



# Strategic Environmental Assessment & Regional Development Planning

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

TRAINING MANUAL

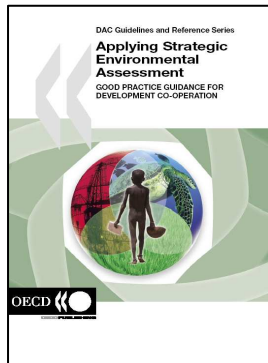
gtz



commissioned by  
 Federal Ministry  
for Economic Cooperation  
and Development

## Strategic Environmental Assessment

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



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>).

It also promotes the provisions of **UNECE Protocol on Strategic Environmental Assessment**, and relevant parts of the Resource Manual to Support Application of the Protocol on SEA (<http://www.unece.org/env/eia/sea>).

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# Introduction

## To the GTZ/InWEnt SEA Training

Strategic Environmental Assessment (SEA) offers a *promising methodology* to promote and improve planning processes in general and the integration of environmental aspects into policies, plans and programmes in particular. SEA has been introduced as an obligatory instrument in many industrialised countries and is meeting with growing interest in developing and transition countries too.

SEA provides support to achieve the *United Nations Millennium Development Goals* (MDGs), agreed to by all the world's countries and the world's leading development institutions at the UN General Assembly in 2000. MDG 7 on Environmental Sustainability resolves "to integrate the principles of sustainable development into country policies and programmes and reverse loss of environmental resources". Further, the importance of SEA in the context of development cooperation has been stressed by other international conferences and agreements such as the *Paris Declaration on Aid Effectiveness* (2005), which commits donors and their partner countries to "develop and apply common approaches for Strategic Environmental Assessment".

Taking this into account, the OECD Development Assistance Committee (DAC) has established a *Task Team on Strategic Environmental Assessment*. This was established in 2004 as a response to the demand for guidance on the most efficient and effective way to apply SEA in the context of development cooperation. The product was the OECD publication "*Applying Strategic Environmental Assessment. Good Practice Guidance for Development Cooperation*".

The OECD SEA Guidance highlights *two challenges for SEA application* both within development cooperation agencies and in partner countries: first, there is not sufficient knowledge amongst decision makers and administrations regarding the potential value of SEA for development effectiveness; second, the relevant institutions do not have much experience of using systematic decision-making tools such as SEA. According to the OECD SEA Guidance, these challenges can be addressed by capacity-development approaches, which always need to be based on local and intra-institutional efforts. However, development cooperation agencies can support partner countries, especially if capacity-development approaches take into account some basic principles such as outcomes and results orientation, system orientation, learning orientation and trust building.

The UNECE Protocol on SEA (Kiev, 2003) was negotiated to supplement the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991). The Protocol has been signed by 37 States and the European Community. It will enter into force once 16 signatories have ratified it and become Parties, and several States have already done so. Once in force, the



Protocol will be open for accession by any Member State of the United Nations, subject to approval by the existing Parties, and may so become a global instrument for SEA.

Based both on the OECD SEA Guidance principles and on the practical perennial experiences with impact assessment tools in development cooperation, the Deutsche Gesellschaft für technische Zusammenarbeit (GTZ, German Technical Cooperation) and Capacity Building International (InWent) developed GTZ/InWent SEA Training Manual on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). The target group includes Environmental Impact Assessment experts, administration officials and NGO representatives. For the training of experts from the countries of Eastern Europe, Caucasus and Central Asia (EECCA), the manual has been further modified in order to integrate the relevant provisions of the Protocol on SEA.

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 a regional development programme in the fictitious "Rumburec Region".

The GTZ/InWent SEA training has been delivered in the context of planning processes in Germany, Benin, Tunisia, Mauritania, Namibia, Indonesia and Viet Nam. Further, participants from South Africa, Australia, Canada, Colombia, the Czech Republic, Kenya, Macedonia, Montenegro, Nepal, Serbia, Slovakia, Sweden and Tanzania have joined training courses. In 2007, the training was also delivered prior to the annual conference of the *International Association for Impact Assessment (IAIA)* in Seoul 2007, during the Commission for Sustainable Development (CSD-15) in New York, during the international McGill-UNEP Master Program in Environmental Assessment at the McGill University (Canada) and for the African Development Bank in Tunisia.

This Training Manual represents a contribution to applying the OECD SEA Guidance and the UNECE Protocol on SEA. It aims to provide a tool to foster processes of integrating environmental considerations into policies, plans and programmes. It also serves to evaluate linkages with environmental, economic and social considerations.

Welcome to the fictitious "Rumburec region"!

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## 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*

## 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: Overall Context “Rumburec Region”

## Regional Development Planning in Rumburec Region

### *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 Rumicke 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.

### *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 2005 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 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 2005.

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 2005 was 490 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.

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, Rakonocce 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.

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, Rumicke 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.

### **Regional Development Programme**

#### ***Basic characteristics***

The Regional Development Programme (RDP) of the Rumburec Region is being prepared for the period 2007 – 2013. 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 2004 – 2006 and on the Regional Development Strategy (a long-term strategic document).

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

#### ***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 have the following components:

- Competitive Economy
- Rural Development
- Human Resources
- Infrastructure



# RUMBUREC REGION

Federal Republic  
of Helmany



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

1:400 000





# Case Study: Regional Development Programme of Rumburec Region

## Case Work A: Link programme and SEA

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

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

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)

The carrying out of an SEA is required by the relevant national legislation, i.e. the Act on Environmental Assessment. The Act came into force in 2004 (in order to implement the EU SEA Directive) so the RA already has experience with SEA for other regional strategic documents. On the other hand, the Authority has usually contracted an external consultant to carry out the SEA and so fulfil the legal obligations.

The previous SEAs conducted within the region were not of a sufficient quality and 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. The RA has no clear idea how the SEA could be beneficial or supportive to the preparation of the RDP.

As an advisor to the SEA process you know that the following analytical tasks should be performed during the SEA:

- 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

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 might you 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?



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### 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)			



## Case: Regional Development Programme of Rumburec Region

### 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

Now you need to select general environmental 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.

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 that are important, given the overall purpose of the RDP and while considering the key environmental issues in the study area?
- What are the ‘strategic indicators’ or ‘guiding questions’ for analysing the baseline trends and impacts of the RDP on these issues or 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?

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).

You can carry out this exercise using two different techniques: (1) using the table in handout B.1 or

(2) using a comprehensive checklist that will be handed to you during the case work. 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.3.





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

General environmental and health themes to be considered	Key specific environmental and health issues related to the RDP	Official environmental and health objectives related to the RDP	Guiding questions or indicators for the assessment
<p><i>List the general environmental and health themes for the RDP</i></p>	<p><i>Identify and explain the key specific environmental and health 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 and health 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 and health 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).
- 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.
- 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.
- 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.

### 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 sewerage 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 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.

### 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 burning 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 2010). 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 is unlikely to be achieved until 2010.
- The degree of separation of municipal waste has increased. In 2005 about 53% of municipal waste collected was incinerated, 33% was sent to landfill and the rest was recycled.
- 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.



### Case: Regional Development Programme of Rumburec Region

#### 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 and now you need to describe the main key future trends for selected issues if the RDP were **not** to be implemented. This will be your baseline for further tasks within the SEA.

#### Instructions for the case work:

Please develop answers to the following questions:

- How would you describe the relationship between the trend in NO<sub>x</sub> (which has been identified as one of the key relevant environmental issues) and the trend in transport (which is one of the major drivers of this environmental problem) on the basis of the given data (see exhibit C.1)?
- How would you predict the future baseline trends for NO<sub>x</sub>, based on the expected future changes in regional transport, if the Regional Development Programme were **not** implemented?
- How would you flag the key concerns?
- What would you do to make this projection more accurate?

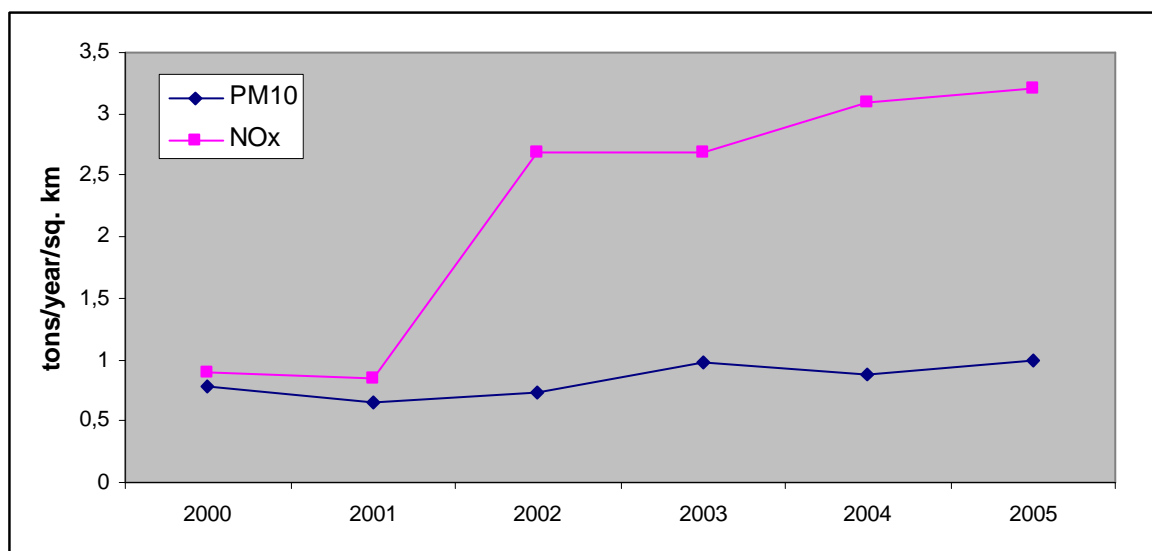


## Exhibit C.1: Air quality in the Region

### 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.



**Emissions of PM<sub>10</sub> and NO<sub>x</sub> for Rumburec Region**

Year	PM <sub>10</sub>	NO <sub>x</sub>
2000	0,78	0,89
2001	0,65	0,84
2002	0,74	2,69
2003	0,97	2,68
2004	0,88	3,1
2005	0,99	3,2

### 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



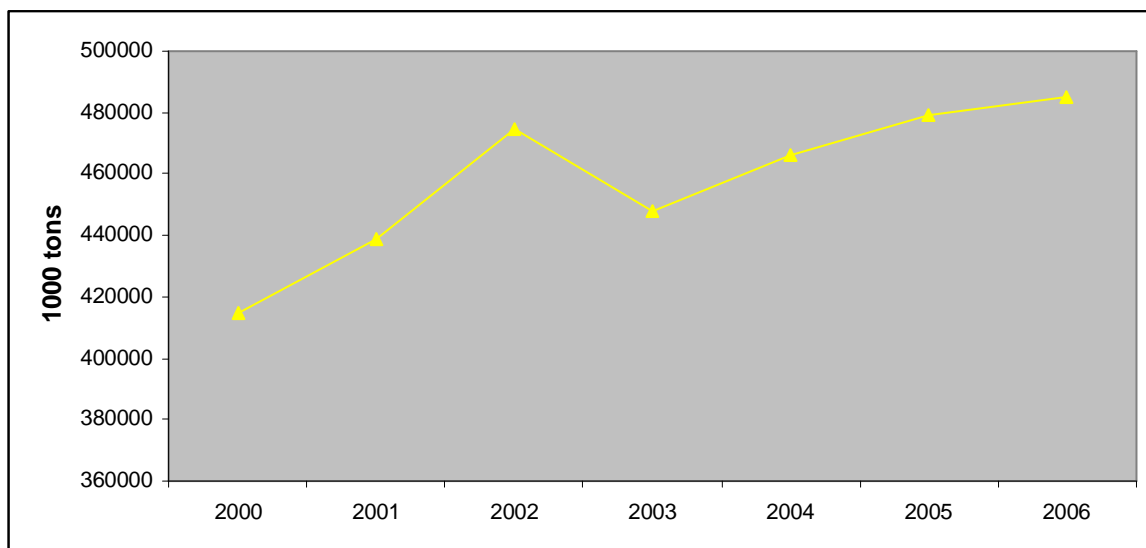
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of the air pollution by location: while traffic is the main polluter in the bigger municipalities, the small villages (not connected to central heating systems) have problems with small local sources.

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 2005, indicates that the volume of regional transport is likely to increase to 640,000 tons/year by 2015 – this means a 33% increase in volume over the 10-year period between 2006 and 2015.



Transport of goods by lorries in Rumburec Region	
Year	1000 tons
2000	414 725
2001	438 683
2002	474 884
2003	447 956
2004	466 034
2005	479 000
2006	485 000



## Case: Regional Development Programme of Rumburec Region

### Case work D: Analyze proposed development priorities and their alternatives

<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 (see proposal # 1 below). You have also been given an alternative proposal that was formulated by the Chamber of Commerce, which was invited to join the RDP preparation by the Regional Authority (see proposal # 2 below).

#### Instructions for the case work

You are trying to determine the 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 protection 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) Propose changes in this development priority and ‘flanking’ measures. Your analyses should provide you with ideas for possible changes 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.
  - 4) If time permits, outline additional analyses that you would undertake in a real-life situation to analyse these strategic impacts properly.

### Proposal # 1 (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 opportunities for education and implementation of innovative approaches
- Improve the road infrastructure with preference to the building of ring-roads around municipalities
- Minimize the production of municipal waste and find new locations for landfill
- Support agriculture production in the Region by the introduction of new technologies.



## 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

Development priority:		
<i>Relevant environmental objectives</i>	<i>Likely significant impact:</i>	<i>Possible mitigation measures</i>
<p>List all environmental protection objectives identified in the preceding step that are relevant to the proposed development objective</p>	<p>Indicate how the proposed development objective relates to the relevant environmental objective. Use the following terms or colours:</p> <ul style="list-style-type: none"> <li>absolute conflict or constraint (red)</li> <li>considerable conflict or constraints (orange)</li> <li>partially positive impact or synergy (light green)</li> <li>full synergy – the proposed objectives resolves an existing environmental or sustainability problem (dark green)</li> <li>impact is uncertain (blue)</li> <li>impact is insignificant (no colour)</li> </ul> <p>You may supplement this by explanation on how the proposed development priority:</p> <ul style="list-style-type: none"> <li>positively or negatively affects the relevant environmental issue</li> <li>may lead to any new environmental risks</li> <li>creates favourable conditions for environmental improvements</li> </ul>	<p>Provide your recommendations for possible changes 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.</p> <p>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.</p>
		....
	...	...
<b>Recommended changes to the development priority:</b>		



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**Recommended flanking measures for management of relevant key environmental issues that you've identified:**

### Proposal # 2 (prepared by the Chamber of Commerce)

The regional branch of the Chamber of Commerce, involved in the RDP preparation, developed and submitted to the Regional Authority an alternative for the overall objective of the programme as follows: “The Regional Development Programme shall create the framework for further support of the regional economy by developing people’s knowledge and the Region’s business infrastructure”

- To support the establishment of new sites for business with preference to Rumburec and Svestkovec cities
- To finalize the highway to the Helmany border to ensure good connections with western markets
- To establish new ski resorts in Mizerske and Rakonose Mountains, exploiting the potential of the mountains for winter sports
- To support waste management with preference for the incineration of waste



## Handout D.2: Matrix for the initial analysis of conflicts or synergies between the proposed strategic directions of the programme as formulated by the Chamber of Commerce

Development priority:		
<i>Relevant environmental objectives</i>	<i>Likely significant impact:</i>	<i>Possible mitigation measures</i>
<p>List all environmental protection objectives identified in the preceding step that are relevant to the proposed development objective</p>	<p>Indicate how the proposed development objective relates to the relevant environmental objective. Use the following terms or colours:</p> <ul style="list-style-type: none"> <li>absolute conflict or constraint (red)</li> <li>considerable conflict/constraints (orange)</li> <li>partially positive impact or synergy (light green)</li> <li>full synergy – the proposed objectives resolves an existing environmental or sustainability problem (dark green)</li> <li>impact is uncertain (blue)</li> <li>impact is insignificant (no colour)</li> </ul> <p>You may supplement this by explanation on how the proposed development priority:</p> <ul style="list-style-type: none"> <li>positively or negatively affects the relevant environmental issue</li> <li>may lead to any new environmental risks;</li> <li>creates favourable conditions for environmental improvements</li> </ul>	<p>Provide your recommendations for possible changes in this proposed strategic orientation of the RDP. Try think creatively but also realistically – e.g. consider the economic implications or limitations of proposals that you make.</p> <p>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.</p>
		....
	...	...
<b>Recommended changes to the development priority:</b>		



**Recommended flanking measures for management of relevant key environmental issues that you've identified:**



### Case: Regional Development Programme of Rumburec Region

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.

The actions within the priority “Support small and medium-sized enterprises (SMEs) by providing opportunities for education and implementation of innovative approaches” are specified as follows:

- Introduction of a grant scheme to provide financial support to SMEs for:
  - use of alternative energy sources
  - increase of energy efficiency (energy audits, energy savings)



- introduction of environmental management systems (EMAS, ISO 9000, ISO 14000)
- Establishment of a Regional Information Centre for SMEs, to provide administrative support and consultations on relevant issues.
- Analysis of brownfield sites available in the Region that might be used as industrial and business zones.

Based on the discussions between the programming team and the Chamber of Commerce the Regional Authority has decided to include some of the Chamber's suggestions in the RDP – one of them is the construction of two commercial sites (420 ha and 320 ha in area) close to Rumburec and Svestkovec cities (please see the separately provided map outlining details of the location of proposed commercial sites).

- The first industrial zone (location A) is expected to host facilities for recycling plastics combined with an annual production of 15,000 tones of polyethylene. If the best available technology is accepted, this will emit 0.015 tons of NO<sub>x</sub>/year.
- The second industrial zone (location B) is expected to host a smelter of light-weight metals to supply the growing car production in the country. This facility will have an annual capacity of approx 400,000 tonnes of various light-weight metals and may emit between 0.22 and 0.30 tons of NO<sub>x</sub>/year, depending on the technology used.

### Instructions for the case work

You are expected to determine the cumulative effects of these proposed development actions on the trends in NO<sub>x</sub> emissions. When doing so, you may:

- Identify those proposed components of the RDP that will 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.1)
- Design measures to minimize negative effects and to maximize positive ones (mitigation 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.1 and the map as provided in the “overall context” (handout E.2).

## Handout E.1: Impact assessment matrix for the proposed action

Analysis of cumulative impacts of the RDP on the key environmental issues and objectives		
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
<i>Feature or component of the RDP (these may be clusters of projects or individual projects proposed in the RDP).</i>	<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>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.		



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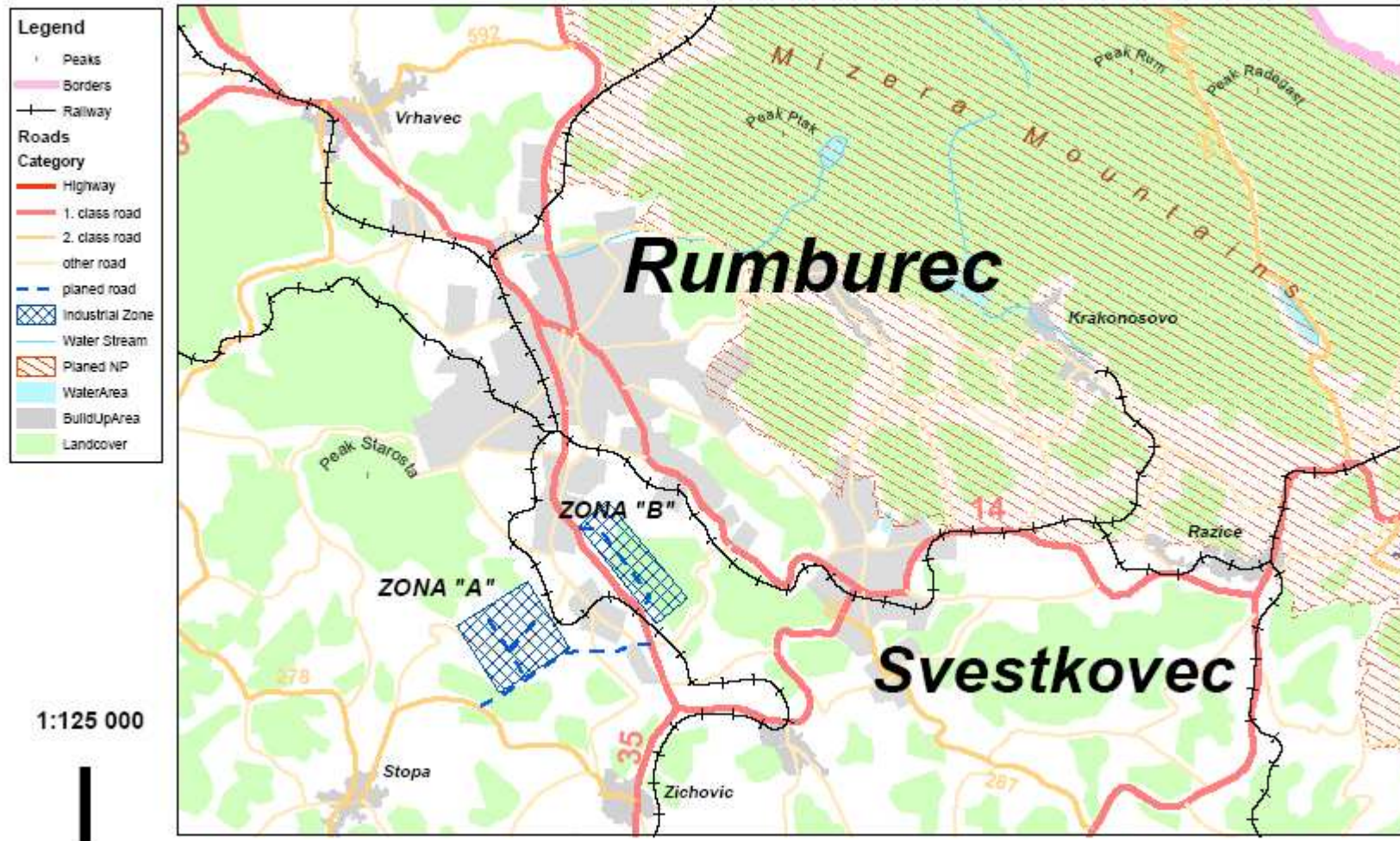
**Table E.1: Characteristics of environmental impacts**

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.2: Detailed map of the location of proposed commercial sites

## DETAIL OF RUMBUREC REGION





## **Case: Regional Development Programme of Rumburec Region**

### **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	• Centia's Academy of Science
• 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 these issues?
- Which key stakeholders belong to the public concerned?



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- 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?



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## 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: Regional Development Programme of Rumburec Region

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

<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

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.
- Devise mechanisms for ensuring the proper reflection of the SEA results in the programme implementation and monitoring. In this respect, it will be important that the

implementation process for this programme will be mainly done by the Regional Authority, which will be responsible for the project evaluation and selection.

- Consider how closely the SEA and planning teams should work together. What might be the advantages and disadvantages of your proposal?

### Case: Regional Development Programme of Rumburec Region

#### Case work H: Manage SEA effectively within budgetary and time constraints

##### Introduction to the exercise

The resources provided for an SEA in terms of time and budget, expert input, management support, etc., will always be restricted. Therefore, it is of great importance to organize the SEA process in a way that an effective SEA is brought in line with the available resources. This is usually done at the beginning of the SEA process. Within this exercise, this task is being performed in retrospect, making use of all the experiences you have gained during previous case works.

##### Instructions for the case work

You have completed some basic analyses that need to be performed during the SEA of the Regional Development Programme of Rumburec Region.

Now imagine that you are back at the beginning of the whole SEA process again and your first task is to prepare a basic management plan for a full SEA of such a programme.

The key guiding question is “How would you ensure that your proposed SEA tasks are effectively managed within the available time and resources?”

You need to summarize the key tasks (i.e. analyses and consultations) to be performed by the SEA team. You also need to determine the skills or expertise that needs to be present in the core SEA team. Lastly, you also know that available resources allow for a maximum of 200 person-days to perform this SEA. These 200 person-days include 70 person-days for unexpected (contingency) analyses – i.e. your operational budget allows you to allocate only 130 person-days to various tasks that need to be performed within the SEA.

You may summarize the proposed approach using the table below in exhibit H.1 that addresses the following issues:

- The final proposal of tasks (i.e. analyses and consultations) to be performed by the SEA team during the elaboration of the programme
- The required skills among the SEA experts
- A proposal regarding the expected number of person-days for each SEA stage



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**Exhibit H.1: Presentation of the proposed SEA approach, required expertise in the SEA team and proposed workdays for the completion of the SEA.**

<i>Steps of the programming process</i>	<i>Final proposal for the preparatory, analytical and participatory SEA tasks</i>	<i>Required expertise in the SEA team</i>	<i>Proposed number of workdays for this stage</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)			

# Annexes



# Annex 1: Executive Summary of the OECD SEA Guidance<sup>1</sup>

## 1. Introduction

Development assistance is increasingly being provided through strategic-level interventions, aimed to make aid more effective. To ensure environmental considerations are taken into account in this new aid context, established environmental assessment tools at the project level need to be complemented by approaches fully adapted to policies, plans and programmes. Strategic Environmental Assessment (SEA) meets this need.

SEA provides a practical and direct means of progressing MDG 7 on Environmental Sustainability (agreed at the UN General Assembly in 2000). This calls for the "integration of the principles of sustainable development into country policies and programmes". Secondly, SEA also helps further the Johannesburg Plan of Implementation agreed at the World Summit on Sustainable Development in 2002, which stressed the importance of "strategic frameworks and balanced decision making [...] for advancing the sustainable development agenda".

The Paris Declaration on Aid Effectiveness, adopted in 2005, commits donors to reform the way in which aid is delivered to improve effectiveness, by harmonising their efforts and aligning behind partner countries' priorities. It also calls upon donors and partners to work together to "develop and apply common approaches for strategic environmental assessment at sector and national levels".

This Guidance aims to respond to these challenges. Drawing on practical experience and established "good practice", it points to ways to support the application of SEA in the formulation and assessment of development policies, plans and programmes. In view of the great diversity of circumstances across different countries, it seeks to provide a commonly-agreed and shared model that allows for flexibility in developing appropriate applications of SEA to the diversity of needs. It is presented in the context of a rapidly emerging framework of international and national legislation on SEA in both developed and developing countries.

## 2. Understanding SEA

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 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.

<sup>1</sup> OECD DAC: Applying Strategic Environmental Assessment. Good Practice Guidance for Development Cooperation, DAC Guidelines and Reference Series, Paris 2006.



## EXECUTIVE SUMMARY

SEA is applied at the very earliest stages of decision making both to help formulate policies, plans and programmes and to assess their potential development effectiveness and sustainability. This distinguishes SEA from more traditional environmental assessment tools, such as Environmental Impact Assessment (EIA), which have a proven track record in addressing the environmental threats and opportunities of specific projects but are less easily applied to policies, plans and programmes. SEA is not a substitute for, but complements, EIA and other assessment approaches and tools.

### 3. The benefits of using SEA

Applying SEA to development co-operation has benefits for both decision-making procedures and development outcomes. It provides the environmental evidence to support more informed decision making, and to identify new opportunities by encouraging a systematic and thorough examination of development options. SEA helps to ensure that the prudent management of natural resources and the environment provide the foundations for sustainable economic growth which, in turn, support political stability. SEA can also assist in building stakeholder engagement for improved governance, facilitate trans-boundary co-operation around shared environmental resources, and contribute to conflict prevention.

### 4. Towards good practice in SEA

SEA is a continuous, iterative and adaptive process focussed on strengthening institutions and governance. It is not a separate system, nor a simple linear, technical approach. Instead, it adds value to existing country systems and reinforces their effectiveness by assessing and building capacity for institutions and environmental management systems.

Where SEA is applied to plans and programmes, a structured approach to integrating environmental considerations can be used. Key stages for carrying out an SEA on the level of plans or programmes include: establishing the context, undertaking the needed analysis with appropriate stakeholders, informing and influencing decision making, and monitoring and evaluation. SEA applied at the policy level requires a particular focus on the political, institutional and governance context underlying decision-making processes.

### 5. Application of SEA in development co-operation

The shift of emphasis away from development projects to programme and policy support has created a number of particular entry points for the application of SEA. This guidance outlines the benefits of using SEA in a range of different circumstances, and sets out 12 key "entry points" for effective application of SEA to development co-operation. It points to key questions to be addressed for each of them, accompanied by specific checklists of these questions, and illustrative case examples.

The entry points for SEA can be grouped into:

1. *Strategic planning processes led by a developing country:* These include national overarching strategies, programmes and plans; national policy reforms and budget support programmes; sectoral policies, plans and programmes; infrastructure investments plans and programmes; national and sub-national spatial development plans and programmes and transnational plans and programmes.

2. *Development agencies' own processes:* These include donors' country assistance strategies and plans; partnership agreements with other donor agencies, donors' sector-specific policies, and donor-supported public-private infrastructure support facilities and programmes.
3. *Other related circumstances:* These include independent Review Commissions and major private sector-led projects and plans.

## 6. How to evaluate an SEA

The key deliverable of an SEA is a process with development outcomes, not a product. Quality control therefore considers how well procedures have been carried out. But in the long term, the achievement of development outcomes, while ensuring the maintenance of environmental sustainability, will be the key measure of success.

When reviewing SEA processes, key questions concern: the quality of information, level of stakeholder participation, defined objectives of the SEA, assessment of environmental impacts, planned follow-up activities, and constraints.

Key questions to help evaluators focus on development outcomes of an SEA relate to: the accuracy of assumptions made during the SEA; its influence on the PPP process, on the implementation process, on development goals and on accountability; and the outcome of capacity-building activities.

## 7. Developing the capacity for effective use of SEA

Experiences of applying SEA have repeatedly highlighted two key challenges: lack of awareness of the value and importance of SEA, and, when the value is appreciated, lack of knowledge on how to implement SEA. These challenges can be significantly addressed by capacity development for SEA in both development agencies and partner countries.

For capacity development in partner countries, a capacity needs assessment is the first step. Support involves activities such as technical training, awareness-raising workshops, supporting the institutionalisation of the SEA process and its evaluation systems, and networking for sharing experiences.

Capacity development in donor organisations may go through training activities for staff and SEA guidelines and support, as well as systematic reviews and evaluations.

### Quick reference guide

What is SEA and why is SEA relevant to the international development agenda?	Chapters 1 and 2
What are the potential benefits of using SEA?	Chapter 3
What are the basic principles and processes involved in SEA?	Chapter 4
Where can SEA be effectively applied?	Chapter 5
What constitutes a good SEA process?	Chapter 6
How can we develop the capacity to apply SEA?	Chapter 7
Where is more information available?	Annexes and at <a href="http://www.sea-trustteam.net">www.sea-trustteam.net</a>

## Annex 2: 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
- Documents and justifies how sustainability issues were taken into account in decision-making.

### Is Participative

<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)

- ☑ 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 3: 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://europa.eu.int/comm/environment/eia/home.htm>. Provides information on environmental assessment and the European SEA Directive, policies, integration, funding, resources, news and development.

*EU Helpdesk on Mainstreaming Environment* (including integration of environment into Country Strategy Papers): <http://www.environment-integration.org>.

*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)* ([www.iam.net](http://www.iam.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* ([www.ied.org/Gov/spa](http://www.ied.org/Gov/spa)) – provides downloadable papers and books on EIA, SEA and related subjects and links to [www.nssd.net](http://www.nssd.net) for information on sustainable development strategies.



### ***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: [www.rec.org/REC/programs/environmentalassessment](http://www.rec.org/REC/programs/environmentalassessment))

### ***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. Sida's SEA Helpdesk (Environmental Economics Unit, University of Gothenberg) ([www.handels.gu.se/sea/helpdesk](http://www.handels.gu.se/sea/helpdesk)) and Sida's EIA Helpdesk (Swedish EIA Centre, SLU/Uppsala) ([www.mkb.slu.se](http://www.mkb.slu.se)).

### ***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://www.undp.org/fssd/priorityareas/sea.html> and <http://europeandcis.undp.org/environment/iep>



### **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://www.onlinelearning.unu.edu/sea-version1/Resources/Tools/tools.htm> 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**

[www.worldbank.org/sea/](http://www.worldbank.org/sea/) – 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.

[www.worldbank.org/cea/](http://www.worldbank.org/cea/) provides information on country environmental assessment as one of the key country-level diagnostic tools designed to enhance the World Bank's knowledge of the environmental aspects of client countries' development and their environmental management framework, capacity, and performance.

## 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 (available at [www.iied.org/spa/sea.html](http://www.iied.org/spa/sea.html) and at [www.seataskteam.net](http://www.seataskteam.net).)

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.

## Annex 4: Programme of the training

Programme of SEA Training of Trainers for experts from EECCA countries, Prague  
October 22 – 26, 2007

Date/ Timing	Sunday 21	Monday 22	Tuesday 23	Wednesday 24	Thursday 25	Friday 26
Venue		Hotel Regina, Prague	Hotel Regina, Prague	Hotel Regina, Prague	Hotel Regina, Prague	Hotel Regina, Prague
08.30	<b>Arrivals of participants</b>	<b>Introduction and training objectives</b> <ul style="list-style-type: none"> <li>• Introduction to training</li> <li>• Presentation of participants</li> <li>• Learning objectives</li> <li>• Practical information</li> </ul> <b>Corners game</b>	<b>Evolution and current status of SEA in participants' countries</b> <ul style="list-style-type: none"> <li>• Presentations &amp; discussions</li> </ul>	<b>Special lecture: Landscape and habitat fragmentation</b> <ul style="list-style-type: none"> <li>• Addressing fragmentation in SEA</li> <li>• Experience from the Czech Republic</li> </ul>	<b>Use effective means of participation</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Meeting with representatives of the Czech Ministry of Environment</b> <ul style="list-style-type: none"> <li>• Presentation on SEA legislation in the Czech Republic</li> <li>• SEA system in the Czech Republic</li> <li>• Group discussion on the man issues</li> </ul>
10.00		Coffee/Tea	Coffee/Tea	Coffee/Tea	Coffee/Tea	Coffee/Tea
10.30		<b>Brief introduction to SEA</b> <ul style="list-style-type: none"> <li>• Basic information</li> <li>• Evolution of SEA</li> </ul> <b>Introduction to case study</b> <b>Reading time for participants</b>	<b>Determine the right issues and scope of the assessment</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Analyze proposed development priorities and their alternatives</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Ensure reflection of SEA results in decision-making &amp; monitoring system</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Continued</b>  <b>- End of training -</b>
12.00		Lunch arranged	Lunch arranged	Lunch arranged	Lunch arranged	Lunch arranged

13.00		<b>Link programme and SEA</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Analyze the baseline trends</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Assess cumulative impacts of proposed activities and propose their optimization</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	<b>Manage SEA effectively within budgetary and time constraints</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case work</li> <li>• Wrap-up &amp; Discussion on how this relates to participants' context</li> </ul>	
14.30		Coffee/Tea	Coffee/Tea	Coffee/Tea	Coffee/Tea	
15.00 - 17.00		<b>Continued</b>  <b>Evolution and current status of SEA in participants' countries</b> <ul style="list-style-type: none"> <li>• Assignment of tasks</li> </ul>	<b>Continued</b>	<b>Continued</b>	<b>Closing session</b> <ul style="list-style-type: none"> <li>• Wrap-up of the training</li> <li>• Training evaluation</li> <li>• Participants' view</li> <li>• Distribution of certificates</li> </ul>	
18.00	Welcome dinner	Dinner arranged	Dinner arranged	Dinner arranged	Dinner arranged	Individual dinner