



## **environmental report**

**prepared in accordance with the directive 2001/42/EC  
on the assessment of the effects of certain plans  
and programmes on the environment**

**of the objective 3 programme  
territorial cross border cooperation  
austria - czech republic  
2007-2013**

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# 1 Non technical summary

## Framework

The programming group of “Objective 3 Territorial Cooperation Programme, Cross Border Cooperation Austria - Czech Republic 2007-2013” presented a draft operational programme on the Cross Border Cooperation between Austria and the Czech Republic. This report is an environmental assessment of this draft programme, pursuant to the EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment<sup>1</sup>.

## Description of the Operational Programme

**Global objective** of the programme is to **increase and intensify the cooperation** in this cross border region and to **support sustainable economic growth** of the region by **removing existing barriers** and **enhancing the development potential** of the territory.

**Two priorities** are defined:

**Priority 1 “Socio economic development, tourism and know-how transfer”** includes four fields of activities namely, *Business and innovation related environment and services; Tourism, culture and leisure economy; Human resources development, labour market, education and qualification* and *Health and social risk prevention, social integration*.

**Priority 2 “Regional accessibility and sustainable development”** includes three fields of activities, namely *Transport and regional accessibility, Environment and risk prevention* and *Sustainable networks, institutional cooperation and spatial planning activities*.

Also a **Priority 3 “Technical Assistance”** is foreseen for supporting the administration and implementation of the programme.

## Cooperation Programming Group, Ex-ante Evaluation and SEA

The preparation of the draft operational programme was conducted within a broad Programming Group composed by representatives of National authorities of Austria and Czech Republic, regional authorities, environmental authorities as well as external experts providing the Technical Assistance on the Programming, the Ex-ante evaluation of the programme and the team of the Strategic Environmental Assessment (SEA).

All members cooperated closely through a consensus-seeking iterative process. Thus, most remarks and comments of the SEA team have been incorporated in the draft operational programme.

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<sup>1</sup> Regarding the compliance of the present environmental report with the requirements of the Directive see overview in the Annex.

## Content and Results of the Environmental Report

The SEA assessed the likely positive and/or negative effects expected from the implementation of the programme's fields of activity on relevant environmental issues<sup>2</sup> and cross-border environmental objectives. For each environmental issue guiding questions/indicators were selected to guide the analysis within the SEA process. Initially the Environmental Report describes the likely developments in these issues in case the programme is not implemented. This "zero-option" represents the "baseline" for the overall assessment process within the SEA. Subsequently the relevance of the abovementioned environmental issues to the programme priorities and fields of activities was assessed. Where no relevance is assumed, no further assessment is conducted. Finally, the SEA projects the likely positive or negative environmental impact of implementing the specific priorities and fields of activities to the relevant environmental issues.

As a central result of the SEA it can be stated that no significant negative effects are expected from the implementation of the programme. Possible negative impacts are on the one hand constrained by the existent legal frameworks and environmental nature conservation policies on the national or regional level and can on the other hand be minimized by adopting the SEA suggestions and conditions for implementation in the programme and during programme implementation.

The assessment on the level of fields of activities resulted in suggestions for alternative formulations of fields of activities, proposals for new activities and general project selection criteria. These measures to prevent, reduce and offset adverse effects and the suggestions for improvements are regarded as required reasonable alternatives according the SEA-Directive. The suggested reformulations and amendments were provided to the programming team and discussed within an iterative process and have already partly been integrated into the different drafts of the programme.

In most cases the programme has a positive or neutral impact on the environment through the introduction of new technologies, communication networks and promotion of a service-oriented economy. There could be substantial synergies between environmental technology transfer, business development and growing tourism activities. Technology transfer networks could support the implementation of energy efficiency principles into most of business or public investment decision with positive impact on air quality, climate change and sustainable resource management. Negative impacts are mainly expected to occur in those fields of activities that have a spatial dimension and consume or exploit space (e.g. tourism, transport etc.). However, most of the likely negative effects have been eliminated through the iterative process between the Programming Group and the SEA team. Activities which support cross-border business development and tourism will increase the request for enlargements of regional road networks including major motorways and by-pass-routes and can therefore result in possible negative

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<sup>2</sup> Population: Human health and well-being; Fauna, flora incl. biodiversity and natural habitats; Soil and subsoil; Ground and surface water; Air; Climate protection; Landscape and cultural heritage and archaeological and architectural heritage; Functional utilizations (recreational utilization, housing etc.); Protection from natural hazards; Environmentally friendly transport/sustainable mobility systems; Energy efficiency and renewable energy sources; Resource efficiency and conservation/sustainable resource management.

cumulative effects On a long term individual motorized traffic and transport will increase, with negative impacts on air quality, noise and climate change.

Cross Border Cooperation Programmes are implemented through the selection of single projects proposed by the eligible applicants. It is thus beneficial to the environment to define specific project selection criteria that safeguard the environment. The SEA team proposed a series of criteria for each field of activity. Indicatively project selection criteria focus on the adoption of new technologies and “best available technologies” especially for reducing environmentally negative activities, the promotion of environmental awareness and decentralised tourism, the adoption of ISO 14.000/EMAS, the reduction of transport demand and the introduction of transboundary environmental assessment, the contribution in capacity building for environmental management and the fostering of participation and collaborative decision/making processes. The Environmental Report concludes with recommendations concerning the measures to be decided to monitor the significant environmental effects during programme implementation.

## 2 Main objectives and contents of the programme

In the new programming period 2007-13 the EU has inaugurated a new strategic approach, seeking better coordination of programmes and activities. The following steps in programming are foreseen:

- **Community Strategic Guidelines**, strengthening the linkage between the Structural and Cohesion Funds and the Lisbon and Gothenburg Agendas,
- **National Strategic Reference Frameworks** and
- **Operational Programmes.**

In light of the above and of the renewed Lisbon strategy for growth and jobs, **programmes cofinanced** through the cohesion policy should seek to target resources on the following **three priorities**:

- **improving the attractiveness** of Member States, regions and cities by improving accessibility, ensuring adequate quality and level of services, and preserving their environmental potential;
- **encouraging innovation**, entrepreneurship and the growth of the knowledge economy by research and innovation capacities, including new information and communication technologies; and
- **creating more and better jobs** by attracting more people into employment or entrepreneurial activity, improving adaptability of workers and enterprises and increasing investment in human capital.

In this context the significance of European territorial cooperation, raised to objective status is outlined. The aim of the new cooperation objective is to promote stronger integration of the territory of the Union in all its dimensions.

**Cross border cooperation** is a relevant topic in the European Union, with the **aim to reduce or eliminate the national borders**, which are very often **barriers** for a balanced socio-economic development of the regions concerned.

The new programme claims to build up on the **lessons learned** in the Cross Border Cooperation between Austria and the Czech Republic (Interreg-Phare CBC and Interreg IIIA 2004-2006), which will be enhanced through the really joint implementation of the envisaged operational programme.

The socio-economic analysis of the region outlines the following issues:

- The **GDP/capita** varies extensively in the region (measured by GDP/capita in PPP - from 60 to 160% of the EU average)
- **Education level** is improving but structural shortcomings are still evident,
- The **transport network** is dense, however falls short of current needs for environmental friendly and fast transport
- **Industry** underwent a fundamental restructuring associated with a distinct decrease of employment,

- **Environmental quality** improved markedly, however, problems still persist (under-developed system of environmental infrastructure) and new negative trends and risks emerge.

The starting point for the formulation of objectives and activities were the results of the socio-economic analysis. The activities were in line with the following principles:

- Adaptation of the **economic and social framework** and creation of an **integrated regional economic area**,
- Enforcement of **cross border relations** between the population, organisations and institutions in all sectors.

Generally the programme mentions the **limitations** imposed by the funds available and underlines the need for activities with specific cross border oriented topics and added value, inclusion of local stakeholders and consideration of EU and national policies.

The global objective of the programme is defined as follows:

**Global objective of the programme is to increase and intensify the cooperation in this cross border region and the support of sustainable economic growth of the cross border region by means of removal of existing barriers and enhancement of the whole development potential of the territory.**

The specific goals of the programme are defined as follows:

- **Enhancement of economic attractiveness of the territory, creation of conditions for know-how transfer and promotion of tourism and**
- **Improvement of accessibility of the border region and enhancement of the environment quality.**

Pursuant to the global goal of the operational programme and specific goals **two priorities** are defined:

- **Priority 1 “socio economic development, tourism and know how transfer”** includes four fields of activities namely,
  - **Business and innovation related environment and services** (indirect business support). Possible actions could focus among others on creation of business related services and technology transfer mechanisms, development of common core competencies and trade marks for the region, support of existing and new technologies (e.g. biotechnologies, “eco technologies”, ...) and of R&D and innovation in the field of “clean and resource efficient technologies”, Cross-border interconnection of economy, science and public administration (information system) etc.
  - **Tourism, culture and leisure economy.** Possible actions could focus among others on common destination management for leisure economy, tourism and culture, development of sustainable products for tourism (e.g. building-up of thematic trails etc.), enhancement of competitiveness and capacities in the field of tourist offer in compliance with ecological and social limitations, improvement

of the quality of standards for visitors of historical and cultural sights, support to creative industries and cross border visitor guidance systems

- **Human resources development, labour market, education and qualification.** Possible actions could focus among others on development and cooperation in the regional and cross border labour market / creation of information systems, Creation of entrepreneurial and management skills, including language capabilities, preparation for a common cross border labour market (e.g. common strategies, elaboration of qualification plans, cross border Territorial Employment Pacts etc.)
  - **Health risk and social risk prevention, social integration.** Possible actions could focus among others on improving social life in the border region, cooperation of organisations working in this field (e.g. social services, youth groups, NGOs focusing on children, disadvantaged, minorities, ...), elaboration of a cross border activity programme for social risk prevention and social integration for various target groups (disadvantaged groups and persons, minorities, young people), enhancement of public participation as means to raise social capital and development and improvement / building up of infrastructure for social risk prevention.
- **Priority 2 “regional accessibility and sustainable development”** includes three fields of activities, namely
- **Transport and regional accessibility.** Possible actions could focus among others on improvement of the transregional, cross-border, regional and local accessibility of the region, joint planning of transport corridors and common managing of impacts, development of cross border products for public transport (e.g. regional bus passes etc.), improving the quality of cross-border and border infrastructure (roads, railways, public traffic, airports etc.), coordination of transport related plans and programmes, utilisation of the existing infrastructure by new telematic transport and traffic applications, especially in logistics and commuting, improving telecommunication infrastructure, establishment of small border crossing points for “soft tourism and soft infrastructure”, creation of cycle paths and introduction of transboundary EIA/SEA for infrastructure activities.
  - **Environment and risk prevention.** Possible actions could focus among others on exchange of experience and pilot projects (e.g. protection of the environment, efficiency in energy, renewable energies, reduction of environmental pollution etc.), exchange of experience and use of environmental friendly technologies; there will be achieved positive effects for the environment as well as advantages in know-how and knowledge in the region, support the uptake of Environmental Management Systems (e.g. ISO, EMAS, Eco labels), establish certifications and creation of common quality criteria in the areas of economy, social and environment to harmonise the systems and qualities, awareness and know-how transfer in the field of waste (exchange and application of experience from the public relations in the field of municipal waste treatment, introduction of new methods of waste sorting and energy exploitation) and energy management (renewable resources, biogas) realization and coordinated implementation of

NATURA 2000 conception, flood control measures and joint coordination of activities (e.g. revitalization of river-basins, increasing the landscape retention capacity, building-up of catch basins and flood pools), Know-how transfer in the fields of flood protection and maintenance of sewage infrastructure, establishment of an integrated rescue system, joint activities in the field of nature and landscape protection (e.g. management plans for valuable localities in term of nature and culture or for landscape complexes, support of ecological education and publication of publicity and educational materials etc.).

- o **Sustainable networks, institutional cooperation and spatial planning activities.** Possible actions could focus among others on strengthening the bottom-up and the partnership principle, improved cooperation of innovative and regional actors by implementing a better regional governance of the relevant policies, integrated planning and environmental assessment (if requested) for strategic projects and processes, establishment of cooperation networks (networking of cities and in the culture, youth, Small Projects Fund) etc.

Both priorities are oriented towards the Lisbon and Gothenburg strategies as requested by the Commission.

Additionally a **Priority 3 “Technical Assistance”** is foreseen. It includes activities for the preparation, the monitoring, the evaluation and the control of the present programme as well as information and publicity to support the active participation of all partners and regions.

Table 1: Structure of the Operational Programme Objective 3 Territorial Cooperation Austria – Czech Republic

<i>Priority 1 – socio-economic development and know-how transfer</i>	<i>Priority 2 – regional accessibility and sustainable development</i>
Fields of Activity: AF 1 Business and innovation related environment and services AF 2 Tourism, culture and leisure economy AF 3 Human resources development, labour market, education and qualification AF 4 Health and social risk prevention, social integration	Fields of Activity: AF 5 Transport and regional accessibility AF 6 Environment and risk prevention AF 7 Sustainable networks, institutional cooperation and spatial planning activities
<i>Priority 3</i> <i>Technical Assistance</i>	

The fields of activities below the priority level are considered to be thematic intervention areas. The concrete actions included in the fields of activities form a broad variety and options for programme implementation in 2007-2013. Nevertheless, as this is an open formulated list of possible activities, further eligible activities can be supported and co-financed, which will arise during the programme implementation period.

**Potential applicants** are identified in the public and public-equivalent sectors (e.g. provincial governments, municipalities, associations and chambers, NGOs, regional support structures and OP implementing authorities). Private entities are excluded as final beneficiaries.

The programme has also been observed in the framework of the relevant Community, and National documents, among others:

- Community Strategic Guidelines,
- Austrian National Strategic Reference Framework STRAT.AT and Czech National Strategic Reference Framework,
- Objective 1 Regional and Sectoral Operational Programmes in the Czech Republic,
- Objective 2 Regional Operational Programmes in Austria
- Programmes to be financed through the European Agricultural Fund for Rural Development (EAFRD) and
- Transeuropean Networks (TEN).

As a **conclusion**, Cross Border Cooperation Programmes are oriented towards “soft actions”, including investment in infrastructures only at a small scale. Thus, their direct environmental impact is limited. Taking into account the respect of the sustainability principles in the design of the OP, the broad array of possible activities with an environmental dimension (especially among Priority 2) and the funds height and distribution among priorities, the programme offers a well balanced approach in the light of environmental concerns.

### **3 Scoping**

The scoping-process aims at defining the investigative frame of the SEA and the tools and methods used within the process.

#### **3.1 Geographical area of relevance**

The geographical area of relevance for defining the state of the environment, currents trends, but also for assessing possible positive or negative effects of objectives, priorities and proposed measures covers:

- the province of Lower Austria,
- the province of Upper Austria and,
- the province of Vienna in Austria as well as
- NUTS III regions South Bohemia,
- South Moravia and
- Vysocina in the Czech Republic.

Some effects will be considered in a larger geographical context, e.g. effects on change of global climate.

#### **3.2 Relevant period of time**

Trends and possible positive or negative effects of development objectives, priorities and proposed fields of activities have been assessed over the programming period 2007-2013 and further on until the year, when most of the projects funded by the programme will be finally implemented, probably in 2015.

#### **3.3 Environmental issues, objectives and guiding questions**

In accordance with the SEA directive the relevant environmental issues<sup>3</sup> were selected and relevant environmental protection objectives and regulations, established at international, Community of national level<sup>4</sup>, were identified. The following overview shows the selected issues and the objectives relevant for the Austrian and Czech regions that have been considered.

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<sup>3</sup> SEA Directive, Annex 1, item (f).

<sup>4</sup> SEA Directive, Annex 1, item (e).

Table 2.: Relevant environmental issues and objectives – AT and CR

Issues <sup>5</sup>	Relevant environmental objectives	Reference point/source for the given objectives	Relevant environmental objectives	Reference point/source for the given objectives
Population: Human health and well-being	<ul style="list-style-type: none"> <li>Reduce the share of population exposed to noise</li> </ul>	<p style="text-align: center;"><b>Austria</b></p> <ul style="list-style-type: none"> <li>EU-Directive on Assessment and Management of Environmental Noise (2002/49/EC)</li> <li>6th Environment Action Programme (COM(2001)131 final)</li> <li>Federal Environmental Noise Act (BGBl. I Nr. 60/2005)</li> <li>Regional Development Act of Lower Austria (LGBl. 8000)</li> <li>Austrian Strategy on Sustainable Development (2002)</li> <li>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ("Aarhus-Convention") (1998)</li> <li>Directive 2003/4/EC on Public Access to Environmental Information (UG-Novelle 2004, BGBl. I Nr. 6/2005)</li> </ul>	<p style="text-align: center;"><b>Czech Republic</b></p> <ul style="list-style-type: none"> <li>Reduce the share of population exposed to noise from transport and industry</li> </ul>	<p style="text-align: center;"><b>Czech Republic</b></p> <ul style="list-style-type: none"> <li>NEHAP</li> <li>National environmental policy</li> </ul>
		<ul style="list-style-type: none"> <li>Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>UN Convention on Biodiversity (BGBl. Nr. 213/1995)</li> <li>Alpine Convention – Protocol "Conservation of nature and the countryside" (BGBl. Nr. 477/1995)</li> <li>EU Sustainable Development Strategy (COM (2005)658 final)</li> <li>EU Action Plan to 2010 and Beyond (COM (2006) 216 final)</li> <li>Nature Protection Act 2000 of Lower</li> </ul>	<ul style="list-style-type: none"> <li>Participation of a wide spectrum of partners in environmental protection and realize partnership between authorities, NGOs, private sector and public</li> </ul>
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>UN Convention on Biodiversity (BGBl. Nr. 213/1995)</li> <li>Alpine Convention – Protocol "Conservation of nature and the countryside" (BGBl. Nr. 477/1995)</li> <li>EU Sustainable Development Strategy (COM (2005)658 final)</li> <li>EU Action Plan to 2010 and Beyond (COM (2006) 216 final)</li> <li>Nature Protection Act 2000 of Lower</li> </ul>	<ul style="list-style-type: none"> <li>Protect hot spots of biodiversity.</li> <li>Reduce environmental toxicants and search for substitute solutions.</li> <li>Protect natural elements in urban areas</li> <li>Support the reuse of brownfields.</li> </ul>	<ul style="list-style-type: none"> <li>National Biodiversity Conservation Action Plan</li> <li>National Environmental Policy</li> </ul>

<sup>5</sup> That need to be considered under SEA Directive.

Issues <sup>5</sup>	Relevant environmental objectives	Reference point/source for the given objectives	Relevant environmental objectives	Reference point/source for the given objectives
	<b>Austria</b>	Austria (LGBL 550-0) • Nature and Landscape Protection Act 2001 of Upper Austria (LGBL.129/2001)		<b>Czech Republic</b>
Soil and subsoil	<ul style="list-style-type: none"> <li>• Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>• BGBl. III Nr. 235/2002 "Soil conservation" BGBl. Nr. 477/1995 „Alpine convention“</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce entry of toxicants to soil</li> <li>• Reduce use of greenfields.</li> </ul>	<ul style="list-style-type: none"> <li>• National Environmental Policy</li> </ul>
Ground and surface water	<ul style="list-style-type: none"> <li>• Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>• 2000/60/EC Water Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>• Develop ecological function of river.</li> </ul>	<ul style="list-style-type: none"> <li>• National Environmental Policy</li> </ul>
Air	<ul style="list-style-type: none"> <li>• Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>• 2001/81/EG „Emission Ceilings“</li> <li>• BGBl. I Nr. 34/2003 „Emission Ceilings“</li> <li>• BGBl. I 115/1997 „Immission control“</li> <li>• BGBl. Nr. 210/1992 „Ozone“</li> <li>• BGBl. III Nr. 89/2005 „Kyoto protocol“</li> </ul>	<ul style="list-style-type: none"> <li>• Reach national emission limits – SO<sub>2</sub>, NO<sub>x</sub>, VOC, NH<sub>3</sub> o 2000 and target values (limits) for acidification of health and vegetation to 2000.</li> <li>• Reduce emission of hazardous substance.</li> </ul>	<ul style="list-style-type: none"> <li>• National Plan of Climate</li> <li>• NEHAP</li> </ul>
Climate protection	<ul style="list-style-type: none"> <li>• Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>		<ul style="list-style-type: none"> <li>• Reduce carbon dioxide emissions by 30% (on population) and total assembly emissions by 25% compared with 2000 and continue in trends to 2030.</li> </ul>	<ul style="list-style-type: none"> <li>• Kyoto Protocol</li> <li>• UNFCCC</li> </ul>
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>• Protect and improve the condition and functions of the cultural landscape</li> </ul>	<ul style="list-style-type: none"> <li>• Regional policies Lower (1976) and Upper Austria (1994)</li> <li>• Vienna Building Regulation Act (B20-000)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce fragmentation of landscape, protect and renew migration routes, corridors of migrating species.</li> <li>• Develop retention function of landscape.</li> </ul>	<ul style="list-style-type: none"> <li>• Transport Policy</li> <li>• National Biodiversity Conservation Action Plan</li> </ul>
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>• Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>• Austrian Strategy on Sustainable Development (2002)</li> <li>• Thematic Strategy on the Urban Environment (COM(2005) 718 final)</li> <li>• Alpine Convention – Protocols "Soil conservation" and "Spatial planning and sustainable development"</li> </ul>	<ul style="list-style-type: none"> <li>• Urban Sprawl</li> </ul>	<ul style="list-style-type: none"> <li>• National Biodiversity Conservation Action Plan</li> </ul>

Issues <sup>5</sup>	Relevant environmental objectives	Reference point/source for the given objectives	Relevant environmental objectives	Reference point/source for the given objectives
	<b>Austria</b>		<b>Czech Republic</b>	
		(BGBl. Nr. 477/1995) • Austrian Strategy on Sustainable Development • 6th Environment Action Programme (COM(2001)31 final)		
Protection from natural hazards	• Maintain and restore the protective capacity of ecosystems	• Water Charta of Lower Austria	• Improve landscape retention capacity and revitalization of water streams	• Policy for flood protection • Sustainable development policy
Environmentally friendly transport/sustainable mobility systems	• Decouple traffic volume increase from economic growth	• COM (2001) 370 White Paper European transport policy 2010 • BGBl. III Nr. 234/2002 BGBl. Nr. 477/1995 Protocol Transport of the Alpine convention	• Support environmental friendly transport systems. • Reduce environmental impacts of traffic and transportation	• National Biodiversity Conservation Action Plan • Transport Policy
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>• Decouple energy consumption from economic growth</li> <li>• Reduce total energy consumption</li> <li>• Increase the share of renewable energy sources in gross domestic energy consumption</li> </ul>	<ul style="list-style-type: none"> <li>• EU Green Paper on Energy Efficiency (COM(2005)265 final)</li> <li>• Austrian Strategy on Sustainable Development</li> <li>• Directive on Energy End-use Efficiency and Energy Services (Directive 2006/32/EC)</li> </ul>	<ul style="list-style-type: none"> <li>• To improve efficiency in the use of energy resources</li> </ul>	• National Energy Policy
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>• Decouple material consumption from economic growth</li> <li>• Reduce total material consumption</li> </ul>	<ul style="list-style-type: none"> <li>• Thematic Strategy on the Sustainable Use of Natural Resources (COM(2005)670 final)</li> <li>• 6th Environment Action Programme (COM(2001)31 final)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce consumption of primary non – renewable sources</li> <li>• Reduce consumption of mineral resources</li> <li>• Increase using waste and preferring recycling of all waste to 2012</li> <li>• Reduce specific production of risk waste 20% less to 2010</li> </ul>	<ul style="list-style-type: none"> <li>• National Resource Policy</li> <li>• Plan of Waste Management</li> </ul>

In order to address the cross-border character of the programme and to analyse the regions from a transboundary perspective, relevant cross-border environmental objectives have been formulated based on the objectives listed in the table above. Guiding questions/indicators were selected to guide the analyses within the SEA process.

Table 3: Environmental issues and objectives incl. suitable guiding questions/indicators:

Environmental Issues	Relevant cross-border environmental objectives <sup>6</sup>	Guiding questions/indicators
Population: Human health and well-being	<ul style="list-style-type: none"> <li>• Reduce the share of population exposed to excessive noise</li> <li>• Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>• Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>• Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>• Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>
Soil and subsoil	<ul style="list-style-type: none"> <li>• Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of soil and soil pollution</li> </ul>
Ground and surface water	<ul style="list-style-type: none"> <li>• Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>
Air	<ul style="list-style-type: none"> <li>• Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>• Status of air related to the Air Quality Framework Directive</li> </ul>
Climate protection	<ul style="list-style-type: none"> <li>• Decrease of emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>• Emission CO<sub>2</sub> eqv</li> </ul>
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>• Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>• Status of areas protected under UNESCO and national preservation regime</li> </ul>
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>• Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>• Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>
Protection from natural hazards	<ul style="list-style-type: none"> <li>• Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Activities based on programmes for flood protection and their possible effects</li> </ul>
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>• Decouple the increase of traffic volume from economic growth</li> <li>• Promote walking and cycling</li> </ul>	<ul style="list-style-type: none"> <li>• Volume of traffic and modal split</li> <li>• Quality of infrastructure for cycling</li> </ul>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>• Decouple energy consumption from economic growth</li> <li>• Reduce total energy consumption</li> <li>• Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>• Renewable energy production per capita</li> <li>• Energy consumption per capita</li> </ul>
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>• Decouple material consumption from economic growth</li> <li>• Reduce consumption of non-renewable resources</li> <li>• Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Status of extraction of non-renewable resources</li> <li>• Status of extraction of renewable resources</li> <li>• Status-of use of waste as secondary resources</li> <li>• Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>• Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>

<sup>6</sup> Based on objectives listed in table 2.

## 4 Current situation, trends and the likely evolution without the programme

The evaluation of the current state of the environment and of trends is based on the selected guiding questions and indicators and done mainly by description and summary. Wherever reasonable, data or graphs and maps are included as an additional reference.

The description of Austria differs from the description of the Czech Republic for various reasons. First, the available sources of information and the databases are different in the two countries. Second, the contribution of the programme to some objectives and fields of activity differs as well.

The outline of the likely evolution of the trends without implementation of the programme (“zero-option”) represents the baseline for the overall assessment of the programming document.

<p><b>Issue:</b>                  Population: Human health and well-being  <b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>	
Current state of the environment and trends	Likely evolution if the programming document is not implemented
<b>Austria</b>	
<p>Noise pollution is one of the main local environmental problems in Europe. Exposure to noise has serious effects on human health (e.g. cardiovascular diseases or psychological and behavioural effects). It is also harmful to animals (e.g. negative effects on habitats, changed breeding or feeding behaviour). In Lower and Upper Austria, about a quarter of the population feels disturbed by noise in their living environment, in Vienna more than one third of the population. The dominant source of disturbing noise is traffic. About three quarters of people suffering from noise feel disturbed by noise generated by motor vehicles, aircraft or rail transport. At work, up to a fifth of the population feels disturbed by noise.<sup>7</sup></p> <p>The participation of the public in environmental decision-making and public planning is of increasing importance in the EU and also in Austria. The relevant EU directives and international documents<sup>8</sup> are implemented in Austrian legislation. Besides the formal participation rights for citizens in administrative procedures (trading regulations, statute on water and waterways, provinces' statutes on land use, etc.) there are a range of informal participation processes like LA21 processes with the goal of strengthening local democracy, civil society and promoting sustainable development of the communities/regions. The number of municipalities/regions implementing LA21 processes is</p>	<p>The EU Directive on Environmental Noise (Directive 2002/49/EG) aims to avoid, prevent or limit the harmful effects, including annoyance, due to exposure to environmental noise. It requires competent authorities in Member States to draw up "strategic noise maps" for major roads, railways, airports and agglomerations by June 2007 as well as action plans to reduce noise where necessary and maintain environmental noise quality where it is good. Austria transposed the directive into national law in July 2005. Despite these obligations, it is expected that an ever increasing share of the population will be feeling disturbed by noise. It is expected that the volume of traffic (esp. freight transport) will continue to rise and keep disturbing the population. Also the conflicts about utilization of land will grow – there is an increasing demand for land, coupled with a limitation in its supply.</p> <p>There is a trend in EU-policy and legislation to promote sustainable development and strengthen the participation of the public in environmental matters and in public planning. Austria is following this trend in its legislation as well as in the implementation of informal processes. LA 21 processes will continue to increase especially in Lower Austria where the promotion of LA21 started late.</p>

<sup>7</sup> Statistik Austria, Mikrozensus 2003.

<sup>8</sup> e.g. Aarhus Convention, Directive on Public Access to Environmental Information, IPPC-Directive, SEA-Directive, EIA-Directive.

<p>increasing (2006: Upper Austria 80 processes, Lower Austria 19, Vienna 8).</p>	
<p><b>Czech Republic</b></p>	
<p>Despite recent efforts in building up noise barriers and diverting traffic from city centres, noise from traffic remains a serious concern. In the large majority of monitoring locations, corresponding to the main transport routes, noise levels exceed the limits of 55 dB in daytime and 45 dB at night. Noise intensity increased in daytime and also at night, and the number of people exposed to noise increased. The situation is worst in big cities and industrial agglomerations. Around 85-90 percent of noise is produced by traffic, 75 percent by road traffic.</p> <p>The Czech Republic has relatively progressive public participation laws, including several acts and provisions adopted since 1998. However, the Czech Republic lacks a "participation culture". Efforts are needed to increase public awareness of environmental issues and desire to participate in addressing them.</p>	<p>The EU Directive on Environmental Noise (Directive 2002/49/EG) aims to avoid, prevent or limit the harmful effects, including annoyance, due to exposure to environmental noise. It requires competent authorities in Member States to draw up "strategic noise maps" for major roads, railways, airports and agglomerations (by June 2007) as well as action plans to reduce noise where necessary and maintain environmental noise quality where it is good.</p> <p>The Directive was transposed to Czech legislation. Since June 2006, the Czech Republic has new regulations for health protection from environmental noise.</p> <p>Nevertheless, noise intensity increased in daytime and at night and also the number of people exposed to noise has increased.</p> <p>The majority of the Czech public is not very involved in or concerned about national environmental issues. One important factor is the absence of a culture of participation, but a very important factor is also the attitude of authorities towards public participation which is not very positive at this time. Nevertheless there are some good examples. Both government and stakeholders agree that more needs to be done to increase public awareness of environmental issues and to influence behaviour and consumption patterns. However, no substantial change has been taking place in this regard.</p>

<p><b>Issue:</b> Fauna, flora incl. biodiversity and natural habitats <b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>• Development of favourable conditions of the Natura 2000 network (incl. status of bio-corridors)</li> </ul>	
<p><b>Current state of the environment and trends</b></p>	<p><b>Likely evolution if the programming document is not implemented</b></p>
<p><b>Austria</b></p>	
<p>The ongoing unprecedented loss of biodiversity Europe is facing is also a problem in Austria. During the last decades the number of endangered or extinct native species has been rising dramatically. Although nature protection is considered an important issue and many instruments are available and despite the achievements realized, the negative developments could not be halted. The decline of species could not be stopped, nor could the progressive land take and its impacts (fragmentation and isolation of habitats and</p>	<p>Looking at the likely evolution with regard to the condition and extent of nature protection areas and the development of the favourable conditions of Natura 2000 sites, the situation is expected to remain stable. Ongoing fragmentation of landscape and loss of habitats due to sealing will remain a problem. Besides the provisions of the nature and landscape protection laws (which also transpose the directives 79/409/EEC and 92/43/EEC into national law) and the existing protection sites, legal requirements for a systematic</p>

<p>landscapes) be slowed down. According to the 'red list' of endangered species today, more than one half of mammal and one third of reptile, bird and fish species are endangered.</p> <p>Upper and Lower Austria are implementing nature and landscape protection by specific protection programmes for species, biotopes or landscapes and by nominating sites under different categories of area protection (see table on the right).</p> <p>In the Europe-wide ecological network Natura 2000, Upper and Lower Austria have nominated 24 resp. 21 sites. For 3 of the 21 sites in Lower Austria management plans already exist, the rest should be completed in 2007. Especially the regions in north-eastern Upper Austria (Mühlviertel) and north-western (Waldviertel) and southern Lower Austria contain large areas of cultural landscapes classified as (highly) worth being protected (esp. cultural) landscapes dominated by grain cultivation or winegrowing, cultural landscapes in highlands dominated by grassland, isle and ribbon shaped forests)<sup>9</sup>.</p>	<p>comprehensive monitoring of biodiversity exist in the concerned federal provinces of Austria<sup>10</sup> and build a valuable basis for future developments and planning. Next to sealing, urban sprawl and the disruption of habitats, cultural landscapes in Austria are threatened by the abandonment of traditional agricultural methods (e.g. the cultivation of large expanses of meadow land) or the intensive use of fields and woodlands. As agriculture and regionally differentiated cultivation methods are very important for the maintenance of typical cultural landscape patterns, the Austrian agro-environmental programme and its subsequent programme starting in 2007 are financing measures with positive effects in this context.</p> <table border="1" data-bbox="823 656 1382 1066"> <thead> <tr> <th rowspan="2">Category of Protection<sup>11</sup></th> <th colspan="3">Upper Austria</th> <th colspan="3">Lower Austria</th> </tr> <tr> <th>No.</th> <th>Area [km<sup>2</sup>]</th> <th>%<sup>12</sup></th> <th>No.</th> <th>Area [km<sup>2</sup>]</th> <th>%<sup>13</sup></th> </tr> </thead> <tbody> <tr> <td>National Park</td> <td>1<sup>14</sup></td> <td>165</td> <td>1.4</td> <td>2<sup>15</sup></td> <td>84</td> <td>0.4</td> </tr> <tr> <td>Nature Reserve</td> <td>104</td> <td>225</td> <td>1.9</td> <td>50</td> <td>82</td> <td>0.4</td> </tr> <tr> <td>Landscape Protection Area</td> <td>14</td> <td>44</td> <td>0.4</td> <td>29</td> <td>4300</td> <td>22.4</td> </tr> <tr> <td>Protected Part of Landscape</td> <td>7</td> <td>0,3</td> <td>0.0</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Natura 2000</td> <td>24</td> <td>744</td> <td>6.2</td> <td>21</td> <td>4153</td> <td>21.6</td> </tr> </tbody> </table> <p><i>Table 4: Nature and landscape protection in Lower and</i></p>	Category of Protection <sup>11</sup>	Upper Austria			Lower Austria			No.	Area [km <sup>2</sup> ]	% <sup>12</sup>	No.	Area [km <sup>2</sup> ]	% <sup>13</sup>	National Park	1 <sup>14</sup>	165	1.4	2 <sup>15</sup>	84	0.4	Nature Reserve	104	225	1.9	50	82	0.4	Landscape Protection Area	14	44	0.4	29	4300	22.4	Protected Part of Landscape	7	0,3	0.0	-	-	-	Natura 2000	24	744	6.2	21	4153	21.6
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<b>Czech Republic</b>																																																	
<p>Valuable ecosystems are being destroyed in the Czech Republic. Fragmentation, isolation and destruction of dominant stations are severe problems.</p> <p>The Czech Republic has a high level of diversity of species and habitats. The country is one of the most important crossroads on the migration routes for several floristic elements. Important habitat types include natural forest, peatlands, major river basins, lakes and fish ponds, wetlands, and several types of meadows and grasslands. Bird populations in the agricultural landscape are continuing to decrease and some species may disappear. Birds in wetland habitats are especially at risk. The numbers of amphibians and reptiles are continually decreasing.</p> <p>The government has adopted a list of 864 sites for Natura 2000 (SCI and SPA) in 2004. The protection areas cover 16% of state extent.</p> <p>The result of human activity is the diminished retention</p>	<p>The Czech Constitution stipulates that the State should care about nature conservation and the considerate use of natural resources. The Act on Protection of Nature and the Landscape provides the main legislative framework for appropriate nature and landscape management.</p> <p>The EU accession process has been the driving force to revise the legislative framework. The latest amendment to the Act on Protection of Nature and Landscape transposes the EU Birds and Habitats Directives. The protection of nature, landscape and biological diversity became the first of the four pillars in the 2004 SEP. The country has a variety of programmes for nature conservation and landscape protection, supported in part by EU funds. The new legislation requires assessing project and conception impact to Nature 2000 sites. It's a very strong tool for Nature 2000 conservation.</p> <p>In spite of new legislation and new programmes for natural conservation, destruction of valuable ecosystems at this time</p>																																																

<sup>9</sup> Wrbka, T. et al. (2005) Die Landschaften Österreichs und ihre Bedeutung für die biologische Vielfalt. Wien: Umweltbundsamt Monographien.

<sup>10</sup> Niederösterreichisches Naturschutzgesetz 2000 (LGBl. Nr. 5500-0), Oberösterreichisches Natur- und Landschaftsschutzgesetz 2001 (LGBl. Nr. 129/2001).

<sup>11</sup> Data source: Amt der OÖ Landesregierung, Amt der NÖ Landesregierung.

<sup>12</sup> Of the surface area of the Federal Province

<sup>13</sup> Of the surface area of the Federal Province.

<sup>14</sup> Kalkalpen National Park.

<sup>15</sup> Thayatal National Park and Donau-Auen National Park.

<p>capacity of the landscape, the decreased biodiversity of agricultural ecosystems, low biodiversity of monoculture forests, and older ecological burdens.</p> <p>In the South Moravia area are the National Park Podyjí, the protected landscape areas Moravský kras, Pálava and partly Bílé Karpaty, Natura 2000 - 8 SPAs and 171 EVL. In South Bohemia is the National Park Šumava, the protected landscape areas Blanský les, Třeboňsko and partly Šumava and in Natura 2000 – 7 SPAs and 74 EVL. In Vysočina are situated the protected landscape areas Železné hory and Žďárské vrchy, in Natura 2000 – 111 EVL.</p> <p>Regions make efforts to protect existing parts and realise new parts of Territorial System of Ecological Stability (TSES).</p>	<p>is going on. Fragmentation, isolation and destruction of dominant stations are severe problems. The pressure for new infrastructure is very strong.</p>
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<p><b>Issue:</b> Soil and subsoil<sup>16</sup> <b>Guiding question(s)/indicator(s):</b> • Quality of soil and soil pollution</p>	
<p>Current state of the environment and trends</p>	<p>Likely evolution if the programming document is not implemented</p>
<p style="text-align: center;"><b>Austria</b></p>	
<p>The Austrian soil information system (BORIS) oversees heavy metals and organic substances as well as microbiologic data. Nearly half of all measuring sites are situated in the considered region. Compared to other regions in Austria, they do not show higher a content of heavy metals or organic pollutants.</p> <p>Due to decreased entry of these substances no enhanced values are expected in the future. As an example, the following map shows the content of lead in the soil layer 0-20 cm.</p> <p>Vienna has its own reporting system. Vienna has higher values of lead in proximity to main roads; but the tendency is a decrease of lead.</p> <p>A rough estimation of the area endangered by soil erosion showed values of around 400,000 ha. Exact data based on examples and measurements is not available.</p>	<p>It can be assumed that at least the input of lead and cadmium in the soil will decrease since emissions and thus depositions keep decreasing. However, there is no indication that the contents of heavy metals in soils will decrease in the near future since soil properties change only slowly and the fixation of inorganic pollutants in the soil tends to be rather strong.</p> <p>It can be assumed that soil erosion or areas susceptible to it will be reduced if the acceptance of protection measures against erosion in agriculture and the observance of suitable crop rotations (incl. forage cropping and temporary grasslands) keep increasing. However, the prevention of unfavourable changes of land use is a precondition to achieve this end.</p>
<p style="text-align: center;"><b>Czech Republic</b></p>	
<p>Large areas suffer from soil erosion. High-quality soil decreases fast on behalf of built-up areas. The strongest effort in South Moravia is in frontier regions and around big cities (Brno).</p> <p>Substances enter the soil mainly after the application of fertilisers from treated sludge from wastewater treatment</p>	<p>The biggest problems are soil erosion, fast high-quality soil decrease on behalf of built-up areas and toxicants in soil.</p> <p>There is no legislation for soil and soil protection in the Czech Republic. The protection of the soil fund is an underlying element of the strategy for sustainable development and of the state environment policy (SEP). The SEP together with</p>

<sup>16</sup> Umweltbundesamt (2004), Umweltsituation in Österreich Siebenter Umweltkontrollbericht des Umweltministers an den Nationalrat (1.Juli 2004), Wien.

<p>plants (WWTP), pesticides, and by atmospheric deposition. Sludge from WWTP is one of the risk substances applied to the soil.</p> <p>In addition to monitoring the basic agrochemical values the content of hazardous substances and hazardous elements is tested. Most of the 12 monitored hazardous elements exceeded the limits in less than 2% of the analysed samples, with more unsatisfactory samples occurring only for Cd (2.4%) and As (6.5%).</p> <p>The organic pollutant content levels in soil are monitored at 40 selected areas of arable land (these areas include the subsystem of monitoring areas with increased load by hazardous elements and organic extraneous substances). The monitoring concerns: PCB, PAHs and OCP (persistent organochlorine pesticides).</p> <p>The PAH and PCB content levels show a slight increase.</p>	<p>the National Strategy for Sustainable Development provides a strategic framework for environmental policies. But as it stands, the SEP focuses more on administrative process than on results and outcomes. It gives more emphasis to instruments than to targets, and when targets are quantified, the purpose is to take into account EU targets.</p>
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<p><b>Issue:</b> Ground and surface water<sup>17</sup></p> <p><b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	
<p>Current state of the environment and trends</p>	<p>Likely evolution if the programming document is not implemented</p>
<p style="text-align: center;"><b>Austria</b></p>	
<p>Austria has 2,143 lakes and ponds with a surface area larger than one hectare, and its network of running waters stretches nearly 100,000 km.</p> <p>The problems in the water quality sector have largely been solved for surface waters,. Ecological deficits, particularly in running waters, reflect hydraulic engineering measures and altered discharge regimes.</p> <p>For the major part of substances identified as dangerous it is likely that, in individual cases, a good chemical status cannot be achieved.</p> <p>The karst groundwater in the northern and southern Limestone Alps, along with the groundwater in porous media in valley and basin landscapes, represent Austria's most important groundwater resources.</p> <p>A trend analysis of selected parameters in the groundwater areas from 1992 to 2002 revealed downward trends (especially for nitrate, atrazine and desethylatrazine) and upward trends (e.g for potassium, chloride, orthophosphate). On the other hand, the concentration levels for the parameters potassium, sodium, chloride and orthophosphate are almost without exception below the groundwater threshold value, the drinking water parameter value, or the indicator value.</p>	<p>The problems in the water quality sector have largely been solved for surface waters, both in the case of running and standing waters. Ecological deficits, particularly in running waters, reflect hydraulic engineering measures and altered discharge regimes.</p> <p>The trend analysis in the groundwater areas revealed mostly sinking trends in the parameter nitrate, for which a total of 13 surveillance - and potential remediation areas were designated. However, this positive result is in contrast with higher values measured in several groundwater areas, especially in the past few years (although this is not yet a statistically significant upward trend). The reduced number of surveillance and potential remediation areas for atrazine and desethylatrazine shows the success of rescinding certification in the framework of the Plant Protection Act.</p>

<sup>17</sup> Umweltbundesamt (2004), Umweltsituation in Österreich Siebenter Umweltkontrollbericht des Umweltministers an den Nationalrat (1.Juli 2004), Kap. 4.3 S.303f Wien.

Czech Republic	
<p>The water quality of the Czech Republic's rivers and streams has improved, but nevertheless, the great majority of river reaches remain in Classes III, "polluted", and IV „very polluted". Microbial pollution remains widespread, coming mainly from municipal waste water, and most rivers are not suitable for swimming. Many reservoirs and fishponds also suffer from serious nutrient enrichment due to agricultural runoff, erosion and deposition from the air. Groundwater monitoring shows that many groundwater aquifers, particularly shallow ones, remain contaminated with a variety of substances (e.g. chlorides, aluminium and ammonium ions, PAHs, pesticides).</p> <p>Nevertheless, in 2003, testing of groundwater samples against drinking water criteria showed fairly frequent breaches of the limits for nitrates (13.6 % of samples), COD (12.2 %) and ammonium (11.7 %), as well as less frequent breaches for nickel (3.9 %), fluorides (2.4 %) and atrazine (1.7 %). The contamination is largely a legacy of past industrial practices, as substances released many years ago are just now appearing in the groundwater. But current sources also contribute.</p>	<p>The water quality of the Czech Republic's rivers and streams has improved. Compliance with EU environmental Directives is requiring a considerable financial effort from the Czech Republic. Many reservoirs and fishponds also suffer from serious nutrient enrichment due to agricultural runoff, erosion and deposition from the air. The Czech government has already undertaken various actions required under the EU Nitrates Directive. Under Government Regulation 103/2003, it designated about 36 % of the Czech territory (representing 43 % of agricultural land) as vulnerable to nitrate pollution and set rules for manure storage, buffer strips, erosion control, etc. In 2002, the Ministry of Agriculture published principles of good agricultural practice, and farmers will have to comply with these principles in order to receive EU agricultural support payments starting in 2007. In 2004, the government adopted an updated strategy for financing the investment (CZK 5.4 billion) and non-investment (CZK 25.7 million annually) cost of implementing the Nitrates Directive. Now that the main instruments and financing plans are in place, efforts should focus on a vigorous implementation of various programmes, notably the construction of manure storage facilities. Water quality should increase.</p>

<p><b>Issue:</b> Air<sup>18</sup> <b>Guiding question(s)/indicator(s):</b> • Status of air related to the Air Quality Directive</p>	
Current state of the environment and trends	Likely evolution if the programming document is not implemented
Austria	
<p>Pollution due to suspended particles generally decreased until the second half of the 1990s, and since then this form of pollution has stagnated. Ambient air pollution of PM<sub>10</sub> is very high throughout Austria; the limit value for PM<sub>10</sub> is exceeded in all larger cities of Austria (except Salzburg) and in vast areas of the north-east unless comprehensive measures are taken. A further decrease of the limit value in the years to come will worsen the problem even further. Emission inventories show no reduction in dust emissions over the past years. .</p> <p>In the last few years, the Air Quality Protection Act's limit value for NO<sub>2</sub> has been exceeded occasionally at sites in the vicinity of high-traffic zones in larger towns. Last years the overall emission increased slightly.</p> <p>Between 2000 and 2002, the pre-warning threshold value under the Ozone Act and the information threshold value were exceeded on several days each year, mostly in</p>	<p>All emissions discussed under this topic are based in following sectors: energy supply sector, small combustion, industry, transport, agriculture and other (waste disposal sites and emissions from solvents).</p> <p>The evolution of the emissions goes hand in hand with trends in these sectors. Therefore a general statement cannot be made.</p>

<sup>18</sup> Umweltbundesamt (2004), Umweltsituation in Österreich Siebenter Umweltkontrollbericht des Umweltministers an den Nationalrat (1.Juli 2004), Kap.4.2 S.275f, Wien.

<p>northeastern Austria. The long-term pollution has increased slightly over the past ten years.</p> <p>in the past few years, the Air Quality Protection Act's limit values for the protection of human health have only been exceeded occasionally at sites in the vicinity of industrial plants SO<sub>2</sub> pollution in Austria has decreased considerably since the 1980s.</p>	
<b>Czech Republic</b>	
<p>Emissions of SO<sub>2</sub> decreased by 48% during 1998-2003. However, the SO<sub>2</sub>-intensity of the Czech economy remains almost double that of the OECD Europe average as well as the EU-15 average. VOC emissions decreased from an estimated 242 kt in 1998 to 198 kt in 2003, and the Czech Republic surpassed the CLRTAP Geneva Protocol objective of reducing VOC emissions by 30% during 1990-99. Although current VOC emissions are below the 220 kt ceiling set for 2010 by the Gothenburg Protocol and the EU National Emissions Ceiling Directive, likely increases in traffic will make this target difficult to achieve.</p>	<p>Czech ambient air quality standards have become somewhat more stringent since the adoption of EU limits. Regulation No. 350/2002 already incorporates the limits for arsenic, cadmium, mercury, nickel and PAHs that are likely to be stipulated in the forthcoming fourth daughter Directive. The Integrated National Programme of Emission Reduction, under which the central government provides funds to help municipalities draw up air management plans, will contribute to compliance with international commitments.</p> <p>The Czech Republic did a great deal during the review period to reform the institutional framework for the energy sector and make it more consistent with that of other EU countries. New laws (Energy Act No. 458/2000; Energy Management Act No. 406/2000) and institutions (State Energy Inspection Board, Energy Regulatory Office) were put in place, and formal energy policies and programmes were adopted. An overarching energy policy document, the State Energy Policy, was approved in 2000 and reviewed in 2004. The EU was an important driver with its Directives on Renewable Energy (2000/77/EC), Large Combustion Plants (2001/80/EC), Energy Performance of Buildings (2002/91/EC), Use of Biological and Alternative Fuels in Transport (2003/30/EC), Common Rules Regarding the Internal Electricity Market (2003/54/EC), Taxation of Energy and Electricity (2003/96/EC), and Cogeneration (2004/8/EC). Great problems for air protection are mainly transport and small resources.</p>

<p><b>Issue:</b> Climate protection <b>Guiding question(s)/indicator(s):</b> • Emission CO<sub>2</sub>eqv</p>	
<b>Current state of the environment and trends</b>	<b>Likely evolution if the programming document is not implemented</b>
<b>Austria</b>	
<p>Austrian GWP emissions reached a level of 91.3 million tonnes. Thus, they are 28.7 % away from the stipulated objective in the Kyoto Protocol.</p> <p>In 2002, the considered region emitted approx. 51 million tonnes CO<sub>2</sub>-eqv, or 60 % of the overall Austrian emissions. This means +1.7 % in relation to 2001. In absolute numbers, Lower and Upper Austria are responsible for the highest</p>	<p>In recent years, Austrian has not come closer to the GHG reduction goal of 13% stipulated in the Kyoto Protocol. The figure below shows that as of 2001, greenhouse gas emissions had increased by 9.6% since the base year 1990. Thus Austria's deviation from the linear (hypothetical) Kyoto path amounted to 16.8 index points in 2001.</p> <p>With this deviation, Austria ranks fourth to last among EU</p>

<p>emissions compared to the other states. Between 1990 and 2002, emissions of CO<sub>2</sub> eqv. remained on a high level or increased slightly.</p> <p>The share of CO<sub>2</sub> in the total GWP emissions is constantly increasing (82 %) and dominates the total GWP trend. In Upper Austria, the main emission source is the industrial sector (55 %), while in Lower Austria and Vienna, power supply produces most emissions. Nevertheless, the transport sector is responsible for a significant part of emissions.</p>	<p>Member States. The main reason for the increase in Austrian GHG emissions is the growing use of fossil fuels and the resulting increase in CO<sub>2</sub> emissions. The highest growth rates can be observed in the transport sector, where greenhouse gas emissions have increased by almost half (+ 49%) since 1990.</p>
<b>Czech Republic</b>	
<p>The Czech Republic acceded to the Framework Convention on Climate Change (FCCC) in 1992 and completed the process of ratifying the Kyoto Protocol in November 2001. Under the Kyoto Protocol, the Czech Republic has a legal obligation to reduce its GHG emissions by 8%.</p> <p>In practice, it has already reduced total emissions by almost 25%, from 190.5 million tonnes (of CO<sub>2</sub> equivalent) in 1990 to 144 million tonnes in 2001, an achievement that sets it well on the path to fulfilling its obligations for 2008-12.</p> <p>GHG emissions stayed broadly constant during 1998-2005 at a level of around 140 million tonnes CO<sub>2</sub>-equivalent, or about three-quarters of the 1990 level. Nevertheless, the carbon intensity of the Czech economy remains the highest among OECD countries. Net CO<sub>2</sub> emissions amounted to 118.6 million tonnes in 2002, or 86% of the GHG total.</p>	<p>The Czech Republic is bound to reduce its greenhouse gas (GHG) emissions by 8% below the 1990 level by 2008-12 under the Kyoto Protocol.</p> <p>Reduction of GHG had already taken place by 1995, and certain GHG have increased since 1999. Furthermore, the Czech Republic has some of the highest CO<sub>2</sub> emissions per unit of GDP among OECD and EU countries.</p> <p>Implementation of the Kyoto Protocol and of the national programme to reduce the impacts of climate change should be accompanied by a significant programme of research on how to reduce GHG emissions in an economically efficient and effective way.</p>

<p><b>Issue:</b> Landscape and cultural heritage and archaeological and architectural heritage</p> <p><b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Status of areas protected under UNESCO and national preservation regime</li> </ul>	
<b>Current state of the environment and trends</b>	<b>Likely evolution if the programming document is not implemented</b>
<b>Austria</b>	
<p>Legislation relevant to these issues are based on regional acts and directives. Therefore each state has its own strategy.</p> <p>To protect the characteristic ensemble in its historical context and its typical construction, Vienna declared 120 areas with more than 13,500 buildings (around 9 % of overall buildings) as protected areas. Furthermore, UNESCO declared Vienna's centre as cultural heritage. Based on this declaration, the regional government adapted land use plans to comply with the UNESCO Convention.</p> <p>In Upper Austria, all historic and cultural objects are registered in a cultural land registry. To preserve these objects in a good status, information from the land registry is given for development processes.</p> <p>Since 1997 the core of the Salzkammergut region is listed as a cultural heritage under the UNESCO Convention concerning</p>	<p>Related to the regional, federal and international legislation and agreements the state of cultural heritage and archaeological and architectural heritage seems guaranteed. At the other hand fragmentation of landscape is increasing.</p>

<p>the Protection of the World Cultural and Natural Heritage.</p> <p>In Lower Austria, the government declared 28 areas as so-called cape-protected areas to keep these territories in their characteristic state and to preserve a naturally, healthy habitat for mankind.</p>	
<b>Czech Republic</b>	
<p>Authorities create financial, legislative and system conditions for cultural development. An important tool for cultural heritage support is the financial contribution for regeneration of cultural heritage. In South Bohemia the historic centres of České Budějovice, Český Krumlov, Jindřichův Hradec, Prachatice, Tábor, Třeboň a Slavonice are town monument reserves. The village Holašovice and the town Český Krumlov are listed as UNESCO heritage site.</p> <p>In South Moravia, out of a number of attractive places two UNESCO heritage sites - the Lednicko-valtický area and Villa Tugendhat in Brno are outstanding. Twenty historically important localities and buildings have the status of national cultural monuments. The centres of Brno, Znojmo and Mikulov are town monument reserves and other 11 were declared town monument zones.</p> <p>Out of a number of monuments in the Vysočina Region, three are on the UNESCOs World Heritage List – monument reserve Telč, Třebíč and church of St. John of Nepomuk on the Zelená hora near Žďár nad Sázavou.</p> <p>The historic cores of two other towns are protected as town monument reserves – Jihlava and Pelhřimov.</p>	<p>Authorities at the national, regional and local level elaborate programs for conservation of historical heritage. Conservation of historical monuments needs a lot of financial resources.</p>

<p><b>Issue:</b> Functional utilizations (recreational utilization, housing etc.)</p> <p><b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	
<b>Current state of the environment and trends</b>	<b>Likely evolution if the programming document is not implemented</b>
<b>Austria</b>	
<p>Land take by housing, business and transport infrastructure in Upper and Lower Austria and Vienna is increasing considerably every year. Currently up to one third of the land denominated “permanent settlement area” in the districts of Lower and Upper Austria is occupied<sup>19</sup> (with the exception of cities). In some districts in Lower Austria (in the south of Vienna and around Amstetten) land take increased by more than 20% between 2000 and 2004. High growth rates can also be observed in the surroundings of the cities Linz, Wels, Steyr, Krems and St. Pölten. In some municipalities up to 15% of the soil is sealed, in Vienna and other bigger cities even up to 45%.<sup>20</sup> An associated problem is the ongoing fragmentation</p>	<p>The trend with respect to land take, urban sprawl and sealing of soil has to be assessed negatively. Land take is growing continuously and the factors of influence show no signs of slowing down or reversing the trends, although the concerned federal provinces have anchored objectives according to the mentioned challenges in their respective land use planning laws. Ways of life are changing, living standards and the demand for living space and transport infrastructure is rising, especially in hinterlands. Decentralized development of locations for industry, commerce, trade or leisure parks and the associated transport demand are expected to further</p>

<sup>19</sup> Building area, transport infrastructure, mining sites, miscellaneous (not further differentiated).

<sup>20</sup> Data Source: Umweltbundesamt (2006). Regionalinformation der Grundstücksdatenbank (BEV).

<p>of landscapes and habitats. Fragmentation is high in Upper and Lower Austria. The steadily growing settlement pressure south of Vienna and other regional centres, urban sprawl, generous dedication of building land in the past, high reserves of building land and a lack of cooperation of regional and supra-regional land use planning (incl. competition between municipalities) are the most essential challenges to be handled.</p>	<p>increase utilization conflicts.</p>
<p><b>Czech Republic</b></p>	
<p>Reduce pressure for construction in unbuilt-up areas that damages valuable biotopes and landscape scenery.</p> <p>The extent of agricultural soil has decreased. Important factors are land take by housing, business and transport infrastructure and insufficient brownfield reuse. The pressure on unbuilt areas will be stronger because of low efficiency of current tools. The post-1990 agricultural land appropriation is relatively low (a decrease by 24 thousand hectares, 16 thousand hectares of which are agricultural land transformed to forest land). However, the Land Register does not reflect quickly enough all the approved changes in the type of land related to industrial and housing development, linear structures, sporting activities, and mining. Investments to unbuilt area preferred before existing brownfield</p>	<p>Construction in unbuilt-up areas damages valuable biotopes, landscape scenery and rich soil. However, the Land Register does not reflect quickly enough all the approved changes in the type of land related to industrial and housing development, linear structures, sporting activities, and mining.</p> <p>There are a lot of tools for urban sprawl decrease, but the main is landscape planning. It is necessary to integrate environmental protection into the landscape planning and other sector policies.</p>

<p><b>Issue:</b> Protection from natural hazards <b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Activities based on programmes for flood protection and their possible effects</li> </ul>	
<p><b>Current state of the environment and trends</b></p>	<p><b>Likely evolution if the programming document is not implemented</b></p>
<p><b>Austria</b></p>	
<p>The regions of Upper and Lower Austria face a significant flood risk. In the year 2002 (and also 2006) the region was hit particularly hard by major flood events. The expansive settlement development led to increasing utilization conflicts between building land and necessary retention and run-off areas. In both federal provinces specific flood risk management and protection programmes were elaborated. A special focus of the programmes lies on preventive flood protection measures, especially renaturation of river sections and banks and the creation or conservation of open space to drain away rainwater.</p>	<p>The activities and measures based on the flood protection programmes and the existing technical flood protection structures are expected to be able to keep flood risk on the current level and to offset the possible negative trends due to rising weather and precipitation variability caused by climate change.</p>
<p><b>Czech Republic</b></p>	
<p>Large areas of strengthened surface and stream and river regulation cause insufficient landscape retention. Preventing flood damage became a major preoccupation of Czech water policy when two catastrophic floods, as well as some smaller ones, hit the country within six years.</p> <p>The government also adopted a Flood Protection Strategy in</p>	<p>Issues of flood protection were comprehensively addressed during 1999-2004 in seven new pieces of legislation, including the new Water Act No. 254/2001, which assigned responsibility for flood prevention to various levels of government and established dedicated commissions responsible for drawing up flood control plans.</p>

<p>2000, which provides for hydrological modelling and the designation of flood prone areas.</p> <p>The Strategy proposes landscape measures with the aim of balancing economic development, urbanization and features for runoff slow down and water accumulation. Technical measures are also necessary for water accumulation and the reduction of critical flood flow.</p>	<p>Flood protection is improving since the great floods in 1997 and 2002.</p>
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<p><b>Issue:</b> Environmentally friendly transport/sustainable mobility systems</p> <p><b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Volume of traffic and modal split</li> <li>• Quality of infrastructure for cycling</li> </ul>	
Current state of the environment and trends	Likely evolution if the programming document is not implemented
<p><b>Austria</b></p>	
<p>The trends observed show that there has been a dramatic increase in transport performance in recent years both in the freight traffic and passenger transport sectors, particularly road transport and aviation. This growth goes hand in hand with a significant increase in energy consumption and is particularly noticeable in terms of emissions of CO<sub>2</sub>, NO<sub>x</sub> and particulates. This trend is underpinned by a significant increase in the number of diesel-powered cars in the car fleet, as diesel cars are responsible for high specific NO<sub>x</sub> and particulate emissions.</p> <p>Improvements in the standard of living, shifts in leisure time and consumer behaviour, urban sprawl, an increasing trend towards the spatial separation of functions (housing, work) as well as an improved transport infrastructure have made a significant contribution to increase transport demand.</p> <p>Transport is one of the main causes of air and noise pollution, is a drain on energy and a significant contributor to the greenhouse effect. Despite some improvement in vehicle and fuel technology, it has been impossible to reduce these negative side effects to any significant degree over the past few years. Because many of the main connections are located in the considered region all circumstances and problems related to traffic cause high effects in the area.</p>	<p>Transport can be regarded as the most counterproductive sector in terms of achieving key environmental policy targets such as the objectives of the Kyoto Protocol and the national air emissions ceilings law.</p> <p>Looking at the period from 1990 to 2002, it is obvious that road traffic had the by far highest increase in absolute and relative terms (+7.7 million tonnes or +62%). In 2002, the transport sector also became the largest source of carbon dioxide emissions in absolute terms.</p> <p>Increasing construction in traffic infrastructure and abolished custom inspections will lead to big changes for the population living in the programming area. Aligned increase of international road traffic will follow the development of a connected economic region in central Europe.</p>
<p><b>Czech Republic</b></p>	
<p>The transport sector has seen rapid development recently, with the growth indicators of road and air transportation exceeding the GDP growth rate by several percent. The substantial increase in individual car traffic (ICT) in passenger transport is caused by a change of life styles. A slight decrease can be observed in railway transport.</p> <p>In terms of goods transportation, an even more striking increase in road-bound traffic and decrease in railway traffic can be seen. Also significant is the increase in air traffic (passenger traffic grew almost fourfold and goods</p>	<p>The negative environmental impact of transport is increasing. The Czech legislation relating to the environmental impacts of the transport sector went through a process of harmonisation with the EU requirements. In 2002, some major acts on air pollution were approved. Transport policy objectives related to the environment are defined in two major documents: the State Transport Policy and the 2004 SEP. The objectives with positive environmental effects are mainly long-term.</p>

transportation increased by 67% since 1993), which is caused primarily by the development of tourism and a higher standard of living.

A consequence of the development of the transport sector (mainly of road and air transportation) is the negative impact of transport on the environment and on human health and well-being.

The negative phenomena caused by transport:

the appropriation of land in favour of the infrastructure causes changes in the run-off percentage and the fragmentation of landscape, restricts the movement of wild animals; valuable ecosystems, including biotopes of specially protected species, are often destroyed or damaged by the construction of new infrastructure, large share of transport-born emissions, in the total air emissions, particularly in the case of road transport.

Few bike roads and slow growth of new bike roads and low support of other environment friendly means of transport. Insufficient use of alternative fuels in transport.

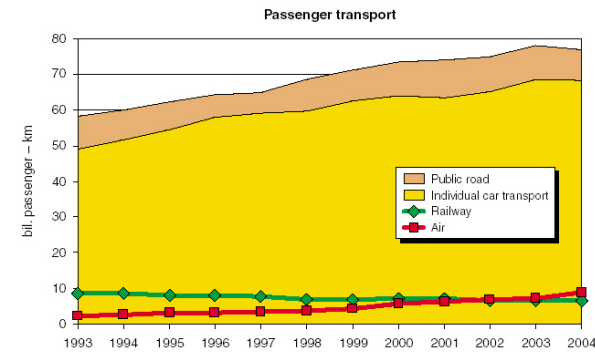


Figure 1: Performance in passenger transport

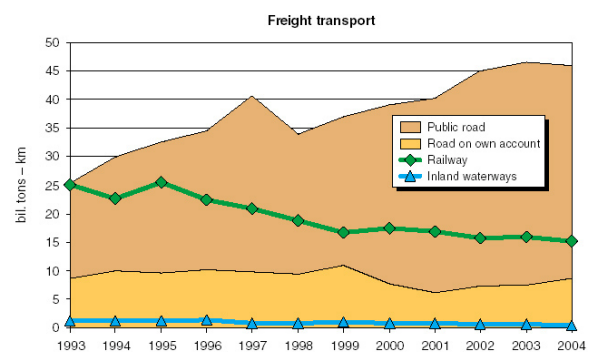


Figure 2: Performance in freight transport

**Issue:**

Energy efficiency and renewable energy sources

**Guiding question(s)/indicator(s):**

- Renewable energy production per capita
- Energy consumption per capita

Current state of the environment and trends<sup>21</sup>

Likely evolution if the programming document is not implemented

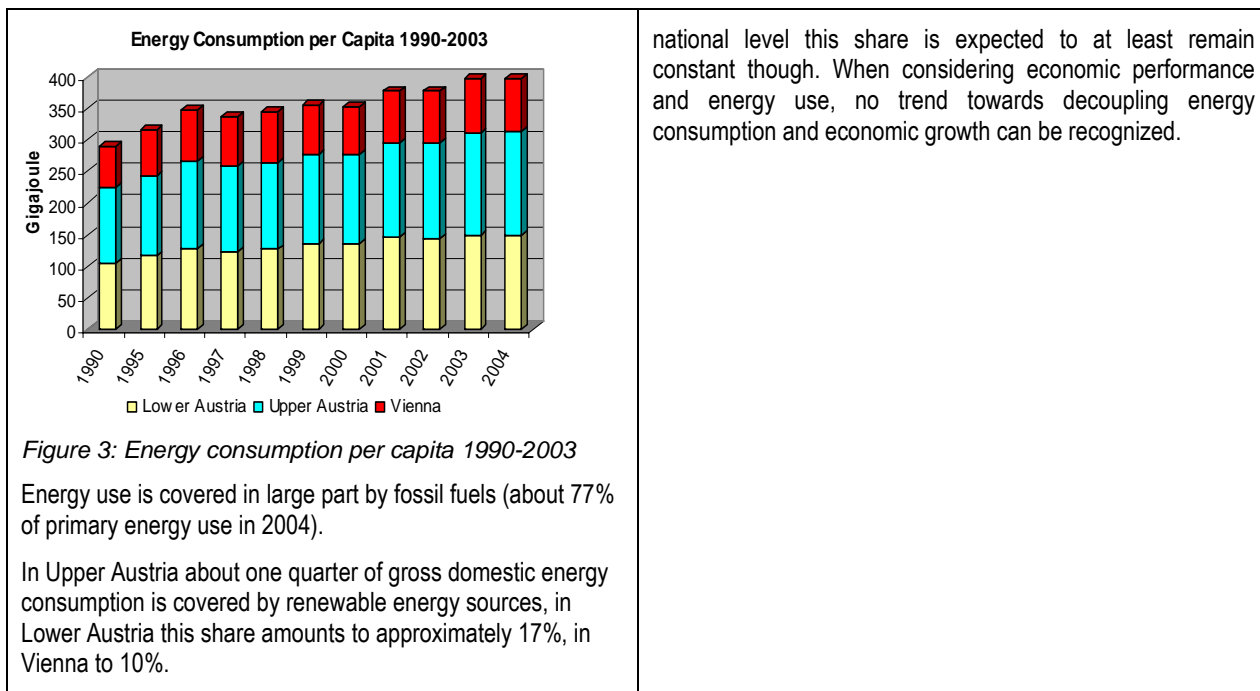
**Austria**

Energy consumption per capita in the concerned federal provinces of Austria has risen by more than 30% (41% in Lower Austria) since 1990 and has been continually rising during the last 5 years. This increase is primarily due to rising energy consumption in the mobility sector and industry but also by private households and the tertiary sector. Also the consumption of electric power is rising continually.

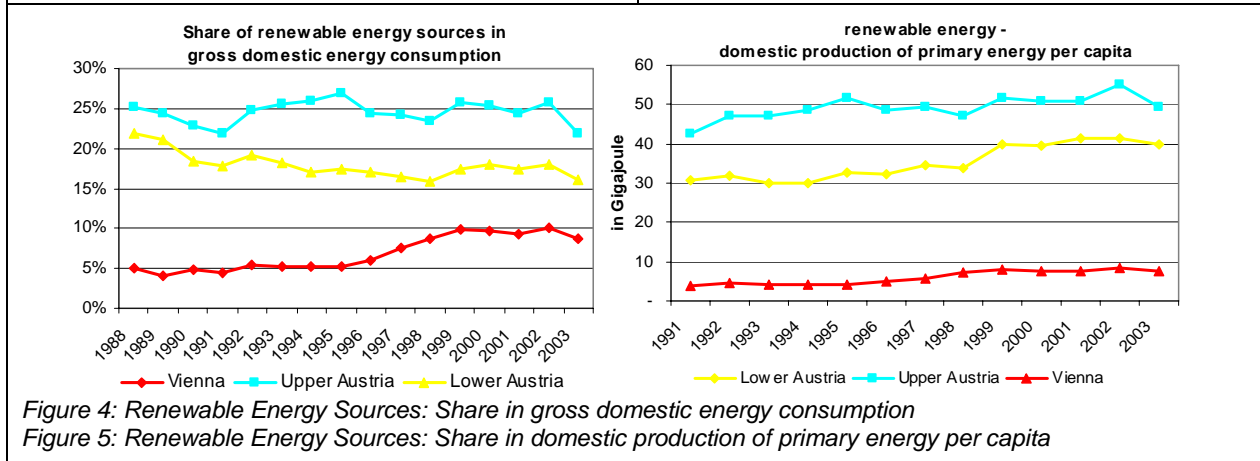
Energy consumption per capita is expected to continue to rise, although growth may slow down due to the increasing employment of energy efficient technologies.

Although there are positive developments concerning the use of renewable energy sources, the continually rising gross domestic energy consumption prevents the share of renewable energy sources in gross domestic energy consumption from rising. Due to the legal provisions on the

<sup>21</sup> Data source: Statistik Austria



national level this share is expected to at least remain constant though. When considering economic performance and energy use, no trend towards decoupling energy consumption and economic growth can be recognized.



**Czech Republic**

Energy intensity decreased by 5% over the review period (1998-2005), reaching 0.29 toe per 1.000 USD of GDP - a figure 1.7 times as high as the OECD Europe average and the third highest among OECD countries. This high intensity is partly explained by the country's large share of energy-intensive production processes (metallurgy, production of building materials). But other reasons include the lower building and appliance standards and relatively low energy prices for industry.

Objectives in use of renewable energy resources and diversification of fuel mix were not fulfilled. High energy intensity and low use of renewable energy resources.

Energy intensity is still high, it is the third highest among OECD countries. In an effort to conform to EU policies on renewable energy, the State programme for the promotion of energy savings and the use of renewable energy sources aims to increase the share of renewable energy sources to at least 6% of total primary energy sources (TPES) and 8% of gross power production by 2010. Objectives are fulfilled very slowly.

<p><b>Issue:</b> Resource efficiency and conservation/sustainable resource management</p> <p><b>Guiding question(s)/indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Status of extraction of non-renewable resources</li> <li>• Status of extraction of renewable resources</li> <li>• Status of extraction of use of waste as secondary resources</li> <li>• Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>• Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	
Current state of the environment and trends	Likely evolution if the programming document is not implemented
Austria	
<p>DMC<sup>22</sup> per GRP (Material Intensity) is decreasing in all concerned regions in Austria (Upper and Lower Austria, Vienna). Material consumption itself is nearly stabilizing since 1990. This is consistent with a general trend of dematerialization and a movement to the tertiary sector of the Austrian Economy. Decoupling of growth and material consumption has been achieved so far. One possible explanation for decreasing material intensity is also increased trade and thus outsourcing of material intensive production processes. An absolute reduction of material consumption has not been achieved so far. With respect to DRD the trends are diverse: An increase in Vienna faces a decrease in Lower Austria and a relative stable situation in Upper Austria.<sup>23</sup></p> <p>1989 to 1995 amounts of residual and bulky waste was reduced by the separate collection of organic waste, problem materials and packaging waste from paper, glass, metal and synthetic materials. The amounts of waste from households and similar establishments showed an increasing trend.</p>	<p>The trend towards a stronger decoupling of material consumption and economic growth (i.e. a higher material efficiency) is expected to further continue. Besides the general structural change towards a service economy, several initiatives (e.g. consultancy for enterprises, environmental certification) are promoting higher resource efficiency on the level of enterprises as well as economy wide. The objective 2 programmes of Upper and Lower Austria for the new structural funds period 2007-2013 contain several measures aiming at this objective for example by promoting the adoption of material efficient technologies and research and development in this field. Legal requirements relating to recycling are also supporting higher material efficiency.</p> <p>An absolute reduction of material consumption still has to be achieved.</p> <p>The objectives of waste management in Austria follow the generally accepted guiding principle of sustainable development that combines the aspects of ecology, economy and social security.</p> <p>Prevention/recycling and Waste Treatment are in the focus of the new Federal Waste Management Plan that has to be updated every 5 years. Provinces and Municipalities set activities to decrease quantities or keep them stable. Nevertheless, statistics and numbers show increasing trends for Waste from households and similar establishments and separate collected waste streams from households and similar establishments.</p>
Czech Republic	
<p>Mineral resources consumption statistics are elaborated only for individual mineral resources, which means that monitoring of general consumption at time is not possible.</p> <p>For material flow monitoring Domestic Material Consumption is used as an indicator. The decrease in DMC occurred mainly in the early 1990s.</p> <p>The DMC development indicates that after 1990 the environmental burden connected with material consumption</p>	<p>Per unit GDP material intensity is higher in the CR than in the other newcomer states except Poland and exceeds that of some EU-15 states by as much as 67%.</p>

<sup>22</sup> Domestic Extraction plus imports minus exports.

<sup>23</sup> Data source: BAK Basel Economics (2005): MARS, Monitoring the Alpine Region's Sustainability, Basel.

<p>was reduced dramatically. However, per unit GDP material intensity is higher in the CR than in the other newcomer states except Poland and exceeds that of some EU-15 states by as much as 67% (in tonnes per thousand USD GDP: CR 1.24 tonnes; Slovakia 0.9 tonnes; Hungary 0.91 tonnes; Poland 1.32 tonnes; Germany and Austria 0.74 tonnes). The DMC decrease was caused mainly by the reduction of brown and black coal mining due to the recession in energy intensive industrial sectors (such as the metallurgical industry), general increase in energy efficiency through the implementation of modern technologies, and due to extensive use of gas firing (more energy can be produced from 1 tonne of gas than from 1 tonne of coal, wherefore a lower quantity is consumed).</p> <p>High material consumption for unit GDP. Significant increase in mining especially building materials.</p>	
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## **5 Method and difficulties of the assessment**

### **5.1 Method of assessment**

The assessment has been done by a qualitative description of likely significant positive or negative effects possibly induced by priorities and fields of activities of the programming document. Furthermore the synergies and conflicts between the relevant environmental objectives and the specific development objectives and priorities/fields of activities proposed in the programming document were analysed. As already mentioned the zero-option of not implementing the programme represents the “baseline” for the overall assessment process within the SEA process.

In a **first step** the relevant environmental issues were selected for each priority/field of activity (relevance-matrix, see page 331) as part of the scoping process. In a **second step** the assessment of likely positive and/or negative effects of specific proposals in the programming document on environmental issues was accomplished.

### **5.2 Generation and assessment of reasonable alternatives**

The assessment on the level of fields of activities resulted in suggestions for alternative formulations of fields of activities, proposals for new activities and general project selection criteria. These measures to prevent, reduce and offset adverse effects are regarded as required reasonable alternatives according SEA directive. The suggested reformulations and amendments were provided to the programming team and have partly been integrated into the final version of the programme. The results of the iterative process of programming and SEA are part of the environmental report and are documented in chapter 8.

### **5.3 Difficulties of the Assessment**

Difficulties in the assessment are given for following reasons:

Because of the low level of detail of the programme the environmental assessment only shows an outline of possible environmental effects. Priorities and fields of activities allow a broad range of possible measures and projects. That is why the assessment of possible or negative impacts of the programme has to deal with many uncertainties. To tackle with this problem objectives and priorities are analysed by using carefully selected guiding questions and indicators to identify “likely” impacts on environmental issues and by also using the evaluation results of the last programming period, which indicate possible project’s funding results.

## 6 Assessment of likely significant environmental effects

The SEA assessed the positive and/or negative effects of the programme's fields of activity on the relevant environmental issues and objectives and considered alternative options – reformulations and suggestions for new activities - for the proposed fields of activities. The assessment is done by a qualitative comment. Additionally project selection criteria that are suitable from the environmental point of view are proposed.

### 6.1 Relevance matrix

To obtain a quick overview on the assessment results see the relevance-matrix below, where the relationship between environmental issues and fields of activity are shown: If there is any kind of effect of programme activities on the issue and guiding question/indicator the field is marked with an "X", if there isn't any, it is marked with "--".

Table 5: Programme Fields of Activity

<b>Priority 1: Socio-economic development, tourism and know how transfer</b>	
Field of Activity 1.1	Business and innovation related environment and services
Field of Activity 1.2	Tourism, culture and leisure economy
Field of Activity 1.3	Human resources development, labour market, education and qualification
Field of Activity 1.4	Health and social risk prevention, social integration
<b>Priority 2: Regional accessibility and sustainable development</b>	
Field of Activity 2.1	Transport and regional accessibility
Field of Activity 2.2	Environment and risk prevention
Field of Activity 2.3	Sustainable networks, institutional cooperation and spatial planning activities
<b>Priority 3: Technical Assistance</b>	

Relevance matrix	Relevant cross-border environmental objectives	Priority 1: Socio-economic development, tourism and know how transfer				Priority 2: Regional accessibility and sustainable development		
		1.1	1.2	1.3	1.4	2.1	2.2	2.3
Environmental Issue								
Population: Human health and well-being	Reduce the share of population exposed to excessive noise Improve environmental awareness of the public and its active participation in decision-making	X	X	--	X	X	X	X
Fauna, flora incl. biodiversity and natural habitats	Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond	X	X	--	--	X	X	X
Soil and subsoil	Preserve soil in its function of protection and use	X	X	--	--	X	X	X
Ground and surface water	Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015	X	X	--	--	X	X	X
Air	Comply with legal limits listed in the Air Quality Framework Directive	X	--	--	--	X	X	X
Climate protection	Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol	X	--	--	--	X	X	X
Landscape and cultural heritage and archaeological and architectural heritage	Maintain and enhance protection of areas under UNESCO and national preservation regime	X	X	X	--	X	X	X
Functional utilizations (recreational utilization, housing etc.)	Minimise land take, urban sprawl and loss of soil by sealing	X	X	--	--	X	X	X
Protection from natural hazards	Maintain and restore the protective capacity of ecosystems	--	--	--	X	-	X	X
Environmentally friendly transport/sustainable mobility systems	Decouple increase of volume of traffic from economic growth Promote walking and cycling	X	X	X	--	X	--	X
Energy efficiency and renewable energy sources	Decouple energy consumption from economic growth; Reduce total energy consumption; Increase the production of renewable energy per capita	X	X	X	--	X	X	X
Resource efficiency and conservation/sustainable resource management	Decouple material consumption from economic growth Reduce consumption of non-renewable resources Consume renewable resources within their regeneration capacity	X	--	X	--	X	X	X

Table 6: Relevance matrix

## 6.2 Assessment tables

The assessment in this chapter is based on the draft Operational Programme in the version of May 2006. In the assessment of the likely significant impacts of the field of activity on the respective environmental issues were analyzed along the selected guiding questions and indicators. Additionally proposals for alternative formulations and additional activities were added. All the suggested reformulations, new activities and selection criteria were discussed with the programming group and were partly integrated in the programme (see chapter 8).

Priority 1 : Socio-economic development, tourism and know how transfer			
Field of Activity 1.1 : Business and innovation related infrastructure and services			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Population: Human health and well-being	<ul style="list-style-type: none"> <li>Reduce the share of population exposed to excessive noise</li> <li>Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Exposure of population to excessive noise levels</li> <li>Environmental awareness of the public and its participation in decision-making</li> </ul>	<p>+</p> <p>This field of activity has an indirect positive effect. The issue of best available technologies is integrated in technology transfer activities addressing business, science and public administration. It supports decision-making processes and awareness building for environmental issues.</p>
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>	<p>R&amp;D and new agricultural technologies may have some adverse side effects on biodiversity (e.g. when genetically engineered seeds are tested). On the other hand, R&amp;D creates the opportunity to implement clean and resource efficient technologies in the agricultural sector.</p>
Soil and subsoil	<ul style="list-style-type: none"> <li>Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>Quality of soil and soil pollution</li> </ul>	<p>As there is no physical development of business sites, such as the construction of roads, railways and technical infrastructure, there are no adverse effects on soil and subsoil to be expected. However, if the development of business-related infrastructure, such as technology transfer centres, is supported, it is recommended to foster the use and adopt existing building infrastructure or develop brown fields through the programme's support.</p>
Ground and surface water	<ul style="list-style-type: none"> <li>Achieve good quality of surface and ground waters as defined in the Water</li> </ul>	<ul style="list-style-type: none"> <li>Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	<p>+</p> <p>The shift to a more service-oriented economy and the adoption of "new technologies" will reduce possible negative impacts of economic activity on ground</p>

Priority 1: Socio-economic development, tourism and know how transfer				
Field of Activity 1.1: Business and innovation related infrastructure and services				
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts	
	Framework Directive 2015		and surface water. A positive impact will be achieved by supporting the implementation of best available technologies into existing production processes.	
Air	<ul style="list-style-type: none"> <li>Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>Status of air related to the Air Quality Framework Directive</li> </ul>	<p>This field of activity does not directly address the improvement of technology related to emission control. But generally, the shift to a more service-oriented economy that is probable will reduce negative impacts on air quality. Therefore, production related emissions like SO<sub>2</sub>, CO and dust will be reduced in the long run.</p> <p>However, unless the issue of transport demand is tackled, a turn-around of the ongoing trend of rising emissions of fine particulates (PM10) or NO<sub>x</sub> due to the growing road traffic will not be achieved. Summarizing all partial effects, the impact of this field of activity on air quality is <u>neutral</u>.</p>	
Climate protection	<ul style="list-style-type: none"> <li>Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Emission CO<sub>2</sub> eqv.</li> </ul>	<p>Generally the shift to a more service-oriented economy will reduce the emissions causing climate change. Production-related emissions such as CO<sub>2</sub> will diminish as a result of this field of activity.</p> <p>On the other hand, transport related emissions of CO<sub>2</sub> will still be rising as result of general regional economic growth, which is a substantial target of this field of activity ("positioning the cross border region as a business location region"). Taking into account all partial effects, the impact of this field of activity on climate change is <u>neutral</u>.</p>	
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>Status of areas protected under UNESCO and national preservation regime</li> </ul>	<p>The field of activity does not address the physical development of business sites or the construction of technical infrastructure. Therefore, there are no adverse effects on landscape or cultural heritage to be expected. If industrial sites or buildings are important from a historical point of view, the re-development of these structures is a positive contribution to the preservation of cultural heritage.</p>	
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	<p>It is still unclear whether this field of activity supports the integration of business activities into existing urban structures. There are some indications that dynamic economic growth in the cross border region will increase urban sprawl and green field development around regional urban agglomerations.</p>	

Priority 1: Socio-economic development, tourism and know how transfer			
Field of Activity 1.1: Business and innovation related Infrastructure and services			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>	Not applicable
Environmentally friendly transport/ sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> <li>Teleworking and teleconferences</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	<p>-</p> <p>Growing co-operation networks between different enterprises and business sectors in the cross border region could increase transport demands and commuter traffic flow. On the other hand long-distance transport demands will be reduced by implementing regional supply-chains.</p> <p>Additionally, new facilities for teleworking and teleconferences might be used as demonstration projects and pull-factors to decrease personal transport demands. As this field of activity does not directly address strategies to reduce transport or transport demand, negative effects on the sustainability of regional transport systems can not be excluded.</p>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	<p>+</p> <p>Generally the shift to a more service-oriented economy will reduce energy demand in the region. New energy technologies could support SME-orientated, growing business sectors (engineering, construction and consulting). Indirect positive effects are possible if the issue of energy efficiency will be integrated into cross-border technology transfer activities. In connection with general energy strategies of the programme, especially considering objectives of priority two, positive impacts can be seen.</p>
Resource efficiency and conservation/ sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> </ul>	<p>Generally the shift to a more service-oriented economy will reduce the extraction and demand of non-renewable resources in the region. In a long-term view the region will develop into a less resource-orientated, more knowledge-based economy.</p> <p>As this field of activity does not directly address strategies to reduce the domestic material consumption in regional economy, the impact of this field of activity on resource efficiency can be assessed as <u>neutral</u>.</p>

<b>Priority 1 : Socio-economic development, tourism and know how transfer</b>			
<b>Field of Activity 1.1: Business and innovation related Infrastructure and services</b>			
<b>Relevant environmental issue</b>	<b>Relevant cross-border environmental objectives</b>	<b>Relevant indicators or guiding questions</b>	<b>Assessment of the likely significant impacts</b>
		<ul style="list-style-type: none"> <li>• Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	
<b>Proposed reformulations: of field of activity:</b>			
<ul style="list-style-type: none"> <li>• Give a special focus on the support of R&amp;D and Innovation in the field of "clean and resource efficient technologies" (e.g. certification schemes that identify and publicly credit those business practices that are both innovative and sustainable).</li> <li>• Remove "biotechnologies" as exclusive example for supporting new technologies (or add other examples).</li> </ul>			
<b>New activities:</b>			
<ul style="list-style-type: none"> <li>• Extension of "eco-technology" networks and cluster initiatives, which already exist in certain sub-regions of the programming area, to the whole CB region.</li> <li>• Awarding activities in the field of "clean and resource efficient technologies", possibly by extending existing schemes, e.g. global energy award.</li> <li>• Add "Support Regional supply chains and supply chain management" as an activity to reduce long-distance transport demand.</li> <li>• Add "implementation of technologically oriented strategies, incl. regulations to optimize transport demands"</li> </ul>			
<b>Selection Criteria or conditions for implementation:</b>			
<ul style="list-style-type: none"> <li>• Is there any connection between the expansion of technology transfer infrastructure and the use of brownfields?</li> <li>• Is the support of new technologies connected to the adoption of "best available technologies" addressing emission control, energy efficiency and reduction of non-renewable resource demand?</li> <li>• Does the "implementation of technologically oriented strategies and co-operation" reduce the volume of business-orientated transport demand?</li> <li>• Is there any connection to the use of genetically engineered seed, e.g. among R&amp;D-activities in the field of "biotechnologies"?</li> </ul>			
<b>Priority 1 : Socio-economic development, tourism and know how transfer</b>			
<b>Field of Activity 1.2: Tourism, culture and leisure economy</b>			
<b>Relevant environmental issue</b>	<b>Relevant cross-border environmental objectives</b>	<b>Relevant indicators or guiding questions</b>	<b>Assessment of the likely significant impacts</b>
Population: Human health and well-being	<ul style="list-style-type: none"> <li>• Reduce the share of population exposed to excessive noise</li> <li>• Improve environmental awareness of the public and its</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>	The programme names the natural resources and cultural heritage of the cross border region as the most important common potential for tourism in this region. The sustainable forms of tourism the programme is aiming at should therefore also focus on awareness raising among tourists considering the value and the rules of protection of the local environment. Furthermore, in order to support the overall

Priority 1: Socio-economic development, tourism and know how transfer				
Field of Activity 1.2: Tourism, culture and leisure economy				
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts	
	active participation in decision-making		<p>goal of promoting sustainable tourism in the border region, the promotion of Eco-labels in the tourism industry is suggested.</p> <p>When developing the tourism and leisure economy in the region, the decentralisation of tourism activities should be considered, taking into account the different levels of annoyance within the region. Regarding the objective of reducing the share of the population exposed to excessive noise levels, the type of tourism promoted defines the positive or negative indirect effects on noise disturbance. In this context, positive aspects stem from the fact that the programme explicitly states the importance of pursuing tourist development in a balanced way in compliance with ecological and social limitations.</p> <p>Tourism (sport) facilities supported by the programme should also be open/affordable for permanent residents.</p>	
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>	<p>- If not pursued adequately, tourism development is likely to negatively affect protected areas and valuable natural habitats. The CBC programme support should therefore be used to strengthen the protection of existing nature protection areas. In this context the suggested building-up of thematic trails is likely to result in positive impacts as this allows controlled access and "discovery" of protected areas.</p> <p>Regarding possible investments in skiing infrastructure, artificial snow-making is likely to have adverse impacts on natural plant cover.</p>	
Soil and subsoil	<ul style="list-style-type: none"> <li>Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>Quality of soil and soil pollution</li> </ul>	<p>- This field of activity is expected to have no significant impacts on the quality of soil. An exception would be investments in skiing infrastructure which would be likely to result in adverse impacts (e.g. erosion, pollution from artificial snow-making) and would demand specific measures to tackle the impact.</p>	
Ground and surface water	<ul style="list-style-type: none"> <li>Achieve good quality of surface and ground waters as defined in the Water</li> </ul>	<ul style="list-style-type: none"> <li>Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	<p>- To prevent likely adverse impacts on this environmental issue, the support of the CBC programme should be used to reduce impacts of motorised water sports on</p>	

Priority 1 : Socio-economic development, tourism and know how transfer Field of Activity 1.2: Tourism, culture and leisure economy			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
	Framework Directive 2015		water reservoirs. Spa activities: Unless the issue of possible water shortage in the region is addressed, likely adverse effects cannot be excluded. To compensate for the likely negative effects of increased water use coming along with enhanced capacities and tourism development, the programme support should be used to increase water use efficiency in tourism areas (awareness and technology; link to field of activity 1.1).
Air	<ul style="list-style-type: none"> <li>• Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>• Status of air related to the Air Quality Framework Directive</li> </ul>	Not applicable
Climate protection	<ul style="list-style-type: none"> <li>• Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>• Emission CO2 eqv</li> </ul>	Not applicable
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>• Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>• Status of areas protected under UNESCO and national preservation regime</li> </ul>	<p>This field of activity pursues tourist development that promotes the border region values. It is therefore likely to result in positive effects through keeping the standards of heritage protection regulations. It is recommended that the programme precisely defines possible activities to guide the potential applicants (e.g. wine festivals). In general, the programme can be used as an advocate for landscape and cultural heritage protection.</p> <p>If new infrastructure is developed, visual attractiveness should be of major concern to prevent possible negative impacts on the landscape.</p>
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>• Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>• Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	<p>This field of activity is expected to have slightly negative impacts with regard to land take and loss of soil by sealing. It is therefore strongly recommended that when decentralising tourism activities or supporting new facilities, existing infrastructure and brown fields are used.</p> <p>The development of new facilities is expected to result in slightly negative impacts due to possible conflicts with residential areas.</p>

Priority 1 : Socio-economic development, tourism and know how transfer			
Field of Activity 1.2: Tourism, culture and leisure economy			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>	Not applicable
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> <li>Teleworking and teleconferences</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	<p>The goal to attract new tourists from the area outside the border region will also result in increased levels of traffic. To reduce likely adverse impacts, which are partly due to the existing lack of interregional public transport, it is necessary to consider mobility management and link services with transport providers. One possible measure is to remove barriers for using cross border transport means (bus ticket for entire regions, bike rental, cars, etc.). (See also further suggestions in field of activity 2.1).</p>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	<p>In order to ensure that the positive intentions in this field of activity related to sustainability and environment protection are realised, the programme support should be used to increase energy use efficiency in tourism areas (awareness and technology). This can be complemented by the promotion of cross border consulting networks for renewable energy and energy savings in the tourism industry (link to field of activity 1. 1). Eco-labelling and environmental management schemes in the tourism industry are further issues to be pursued.</p>
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	Not applicable

<b>Priority 1: Socio-economic development, tourism and know how transfer</b>			
<b>Field of Activity 1.2: Tourism, culture and leisure economy</b>			
<b>Relevant environmental issue</b>	<b>Relevant cross-border environmental objectives</b>	<b>Relevant indicators or guiding questions</b>	<b>Assessment of the likely significant impacts</b>
<b>Proposed reformulations of field of activity:</b> <ul style="list-style-type: none"> <li>• Add "considering possible water shortages in the region" to the proposed support of activities related to spa development in the region.</li> </ul> <b>New activities:</b> <ul style="list-style-type: none"> <li>• Development; management and marketing of the whole region as a "Destination 21".</li> <li>• Support the uptake of Environmental Management Systems and Audit Schemes in tourism industry (ISO 14.000, EMAS, Eco-labels, green purchases etc.).</li> <li>• Define more precise possible activities to guide the potential applicants in the context of marketing regional products and services (e.g. wine festivals).</li> <li>• Support concepts for innovative mobility solutions and cross border transport means in tourism (link to field of activity 2.1).</li> </ul> <b>Selection Criteria or conditions for implementation</b> <ul style="list-style-type: none"> <li>• Does it decentralise tourism activities in time and territory and decrease excessive concentration of tourism activities in certain heavily visited areas?</li> <li>• When decentralising tourism activities, does it use existing infrastructure?</li> <li>• Does it increase the environmental awareness of the visitors?</li> <li>• Is the activity designed in compliance with regional/local ecological and social limitations?</li> <li>• Does it avoid adverse impacts on protected areas or NATURA 2000 sites?</li> <li>• Does it improve the efficiency of water use?</li> <li>• Does it fulfil the criteria for "Eco-labelling"?</li> <li>• Does it promote the uptake of ISO 14.000/EMAS?</li> <li>• Does it increase energy efficiency?</li> <li>• Does it increase the use of Renewable Energy?</li> </ul>			

<b>Priority 1: Socio-economic development, tourism and know how transfer</b>			
<b>Field of Activity 1.3 Human resources development, labour market, education and qualification</b>			
<b>Relevant environmental issue</b>	<b>Relevant cross-border environmental objectives</b>	<b>Relevant indicators or guiding questions</b>	<b>Assessment of the likely significant impacts</b>
Population: Human health and well-being	<ul style="list-style-type: none"> <li>• Reduce the share of population exposed to excessive noise</li> <li>• Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>	Not applicable

Priority 1: Socio-economic development, tourism and know how transfer				Assessment of the likely significant impacts
Field of Activity 1.3 Human resources development, labour market, education and qualification				
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions		
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>		
Soil and subsoil	<ul style="list-style-type: none"> <li>Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>Quality of soil and soil pollution</li> </ul>		
Ground and surface water	<ul style="list-style-type: none"> <li>Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>		
Air	<ul style="list-style-type: none"> <li>Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>Status of air related to the Air Quality Framework Directive</li> </ul>		
Climate protection	<ul style="list-style-type: none"> <li>Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Emission CO2 eqv</li> </ul>		
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>Status of areas protected under UNESCO and national preservation regime</li> </ul>		+
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>		
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>		Not applicable
Environmentally friendly transport/sustainable	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for</li> </ul>		++ This field of activity is likely to have a positive impact, provided that

Priority 1: Socio-economic development, tourism and know how transfer			
Field of Activity 1.3 Human resources development, labour market, education and qualification			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
mobility systems	<ul style="list-style-type: none"> <li>Promote walking and cycling</li> </ul>	cycling	<p>the selected locations for education infrastructure and institutes allow for the use of public transport. Furthermore, positive impacts could be enhanced by the design and preparation of public transport systems in order to accommodate for the lifting of labour market restrictions (2009-2011).</p> <p>This field of activity is likely to have a positive impact also if ICT is promoted as a mean of training delivery.</p>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	<p>+ This field of activity is likely to have no or a slightly positive impact, provided that some of the activities will mobilise the regional capital as a field for human resources development, labour market, education and qualification. Positive effects could be achieved e.g. if training interventions include courses in environmental management and resource efficiency in CZ/DE/EN.</p>
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	
<p><b>Proposed reformulations of field of activity:</b> No reformulation is needed.</p> <p><b>New activities:</b> No new activities are recommended.</p>			

Priority 1: Socio-economic development, tourism and know how transfer			
Field of Activity 1.3 Human resources development, labour market, education and qualification			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
<b>Selection Criteria, or conditions for implementation</b> <ul style="list-style-type: none"> <li>Does it use ICT (e.g. teleconference, distance learning) for delivering training?</li> <li>Does it include courses in environmental management and resource efficiency in CZ/DE/EN?</li> </ul>			

Priority 1: Socio-economic development, tourism and know how transfer			
Field of Activity 1.4 Health and social risk prevention, social integration			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Population: Human health and well-being	<ul style="list-style-type: none"> <li>Reduce the share of population exposed to excessive noise</li> <li>Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Exposure of population to excessive noise levels</li> <li>Environmental awareness of the public and its participation in decision-making</li> </ul>	++ This field of activity is likely to have a positive impact through the strengthening of NGOs dealing with environmental issues.
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>	Not applicable
Soil and subsoil	<ul style="list-style-type: none"> <li>Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>Quality of soil and soil pollution</li> </ul>	
Ground and surface water	<ul style="list-style-type: none"> <li>Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	
Air	<ul style="list-style-type: none"> <li>Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>Status of air related to the Air Quality Framework Directive</li> </ul>	
Climate protection	<ul style="list-style-type: none"> <li>Decrease emissions causing</li> </ul>	<ul style="list-style-type: none"> <li>Emission CO2 eqv</li> </ul>	

Priority 1: Socio-economic development, tourism and know how transfer			
Field of Activity 1.4 Health and social risk prevention, social integration			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>Status of areas protected under UNESCO and national preservation regime</li> </ul>	<p>This field of activity is likely to have a positive impact, provided that integrated rescue systems are linked with environmental risk rescue systems.</p>
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>	
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> </ul>	Not applicable

<b>Priority 1: Socio-economic development, tourism and know how transfer</b>			
<b>Field of Activity 1.4 Health and social risk prevention, social integration</b>			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
		<ul style="list-style-type: none"> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	
<b>Proposed reformulations of field of activity:</b>			
<ul style="list-style-type: none"> <li>“cooperation of organisations working in this field (e.g. social services, youth groups, ...)” should be reformulated to “Cooperation of organisations working in this field (e.g. social services, youth groups, NGOs focusing on children, minorities and environmental issues)”</li> <li>In connection to field of activity 2.2 the following activity should be added: “Integrated rescue system (addressing health, social and environmental risks) for the cross border region should be established and implemented.</li> <li>To the activity “Improving social life in the border regions” the following should be added in brackets: “(e.g. through implementation of Local Agenda 21-processes)”</li> </ul>			
<b>New activities:</b>			
<ul style="list-style-type: none"> <li>Add “enhance public participation as a tool for strengthening the local democracy and raising the social capital of a community or region”</li> </ul>			
<b>Selection Criteria, or conditions for implementation</b>			

<b>Priority 2: Regional accessibility and sustainable development</b>			
<b>Field of Activity 2.1 Transport and regional accessibility</b>			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Population: Human health and well-being	<ul style="list-style-type: none"> <li>Reduce the share of population exposed to excessive noise</li> <li>Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Exposure of population to excessive noise levels</li> <li>Environmental awareness of the public and its participation in decision-making</li> </ul>	This field of activity promotes a gradual shift towards environmentally friendly means of transport and communication. It is therefore likely to result in positive impacts on human health and well-being: soil and subsoil; ground and surface water; air; climate protection; landscape and cultural heritage and archaeological and architectural heritage.
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>Development of favourable</li> </ul>	The only exception is the proposed activity “joint planning of road corridors” which may have significant adverse impacts. In order to minimise possible adverse impacts, it is suggested that transboundary EIA/SEA is always carried out as an integral part of this activity.

Priority 2: Regional accessibility and sustainable development				
Field of Activity 2.1 Transport and regional accessibility				
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts	
Soil and subsoil	<ul style="list-style-type: none"> <li>Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>Quality of soil and soil pollution</li> </ul>	<p>As possible impacts on fauna, flora incl. biodiversity and natural habitats regards, it is strongly recommended that any new facilities are located in brown fields unless there are very strong and justified economic and environmental reasons for green-field investments.</p>	
Ground and surface water	<ul style="list-style-type: none"> <li>Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>		
Air	<ul style="list-style-type: none"> <li>Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>Status of air related to the Air Quality Framework Directive</li> </ul>		
Climate protection	<ul style="list-style-type: none"> <li>Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Emission CO2 ekv</li> </ul>		
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>Status of areas protected under UNESCO and national preservation regime</li> </ul>		
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	<p>This includes activities that aim to increase the efficiency of existing infrastructure and developing logistics centres. It is suggested that whenever the terminals for bus, rail or water transport are upgraded, adjustments (including relocations) should be made to improve inter-modal connectivity. As a matter of principle, any new terminals and facilities should be located in brown fields unless there are very strong and justified economic and environmental reasons for green-field investments.</p>	
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>		<p>Not applicable</p>

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.1 Transport and regional accessibility			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	<p>This field of activity promotes a gradual shift towards environmentally friendly means of transport and communication. It is therefore likely to result in positive impacts on the sustainability of mobility and transport systems, energy efficiency and renewable energy sources and resource efficiency and conservation/sustainable resource management.</p> <p>The only exception is the proposed activity "joint planning of road corridors" which may have significant adverse impacts. In order to minimise possible adverse impact, it is suggested that transboundary EIA/SEA is always carried out as an integral part of this activity. In order to maximise the positive impacts, this field of activities should include also activities leading to development and marketing of cross-border products for public transport (e.g. regional bus passes etc.).</p>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	
<p><b>Proposed reformulations of field of activity:</b></p> <ul style="list-style-type: none"> <li>Joint planning and transboundary EIA/SEA of road corridors. The activity should be ideally merged with "shifting of traffic towards more environmental friendly systems - optimisation of combinations with alternative means of transport (e.g. public transport)"</li> <li>Define the activity "Small Tourist check points"</li> </ul> <p><b>New activities:</b></p> <ul style="list-style-type: none"> <li>Develop and market Cross Border products for public transport (e.g. regional bus passes etc.)</li> </ul> <p><b>Selection Criteria, or conditions for implementation</b></p> <ul style="list-style-type: none"> <li>Does it reduce transport demand?</li> </ul>			

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.1 Transport and regional accessibility			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
<ul style="list-style-type: none"> <li>• Does it improve intermodal connectivity?</li> <li>• Does it transfer freight from road to rail?</li> <li>• Does it transfer freight from road to water bound transport?</li> <li>• Does it promote cycling?</li> <li>• Does it include transboundary environmental assessment where applicable?</li> </ul>			

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.2 Environment and risk prevention			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Population: Human health and well-being	<ul style="list-style-type: none"> <li>• Reduce the share of population exposed to excessive noise</li> <li>• Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>	<p>+</p> <p>This field of activities is likely to result in positive impacts in public awareness by an exchange of experience, know-how transfer and pilot projects.</p>
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>• Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>• Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>• Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>	<p>+</p> <p>In general, rather strong positive impacts should be expected from increasing the landscape retention capacity. However, adverse impacts on natural habitats from flood prevention projects and construction works are possible.</p>
Soil and subsoil	<ul style="list-style-type: none"> <li>• Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of soil and soil pollution</li> </ul>	<p>+</p> <p>This field of activities is likely to result in positive impacts.</p>
Ground and surface water	<ul style="list-style-type: none"> <li>• Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	<p>This field of activities is likely to result in positive impacts. Passive flood protection measures might have a negative impact.</p>
Air	<ul style="list-style-type: none"> <li>• Comply with legal limits listed</li> </ul>	<ul style="list-style-type: none"> <li>• Status of air related to the Air</li> </ul>	<p>+</p>

Priority 2: Regional accessibility and sustainable development				
Field of Activity 2.2 Environment and risk prevention				
Relevant environmental issue	Relevant cross-border environmental objectives in the Air Quality Framework Directive	Relevant indicators or guiding questions	Quality Framework Directive	Assessment of the likely significant impacts
Climate protection	<ul style="list-style-type: none"> <li>Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Emission CO<sub>2</sub> eqv</li> </ul>	<ul style="list-style-type: none"> <li>As the field of activity addresses the reduction of environmental pollution and use of environmental friendly technologies, positive impacts on air quality can be seen. The implementation of proper emission reduction systems will be supported by focussing on exchange, innovation and transfer of know how. Possible adverse side effects such as an increasing emission of fine particulates ( PM10) from biomass heating systems can be excluded.</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>Status of areas protected under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>	<ul style="list-style-type: none"> <li>+ Activities related to NATURA 2000 areas and natural protection parks should be linked to retention capacity improvements.</li> </ul>	<ul style="list-style-type: none"> <li>+ Activities related to NATURA 2000 areas and natural protection parks should be linked to retention capacity improvements.</li> </ul>
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>	<ul style="list-style-type: none"> <li>+ This field of activities is likely to result in positive impacts.</li> </ul>



Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.2 Environment and risk prevention			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Resource efficiency and conservation/ sustainable resource management	<ul style="list-style-type: none"> <li>Increase the production of renewable energy per capita</li> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	<p style="text-align: center;">+</p> <p style="text-align: center;">This field of activities is likely to result in positive impacts.</p>
<p><b>Proposed reformulations of field of activity:</b></p> <ul style="list-style-type: none"> <li>Reformulation of the sentence "Coordinated activities of active and passive measures... " as follows: "Coordinated activities of active and passive measures as well as improved warning systems should reduce the probability and damages of floods."</li> </ul> <p><b>New activities:</b></p> <ul style="list-style-type: none"> <li>Socioeconomic risk management approaches (awareness about financial risks (e.g. associated with natural disasters) and how they are covered?).</li> <li>Prepare a cross border strategy for waste and its possible proper use as secondary material after full opening of the borders.</li> <li>Award schemes to identify and publicly appreciate innovative environmental approaches and performance by municipalities and enterprises (in coordination our recommended award schemes in activity field 1.1 on the enterprise level).</li> <li>Know how transfer in the fields of flood protection and maintenance of sewage infrastructure.</li> </ul> <p><b>Selection Criteria, or conditions for implementation</b></p> <ul style="list-style-type: none"> <li>Does it avoid negative side effects, especially on biodiversity or other natural resources?</li> <li>Does it increase socioeconomic capacity to manage and transfer risks?</li> </ul>			

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.3 Sustainable networks, institutional cooperation and spatial planning activities			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Population: Human health and well-being	<ul style="list-style-type: none"> <li>• Reduce the share of population exposed to excessive noise</li> <li>• Improve environmental awareness of the public and its active participation in decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure of population to excessive noise levels</li> <li>• Environmental awareness of the public and its participation in decision-making</li> </ul>	<p style="text-align: center;">+</p> <p>This field of activity is likely to have a positive impact in a broader sense. It sets the framework for a successful cooperation in all other fields.</p>
Fauna, flora incl. biodiversity and natural habitats	<ul style="list-style-type: none"> <li>• Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>• Condition and extent of nature protection areas (by categories) and cultural landscapes</li> <li>• Development of favourable condition of Natura 2000 network (incl. status of bio-corridors)</li> </ul>	
Soil and subsoil	<ul style="list-style-type: none"> <li>• Preserve soil in its function of protection and use</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of soil and soil pollution</li> </ul>	
Ground and surface water	<ul style="list-style-type: none"> <li>• Achieve good quality of surface and ground waters as defined in the Water Framework Directive 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Surface water and groundwater status related to the Water Framework Directive 2015</li> </ul>	
Air	<ul style="list-style-type: none"> <li>• Comply with legal limits listed in the Air Quality Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>• Status of air related to the Air Quality Framework Directive</li> </ul>	
Climate protection	<ul style="list-style-type: none"> <li>• Decrease emissions causing climate change in line with the obligations laid down in the Kyoto Protocol</li> </ul>	<ul style="list-style-type: none"> <li>• Emission CO2 eqv</li> </ul>	
Landscape and cultural heritage and archaeological and architectural heritage	<ul style="list-style-type: none"> <li>• Maintain and enhance protection of areas under UNESCO and national preservation regime</li> </ul>	<ul style="list-style-type: none"> <li>• Status of areas protected under UNESCO and national preservation regime</li> </ul>	

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.3 Sustainable networks, institutional cooperation and spatial planning activities			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
Functional utilizations (recreational utilization, housing etc.)	<ul style="list-style-type: none"> <li>Minimise land take, urban sprawl and loss of soil by sealing</li> </ul>	<ul style="list-style-type: none"> <li>Land take and urban sprawl (with consideration of loss of soil by sealing)</li> </ul>	<p><sup>+</sup> This field of activity is likely to have a positive impact in a broader sense. It sets the framework for a successful cooperation in all other fields.</p>
Protection from natural hazards	<ul style="list-style-type: none"> <li>Maintain and restore the protective capacity of ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Activities based on programmes for flood protection and their possible effects</li> </ul>	
Environmentally friendly transport/sustainable mobility systems	<ul style="list-style-type: none"> <li>Decouple increase of volume of traffic from economic growth</li> <li>Promote walking and cycling</li> </ul>	<ul style="list-style-type: none"> <li>Volume of traffic and modal split</li> <li>Quality of infrastructure for cycling</li> </ul>	
Energy efficiency and renewable energy sources	<ul style="list-style-type: none"> <li>Decouple energy consumption from economic growth</li> <li>Reduce total energy consumption</li> <li>Increase the production of renewable energy per capita</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy production per capita</li> <li>Energy consumption per capita</li> </ul>	
Resource efficiency and conservation/sustainable resource management	<ul style="list-style-type: none"> <li>Decouple material consumption from economic growth</li> <li>Reduce consumption of non-renewable resources</li> <li>Consume renewable resources within their regeneration capacity</li> </ul>	<ul style="list-style-type: none"> <li>Status of extraction of non-renewable resources</li> <li>Status of extraction of renewable resources</li> <li>Status-of use of waste as secondary resources</li> <li>Domestic material consumption (DMC) per Gross Regional Product (GRP)</li> <li>Domestic Resource Dependency (DRD) = Domestic Extraction (DE)/DMC</li> </ul>	

Priority 2: Regional accessibility and sustainable development			
Field of Activity 2.3 Sustainable networks, institutional cooperation and spatial planning activities			
Relevant environmental issue	Relevant cross-border environmental objectives	Relevant indicators or guiding questions	Assessment of the likely significant impacts
<p><b>Proposed reformulations of field of activity:</b></p> <ul style="list-style-type: none"> <li>“...Integrated planning for strategic projects and processes, sustainable spatial development...” reformulated to “...Integrated planning and environmental assessment for strategic projects and processes, sustainable spatial development.”</li> </ul> <p><b>New activities:</b></p> <ul style="list-style-type: none"> <li>Form working groups for Environmental Assessment of infrastructure investments supported by other programmes in order to safeguard the environmental objectives of the CBC OP.</li> <li>Provide overall coordination facilities for cross border award schemes proposed within this SEA.</li> </ul> <p><b>Selection Criteria, or conditions for implementation</b></p> <p>Does it integrate environmental objectives into networks or cooperative structures to support sustainable regional development?</p>			

**Legend:**

	+	slightly positive
	++	strongly positive
		neutral
	-	slightly negative
	--	strongly negative

## **7 Significant cumulative effects**

There are no significant negative impacts on environmental issues by implementation of the operational programme. Possible negative impacts are on the one hand constrained by the existent legal frameworks and environmental nature conservation policies on national or regional level and can on the one hand be minimized by adopting the SEA suggestions and conditions for implementation in the programme and during programme implementation.

### **Possible negative cumulative effects**

Activities which support cross-border business development and tourism will increase the request for enlargements of regional road networks including major motorways and by-pass-routes. On a long term individual motorized traffic and transport will increase, with negative impacts on air quality, noise and climate change.

### **Possible positive cumulative effects:**

There could be substantial synergies between environmental technology transfer, business development and growing tourism activities. Technology transfer networks could support the implementation of energy efficiency principles into most of business or public investment decision with positive impact on air quality, climate change and sustainable resource management.

## 8 Summary on effects and proposed selection criteria

This chapter summarizes the effects expected by the implementation of the programme and its fields of activity. All reformulations and new activities suggested in the course of the SEA process (see chapter 6) have been discussed with the programming group. This chapter provides an overview which of the SEA suggestions and recommendations have been successfully brought into the programming process and have been integrated into the programme<sup>24</sup>. The tables for each field of activity also contain the remaining comments and suggestions for the implementation of the programme (including measures to enhance positive or offset negative effects).

<p><b>Priority 1: Socio-economic development, tourism and know how transfer</b>  <b>Field of Activity 1.1: Business and innovation related environment and services</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b>                  In the final draft of the programme, “clean and resource efficient technologies” did not get priority support as proposed to the programming team. But the development strategy implements possible actions for a similar support. Among other issues the “support of regional supply chains and supply chain management” and the “extension of existing networks and cluster initiatives” are included. The suggestion to give awards to projects in “clean and resource efficient technologies” was not accepted as a possible direction of support nor was it explicitly denied. It remains unclear whether this field of activity supports the integration of business activities into already existing urban structures.</p>
<p><b>General Conclusion:</b>                  The field of activity does not address the physical development of business sites or the construction of technical infrastructure. Therefore, there may be no adverse effects on landscape and protected areas. The main strategy of economic development focuses on cross border cooperation of business related services, of innovative centres as well as innovative and business related infrastructure. Generally the shift to a more service oriented economy will reduce negative impacts on air quality. As this field of activity does not directly address strategies to reduce transport demand, indirect negative effects on air quality and noise cannot be excluded. The SEA experts recommend a strong connection of technology transfer activities with innovation processes which focus on more energy and resource efficiency.</p>
<p><b>Main selection criteria or conditions for programme implementation:</b></p> <ul style="list-style-type: none"> <li>• Is the support of new technologies connected to the adoption of “best available technologies” addressing emission control, energy efficiency and reduction of non-renewable resource demand?</li> <li>• Does the “implementation of technologically oriented strategies and co-operation” reduce the volume of business-oriented transport demand?</li> </ul>

<p><b>Priority 1: Socio-economic development, tourism and know how transfer</b>  <b>Field of Activity 1.2: Tourism, culture and leisure economy</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b>                  Almost all recommendations of the SEA experts incorporated in the programme either by extending the programme strategy in the suggested direction or by the adoption of new possible activities.                  The development, management and marketing of the whole region as a “Destination 21” is not pursued explicitly in the programme but indirectly by promoting sustainable forms of tourism. The recommended support for the uptake of environmental management systems and audit schemes in the tourism industry (ISO 14.000, EMAS, Eco-labels, green purchases etc.) has been incorporated in field of activity 2.2 of the programme. The recommended additional measures in the context of “environmentally friendly transport/ sustainable mobility systems” have been partly integrated in field of activity 2.1 of the programme.</p>

<sup>24</sup> Operational Programme, Draft 2.1, October 2006.

**Priority 1: Socio-economic development, tourism and know how transfer**

**Field of Activity 1.2: Tourism, culture and leisure economy**

**General conclusion:**

In general, positive aspects stem from the fact that the programme explicitly states the importance of pursuing tourist development in a balanced way in compliance with ecological and social limitations. It names the natural resources and cultural heritage of the cross border region as an important common potential for tourism in this region. Considering the programme objective of developing sustainable opportunities for tourism, in summary no significant adverse effects on the remaining applicable environmental issues are expected. However, a few slightly negative effects (on fauna, flora, biodiversity and natural habitats, soil and subsoil, ground and surface water, functional utilizations, environmentally friendly transport/ sustainable mobility systems) cannot be excluded at this stage, but they can be kept to a minimum or fully offset by observing the SEA recommendations and selection criteria during programme implementation. Especially possible investments in skiing infrastructure (incl. artificial snow making) are likely to result in adverse impacts.

**Remaining recommendations:**

- Additional benefits in the context of “population: human health and well-being” may be achieved by awareness-raising among tourists, decentralising tourism activities, taking into account the different levels of annoyance within the region and demanding that tourism (sport) facilities supported by the programme should also be open and affordable for permanent residents.
- Likely adverse impacts of tourism activities on ground and surface water can be avoided if programme support is excluded for motorised water sports on water reservoirs. Likewise, activities related to the enhancement of capacities and tourism development should be optimally linked to the possibilities given by the fields of activity 1.1 (support of existing and new technologies/clean and resource efficient technologies) and priority 2 (support for projects relating to efficient water supply) with regard to increased water use efficiency in tourism areas. Possible regional water shortages have to be considered in the context of tourism development, especially if activities related to spa development are supported.
- The principle of priority 2 - preservation of high-quality landscape as an essential asset for the attractiveness of the border region - should guide all activities in this field to prevent possible negative impacts of new infrastructure on landscape.
- When new tourism facilities are developed, existing infrastructure and brownfields should be used if possible. Utilization conflicts with residential areas should be paid attention to.
- The marketing of regional products and services should be part of the support for sustainable forms and products for tourism.
- By explicitly extending the activities in field 2.2 related to an increase in energy efficiency (like exchange of experience and know how and the uptake of environmental management systems) to the tourism industry, and by optimally linking fields 1.1 and 2.2 with this field of activity, positive impacts can be achieved with respect to the environmental issues “energy efficiency and renewable energy sources”.
- In order to keep the adverse environmental effects of increased levels of traffic to a minimum, it is strongly recommended that during programme implementation, activities in this field are optimally linked to the mobility measures in field of activity 2.1 related to the development and marketing of cross border products for public transport.
- Some of the positive impacts expected from the implementation of this field of activities could be enhanced by explicitly extending the activities in field of activity 2.2 related to Eco-labels to the tourism industry.

**Main selection criteria or conditions for implementation:**

- Does it decentralise tourism activities in time and territory and decrease excessive concentration of tourism activities in certain heavily visited areas?
- When decentralising tourism activities, does it use existing infrastructure?
- Does it increase the environmental awareness of the visitors?
- Is the activity designed in compliance with regional/local ecological and social limitations?
- Does it avoid adverse impacts on protected areas or NATURA 2000 sites?
- Does it improve the efficiency of water use in the tourism sector?
- Does it promote the uptake of ISO 14.000/EMAS respectively “Eco-labelling”?
- Does it increase energy efficiency and the use of renewable energy in the tourism sector?

<p><b>Priority 1: Socio-economic development, tourism and know how transfer</b>  <b>Field of Activity 1.3 “Human resources development, labour market, education and qualification”</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b>                  No specific reformulations or new activities have been suggested in the course of the SEA process as no adverse impacts are expected from the implementation of this field of activity.</p>
<p><b>General conclusion:</b>                  This field of activity is expected to result in no significant or slightly positive impacts regarding the environmental issues “landscape and cultural heritage and archaeological and architectural heritage”, “environmentally friendly transport/sustainable mobility systems”, “energy efficiency and renewable energy sources” and “resource efficiency and conservation/sustainable resource management”. Some of the expected positive impacts could be further enhanced by mobilising e.g. the regional capital, eco technologies or environmental management as fields for human resources development, labour market, education and qualification.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• With respect to environmentally friendly transport this field of activity can result in positive impacts on the environmental objectives related to this issue if the SEA suggestions are observed during programme implementation. This can also be provided for by designing adequate measures in field of activity 2.1.</li> <li>• With respect to “energy efficiency and renewable energy sources” and “resource efficiency and conservation/sustainable resource management”, positive impacts can be achieved by linking some of the activities to the topics supported in fields of activity 1.1 and 2.2, like e.g. clean and resource efficient technologies or sustainable resource and energy management (e.g. training interventions that include courses in environmental management and energy/resource efficiency in Czech/German/English).</li> <li>• Another important aspect is to consider mobility issues when preparing for the future cross border labour market within the context of this programme.</li> </ul>
<p><b>Main selection criteria or conditions for implementation:</b></p> <ul style="list-style-type: none"> <li>• Does it use ICT (e.g. teleconference, distance learning) for delivering training?</li> <li>• Does it include courses in environmental management and sustainable energy or resource management, etc., in Czech/German/English)?</li> </ul>

<p><b>Priority 1: Socio-economic development, tourism and know how transfer</b>  <b>Field of Activity 1.4: Health and social risk prevention, social integration</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b>                  The proposed new activity regarding public participation has been incorporated into the programme strategy. One suggested reformulation remains to be discussed by the programming group.</p>
<p><b>General Conclusion:</b>                  This field of activity is expected to result in very positive impacts with respect to “population: human health and well-being” and “protection from natural hazards” which could be further enhanced by linking the support to issues related to environmental risk prevention (the support for an integrated rescue system for the cross border region should be linked to the associated activities in priority 2 related to environmental risks).                  In this context, one possible <u>reformulation</u> of the field is proposed:</p> <ul style="list-style-type: none"> <li>• In connection to field of activity 2.2 the following ascertainment should be added: “Integrated rescue system and emergency service (addressing health, social and <u>environmental</u> risks)” (link to field of activity 2.2).</li> </ul>
<p><b>Main selection criteria or conditions for implementation:</b>                  No specific selection criteria or conditions for implementation are necessary in the context of this field of activity.</p>

<p><b>Priority 2: Regional accessibility and sustainable development”</b>  <b>Field of Activity 2.1: Transport and regional accessibility</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b>                  All reformulations and new activities suggested in the course of the SEA process (see chapter 6) have been discussed by the programming group and partly been incorporated in the programme either by extending the programme strategy in the suggested direction or by the adoption of new possible activities within this field of activity.</p>

<p><b>Priority 2: Regional accessibility and sustainable development”</b>  <b>Field of Activity 2.1: Transport and regional accessibility</b></p>
<p><b>General conclusion:</b></p> <p>This field of activity promotes a gradual shift towards environmental friendly means of transport and communication. It is therefore likely to result in positive impacts on the environmental issues “population”, “fauna, flora”, “soil and subsoil”, “ground and surface water”, “air”, “climate protection”, “landscape and cultural heritage/archaeological and architectural heritage”, “environmentally friendly transport/sustainable mobility systems”, “energy efficiency and renewable energy sources”, “resource efficiency and conservation/sustainable resource management”. One exception could be the planning of Transport Corridors which could have significant adverse impacts. Positive aspects stem from the fact that transboundary SEA/EIA for infrastructure activities is supported by the programme. Slightly adverse impacts regarding the environmental objective of minimising land take, urban sprawl and loss of soil by sealing cannot be excluded without further qualifications.</p> <p><u>Remaining recommendations:</u></p> <ul style="list-style-type: none"> <li>• In order to minimise possible adverse impacts, it is suggested that transboundary EIA/SEA (mentioned in the Programme as one of the possible activities) is always carried out as an integral part of this activity resp. of infrastructure activities (where applicable) as one possible mean for the common management of impacts.</li> <li>• In order to avoid possible adverse impacts regarding land take and loss of soil by sealing, as a matter of principle, any new terminals and facilities should be located in brownfields whenever possible unless there are very strong and justified economic and environmental reasons for green-field investments.</li> <li>• In order to maximise possible positive impacts it is further suggested that the activities proposed in this field are optimally linked to the correspondent activities in fields of activity 1.2 and 1.3. This includes for example supporting concepts for innovative mobility solutions and cross border transport means, like cross border products for public transport (e.g. regional bus passes).</li> </ul>
<p><b>Main selection criteria or conditions for implementation:</b></p> <ul style="list-style-type: none"> <li>• Does it reduce transport demand?</li> <li>• Does it improve intermodal connectivity?</li> <li>• Does it transfer freight from road to rail/ water bound transport?</li> <li>• Does it promote cycling?</li> <li>• Does it include transboundary environmental assessment where applicable?</li> </ul>

<p><b>Priority 2: Regional accessibility and sustainable development</b>  <b>Field of Activity 2.2: Environment and risk prevention</b></p>
<p><b>Adoption of SEA alternatives and recommendations in the programme:</b></p> <p>It was accepted by the programming group that “coordinated activities of active and passive measures as well as improved warning systems should reduce the probability and damages of floods”. Socio-economic risk management could be well integrated into the adopted fields of activities. Support of the preparation of cross border strategies for waste management and the possible proper use of waste as secondary material after full opening of the borders were implemented into the direction of support as well as know how transfer in the fields of flood protection and maintenance of sewage infrastructure. Summarizing the result of SEA-discussion, the programme strategy in the field of environmental protection has been shifted to a more sustainable, resource-orientated management approach in an cross border context.</p>
<p><b>General Conclusion:</b></p> <p>This field of activities is likely to result in positive impacts on quality of air and water resources, energy efficiency and sustainable resource management. Joint activities in the field of nature and landscape protection will support the national strategies to stop the decrease of biodiversity and build-up a network of protected areas. Those directions of support will include attractive and innovative but nevertheless sustainable new infrastructure in and around protected and appropriate management structures. Some activities could support national and EU-strategies to increase flood prevention, although those measures could be accompanied by adverse impacts on natural habitats due to construction works. Most of all this field of activity should be successful on a long term by implementing environmental management methods, exchange of experience and pilot projects.</p>
<p><b>Main selection criteria or conditions for implementation:</b></p>

**Priority 2: Regional accessibility and sustainable development**

**Field of Activity 2.2: Environment and risk prevention**

- Does it increase institutional or personal capacity for change-management processes (e.g. environmental management) including risk management?
- Does it contribute to a positive impact on environmental issues like biodiversity, air, climate protection, energy efficiency or prevention of natural disasters on a long-term?
- Does it avoid negative side effects, especially on biodiversity or other natural resources?

**Priority 2: socio-economic development and know how transfer**

**Field of Activity 2.3: Sustainable networks, institutional cooperation and spatial planning activities**

**Adoption of SEA alternatives and recommendations in the programme:**

Integrated planning, participation structures and environmental assessment for strategic projects and processes were integrated into the context of sustainable spatial development. It is still unclear whether it depends on the scope of the plan / project to implement an environmental assessment or whether a SEA-approach should be implemented for each project which has significant impact in a cross-border context, possibly in a long-term view. This field of activity offers possibilities to establish participation structures (e.g. AGENDA 21, ...) as well as support of local or regional activities for climate protection, with positive impacts on environmental awareness on a long-term view.

**General Conclusion:**

This field of activity is likely to result in a positive impact in a broader context, by setting the framework for cooperation for the other fields of activity to be successful. Especially by implementing a cross-border approach to regional governance in environmental policies will improve the overall setting for improvements to most environmental issues. Regional participation will guarantee that most of the relevant regional actors take part in decision making processes, increasing their know how and awareness capacity.

**Main selection criteria or conditions for implementation:**

- Does it increase institutional or personal capacity for participation and decision making processes on regional level?
- Does it integrate environmental objectives into networks or cooperative structures to support sustainable regional development?

## 9 Monitoring system

### 9.1 Commentary on the context

The monitoring aims at investigating the effects of the implementation of the “Territorial Cross Border Cooperation Austria – Czech Republic 2007–2013” Programme on the respective environmental issues. It shall enable the programme authorities to take remedial action when unexpected environmental effects occur.

The monitoring of the significant environmental impacts should be an integrated part of the mid-term and ex post evaluation of the programme. It will be important when preparing the mid-term and ex post evaluations to include an explicit requirement on assessing the significant effects of activities and projects on the relevant environmental key objectives elaborated further below. Also an explicit requirement should be included to the mid-term evaluation to propose corrective measures if the evaluation shows unexpected adverse environmental effects.

The SEA-Directive, Art. 10, does not contain any specific requirements on the mode of monitoring. This flexibility is needed in order to develop solutions corresponding to the various plans and programmes.

### 9.2 Review of current monitoring system

The monitoring model to assess the environmental effects of structural funds programmes proposed by the ÖROK<sup>25</sup> in Austria, situated at the project level, offers a sound starting point.

Taking into account the nature of possible activities and in order to find out whether and to which extent the programme has positive environmental effects, each project has to be analysed according to four 4 environmental key objectives (low emissions to air and water, efficient use of energy resources, reducing amounts of disposed waste, biodiversity and landscape protection).

The core of the environmental assessment of projects in the 2000-2006 period was restricted to three mainly nominal categories for each project, namely:

- “environmentally neutral”,
- “positive environmental effects” and
- “very positive environmental effects” or as an alternative formulation “environmentally oriented”

The presently applied approach focuses only on positive effects. This is deemed to be not satisfactory for SEA purposes and the approach can be optimized.

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<sup>25</sup> Umweltdimensionen und Bewertungsskala zur Evaluierung von Umweltwirkungen der Strukturprogramm (2002); ÖROK.

### 9.3 Proposals for improvements of the monitoring system

#### Option A: Minor adjustments of the proposed monitoring system

The systematic SEA identified a set of relevant environmental objectives for the programming document that fully reflect relevant environmental objectives established on EU level and in Austria and Czech Republic.

When such set of relevant environmental objectives would provide too complex framework for examination of the actual environmental impacts, the environmental monitoring system can be based on two principles:

- environmental monitoring focuses on the set of four 4 environmental key objectives (low emissions to air, water and soil, efficient use of material and energy resources, biodiversity and landscape protection),
- data on the actual impacts of implemented projects are gathered through more systematic analysis outlined below.

Table 7: Monitoring limited to 4 key environmental objectives

Project .....	Impacts of the project on relevant environmental objectives for the programming document			
	Positive	Neutral or not applicable	Negative	Short explanation of scale and nature of the impact
Simplified set of environmental objectives for the programming document				
Low emissions to air, water and soil				
Efficient use of material resources				
Efficient use of energy resources				
Biodiversity and landscape protection				

#### Option B: Optimal adjustments of the proposed monitoring system

This proposal is based on a presumption that the examination of actual environmental impacts of the implementation of the programming document should assess impacts of proposed activities on the wider set of relevant environmental objectives for the programming document that were identified within this SEA.

If such set-up would be feasible, the optimal environmental monitoring system can be based on two principles:

- environmental monitoring focuses on the set of relevant environmental objectives for the programming document defined during SEA,
- data on the actual impacts of implemented projects are gathered through a systematic analysis outlined below.

Table 8: Monitoring covering full set of relevant environmental objectives

Project .....	Impacts of the project on relevant environmental objectives for the programming document			
	Positive	Neutral or not applicable	Negative	Short explanation of scale and nature of the impact
Full set of relevant environmental objectives for the programming document (based on environmental objectives established on EU level and in Austria and Czech Republic)				
Reduce the share of population exposed to excessive noise				
Improve environmental awareness of the public and its active participation in decision-making				
Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010 and beyond				
Preserve soil in its function of protection and use				
Achieve good quality of surface and ground waters as defined by the Water Framework Directive 2015				
Comply with legal limits listed in the Air Quality Framework Directive				
Decrease emissions causing climate change in line with the obligations lay down in the Kyoto Protocol				
Maintain and enhance protection of areas under UNESCO and national preservation regime				
Minimise land take, urban sprawl and loss of soil by sealing				
Maintain and restore the protective capacity of ecosystems				
Decouple increase of volume of traffic from economic growth				
Promote walking and cycling				
Decouple energy consumption from economic growth				
Reduce total energy consumption;				
Increase the production of renewable energy per capita				
Decouple material consumption from economic growth				
Reduce consumption of non-renewable resources				
Consume renewable resources within their regeneration capacity				

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## 12 ANNEX: Compliance with the Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, Overview.

The Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment defines in Annex 1 the information to be provided within the Environmental Report. The following table provides an overview and reference guide on the requirements of the Directive and the contents of the present Environmental Report.

Directive provision	Chapter in Environmental Report	Comment
Lit. a) outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Chapter 2	The final draft of the programme and the herein outlined activities and priorities are the product of continuous interaction between the SEA team and the Programming Group.
Lit. b) relevant aspects of the current state of the environment and the likely evolution thereof without implementation	Chapter 4	
Lit. c) the environmental characteristics of areas likely to be significantly affected	Chapter 4	Most environmental data is available on a national or regional base. CBC programmes being by definition transboundary pose a challenge for a coherent yet differentiated description.
Lit. d.) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	Chapter 4	
Lit. e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;	Chapter 4	
Lit. f) (f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;	Chapter 6	The Definition Of The Likely Significant Effects On The Environment Of The Programme Priorities Was Approached With Great Attention And Depth Of Detail, Providing Comments And Incentives For Reformulation To The Programming Group.
Lit. g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Chapter 8	The main concern of the SEA team was the incorporation of their remarks and comments to the formulation of the Programme Priorities and Fields of activities. Thus the proposed "measures" are already part of the Programme.
Lit. h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling	Chapter 8	Cross Border Cooperation Programmes are implemented through the selection of single projects proposed by the eligible applicants. It is thus beneficial to the environment to define project selection criteria that safeguard the environment.
Lit. i) a description of the measures envisaged concerning monitoring in accordance with Article 10	Chapter 9	
Lit. j) a non-technical summary of the information provided under the above headings	Chapter 1	