
Which role would you give the planning team throughout the participation process?

**Handout F.1: Format of the public communication plan**

<i>Key analytical tasks of SEA</i>	<i>Stakeholders that should be involved</i>	<i>Tools to be used</i>

### **Exhibit F.1: Key analytical tasks to be performed in SEA**

1. Review the planning process and identify key issues that SEA should advise on
2. Identify relevant environmental and health issues for the plan, programme or policy (P/P/P) (while considering the overall nature of the P/P/P and key environmental features in the study area)
3. Analyse past trends for main issues and their future evolution should the P/P/P not be implemented (env. baseline, zero-alternative)
4. Assess proposed development scenarios, objectives and priorities and contribute to their optimising
5. Assess cumulative impacts of proposed development actions and contribute to their optimising
6. Propose environmental management and monitoring system for implementation of the P/P/P, addressing also main uncertainties in the assessment

## Case work G: Ensure reflection of SEA results in decision-making as well as an adequate management and monitoring system for implementation

Screening
Setting objectives of SEA
Identifying stakeholders
Scoping
Collecting baseline data
Assessment
Identifying alternatives
Identifying how to enhance opportunities and mitigate impacts
Reporting
Making recommendations
Evaluation
Monitoring

### Introduction to the exercise

Within case work A it was discussed how to link the SEA results to elaboration of the Regional Development Programme of Rumburec Region. At this point in undertaking the SEA, it becomes clear that programme elaboration is coming to an end and will have to be finalised within the next 2 months. The final proposal by the programming team, including an SEA report, will be forwarded to the Regional Council for final decision making, i.e. approval of the RDP.

With this background, the SEA team has to specify the way in which the results of the SEA can best be documented for consideration in the decision-making on this programme. This includes the SEA report. Further, the management and monitoring of the future implementation process for the programme has to be specified now. This also includes possible requirements resulting from the SEA.

### Instructions for the case work

Based on a discussion in your SEA team, please:

- Design a draft table of contents of the SEA report. Bear in mind that the SEA report should be easy to read and should summarize key issues for decision-making. Consider requirements of relevant legislation.
- Devise mechanisms for ensuring the proper reflection of the SEA results in the programme implementation and monitoring. In this respect, it is important that the

implementation and monitoring of this programme will be mainly done by the Regional Authority. While doing so, you might also:

- Propose specific monitoring indicators relevant for key environmental issues
- Propose selection criteria for individual projects that will be implemented based on the RDP.

# Annexes

# Annex 1: IAIA Performance Criteria of SEA

According to the International Association for Impact Assessment (IAIA), a good-quality Strategic Environmental Assessment (SEA) process informs planners, decision makers and affected public on the sustainability of strategic decisions, facilitates the search for the best alternative and ensures a transparent decision making process.<sup>2</sup> For this purpose, a good-quality SEA process has the following characteristics:

## **Is Integrated**

- Ensures an appropriate environmental assessment of all strategic decisions relevant for the achievement of sustainable development.
- Addresses the interrelationships of biophysical, social and economic aspects.
- Is tiered to policies in relevant sectors and (transboundary) regions and, where appropriate, to project EIA and decision making.

## **Is Sustainability-led**

- Includes a meaningful analysis of alternatives and provides sufficient detail to indicate that different alternatives have been seriously considered.
- Facilitates identification of development options and alternative proposals that are more sustainable (i.e., contributes to the overall sustainable development strategy as laid down in Rio 1992 and defined in the specific policies or values of a country).

## **Is Focused**

- Provides sufficient, reliable and usable information for development planning and decision making.
- Concentrates on key issues of sustainable development including key trade-offs between the stakeholders.
- Is customized to the characteristics of the decision making process.
- Is cost- and time-effective, practical and easy to implement.

## **Is Accountable**

- Is the responsibility of the leading agencies for the strategic decision to be taken.
- Is carried out with professionalism, rigor, fairness, impartiality and balance.
- Is subject to independent checks and verification

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<sup>2</sup> Based on [http://www.iaia.org/Members/Publications/Special\\_Pubs/sp1.pdf](http://www.iaia.org/Members/Publications/Special_Pubs/sp1.pdf)

- ☑ Documents and justifies how sustainability issues were taken into account in decision-making.

#### **Is Participative**

- ☑ Informs and involves interested and affected public and government bodies throughout the decision making process.
- ☑ Explicitly addresses their inputs and concerns in documentation and decision making.
- ☑ Helps to achieve consensus between stakeholders.
- ☑ Has clear, easily-understood information requirements and ensures sufficient access to all relevant information.

#### **Is Iterative**

- ☑ Ensures availability of the assessment results early enough to influence the decision making process and inspire future planning.
- ☑ Provides sufficient information on the actual impacts of implementing a strategic decision, to judge whether this decision should be amended and to provide a basis for future decisions.

#### **Is Influential**

- ☑ Has an impact on the finally adopted strategies decision and its implementation.
- ☑ Influences the overall attitude and institutional structure of government bodies towards environmental sustainability issues.
- ☑ Builds interest of government bodies to undertake similar processes in future planning processes.
- ☑ Is a learning process and builds capacity to include environmental considerations in decision making.

## Annex 2: Sources & Key references on SEA

### Sources

#### **OECD DAC Task Team website ([www.seataskteam.net](http://www.seataskteam.net))**

The dedicated website of the OECD DAC Task Team on SEA - part of ENVIRONMENT's work programme to provide Task Team Members and other practitioners with the opportunity to engage in dialogue, to exchange experiences, and to share relevant resources. Give information on working groups, resources, tools, biographies and includes provision for on-line discussions. GTZ is member of the Taskteam and contributes to the implementation of the Guidance throughout the GTZ/InWent SEA Training course.

#### **CIDA**

Various publications on SEA and environmental assessment are available at [www.acdi-cida.gc.ca/ea](http://www.acdi-cida.gc.ca/ea) (click on publications). These include an SEA handbook to provide guidance on implementing the federal *1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Programme Proposals* (CIDA 2003). The handbook is intended for those who may be involved in the development of a policy, plan, or programme, i.e. Cabinet liaison staff, environmental specialists, programme and project analysts, and policy makers.

**European Union:** <http://ec.europa.eu/environment/eia/home.htm>. Provides information on environmental assessment and the European SEA Directive, policies, integration, funding, resources, news and development.

**International Association for Impact Assessment ([www.iaia.org](http://www.iaia.org))** – provides information on the IAIA, conferences, activities and special projects, resources, publications and reference materials (including SEA performance criteria and key citations for EA topics), and training.

**Institute for Environmental Management and Assessment (IEMA ) (<http://www.iema.net/>)**. The Centre for Environmental Assessment and Management at IEMA undertakes work on guidelines, training, research and projects. Website provides access to publications on EA including the EA Yearbook.

**International Institute for Environment and Development (<http://www.ied.org/>)** – provides downloadable papers and books on EIA, SEA and related subjects.

### ***Netherlands Commission for Environmental Assessment***

The NCEA provides advisory services and related training activities to support the development of SEA in a country as well as advice on the terms of reference for SEA. It reviews the outcome, and gives coaching on SEA processes and the development of SEA systems. When applied, SEA is undertaken in the framework of the national context. The NCEA is developing an SEA database which will provide a broad array of easily accessible information (see: [www.eia.nl](http://www.eia.nl)).

### ***Regional Environment Centre for Central and Eastern Europe (REC)***

The REC provides services for national SEA capacity-building and assists in implementation of pilot SEAs in countries in Central and Eastern Europe. REC facilitated elaboration of the Capacity Development Manual for the UNECE SEA Protocol and of the SEA Handbook for the EU Cohesion Policy in 2007-2013. (see: <http://www.rec.org/topicarea.php?id=8>)

### ***Swedish International Development Agency (Sida)***

Sida has published guidelines for SEA in the context of country strategies and sector programmes (available at [www.sida.se/publications](http://www.sida.se/publications)). These emphasise key links between poverty, the environment and sustainable development.

### ***Transport Research Laboratory, UK***

The SEA Information Service website ([www.sea-info.net](http://www.sea-info.net)), supported by the Centre for Sustainability at TRL provides a gateway to information on Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA).

### ***UNECE***

Information on EIA and SEA in the context of the Espoo Convention of Environmental Impact assessment in a Transboundary Context and its Protocol on SEA can be found at [www.unece.org/env/eia](http://www.unece.org/env/eia).

### ***UNDP***

The objectives of UNDP's Strategic Environmental Assessment (SEA) Implementation Plan are to raise awareness, understanding and knowledge on SEA concept and benefits, to provide a systematic approach for mainstreaming environment into UN and UNDP programming at global, regional and national levels; to enhance the use of SEA as an approach in the preparation and implementation of MDG-based national development strategies; and to enhance capacity of both UN staff and partner countries for SEA application. More SEA related information can be found at <http://europeandcis.undp.org/ourwork/environment>

### ***UNEP***

UNEP has developed a second version of its EIA training resource manual as a focus for capacity-

building. This incorporates a module on SEA (Sadler and McCabe, 2002). UNEP has also issued guidance on EIA and SEA good practice (Abaza *et al.*, 2004).

**UN University**

<http://onlinelearning.unu.edu/en/sea/> provides a link to an SEA Course developed for the UN University, describing range of SEA-tools and providing case materials and other valuable information.

**World Bank**

<http://go.worldbank.org/XIVZ1WF880> – provides information on: SEA structured learning programme; understanding SEA; SEA guidance, general reference documents, and country and sector specific documents; external SEA links; news and events; and questions and requests.

### Key references

Dalal-Clayton D.B. and Sadler B. (2005) Strategic Environmental Assessment: A Sourcebook and Reference Guide to International Experience. OECD, UNEP and IIED in association with Earthscan Publications.

Sadler B. & Verheem R. (1996). Strategic Environmental Assessment: Status, Challenges and Future Directions. Ministry of Housing, Spatial Planning and the Environment, The Netherlands, and the International Study of Effectiveness of Environmental Assessment.

Therivel, R. (2004) Strategic Environmental Assessment in Action, Earthscan, London.