

THE INTERREGIONAL COOPERATION
PROGRAMME (INTERREG IVC)
(Revised 3rd Draft)

STRATEGIC ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL REPORT

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Report for:

The Managing Authority of the INTERREG IVC Programme

Submitted by

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NON TECHNICAL SUMMARY

1. Introduction

The SEA of the Interregional Cooperation Programme (INTERREG IVC) has been carried out by Ecosystems LTD, Brussels, on behalf of the INTERREG IVC Managing Authority, in accordance with the requirements of the SEA Directive 2001/42/EC. It has been undertaken alongside the development of the Programme.

The SEA is designed to ensure that the *'likely significant effects on the environment of implementing the plan or programme, and of reasonable alternatives, are identified, described, evaluated and taken into account before the programme is adopted.'*

This section is the non technical summary of the Environmental Report required under the SEA Directive.

2. The Interregional Cooperation Programme (2007-2013)

The Interregional Cooperation (INTERREG IVC) Programme is being developed for the new programming period of the Structural Funds 2007-2013. It is foreseen under the new European Territorial Cooperation Objective (Article 6) of the European Regional Development Fund (ERDF) and is in line with the Community Strategic Guidelines for Cohesion Policy 2007-2013.

The Programme aims to enable cooperation between authorities and actors at the regional and local level from different countries in Europe in projects to exchange and transfer their experiences and jointly develop approaches and instruments that improve the effectiveness of regional development policies and contribute to economic modernisation.

The overall objective of the INTERREG IVC programme is to:

To improve the effectiveness of regional development policies and to contribute to economic modernisation and increased competitiveness in Europe in the areas of innovation, knowledge economy, environment and risk prevention by means of interregional cooperation.

The programme is structured around two thematic priorities, grouping action fields that are key in helping to achieve a contribution from the regions of Europe to the Union's strategy for growth, jobs and sustainable development.

- **Priority 1** addresses **innovation and the knowledge economy**, focussing mainly on the sub-themes innovation, research and technology development, entrepreneurship and SMEs, the information society, employment and qualification.

- **Priority 2** targets **environment and risk prevention**, most notably the sub-themes natural and technological risks, water management, waste management, biodiversity and preservation of natural heritage, energy and sustainable transport, cultural heritage and landscape.

This programme supports two different types of interventions that are complementary and together help achieve the objectives of the programme.

- The first type are the **Regional Initiatives**, projects initiated by actors at the regional and local level aiming at exchange of experience in a specific policy field with the aim to identify best practice and develop new tools and approaches for implementation.
- The second type of intervention is called the **Fast Track Option**. This will take the shape of networks bringing together regions with strong experience in a specific policy field and regions wishing to improve in that field. The aim is to ensure that best practices identified will find their way into the Convergence and Competitiveness programmes.

The programme is co-financed by the European Regional Development Fund (ERDF). It has a total available ERDF budget of € 321 million for the 2007-2013 period. The programme area covers the whole territory of the European Union (EU-27) plus Norway and Switzerland. The programme co-finances the participation of to public authorities and public equivalent bodies from these countries. Participation of actors from outside this area is possible under certain conditions.

3. The Strategic Environment Assessment - methodology

The SEA has been undertaken on the 3rd Draft of the Interregional Cooperation Programme dated 20th December 2006. Several factors have influenced the choice in methodology and approach for the present Environmental Report on the Interregional Cooperation programme:

- **the very broad geographical scope:** the Interregional Cooperation Programme is not what might be considered the 'classic' type of development programme that undergoes an SEA. It has an very wide geographical basis, covering the whole of Europe rather than one particular pre-defined area or region as would be the case in a local development plan or regional transport plan.
- **Nature of the actions:** The type of actions to be funded do not set the framework for future development consent of projects listed under the EIA Directive (eg involving investments in physical infrastructure such as road networks or housing schemes or even flood prevention schemes, or nature conservation enhancement schemes).

Instead, INTERREG IVC is designed to strengthen economic and social cohesion in the European Union by **promoting interregional cooperation** across the entire EU territory and neighbouring countries. The principal types of actions to be co-financed are therefore likely to involve large-scale information exchange and sharing of experiences (networks) as well as some pilot actions.

- **A high level strategic approach:** the Interregional Cooperation Programme is high up in the 'hierarchy' of plans and programmes in that it set a broad framework for interregional cooperation. Details regarding which projects will be funded, where and for what amount will be decided later on in the programming process and is not known at this stage. Detailed financial allocations are also not given other than the statement that 55% of the funds will be allocated to priority axis 1 (innovation and knowledge economy) and 39% to priority axis 2 (environment and risk prevention).
- **One of its objectives is the environment:** one of the two thematic priority axes for funding under Interregional Cooperation Programme is the environment and risk prevention (the other one being innovation/knowledge economy).

In this respect, particular attention has been given to the following questions, when devising the SEA methodology:

1. Does the Programme tackle the most pressing environmental issues at European level?
2. Is the Programme in line with the EU environmental policy priorities?
3. Does the Programme focus on issues needing interregional cooperation?
4. Does it maximise its potential for a positive impact on the environment?
5. Are assessments of environmental effects required later on during the implementation of the programme (eg during project selection)

These issues were discussed in the Scoping Report. The Environmental Authorities who responded to the consultation on the Scoping Report supported the approach proposed.

The baseline information for the SEA was derived principally from the European Environment Agency's report on '*the State of the Environment and its outlook in Europe*' published in November 2005.

4. Compatibility of the Interregional Cooperation Programme with EU environmental policy priorities

As this is an EU funded programme and one of its objectives is the environment and risk prevention it was considered important to check the compatibility and relevance of the Operational programme against EU environmental policy priorities. This would not only help to determine if the Programme is in line with Europe's main policy priorities for the environment but should also give indications of how best to maximise its potential impact on these priority areas.

The assessment is based primarily on compatibility with the 6th Environmental Action Programme and its 7 thematic strategies as these set the EU priorities for the environmental policy for the period 2002-2012. Other EU environmental initiatives and legislation were also examined where it was relevant to the issues addressed in the Operational Programme.

The following highlights the key findings of the compatibility assessment.

- ***none of the operational objectives are incompatible with the 6th EAP priorities or the thematic environmental strategies.***

- **As regards the first priority axis: innovation and knowledge economy, it has no direct relationship with the 6th EAP or the thematic strategies.**
- **As regards the second priority axis: environment and risk prevention, the relationship with the 6th EAP and European environmental policy priorities is more direct and is overall positive.**

There are nevertheless a number of issues that might require further consideration.

- In terms of the exact wording for the operational objectives under thematic priority axis 2 it may be appropriate to adjust these in order to bring them entirely in line with EU environmental policy priorities:
 - *Under Objective 2:* it is proposed that the text be modified ‘promoting the enhancement of *sustainable* water management activities (*in line with the Water Framework Directive*)
 - *Under objective 4:* It may be appropriate to emphasise that the objective is aimed at (promoting the development of *sustainable* coastal management activities (*in line with ICZM*))
- As regards the examples given to illustrate the type of activities that could be funded under each operational objective, it is questioned whether the example under Objective 1: ‘reaping the benefits of the sea’ is appropriate. Europe’s seas are already heavily exploited. Recognising this, the EU has proposed an EU Marine thematic Strategy and Framework Directive to promote the sustainable management and use of Europe’s seas and marine resources. If this issue is to be covered under objective 1, it may be more appropriate to give an example that clearly relates to the EU marine thematic strategy and the promotion of an ecosystems approach to the sustainable management of Europe’s seas.

5. Assessment of the environmental effects of the Interregional Cooperation Programme

Following a review of the key environmental issues that are relevant to the INTERREG IVC area and taking into account the issues covered by annex I of the SEA Directive, a number of SEA themes were identified for which SEA objectives could be developed.

SEA Themes identified	SEA objectives
• Climatic factors (incl. energy and transport)	• Reduce contribution to climate change • To adapt effectively to climate change
• Biodiversity	• To maintain and enhance biodiversity
• Water	• To meet the environmental standard set by the WFD
• Waste	• To minimize generation of waste
• air	• To improve air quality
• Human health	• To protect and improve health of population
• Cultural heritage and landscape	• To protect and conserve Europe’s natural & cultural heritage and landscapes

The assessment indicates that there are no obvious significantly or moderately negative effects of the Interregional Cooperation programme. On the contrary, many aspects under the second priority axis 'environment and risk prevention' are likely to have positive, albeit indirect, effects on Europe's environment.

Cumulative environmental effects are possible for certain objectives but these have not been considered further as they are too much based on qualitative issues. Mitigation measures are not proposed as there are not likely significantly negative environmental effects identified.

Issues to consider:

There are nevertheless some areas where there may be a potential risk of negative effects later on in the implementation of the programme. Because of the high level of the INTERREG IVC programme much of the detail as regards the choice of projects, etc is left to later when implementation rules will be drawn up, together with application manual and project assessment criteria.

It is therefore recommended that environmental safeguards are considered in the project application manual and during the project selection procedures to avoid any potential incompatibilities with, or between different, environmental objectives.

Possible examples of potential conflict might include:

- The development of renewable energies such as wind energy, biofuels, wave energy may negatively effect biodiversity, Natura 2000 areas and landscape if they do not take sufficient account of possible impacts early on at a planning stage. Promotion of good practices which do not take account potential conflicts with other environmental priorities should be avoided and if possible screened out or adjusted during the project selection phase.
- For the same reasons mentioned above the development of plans and measures to prevent and cope with natural risks should consider the services rendered by robust ecosystems such as wetlands, rivers, etc and seek to integrate these considerations into the plans themselves. Otherwise there is a risk that certain measures (such as hard engineering solutions to prevent floods or coastal erosion) may end up damaging the environment. Again networking or exchange of experiences and good practice focussing on integrated and sustainable measures to prevent and cope with natural risks should be given priority
- An example is given under both types of measures for 'reaping the benefits of the sea'. The European seas are already heavily exploited and an EU environmental priority as identified in the EU thematic marine strategy is to ensure that the seas and marine resources are managed sustainably. It would be more appropriate therefore to focus projects on helping to implement this ambitious thematic strategy.

Guidelines for the environmental assessment of project applications could be drawn up to help with project selection and 'screen out' projects that could be potentially incompatible with the protection of the environment

6. Assessment of alternative options

The SEA Directive requires that ‘...the likely significant effect on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated’

The environmental assessment so far has identified that the present Interregional Cooperation Programme is largely in line with the EU environmental policy priorities and is likely to have an overall positive, albeit indirect, environmental effect in several priority areas for the environment in Europe. As such, it already presents a ‘good deal’ for the environment.

During the Scoping Report, several environmental authorities suggested that an alternative to consider could be the possible shifts in priorities between activities/spendings under the programme. They considered that the SEA gives an opportunity to set out the environmental effects of different funding levels and present them in advance of decision making. This would lead to better informed decision making.

At the moment, 55% of the budget of €321 million is foreseen for the first priority axis ‘innovation and the knowledge economy’ and 39% is foreseen for the second priority axis ‘environment and risk prevention. However, it has not been possible to evaluate this alternative further through the assessment matrix. Because the assessments of environmental effects are based on qualitative criteria, they will not be able to distinguish any impacts of increased funding.

A second alternative that has been considered is an alternative based on the areas identified for interregional cooperation in the European Regional Development Fund¹ under environmental and risk prevention (Article 5). This is the legal reference for developing the Interreg IVC Operational Programme.

These objectives have been tested against the same SEA objectives used for testing the operational objectives of the Draft Programme.

The overall conclusion is that the current operational objectives as defined in the Interregional Cooperation Programme (3rd Draft) are likely to lead to more and stronger positive indirect environmental effects than the original thematic objectives identified for interregional cooperation in the European Regional Development Fund under environmental and risk prevention (Article 5)

7. Monitoring proposals

Considering the strategic nature of the Interregional Cooperation Programme and the lack of details on the implementation rules, selection criteria and monitoring/performance indicators it has not been possible to propose any monitoring measures that might pick up unforeseen adverse effects.

¹ Regulation EC N°1080/2006 on the European Regional Development Funding and repealing Regulation (EC) N°1783/1999 OJ L 210/1 31.7.2006

8. Consultation and next steps

Following consultation on the 3rd Draft Interregional Cooperation Programme and the present Environmental Report, the comments received will be fed back to the Interregional Cooperation Programme.

The Environmental Report will form a specific chapter within the Ex Ante Evaluation to be submitted to the European Commission alongside the final draft Programme. An 'SEA summarizing statement' will also be produced explaining how the findings of the Environmental Report and the opinions received during public consultation have been taken into account in the final Programme.

ABBREVIATIONS

CAP	Common Agricultural Policy
6th EAP	6 th Environment Action Programme
EEA	European Environment Agency
ERDF	European Regional Development Fund
EU	European Union
INTERREG IVC	alternative name for the Interregional Cooperation Programme
SEA	Strategic Environmental Assessment
WFD	Water Framework Directive

1. INTRODUCTION: THE PURPOSE OF THE SEA

1.1 Purpose of the SEA

The Strategic Environmental Assessment (SEA) of the Interregional Cooperation Programme (3rd draft) has been carried out in accordance with the provisions of the European Directive 2001/42/EC² on the evaluation of the effects of certain plans and programmes on the environment (commonly referred to as the SEA Directive).

The purpose of the SEA Directive is to:

'provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.'

It does this by requiring Member States to identify and assess the likely significant environmental effects of the programmes, and of any reasonable alternatives, during their preparation stage and before they are adopted. Accordingly, the present SEA is being carried out alongside the development of the Interregional Cooperation Programme and is intended to ensure that the programme contributes positively and appropriately to a high level of environmental protection.

The following documents have been used as references during the preparation of the Environment Report:

- Annex III of the Commission's draft working paper (October 2006) concerning the way to deal with environmental assessment requirements within the framework of the ex ante Evaluations of Structural and Cohesion Funds for the new programming period 2007-2013;
- Commission guidelines on the implementation of the SEA Directive³;

1.2 Steps prior to this report

a) Screening

The SEA Directive applies to plans and programmes, including those co-financed by the European Union under the programming period 2007-2012, which meet the terms of articles 2 and 3 of the SEA Directive. As a consequence, an environmental assessment of the Interregional Cooperation Programme may be required. The Managing Authority responsible for the Interregional Cooperation Programming has decided that an SEA should be undertaken of the Programme to avoid any risk of failing to be compliant with the SEA Directive in the future. This decision fulfils the 'screening' requirements of the SEA Directive.

² Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment OJ L197 21.7.2001 p 30

³ <http://ec.europa.eu/environment/eia/sea-support.htm>

b) Consultation on the Scoping Report

A Scoping Report for the SEA was produced on 18th August 2006 and was sent out for consultation to Environmental Authorities in the respective Member States and Associated Countries. To facilitate the process, a questionnaire was attached to the report and comments were requested by the 10th September 2006.

Nine replies were received. All respondees supported the overall scope, level of detail and methodology proposed in the Scoping Report, they also made the following specific recommendations:

1. regarding the assessment of the compatibility of the Interregional Cooperation Programme, priorities should focus on key EU policies and environmental issues – it is not necessary to do an exhaustive review of all EU environmental legislation and policies;
2. The assessment of the compatibility of the Interregional Cooperation Programme with other funding streams is not a normal part of an SEA (this has been removed);
3. under alternatives, it is proposed that possible shifts in priorities between activities/spendings under the programme are considered. The SEA gives an opportunity to set out the environmental effects of different funding levels and present them in advance of decision making. This would lead to better informed decision making;
4. because of the high level of this programme, a section should be included which identifies where a more detailed assessment may be required of environmental effects later on in the implementation of the Programme. Guidelines for the environmental assessment of project applications could be given to help with project selection, equalize processes and help with later phases;
5. the ER should point out under axis 1 that information about certain types of innovation should be supported by information about how any associated environmental risks can be assessed, avoided or mitigated
6. the proposed theme under axis 2 dealing with 'making cultural heritage more visible and accessible' may be beneficial for the public but it should also need some form of control to prevent damage. SEA objectives should also consider international policy framework for historic environment features;
7. there should be some assurance that the results of the Interregional Cooperation projects are accurate and appropriate for use to which they are put
8. the SEA could give a picture of which countries are best performing in the relevant environmental sectors and make some suggestions which countries should take the lead in the discussion and know-how transfer (learning from the best)
9. To uphold EU citizens' rights to public consultation, the Draft Operational Programme and its accompanying Environmental Report should be put on the internet once the consultation process starts.

These recommendations have been taken into account as far as possible in the Environment Report – details are given later in the Report where difficulties have been encountered.

1.3 Consultation on this Environmental Report

This Environmental Report, together with its non technical summary, is available for consultation alongside the 3rd draft of the Interregional Cooperation Programme on the following website <http://www.interreg3c.net>. The consultation will start on 20 December 2006. Comments are requested by 14 February 2007, however, for those Member States that allow for 12 weeks public consultation, the final deadline will be 14 March 2007.

Once the final Interregional Cooperation Programme is submitted to the European Commission, the Environmental Report will be incorporated as a chapter of the ex ante evaluation and a summarising statement will be produced explaining how the findings of the Environmental Report and the opinions received during public consultation have been taken into account in the final Programme.

2. BACKGROUND: THE INTERREGIONAL COOPERATION PROGRAMME

2.1 Interregional cooperation in support of the Lisbon and Gothenburg strategies

The Interregional Cooperation Programme is being developed under the 'European territorial cooperation' objective of the European Regional Development Fund (2007-2013)⁴. Like other EU structural funds, it is destined to contribute to the realisation of the Lisbon and Gothenburg strategies.

One of three priorities under the 'European territorial cooperation objective', is interregional cooperation and exchange of experiences (commonly referred to as INTERREG C). The geographical scope for the new Interregional Cooperation (INTERREG IVC) Programme includes the entire EU-27 as well as Norway and Switzerland. A total of €321 million is earmarked for this Programme over the period 2007-2013.

The overall objective of the Interregional Cooperation Programme is to:

To improve the effectiveness of regional development policies and to contribute to economic modernisation and increased competitiveness in Europe in the areas of innovation, knowledge economy, environment and risk prevention by means of interregional cooperation.

The Programme supports two thematic priority axes and one technical assistance priority:

Priority axes for INTERREG IVC	Proposed financial allocations per priority axis
• Priority 1: innovation and knowledge economy	55%
• Priority 2: environment and risk prevention	39%
• Priority 3 : technical assistance	6%
TOTAL	100%

Concerning the rate of assistance under this programme, ERDF can finance up to a maximum of:

- **75%** of total eligible costs for Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Spain, Sweden, UK
- **85%** of total eligible costs Bulgaria, Czech Republic, Cyprus, Estonia, Greece, Hungary, Lithuania, Latvia, Malta, Poland, Portugal, Romania, Slovakia, Slovenia.

⁴ Regulation (EC) N°1080/2006 of the European Parliament and the Council of 5 July 2006 on the European Regional Development Fund and repealing Regulation (EC) N°1783/1999, OJ L210, 31.7.2006

2.2 Types of interventions foreseen

This Operational Programme supports two different types of interventions that are tailored to help achieve the overall and specific objectives of this programme.

Firstly, it supports projects initiated by regional actors aiming at an exchange of experience in a specific policy field with the aim to identify best practice and develop new tools and approaches for implementation.

Secondly, INTERREG IVC implements a Fast Track option in order to ensure that best practice identified, for instance by the regional initiative projects mentioned before, finds its way into the Convergence and Competitiveness programmes.

The programme will also undertake capitalisation of good practices related to the Lisbon and Gothenburg priorities that have been identified under INTERREG IIIC, IVC or other cooperation programmes. The “capitalisation process” will constitute a new and major feature of the programme. These good practices will be widely disseminated to targeted actors.

Regional Initiatives (TYPE 1)

Regional Initiatives can be defined as the ‘classic’ interregional cooperation as it was already supported by the INTERREG IIIC programme. The aim of this type of intervention is to facilitate actors at the regional and local level to initiate cooperation projects with partners from different (EU) countries. Such projects should address a regional policy issue of shared relevance for all partners involved, within the thematic scope of this programme. Activities may include the exchange of experience, knowledge and good practice and the development of tools and approaches.

At regular intervals the Monitoring Committee of this programme will open calls for project proposals, inviting interregional partnerships to apply for funding for their Regional Initiatives. Cooperation in Regional Initiatives is performed by a partnership of different regional and/or local level actors. They implement a series of activities in line with the previously approved project proposal.

Projects can support a variety of activities related to sharing experiences and instruments of regional policies. These may range from lower intensity activities like the exchange and dissemination of information and experience, enhancing the knowledge and capacity of the partners involved, without directly changing policy instruments or new projects, to higher intensity activities including the transfer of instruments or project results or the development of entirely new approaches or tools, including the implementation of new policy elements as pilot schemes in one or more regions involved.

At the top end of this range of intensities, partnerships may develop a joint framework for interregional cooperation that will be implemented through a limited number of sub-projects that are developed via calls for proposals in the participating regions.

Projects under the Regional Initiative type of intervention shall include partners from at least three countries of which at least two must be Member States. The maximum number of partners for these projects normally should not exceed 12.

One specific field of activity that may be developed through Regional Initiatives is the capitalisation of results of previous interregional cooperation experiences. This may be done by setting up a network of regions aimed at bringing together valuable experiences and good practices in a specific field of regional policy that have been identified or developed by different (previous) interregional cooperation projects and activities (e.g. under INTERREG IIIC). These collected experiences, consolidated to a transferable tool, will be made available ready for use for all regional and local actors across Europe with an interest in the specific policy field addressed. In particular the stakeholders of the Convergence and Competitiveness programmes should be addressed.

The Fast Track option (TYPE 2)

The Fast Track option is a specific instrument of the Regions for Economic Change initiative. Under article 8 of this Communication, it is specified that, as with the Regional Initiative projects described previously, *“it will be voluntary for regions and cities but will have the important difference that the Commission, rather than regions, will be the prime mover. The Commission will set out the themes to be pursued in co-operation with Member States. It will invite interested regions to become part of Fast Track Networks pursuing the theme. It will animate, together with the Managing Authority of this programme, the Fast Track Networks and collate results. Furthermore, networks within the fast track option will be offered expertise to develop action plans for testing and evaluating best practice methods”*.

The Presidency of the informal meetings of Ministers for Regional Policy in Brussels on 21 November 2006 concluded: “The Commission initiative “Regions for Economic Change” provides a good basis for the development of more influential programmes for interregional cooperation and urban networking. The fast track option, where the Commission plays the leading role, is a welcomed additional element in reinforcing the exchange of experience. However, as a main principle, cooperation networks should continue to be established on the initiative of regions and cities. Participation in the networks should be voluntary and up to the regions. Selection procedures of the networks should be transparent and administration of the exchange of experience should be light, avoiding additional bureaucracy”

The main purpose is to capitalise on the results of interregional cooperation and generate synergies between cohesion policy and other EU policies. Such activities will actively stimulate the adoption of innovative regional development strategies and best practice in the Competitiveness and Convergence programmes.

The Fast Track option is targeted at the direct transfer of a specific regional policy best practice to one or more regions wishing to improve in that specific field. The best practice can be a tool or an instrument that comes from a finalised INTERREG IIIC project, from a project under the present Interregional Cooperation programme or from best practice identified at regional level in other constellations.

Under the Fast Track option, networks will be set up, bringing together volunteer regions and related specialist bodies, having a specific expertise in a certain field with those wishing to improve in that field. The Commission will bring together volunteer regions, animate their cooperation and provide ongoing expert support. The expected outcome would be a concrete action plan for each of the participating regions.

An important prerequisite for participation of a region in a Fast Track Network is the involvement of the authority managing the respective Convergence or Competitiveness and Employment programme, since the action plan developed is then to be implemented in the framework of that programme. The programmes mentioned before should have a specific reference to the Fast Track option or to the wider Regions for Economic Change initiative so as to facilitate making funding available for implementing the action plan elaborated. In this way the good experiences developed in interregional cooperation projects will have a very direct impact on the policies and actions of other regions in Europe, notably the ones who need them the most.

In short, Fast Track Networks shall address issues that fall within the thematic scope of this Interregional Co-operation Programme and the Regions for Economic Change Communication. Annex 3 presents an overview of these issues. Further themes may be added at a later stage, as appropriate. The European Commission will propose Fast Track Networks for these themes to the Monitoring Committee of this programme, which will take the decision on the approval and the funding for the Fast Track Networks on the basis of selection criteria established by the Monitoring Committee.

Table: Overview of the implementation strategy

	Regional Initiatives (TYPE 1)	Fast Track Networks (TYPE 2)
Approach	<i>Exchange of experience and good practice, development of tools and instruments of regional policies</i>	<i>Targeted matching of regions aimed at transfer of already identified best practices into Convergence and Competitiveness and Employment programmes and amongst regions participating in the network</i>
Beneficiaries	<i>Public authorities and public equivalent bodies</i>	
Lead actor in the network	<i>Preference will be given to regional and local public authorities</i>	
Content	<i>Field of cooperation chosen by the partnership within the 2 thematic priorities</i>	<i>Fields of cooperation as set out in Annex 3, within the scope of the two thematic priorities</i>
Activities	<ul style="list-style-type: none"> - Generation of good practice on approaches and tools within the network. - Transfer of these approaches and tools to partners of the network. - Capitalisation of previous interregional experiences 	<i>Process of transfer of best practice and capacity building, capitalising on previous interregional experiences, resulting in regional action plans,</i>
EC support for expertise and administration	No	Yes
Introduce best practice into Convergence and Competitiveness programmes	<i>Not required but encouraged</i>	<i>Essential (such commitment will be required)</i>
Participation of Convergence and Competitiveness programme authorities	<i>Not required but encouraged</i>	<i>Essential</i>

2.3 Thematic Priority 1: innovation and knowledge economy

2.3.1 General purpose

The general purpose of this priority is to enable regional and local authorities and other stakeholders at the regional level to improve their policies, methods and capacities in the field of innovation and knowledge economy. The means to do this are the exchange and transfer of knowledge and experience and the development of new policies and approaches between regions throughout the European Union.

More specifically, this priority aims at contributing to reduce regional disparities throughout Europe by strengthening regional potential and bringing together more-advanced and less-advanced regions on specific fields. The ambition is also to pool expertise in order to increase the number of very competitive regions in Europe.

The strong involvement of regional and local decision makers is decisive in order to generate tangible and visible results which could be implemented in other European territories.

2.3.2 Operational objectives

This priority will support interregional cooperation projects that contribute to:

1. *improving the capacity of regions for strengthening research, technology and innovation;*
2. *Promoting and enabling entrepreneurship and the development of new business initiatives in all sectors of relevance to regional economies, in particular those that are knowledge based and innovative;*
3. *Facilitating businesses, and in particular SMEs, to develop and grow in a more sustainable and innovative way through the transfer of specific services and the creation of shared facilities*
4. *Helping to restructure regions most heavily dependent on traditional industries, including renewal of industrial zones for new business.*
5. *Promoting the use of new information and communication technologies by businesses, public services and the general public, especially in rural areas;*
6. *Improving regional policies for employment, skills development training and education;*
7. *Creating the necessary framework conditions for regional economies to adapt to major socio-economic challenges, notably globalisation and demographic challenges*

2.3.3 Possible examples of cooperation activities

Examples of cooperation activities that can be supported include:

- **Innovation and Research & Technology Development**
 - *Exchange and transfer of successful regional policies and approaches in support of research and development activities and actors.*
 - *Good practice collection and transfer on research and innovation infrastructure such as science parks, innovation centres, incubators or support to clusters.*
 - *Identification and development of methods for strengthening creative interaction in the knowledge - businesses - public sector triangle.*

- Strategic cooperation aimed at optimising / enhancing the use of new environmentally friendly technologies
 - Exchange of experiences on helping to restructure regions most heavily dependent on traditional industries ;
 - Bringing innovative ideas to the market more quickly.
- **Entrepreneurship and SMEs**
 - Exchange on policies related to promoting entrepreneurship and business start-up, especially in knowledge based, innovation driven sectors.
 - Exchange on regional business support structures and approaches to assist SMEs
 - Cooperation in the field of financial assistance to SMEs and the development of risk capital.
 - Strategic cooperation and networking between regions sharing an interest in a specific economic sector, aimed at strengthening the respective regions economic profiles and the global competitiveness of the sector.
 - Support to regional business clusters through interregional exchange of experience.
 - Cooperation activities for the support and promotion of female entrepreneurship
 - Support to the economic diversification of rural areas
- **Information Society**
 - Exchange on development of ICT based public services to increase the effectiveness and competition of businesses and entrepreneurs.
 - Promotion of the development and use of ICT based services and products (for example in public services e-government and e-health, bringing e-government to regions and businesses).
 - Joint development of strategies to enhance participation of the public to the information society, e.g. programmes for improving computer skills
 - Strategies for establishing better ICT connections between regions,
- **Employment, Human Capital and Education**
 - Improving qualifications for innovation
 - Exchange of best practices and cooperation in the field of local and regional employment policies aimed at safeguarding and creating new employment opportunities in innovation and knowledge based jobs
 - Exchange of best practice on training and retention of researchers
 - Cooperation and exchange on local employment development (LED) initiatives
 - Capacity building and knowledge transfer for staff involved in business development and support
 - Exchange of regional strategies to increase investment in R&D related human capital
 - Joint activities for the enhancement of labour market participation of discriminated groups such as women and older workers
 - Exchange of experiences for improving the adaptability of workers and enterprises, promoting a healthy workforce in healthy workplaces and expanding and improving education and training systems.

2.3.3 Target groups/beneficiaries

The final ERDF beneficiaries are public authorities and public equivalent bodies. The following list presents an indication of the target groups that are encouraged to be involved in interregional cooperation projects in this priority:

- Regional and local public authorities
- Regional development agencies
- Universities, knowledge and research institutes and institutes for (higher) education;

- Operators of science and technology parks, business incubation facilities, innovation centres;
- Other business support actors and organisations representing the business community, especially related to SMEs ;
- Other public or public equivalent bodies demonstrating relevance to the development of regional innovation and knowledge based economy;

2.3.4 Types of project activities that can be undertaken:

- study visits,
- joint training sessions,
- staff exchange,
- studies and reports, data analysis, comparative case studies,
- meetings and events (interregional workshops, seminars, conferences, etc.)
- information and publicity actions (press release, brochures, leaflets and newsletters, Website, radio and Tv broadcasts, etc.)
- development of common conceptual and methodological frameworks,
- elaboration and pilot experimentation of new instruments and approaches,
- development of operational action plans,
- etc.

2.4 Thematic Priority 2: environment and risk prevention

2.4.1 General purpose

The general purpose of this priority is to enable regional and local authorities and other stakeholders at the regional level to improve their policies, methods and capacities in relation to the priority aspects of environment and risk prevention. As for the previous priority the means to do this are the exchange and transfer of knowledge and experience and the development of new policies and approaches between regions throughout the European Union and beyond in order to maintain and to improve the quality of environment and to increase the attractiveness of the regions in Europe.

More specifically, this priority aims at strengthening environmental protection and the synergies between the environmental context and the economy. Indeed, environmental spending can contribute to the economy in several ways, notably they can ensure the long-term sustainability of economic growth and decrease external environmental costs to the economy such as clean-up costs or damage recovery. The provision of environmental services such as clean water supply, waste and waste-water treatment facilities, management of natural resources and biodiversity, cultural heritage and landscape, and the protection against certain environmental risks have a high priority in this context.

2.4.2 Operational objectives

This priority will support interregional cooperation projects that contribute to:

1. *Developing plans and measures to prevent and cope with natural risks (especially fires, floods, desertification, droughts, earthquakes) and technological risks*
2. *Promoting the enhancement of water management activities*
3. *Promoting the development of sustainable waste management activities and the movement to a recycling society*
4. *Promoting the development of actions linked to biodiversity and the preservation of natural heritage, especially in NATURA 2000 sites and promoting the development of integrated coastal management activities*
5. *Stimulating energy efficiency and the development of renewable energies as well as better coordinated efficient energy management systems and promoting sustainable transport*
6. *Enhancing the attractiveness of the territory in support of socio-economic development and sustainable tourism by protecting the cultural heritage and landscape*

2.4.3 Possible examples of cooperation activities

Examples of cooperation activities that can be supported include:

- **Natural and technological risks**
 - *Strategies for improving the monitoring of environmental risks*
 - *Exchange of best practice on awareness raising and emergency planning of local population located in very sensitive areas, such as heavily built-up basins, seismic areas, flooding prone areas, etc.;*
 - *Exchange of experience on how to deal with air pollution, and manage and communicate on associated risks;*
 - *Development or coordination of existing observatories for a better knowledge of natural hazards;*
 - *Strategies for preventing and reducing floods;*
 - *Exchange and transfer of knowledge on tools, action plans, awareness and capacity for response at the different levels when a maritime disaster, avalanche, landslide or forest fire occurs;*
 - *Exchange and transfer of knowledge on tools, action plans, awareness and capacity for response at the different levels on aspects relating to communication and compensation when a maritime disaster occurs;*
 - *Exchange of information concerning the transport of dangerous goods and identification of relevant actions to inform the relevant groups*
 - *Development of appropriate coordinated spatial planning measures in geographically sensitive areas;*
- **Water management**
 - *Strategies for improving quality of water supply and treatment, including cooperation in the field of water management*
 - *Exchange and transfer of knowledge of integrated, sustainable and participatory approaches to river management;*
 - *Exchange of good practices and experiences on integrated coastal management (e.g. related to the Integrated Coastal Zone management Strategy and national coastal strategies)*
 - *Exchange on regional policies for reaping the benefits of the sea.*

- **Waste management,**
 - *Moving to a recycling society*
 - *Exchange of experience on the enhancement of waste management methods and policies –Development of practical guides for integrated local waste management;*
 - *Development of innovative solutions for waste disposal as part of sustainable regional waste management systems;*
 - *Re-using landfill and waste-disposal sites*
- **Biodiversity and preservation of natural heritage**
 - *Identification and exchange of good management practices (especially within the Natura 2000 network), to ensuring the overall ecological coherence and robustness of the network and to addressing the problems of fragmentation and connectivity between sites within the network;*
 - *Transfer of knowledge concerning management mechanisms (including management plans where necessary) related to sites designated as special areas of conservation;*
 - *Promotion of species or habitat action plans that set management priorities for Natura 2000 species across their entire natural range in the EU;*
 - *Large scale exchanges aiming at ensuring the overall coherence of the Natura 2000 network;*
 - *Exchange on the development of innovative approaches to land development, especially in environmentally sensitive areas;*
 - *Identification and exchange of good management practices aiming at improving air quality;*
 - *Development of measures to cope with health care related environmental problems.*
- **Energy and sustainable transport**
 - *Moving to a low carbon economy, including information to industrial customers, service providers and citizens on issues such as how to reduce energy consumption*
 - *Exchange and transfer of knowledge concerning long-term targeted energy efficiency campaigns, including efficiency in buildings, notably public buildings;*
 - *Exchange and transfer of knowledge on mechanisms to stimulate investment in energy efficiency projects;*
 - *Exchange and transfer of knowledge on actions dedicated to improve energy efficiency in the transport sector and in particular to rapidly improve urban public transport in Europe's major cities;*
 - *Transfer of knowledge on best practice related to lower-consumption vehicles and new propulsion technologies to reduce emissions;*
 - *Promotion of the use of improved collective and non-motorised modes in conjunction with mobility management schemes;*
 - *Information systems for better traffic management and improving traffic flow and for improving the monitoring of urban travel data;*
 - *Exchange of knowledge concerning energy policy and energy matters between regional energy agencies.*
- **Cultural heritage and landscapes,**
 - *Development and exchange of common strategies and tools in the fields related to the protection and enhancement of cultural heritage and landscapes*
 - *Promotion of common systems for risk management in the field of cultural heritage and cultural landscape (both rural and urban contexts)*
 - *Exchange of know-how among local public administrations on good practise in tourism development with a particular focus on integrating sustainability aspects;*
 - *Development and exchange of common strategies for the promotion of cultural assets as potential for the economic development of the regions, notably for sustainable tourism*

2.4.4 Target groups/beneficiaries

The final ERDF beneficiaries are public authorities and public equivalent bodies. The following list presents an indication of the target groups that are encouraged to be involved in interregional cooperation projects in this priority:

- Regional and local public authorities
- Nature protection institutions;
- Emergency services and other risk management bodies;
- Public transport authorities;
- Authorities responsible for protecting cultural heritage and landscape;
- Authorities in the field of tourism;
- Universities, knowledge and research institutes and institutes for (higher) education;
- Other public or public equivalent bodies demonstrating relevance in the field of environment and risk prevention

2.4.5 Types of project activities that can be undertaken:

Types of project activities that can be undertaken:

- study visits,
- joint training sessions,
- staff exchange,
- studies and reports, data analysis, comparative case studies,
- meetings and events (interregional workshops, seminars, conferences, etc.)
- information and publicity actions (press release, brochures, leaflets and newsletters, Website, radio and Tv broadcasts, etc.)
- development of common conceptual and methodological frameworks,
- elaboration and pilot experimentation of new instruments and approaches,
- development of operational action plans
- etc.

3. SEA METHODOLOGY

3.1 Proposed approach and difficulties encountered

The present Environmental Report is based on the 3rd draft of the Interregional Cooperation Programme dated 20th December.

According to the SEA Directive, the Environmental Report should ‘.... *include the information that may reasonably be required taking into account the current knowledge and methods of assessment, the contents and level of detail in the plan or programme, the stage in the decision making process and the extent to which certain matters are more appropriately assessed at different levels in that process...*’

Several factors have influenced the choice in methodology and approach for the present Environmental Report on the Interregional Cooperation Programme:

- *the very broad geographical scope:* the Interregional Cooperation Programme is not what might be considered the ‘classic’ type of development programme that undergoes an SEA. It has an extremely wide geographical basis, covering the whole of Europe rather than one particular pre-defined area or region as would be the case in a local development plan or regional transport plan.
- *Nature of the actions:* The type of actions to be funded do not set the framework for future development consent of projects listed under the EIA Directive (eg involving investments in physical infrastructure such as road networks or housing schemes or even flood prevention schemes, or nature conservation enhancement schemes). Instead, Interreg is designed to strengthen economic and social cohesion in the European Union by ***promoting interregional cooperation*** across the entire EU territory and neighbouring countries. The principal types of actions to be co-financed are therefore likely to involve large-scale information exchange and sharing of experiences (networks) as well as some pilot actions.
- *A high level strategic approach:* the Interregional Cooperation Programme is high up in the ‘hierarchy’ of programmes in that it set a broad framework for interregional cooperation. Details regarding which projects will be funded, where and for what amount will be decided later on in the programming process and is not known at this stage. Details of the financial plan or detailed financial allocations are also not given other than the allocation of 55% of the funds to priority axis 1 (innovation and knowledge economy) and 39% to priority axis 2 (environment and risk prevention), split according to year.
- *One of its objectives is the environment:* one of the two thematic priority axes for funding under INTERREG IVC is the environment and risk prevention (the other one being innovation/knowledge economy).

In this respect, particular attention has been given to the following questions, when devising the SEA methodology:

- Does the Programme tackle the most pressing environmental issues at European level?
- Is the Programme in line with the EU environmental policy priorities?
- Does the Programme focus on issues needing interregional cooperation?
- Does it maximise its potential for a positive impact on the environment?
- Are assessments of environmental effects required later on during the implementation of the programme (eg during project selection)

These issues were discussed in the Scoping Report. The Environmental Authorities who responded to the consultation on the Scoping Report supported the approach proposed.

3.2 The Environmental Report's proposed structure and contents

The following structure for the Environmental Report was approved during the scoping stage:

Context and methodology	❖ Purpose of SEA	Chapter 1
	❖ The interreg IVC operational programme	Chapter 2
	❖ Sea Methodology	Chapter 3
Baseline information	❖ European Environmental issues & problems	Chapter 4
	❖ EU Environmental Policy framework	Chapter 5
Assessment	❖ Relevance and compatibility of Intereg IVC with EU environmental policy priorities	Chapter 6
	❖ Assessment of the environmental effects	Chapter 7
	❖ Identification./assessment of alternatives	Chapter 8
	❖ Monitoring proposals	Chapter 9

3.2.1 Sources of baseline information on the environment

The baseline information on the relevant aspects of the current state of the environment is necessary for understanding how the programme could affect the environment in the area in question. It sets the baseline from which to identify the key problems (how good or bad is the situation, are the problems reversible or not, how difficult would it be to offset or remedy them) and their likely evolution (getting better or worse, how far are they from established thresholds or targets).

Considering the very wide geographical scope of the Interregional Cooperation Programme and the nature of its actions it was not considered useful to go into a great amount of detail on the state of the environment in Europe. What is needed for the baseline is a concise and consolidated European overview that highlights the main concerns at EU level in order to help identify the most appropriate SEA objectives for this programme.

The principal source of information used was therefore the European Environment Agency's report on '*the State of the Environment and its outlook in Europe*' published in November 2005. This gives one of the most comprehensive and up-to-date overviews on Europe's environmental problems, key issues and outlooks. Where appropriate, this was completed by other reports on specific issues, for instance those produced by ESPON (natural risks and cultural heritage) or by the Commission (eg on waste management, biodiversity...).

3.2.2 Review of EU environmental policy priorities

One of the priority axes for funding under the Interregional Cooperation Programme is the environment. The objective is to encourage a better sharing of experiences, tools and good practices in order to promote a more balanced and sustainable development across the entire European region. In light of this it was considered important to check the compatibility and relevance of the Operational programme against EU environmental policy priorities. This would not only help to determine if the Operational Programme is in line with Europe's main policy priorities for the environment but should also give indications of how best to maximise its potential impact on these priority areas.

As there are several hundreds of EU Directives and Regulations on the environment, it was agreed during the scoping stage that only strategic documents that set the environmental policy priorities for the future (and over the same time period as the Interregional Cooperation Programme) will be used as the baseline. This essentially means the 6th Environmental Action Programme and its 7 thematic strategies (which cover the period 2002-2012). Nevertheless, other EU environmental initiatives and legislation were also examined where it was relevant to the issues addressed in the Programme.

3.2.3 Assessing the environmental effects of the Operational Programme

Following a review of the key environmental issues that are relevant to the INTERREG IVC area and taking into account the issues covered by annex I of the SEA Directive, a number of SEA themes were identified for which SEA objectives could be developed.

The assessment concentrates only on key SEA 'headline' objectives as these are commensurate with the scale and level of detail of the programme. Because of the 'high level' and strategic nature of the programme, quantitative assessments were not possible. Instead qualitative assessments have been made, based on expert judgement and taking into consideration the baseline information in chapter 4.

The detailed methodology and difficulties encountered are described in the relevant chapters of the Environmental Report.

3.3 Procedure and timing of the SEA in relation to the drafting of the OP

Taking into account the tight schedule for submitting the final Interregional Cooperation Programme to the European Commission and the need to allow sufficient time for public consultation, the SEA process was started at an early stage of the programming phase.

Also, because the preparation of the Environmental Report and the integration of the environmental considerations into the draft programmes is an iterative process, an emphasis was placed from the start on close and regular dialogue between the programmers, the ex ante evaluators and the SEA assessors.

This led to the following preliminary contributions from the SEA assessors to the preparation phase of the Operational Programme:

- the screening of EC documents on environmental issues useful for the elaboration of the Operational Programme, in close collaboration with the ex ante evaluators – submitted June 14th 2006
- observations as regards environmental aspects on the outline programme document produced by the programming consultants – submitted July 7th 2006
- observations on the first draft of the Operational Programme as regards environmental aspects – submitted 26th July 2006
- presentation of the main findings of the draft Environmental Report on the first draft of the Interregional Cooperation Programme at the INTERREG Programming Committee meeting in Helsinki 22nd September

These actions have been useful in drawing the attention of the programmers to key environmental issues and EU policies/programmes which could be relevant to the future INTERREG IVC Operational Programme 2007-2013.

The present Environmental Report is based on the 3rd draft of the Operational Programme dated 20th December.

A first environmental report had been produced (28th September) for the 1st draft of the Operational programme (8th September) and this was presented at the Interregional Cooperation Programme in Helsinki at end of September. After the meeting, the 2nd Draft of operational programme (8th October) had evolved significantly and so it was decided that the Environmental report should be updated to bring it in line with the 2nd draft OP (27th October). However at a further meeting of the INTERREG Programming Committee meeting on 30th October, the Commission introduced a concept for 'Regions for economic change' which needed to be integrated into the Operational Programme. Thus, a 3rd draft of the Operational programme was produced (20th December). The Environment report was once again updated to reflect the 3rd draft text.

Although the 3rd Draft is significantly more developed than the 1st draft it should be noted that the following are still missing:

- expected outputs/results/impacts,
- monitoring indicators and target quantification, and
- detailed financial provisions.

Also, as can be seen from the Operational Programme, many of the decisions regarding the selection of projects and other implementation procedures are left to a later stage once the programme has been approved.

Week	Strategic Environmental Assessment	Drafting of Operational Programme
19	Kick off meeting	
20-23		
24	Brief diagnosis and strategy orientations in the field of the environment (screening)	
25		Drafting of Outline Document
26		
27	Observations on Outline Document on environment issues	
28		
29		1st preliminary draft of the Operational Programme
30-32		
33	Scoping Report plus consultation	
34-35		
36		First draft Operational Programme
37	Comments on Scoping Report	
38	1 st Environmental Report	
39-41		
42		2 nd Draft of the OP
43		
44	2 nd Environmental Report	
45-48		
49		3 rd Draft of OP
50	3 rd Environmental Report	
51	Start of Consultation process on ER (8-12 weeks)	Start of consultation process on OP (3rd Draft)
51-5		
7	End of consultation process	
8	Summarising SEA statement	Review of 3 rd Draft in light of consultation comments Submission of final Draft OP to the European Commission

Table 1: Timetable for Operational programme development and SEA assessment

4. ENVIRONMENTAL BASELINE AND KEY ISSUES

4.1 Introduction⁵

The enlarged Europe of 25, soon to be 27 countries, has a rich and diverse environment. As elsewhere, Europeans depend on their environment and ecosystems for the services they provide - for resources such as food, water, timber, fuel, for functions such as climate regulation, the absorption of wastes and pollution, and for protection through the atmospheric ozone layer. A healthy and diverse natural environment is also a key player in determining the quality of life of Europeans.

Over the last 50 years, ecosystems have changed more rapidly than ever before to improve human well being and sustain economic development. At the same time, the full ecological and economic costs associated with these gains are only now becoming apparent. Growing appreciation of the links between economic performance and the environment are nevertheless encouraging eco-innovations (environmental technologies and services are now worth €425 billion globally and are expanding at a rate of 3% a year) which could reduce our 'ecological footprint' and encourage a more efficient use of natural resources.

Five sectors – transport, energy, agriculture, industry, and households – contribute most to the current problems for the environment in Europe. After 30 years of European environmental policy and action many of the more obvious problems have been successfully addressed: for instance, there have been substantial reductions in acidifying air emissions, in substances that deplete the ozone layer; and in point source emissions to water.

As a result, many of today's most challenging environmental pressures are proving to be more difficult to tackle.

It is becoming clear that a mix of instruments, which lead to better integration of environmental concerns into economic and other policy areas, and which encourage societal shifts to less damaging forms of behaviours and promote increased technical and economic efficiency are needed. Such integrated approaches, if well designed and fully implemented, can be more cost-effective as they address environment and economic considerations together.

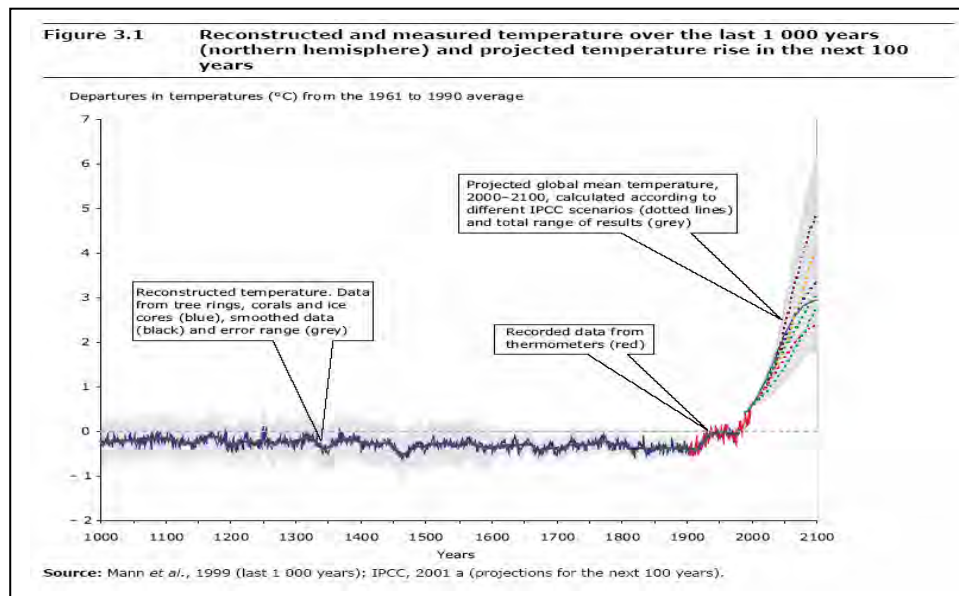
Making progress on such approaches takes time and requires greater cooperation and integration of environmental issues at all levels: political, administrative, technical and geographical.

⁵ All facts and figures, and conclusions, unless otherwise stated, have been taken from the European Environment Agency's report on 'the State of the Environment and its outlook in Europe' published in November 2005.

4.2 Key environmental developments

4.2.1 Climate change

Average global temperatures are around 0.7°C above pre-industrial levels, and are currently rising faster than at any time in modern human history. In Europe, temperature rise is even greater than the global average during the 20th Century – 0.95°C. The European average temperature is projected to further rise by 2.0°C to 6.3°C in the next 100 years.



Source : EEA state of the environment report 2005

Increasing precipitations, melting glaciers, increased frequency of extreme weather events, rising sea levels and increasing stress on terrestrial and marine ecosystems and species are amongst the most visible impacts on the environment. Moreover, more extreme weather is becoming a real threat to human health and our economic well-being, causing deaths and economic disruption from excessive heat, forest fires and flooding etc....

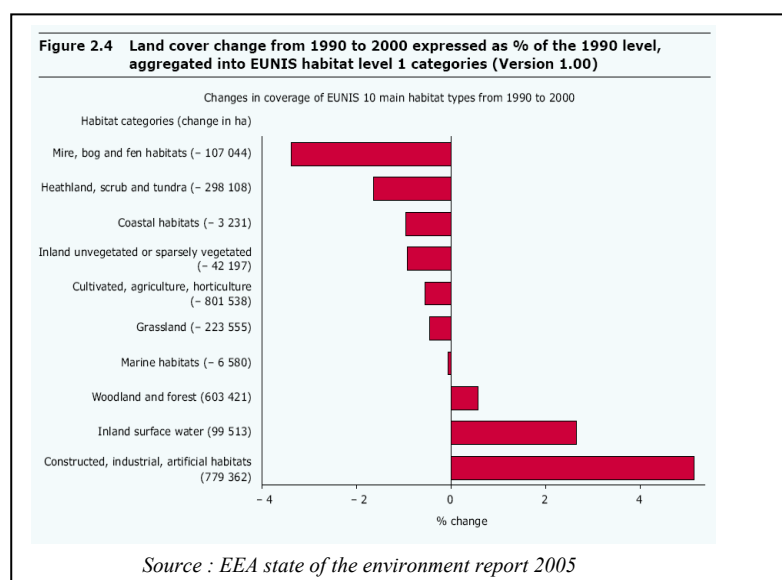
The effects will not be the same throughout Europe. The North, for instance, is expected to have higher precipitation rates, causing great flood risks, whilst the South is expected to suffer from increasing drought conditions and proportionately higher temperatures, leading to crop failure, advancing desertification and forest fires. Europe's extensive coastline will also be under increasing threat from rising sea levels.

Burning fossil fuels remains the number one source of greenhouse gas emissions, and neither renewable energy nor nuclear energy is being developed fast enough to replace fossil fuels. In addition, increasing transport demands (road, aviation, shipping) now pose a serious threat. While emissions fell during the 1990s, they have grown overall since 2000. The EU's short term (Kyoto) targets for greenhouse gas emissions reductions are expected to be met only if all actual and planned additional policies and measures are fully implemented.

4.2.2 Biodiversity

Europe is home to around 1 000 species of animals, birds and fish, some 10 000 plant species and maybe 100 000 different invertebrates. The Mediterranean basin is considered one of the top 34 biodiversity hotspots in the world. Despite its small size, Europe also harbours a diverse range of ecosystems and habitats, many of which are semi-natural habitats rich in species. These semi natural habitats are a result of man's long association with the land and the use of traditional extensive land management methods.

Across Europe, most large ecosystems now exhibit worrying signs of rapid changes. Most of Europe's land surface is in productive use — less than a fifth can be regarded as unproductive, and most of that is just formerly productive land that has, possibly temporarily, been abandoned. The largest losses of habitats and ecosystems for biodiversity across the continent during the 1990s were in heath, scrub and tundra, and wetland mires, bogs and fens. Many wetlands have been lost to coastal development, mountain reservoirs and river engineering works.

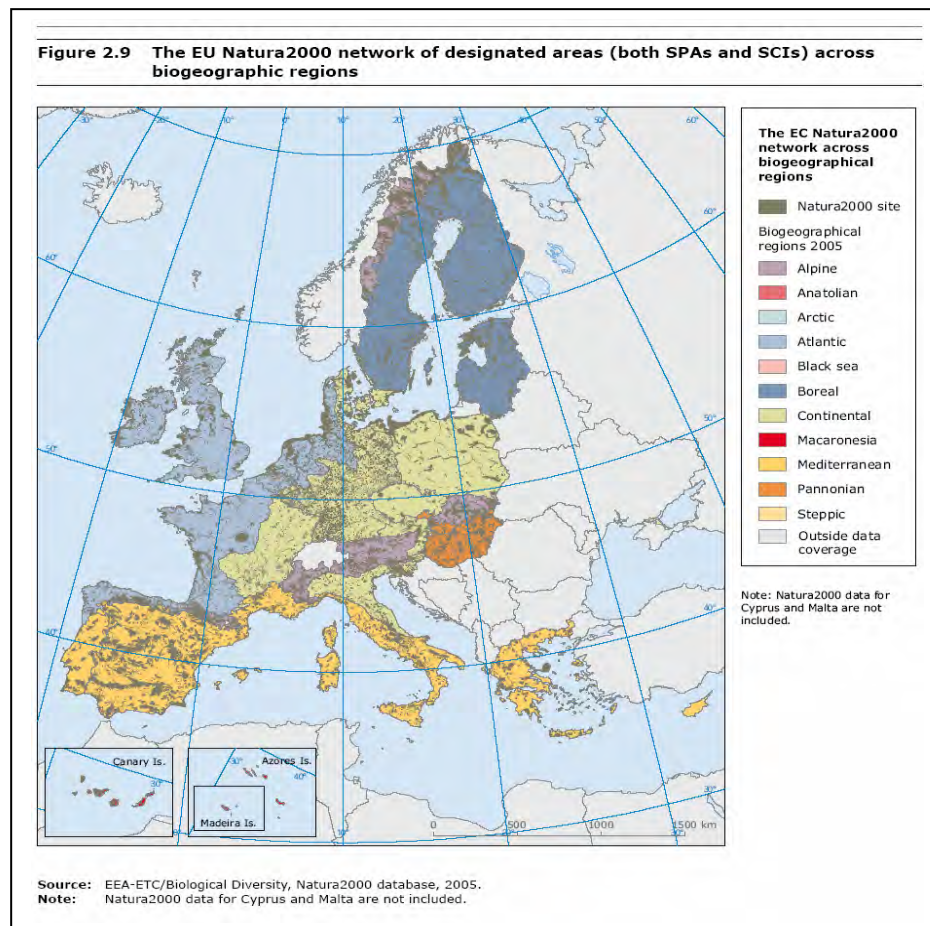


The main threats facing biodiversity in Europe are rapid habitat loss and degradation, habitat fragmentation and isolation of populations, invasive species and unsustainable use of natural resources (eg from hunting, recreation, tourism...). Increased urban spread, greater demand for transport networks, intensification of agriculture and increased land-take from major infrastructure developments, in particular, are all putting an enormous strain on the remaining valuable nature areas. Land is becoming a scarcer resource: 800,000 ha of Europe's land cover was converted to artificial surfaces between 1990 and 2000, taking over agricultural and natural areas, in particular wetlands.

Whilst populations of a number of threatened bird species, protected under the EU Birds Directive, has shown increases of up to 10% in the last ten years, those of more common birds in the wider countryside are, by contrast, crashing. One of the main threats outside protected areas, today, comes from the continued unsustainable land-use practices and developments across much of rural Europe.

Recent surveys by BirdLife have shown that the overall decline outside protected areas is now at record levels, with 46% of the 524 birds in Europe in trouble compared to 38% just ten years ago. Farmland and forest birds are amongst the worst hit, especially in countries with a higher proportion of intensive agricultural and forestry use. As birds are valuable indicators of what is happening to biodiversity, the problems and pressures they are facing are symptomatic of what is happening to other forms of wildlife in Europe⁶.

Climate change is another key concern for biodiversity in Europe. While uncertainties remain about the capacity of ecosystems to resist, accommodate or possibly even benefit from it, climate change will affect almost every aspect of Europe's biological life. Growing seasons and flowering times will alter; so will migration times and destinations. Species unable to move will decline or die out; others will take advantage of the climatic space that opens up. Pests will change their domains. Carbon dioxide in the atmosphere will fertilise some plants, while drought or floods will undermine others.



Almost 18 % of the EU's land area is now protected through the establishment of the Natura 2000 Network, under the Habitats and Birds Directives. The sheer scale of the network and the large number of sites included (ca 20,000) means that there are still major challenges ahead to manage these sites and the network as a whole.

⁶ Based on information from the European Commission DG Environment's Natura 2000 Newsletter – issue 18 '25 years of the Birds Directive', Oct 04

Natura 2000 is not just a system of strict nature reserves where human activities are excluded. It adopts a different approach. It recognizes that man is an integral part of nature and that the two work best in partnership with one another. In this way, Natura 2000 supports the principles of sustainable development. Its aim is not to stop economic activities altogether, but rather to set the parameters by which these can take place whilst safeguarding Europe's biodiversity. As such Natura 2000 can become a powerful ally in helping to maintain, and revitalize, rural economies and social fabric.

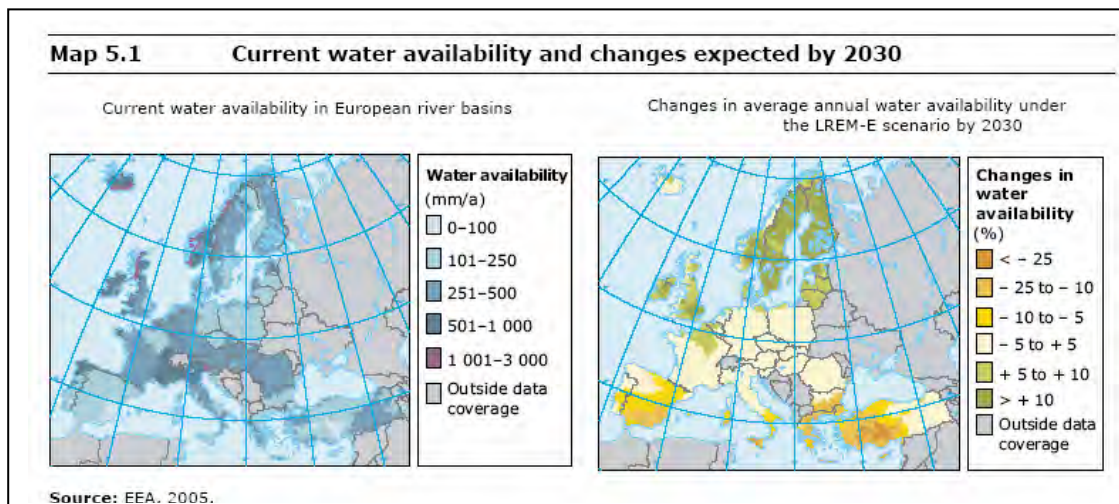
The overall coherence of the Natura 2000 network and coordinated management of the habitats and species across their entire natural range, irrespective of national boundaries, is of paramount importance for the success of the network for biodiversity. It requires re-enforced cooperation and exchange of experiences and best practices if the overall objective of reaching 'favourable conservation status' for the rare and endangered habitats and species protected under EU legislation is to be achieved.

Biodiversity conservation is not, however, just down to managing protected areas. Biodiversity outside protected areas also needs to be safeguarded for the benefit of nature and society alike. In this context the European Union and its Member States have agreed to an ambitious goal 'to halt biodiversity loss by 2010'. This target is expected to be very difficult to achieve unless efforts to conserve biodiversity across Europe, both inside and outside protected areas are renewed.

4.2.3 Water – resource use and quality

The quality of river water across Europe has improved thanks to a range of EU environmental Directives since the 1970s. Water abstractions have also been in decline. However, pressures from agriculture, urbanisation, tourism and climate change suggest that guaranteeing water quality will continue to be a costly issue.

Future demographic and economic trends are likely to increase water consumption, especially in households and for tourism-related use. Northern Europe is likely to see substantial reductions in water withdrawals as power stations switch to new technologies. However, overall use could rise if climate change leads to greater demand for water for irrigation. In southern Europe, higher temperatures are likely to increase the need for irrigation of crops, so there is a strong case for substantial improvements in the efficiency of irrigation systems.



Among new EU Member States and candidate countries, water use is expected to increase, especially in households as living standards improve, suggesting scope for using technologies and market measures to manage demand.

Water quality is most severely affected by pollution from households, industry and agriculture. For the past 15 years, the main focus has been on point sources of water pollution, such as households and factories, with good results. Today, approximately 90 per cent of the population in north-west Europe is connected to sewerage and treatment plants. Nevertheless, many EU-15 countries have not yet complied fully with the Urban Wastewater Treatment Directive and the new EU countries still have many years of effort ahead of them.

As point sources of pollution show a marked improvement in terms of impact on water quality, diffuse sources of water pollution, particularly from agriculture, will dominate future water policy. Diffuse sources of water pollution are by their nature less obvious and harder to police than point sources, and this will have an impact on the success of the required legislation.

Fertiliser application for arable farming is the main source of diffuse pollution to water, with nitrates the greatest problem. Nitrate pollution is higher in the EU-15 than in the new Member States. In some parts of Europe these problems are expected to get worse before they get better, especially in groundwater where it can take decades for nitrates to reach drinking water zones. Cleaning up nitrate pollution is estimated to be around 10 times more expensive than preventing pollution in the first place through changes in farming methods.

Sustainable management will continue to be the dominant theme regarding freshwater resources. Much of Europe's waterways have been 'managed' in ways that are damaging to the long-term condition of the environment. Rivers have been canalised, culverted or regulated. Wetlands have been altered by river engineering. The Water Framework Directive⁷, launched in 2000, has introduced a new approach to tackling these issues by focusing on integrated management at the level of each river basin and catchment area. Its overall objective is to achieve good ecological status of all water bodies in Europe by 2015.

4.2.4 Europe's marine and coastal resources

The seas and coasts around Europe are a vital resource upon which many millions of people depend, both economically and culturally. They also provide a wide range of ecosystem services that are essential to the health of Europe's environment. During the last four decades there has been a significant increase in local and regional pressures on the coastal and marine environments from urban settlement, tourism and industrial development, with the result that many of the improvements in environmental protection and clean-up are being undermined.

Different European seas face both common and unique interconnected challenges, highlighting the value of integrated approaches to solutions. There are a number of EU policies affecting the marine environment, but none is specifically designed to protect the health of its ecosystems yet.

⁷ Directive 2000/60/EC establishing a framework for the Community action in the field of water policy
OJ L 327 22.12.2000

The European Commission has recently proposed an ambitious ecosystems-based strategy to protect the marine environment across Europe. The Thematic Strategy on the Protection and Conservation of the Marine Environment aims to achieve good environmental status of the EU's marine waters by 2021 and to protect the resource base upon which marine-related economic and social activities depend.

The proposed Marine Strategy Directive⁸ will establish European Marine Regions on the basis of geographical and environmental criteria. Each Member State, in close cooperation with the relevant other Member States and third countries within a Marine Region, will be required to develop Marine Strategies for its marine waters. The Marine Strategies will contain a detailed assessment of the state of the environment, a definition of "good environmental status" at regional level and the establishment of clear environmental targets and monitoring programmes.

As for Europe's long coastline, it is amongst the fastest growing areas in economic and social terms. The downside is that intertidal communities of sea grass meadows and coastal wetlands, forests and heathlands have been stripped away by development and intensive foreshore construction. On a more positive note, discharges to estuaries and coastal areas, including vital shellfish grounds, have improved with high levels of compliance under the urban waste water directive and controls under the bathing waters directive. Nevertheless, eutrophication hot spots and dead zones still remain, and worsening nutrient pollution in some areas has caused a significant deterioration in key habitats, such as sea grass beds.

The largest growing pressure on the coast and intertidal areas is coming from industrial development, tourism and coastal urbanisation. Many highly intensive industrial developments, with associated port and energy developments, are expected in the coming decades. Tourism has a significant effect on foreshore development, drainage patterns and movement of sediment, with the consequence that many Natura 2000 sites around the coast will need special attention if they are to be protected.

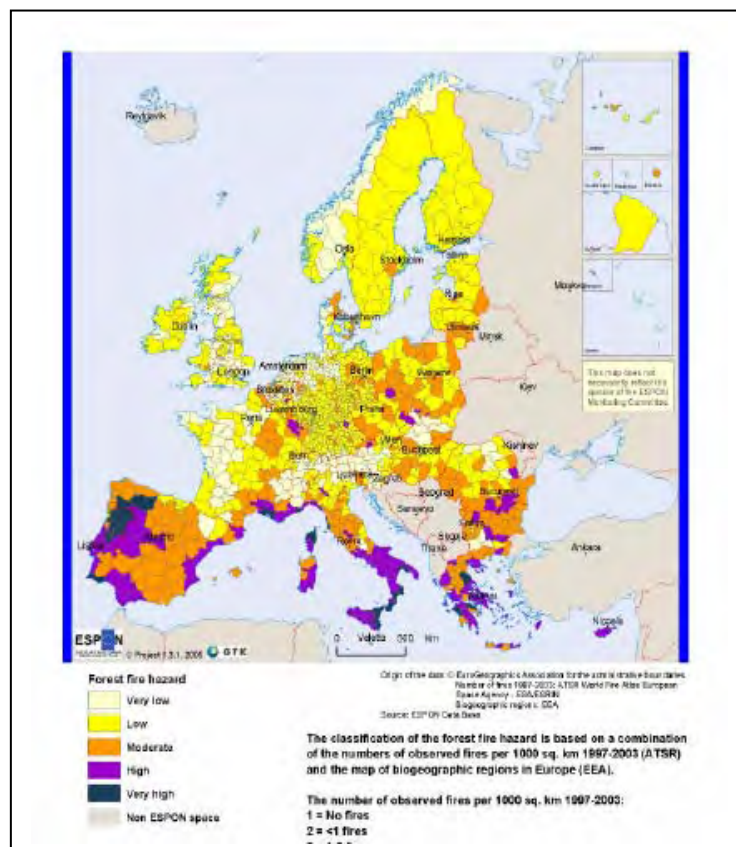
The EU has adopted a recommendation to promote the application of the Integrated Coastal Zone Management (ICZM) system⁹ through existing instruments. This requires Member States to come up with national coastal strategies by 2006, in cooperation with local stakeholders.

4.2.5 Natural risks and technological risks

Whilst technological hazards and accidents have decreased over the years thanks to legislation such as the Seveso II directive and better more effective rapid response mechanisms, natural hazards are showing a marked increase. Floods, forest fires, avalanches, heatwaves and drought, and landslides have all increased over the years but have affected different parts of the EU in different ways.

⁸ *Proposal for a Directive establishing a framework for Community Action in the field of Marine Environmental Policy (Marine Strategy Directive), Com (2005) 505 final. 24.10.2005*

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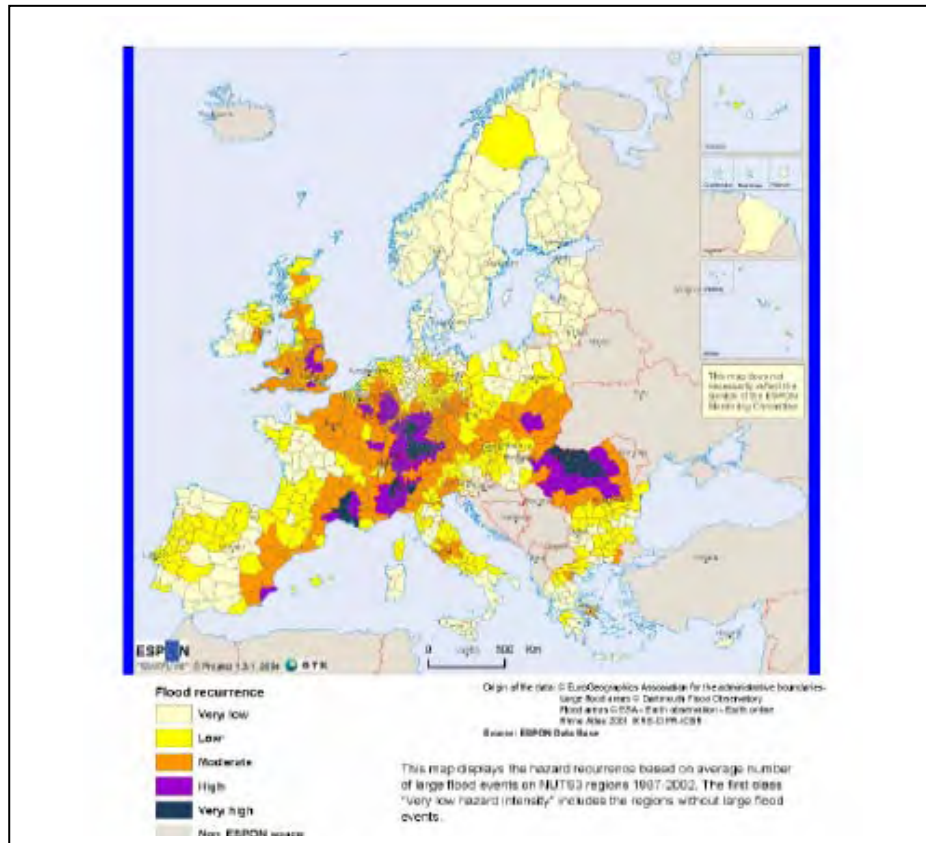
Forest fire hazard map Source: ESPON project 1.3.1 – Spatial effects of natural and technological hazards April 2006 <http://www.espon.eu/>

Flooding, for instance, is increasingly common in Northern and Central Europe, whereas droughts and forest fires are more prevalent in the Mediterranean region. Both are likely to be the result of changing climatic conditions in Europe and have major consequences for human wellbeing and the economy.

Between 1998 and 2002, Europe suffered over 100 major damaging floods, including the catastrophic floods along the Danube and Elbe rivers in 2002. Since 1998, floods have caused some 700 fatalities, the displacement of about half a million people and at least € 25 billion in insured economic losses. Flood events during summer 2005, in Austria, Bulgaria, France, Germany and Romania and elsewhere, has pushed these figures even higher.

The assets at risk of flooding can be enormous, they include private housing, transport and public service infrastructure, commercial and industrial enterprises, and agricultural land. For example, more than 10 million people live in the areas at risk of extreme floods along the Rhine, and the potential damage from floods amounts to € 165 billion.

Coastal areas are also at risk of flooding. The total value of economic assets located within 500 metres of the European coastline, including beaches, agricultural land and industrial facilities, is currently estimated at € 500 to 1,000 billion. In addition to economic and social damage, floods may have severe environmental consequences as, for example, when waste water treatment plants are inundated or when factories holding large quantities of toxic chemicals are also affected. Floods may also destroy wetland areas and reduce biodiversity.



Flood recurrence map Source: ESPON project 1.3.1 – Spatial effects of natural and technological hazards April 2006 <http://www.espon.eu/>

The root causes of floods (rainfall and sea levels) are natural phenomena and essentially uncontrollable. However, this is often exacerbated by human activities: clearing of forests in the upper catchment area, straightening of rivers and suppression of natural flood plains, inadequate drainage practices and most importantly, extensive building in high risk, flood areas.

The coming decades are likely to see a higher flood risk in Europe and greater economic damage. Firstly, the scale and frequency of floods are likely to increase due to climate change - which will bring higher intensity of rainfall and rising sea levels. In addition, failure to manage river systems properly can be compounded by constructions in flood plains with the result of reducing the areas' capacity to absorb flood waters. Finally, an increasing number of people live in areas at risk of flooding, and the number of businesses and industries located in flood risk zones continues to grow.

Many Member States are already taking flood protection measures but concerted and coordinated action at the level of the European Union is now also foreseen. In January 2006, the European Commission proposed a Directive on assessment and management of floods across Europe¹⁰. Under the proposed Directive, Member States would first need to carry out a preliminary assessment to identify the river basins and associated coastal areas at risk of flooding. For such zones they would then need to draw up flood risk maps and flood risk management plans focused on prevention, protection and preparedness.

¹⁰ Proposal for a Directive on the assessment and management of floods Com (2006) 15 final, 18.01.2006

Since most of Europe's river basins are shared by more than one country, concerted action at European level will result in better management of flood risks. A binding legal instrument will ensure flood risks are properly assessed, coordinated protection measures taken and the public properly informed. This basic set of legal obligations will create a firm basis for cooperation and encourages greater exchange information and best practice.

Technological risks, although much reduced, are also still of concern, as recent oil spills have illustrated. The level of damage to people, economy and the environment can be greatly reduced if, in addition to stronger prevention laws, there is also a coordinated rapid response and preparedness mechanism in place in case of major emergencies. Because major emergencies often have far reaching consequences that stretch beyond national borders, the Commission has established such a system at EU level to respond to major disasters, marine pollution incidents and chemical accidents. It also has an action programme to promote further exchange of experiences, training and rapid response mechanism between EU Member States.¹¹

4.2.6 Soil and contaminated sites

Europe's soil is uniquely varied — more than 300 major soil types have been identified across the continent. However because of the long time it takes to produce a few centimetres of new soil it is effectively a non-renewable resource. There are many threats to soil — erosion, sealing, contamination, salinisation. These have proven difficult to tackle up to now and are expected to continue to be a challenge in line with expected future developments in Europe on urbanisation, intensive agriculture and industrialisation/ deindustrialisation.

Countries have been taking more and more action, especially on the issue of contaminated sites. Many of the threats to soil, however, are interlinked through the main socio-economic developments (e.g. erosion, compaction, diffuse contamination and salinisation all result from agriculture), and so more integrated and coordinated actions in the future would deliver many positive effects, in a cost-effective way.

The regeneration of many so called 'brownfield' sites in particular could help take some development pressures off the greener areas, especially in the context of sustainable urban planning. However, this too requires careful and integrated planning in view of the increasing recognition of the biodiversity values of the brownfield sites themselves in terms of rare species composition and ecological corridors within a highly urbanized environment.

Directives on nitrates, sewage sludge and others are helping to conserve various aspects of soil, as will recent reforms to the CAP that remove most subsidies from production and encourage sustainable land management such as the protection of soils. Further, it is expected that the thematic strategy for soil protection¹² and the soil framework directive will facilitate the coordination and implementation of existing but different policies related to soil.

¹¹ <http://ec.europa.eu/environment/civil/index.htm>

¹² Proposal for a Directive establishing a framework for the protection of soil and amending Directive 2004/35/EC COM (2006) 232 final ; 22.9.2006

4.2.7 Waste and consumption/production patterns

Waste generation and management is a major concern for Europe's environment. Because of our increasing consumption and production patterns, more waste is being generated than ever before. Over the last 30 years, substantial progress has been made in reducing the environmental impacts of waste disposal. Heavily polluting landfills and incinerators are being cleaned up. New techniques have been developed for the treatment of hazardous waste. Hazardous substances are being removed from vehicles and electrical and electronic equipment. The levels of dioxins and other emissions from incineration are being reduced.

However, these gains are being overshadowed by the fact that we are producing more waste than ever before. The volume of most waste streams continues to rise in step with growth in GDP – by 2020 we can expect to be producing nearly twice as much waste as today if current trends continue. The unsustainable trends in waste generation and the policy issues are causes for concern because the generation of waste can be a symptom of environmentally inefficient use of resources. Furthermore, waste management generates emissions to air, water and soil as well as noise and other nuisances which contribute to environmental problems and cause economic costs.

These unsustainable trends are due in part to unsatisfactory implementation of waste laws. The potential for waste prevention and recycling is not yet fully tapped. At present in the EU municipal waste is still being disposed of mainly through landfill (49%), with only 33% being recycled or composted. In the new Member States, where major efforts and investments have been made to align with the EU *acquis*, the situation is evolving rapidly but still dominated by landfill.

There are also wide discrepancies between Member States, ranging from those which recycle least (90% landfill, 10% recycling and energy recovery) to those which are more environmentally friendly (10% landfill, 25% energy recovery and 65% recycling). Smaller but important waste streams are also growing: hazardous waste generation increased by 13% between 1998 and 2002 whilst GDP grew by 10%.

Current EU waste policy is based on a concept known as the waste hierarchy. This means that, ideally, waste should be prevented and, what cannot be prevented, should be re-used, recycled and recovered as much as feasible, with landfill being used as little as possible. Landfill is the worst option for the environment as it signifies a loss of resources and could turn into a future environmental liability. Although waste prevention has been the paramount objective of both national and EU waste management policies for many years, limited progress has been made so far in transforming this objective into practical action. Neither the Community nor the national targets set in the past have been satisfactorily met.

On the other hand recycling and recovery are increasing. However, they cover only a limited proportion of waste. Recycling Directives have so far targeted individual waste streams and have enabled Community waste policy to reduce environmental impacts by promoting source separation and recycling of waste streams such as batteries, packaging, vehicles and waste electrical and electronic equipment. These fast-growing waste flows are of particular importance due to their hazardous nature and complexity. However, they account for only a limited proportion of all waste generated.

Furthermore, while the amount of waste being recycled is increasing, treatment standards exist only for landfills and incinerators and, partially, for recycling. This poses an environmental problem as some recycling facilities can cause pollution if badly operated. Standards are needed not only for environmental protection but also for business reasons – to promote a level playing field for recycled material.

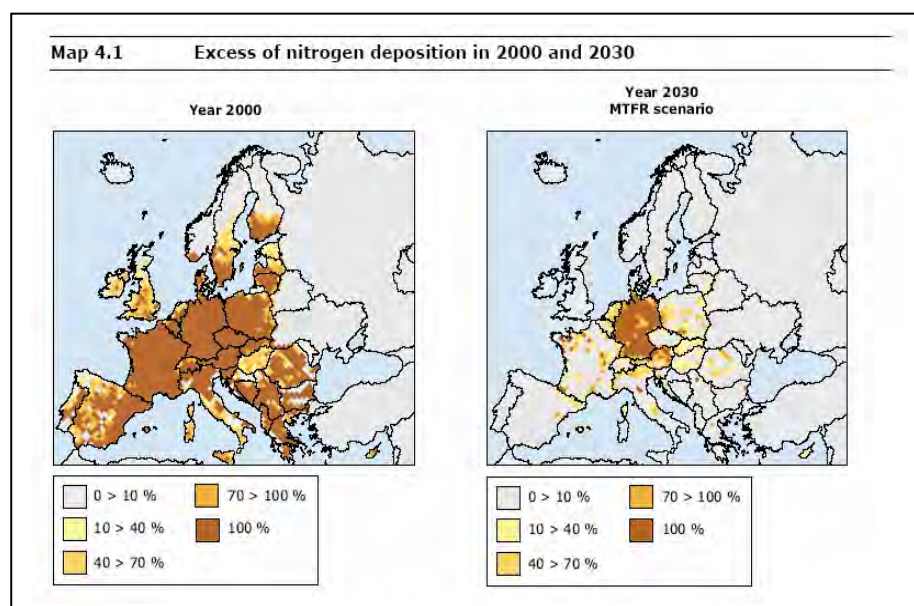
Taking all this into consideration, the EU has proposed a thematic strategy on the prevention and recycling of waste. This strategy sets objectives and outlines the means by which the EU can move towards improved waste management. In the process, it substantially simplifies and clarifies the current legal framework, in line with the EU's better regulation objectives.

Finally, it should also be borne in mind that, with time, waste is becoming an increasingly valuable resource for industry. The waste management and recycling sector has a high growth rate and has an estimated turnover of over €100 billion for EU-25. It is labour intensive and provides between 1.2 and 1.5 million jobs. The recycling industry is providing increasing amounts of resources to manufacturing industry: at least 50% of the paper and steel, 43% of the glass and 40% of the non-ferrous metal produced in the EU are currently derived from recycled materials.

4.2.8 Air pollution and health

Europe has made great strides in reducing many forms of air pollution (eg acid rain) in order to protect human health and ecosystems. A range of limit and target values have been set to ensure protection but these are not always tough enough. Moreover, newly identified air borne pollutants are having significant effects on human health and need to be addressed.

Particulate pollution, for instance, continues to take a heavy toll on Europe's health, and represents the biggest air pollution killer in Europe today being responsible for 348 000 premature deaths in year 2000.



Source : EEA state of the environment report 2005

Clean-up measures have substantially reduced particulate emissions since 1990. Further cuts should follow, particularly with the introduction of filters in diesel cars. Nevertheless, it remains likely that, for some decades to come, many urban areas in the EU-25 will continue to have unsafe concentrations of particulates resulting from road transport but also from other sources such as small combustion.

Ozone smogs are thought to hasten the deaths of 20 000 people in the EU each year. Emissions of the precursors of ozone have declined by a third since 1990 and most countries should meet EU emissions ceilings set to come into force in 2010. Unfortunately, the complex chemical environment of urban smog means that, despite declining emissions of ozone precursors, annual ozone concentrations have increased slightly. Other air borne pollutants include carcinogens (eg benzene), neurotoxins and persistent organic pollutants (POPs), such as polychlorinated biphenyls (PCBs) which are produced during waste incineration and are known to be toxic.

Transport is the major cause of the most intractable air pollution problems Europe faces today. The dramatic improvements made by technologies such as catalytic converters in cars are being overwhelmed by increases in demand. Without such converters, however, some emissions would be 10 times the level they are now. While our air is generally cleaner, the trends are not good enough to meet air quality targets for 2010. End-of-pipe technological innovation is not enough. Current social trends, ranging from growing sub-urbanization and the declining availability and rising cost of public transport and growing demand for imported consumer goods increasing the volume of shipping in EU seas, emphasise the many dimensions of action required.

4.2.9 Natural and cultural heritage and landscape

Europe has a wealth of natural and cultural heritage features and a unique array of landscapes considering its size. This contributes significantly to our identity, sense of place and quality of lives.

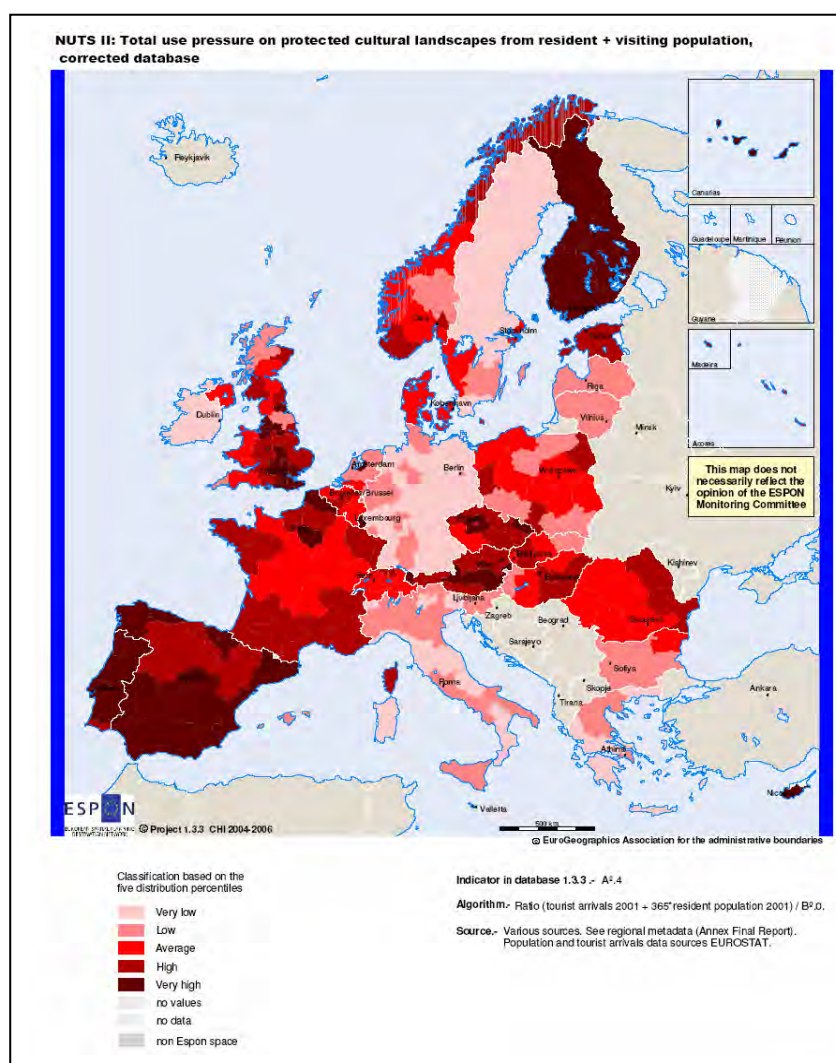
It also puts Europe in pole position with respect to the rest of the world in terms of tourism interest. Already Europe is the world's top tourism destination, producing 12% of Europe's GDP and generating some 20 million jobs, essentially in SMEs.

Within the overall growth patterns in tourism, there is also a marked shift towards non traditional destinations that are rich in natural and cultural heritage, particularly in rural areas. This has the potential to revitalize and diversify the economy of many rural areas in Europe, but requires careful planning and management if it is not to destroy the assets upon which it depends and cause substantial damage to the environment.

Natural and cultural resources are by often very vulnerable to changing land use patterns and unsustainable developments, especially in the tourism sector. Many of the national parks across Europe are overcrowded and showing visitor damage. The increase in tourism to cultural and natural heritage areas also brings with it increasing transport demands and problems of waste disposal, water resource use etc....

In this context it is essential that natural, cultural and landscape features are recognized as assets in their own right, and that they are protected and sensitively managed.

This is formally endorsed through the adoption of the Council of Europe's European Landscape Convention. The Convention entered into force on the 1st March 2004 and has been ratified so far by 25 countries - including 23 of the EU-27 countries. The aims of this Convention are to promote landscape protection, management and planning, and to organise European co-operation on landscape issues. This means ensuring the protection, management and planning of European landscapes through the adoption of national measures and the establishment of European co-operation between the Parties.



Pressure on protected cultural landscapes map Source: ESPON project 1.3.3 Impacts of cultural heritage and identity - April 2006 <http://www.espon.eu/>

4.3 Economic development and pressures on the environment

4.3.1 Transport

The current European transport system poses significant and growing threats to the environment, to human health, and to the economy, through, for example, increasing congestion. Passenger and freight transport, by road, air and sea, are either growing at the same rate as, or faster than, the economy overall, implying that the eco-efficiency of transport in the EU economy, and the decoupling of growth in transported passenger or tonne from growth in GDP, are not improving.

Transport volumes in the EU-25 have increased steadily over the past decade: about 30 % for freight transport and almost 20 % for passenger transport. This growth is strongly linked to infrastructural development that, in turn, contributes to air pollution, the sealing of soil and the fragmentation of habitats across many parts of Europe, as well as exposing a significant proportion of the population to high noise levels.

Freight transport has increased as a result of changed procurement and distribution strategies of companies (outsourcing, just-in-time delivery) and the development of the internal market as companies exploit the competitive advantages of different European regions.

Causes of the growth in passenger transport include an increase in the number of households and in the number of cars per household, as well as a lengthening of the average journey. This last trend is influenced by such factors as urban sprawl, together with the location of services; the availability and pricing of public transport; and changes in lifestyle fuelled by two incomes per household and a wider choice of leisure activities.

Unsurprisingly, transport is the fastest growing consumer of energy, currently accounting for 31 % of Europe's final energy consumption. Greenhouse gas emissions are also growing rapidly — by more than 20 % between 1990 and 2003 — and they are expected to be 50 % higher by 2030 than they were in 1990.

Aviation is the fastest growing mode of transport, and marine transport account for an increasing share of these emissions while remaining outside the coverage of environmental policies such as the Kyoto Protocol and fuel taxation. On the road, increasing traffic volumes and a rising number of larger, heavier and more powerful vehicles travelling ever further has more than offset progress in improving energy efficiency, stimulated by the industry's voluntary commitments to reduce average CO₂ emissions from new passenger cars to 140 grams/kilometre by 2008/2009.

The rapid increase in passenger and freight demand projected over the next 30 years, together with the difficulties in replacing oil as the fuel on which the sector depends, suggests that transport will be one of the most difficult sectors in which to reduce carbon dioxide (CO₂) emissions. Even increases in fuel prices, possibly through such measures as the introduction of carbon permits, seem unlikely to substantially alter this picture, unless appropriate policies for new fuels are developed alongside such measures.

Technological developments, including catalytic converters and other technical abatement measures on road vehicles, have resulted in marked decreases of some other pollutants such as ozone precursors and acidifying substances. Emissions of these regulated pollutants fell by about a third between 1990 and 2002 across EEA countries, with further improvements expected as stricter limits come into force and the vehicle fleet is renewed.

However, to be effective, any emission control policy needs to be complemented by other measures aimed at controlling road transport volumes. If the forecast growth in road transport is not to undermine current and expected achievements, focus needs to be put on user behaviour.

Options include improving spatial planning to reduce distances to and between key services and providing settlements with improved access to better public transport. Given the slow rate of change in housing and infrastructure stock, and the fact that decisions are seldom based on considerations of what is best for the environment, these measures would inevitably take some time to produce benefits. Investment in public transport and pricing mechanisms could, however, also strengthen a shift to more environmentally sound transport and improve incentives to higher load factors.

Thus, a sustainable road transport policy that guarantees social inclusion and economic development with a high level of environmental quality and safety has to combine a number of different approaches, instruments and strategies that aim to:

- improve efficiency by reducing the number and average distance of journeys;
- shift transport to more environmentally benign modes;
- use existing vehicle capacity and infrastructure more effectively; and
- improve the environmental performance of vehicles.

4.3.2 Energy consumption and efficiency

Despite reductions of some air emissions, the energy supply sector (including electricity and heat production, refineries, etc.) is a prime contributor to environmental concerns such as climate change, air pollution and water stress. In particular, it continues to be the major source of greenhouse gas emissions (around one-third of total emissions) and emissions of acidifying substances such as sulphur dioxide and nitrogen oxides (about 30 % of total emissions). Future developments thus depend to a large extent on progress in decoupling environmental pressures from production and consumption.

Energy consumption is expected to continue increasing over the coming decades. At the same time, the policy targets for increasing sources of renewable energy are not expected to be met across the EU-25 without additional policies and measures. As a consequence, the energy sector is likely to continue to contribute to increasing greenhouse gases and climate change, while reductions in emissions of acidifying substances are expected to continue.

The development of the electricity sector over the 1990s demonstrates that new technologies can be introduced. Electricity produced from gas doubled in both the EU-15 and the new Member States between 1995 and 2002 as competition favoured gas use due to the high efficiencies and low capital costs associated with some gas-based technologies, in particular combined cycle gas turbines (CCGT).

Overall, the CO₂ emissions intensity of power production fell by about a fourth between 1990 and 2002 in the EU-25, but increases in demand meant that CO₂ emissions from power production declined only slightly, by around 5 %. For CO₂ emissions, end-of-pipe abatement technologies are not yet available.

With CO₂ capture and storage not yet being commercially available, reducing CO₂ emissions requires a lower consumption of fossil fuels (coal, oil, gas). Since the majority of electricity — and over three quarters of total energy consumption — is produced from fossil fuels, this requires deeper changes in electricity generation. Technologies are available to reduce the CO₂ emissions of electricity.

These include the increased use of non-fossil fuels such as renewable and nuclear energy, improving the efficiency of the conversion process, or using less carbon-intensive fossil fuels such as natural gas. The use of combined heat and power plants, which produce not only electricity but also make use of the heat that would otherwise be lost, can also contribute to substantial CO₂ emissions reductions.

Many of these measures imply investing in new plants and infrastructure as opposed to applying abatement technologies in existing plants. Combined heat and power plants need a heat distribution infrastructure to the end-user, while some renewable technologies — such as wind energy — face the problem of fluctuating electricity production. Wind energy, wave energy and biofuels could also create conflicting pressures with biodiversity and nature conservation if not planned carefully.

Nevertheless, the difficulties in achieving such structural changes are primarily due to socio-economic barriers, not the lack of technical solutions. If long-term targets and appropriate incentives are set, such changes can be realised within the ongoing renewal of the European power system.

4.3.3 Agriculture

A significant proportion of the European territory is classified as agricultural land reflecting the long history of this important land use. Current agricultural activity has substantial environmental impacts in terms of greenhouse gas and air pollutant emissions, contributing to climate change and acidification; pollution of water by nitrates, phosphorus, pesticides and pathogens; habitat degradation and species loss; and the over-abstraction of water for irrigation.

Farmland boasts a wide range of habitats and species that depend to a large extent on continued (extensive) agricultural use. However, depopulation is occurring in many rural areas, profoundly affecting the countryside and the environment. Low and variable incomes, hard working conditions and a lack of social services and leisure activities in many areas make traditional farming a less attractive option for young people.

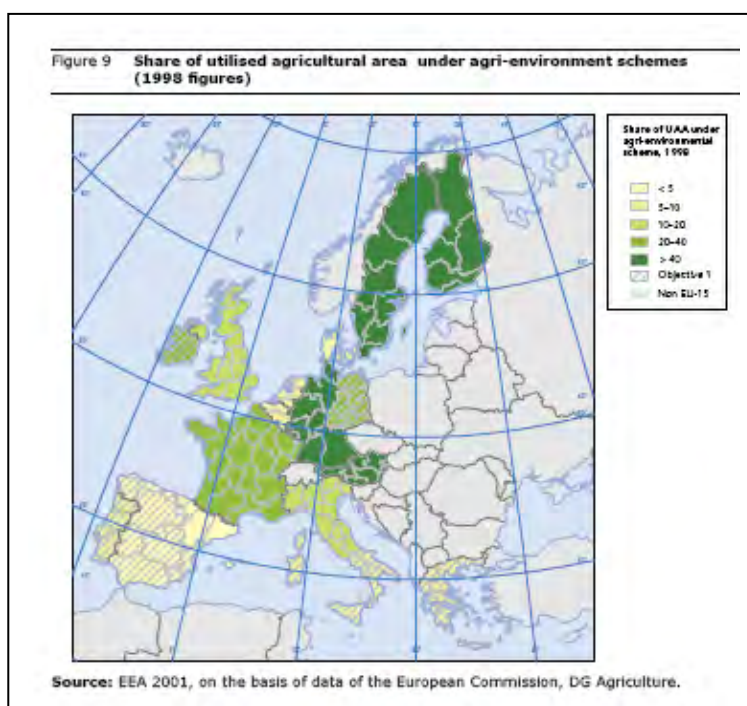
Depopulation is a phenomenon all over Europe, whether from hill farms in the Alps or traditional small farms from Poland to Portugal. The trend is particularly worrying in central and eastern Europe, where recent political and economic changes during the 1990s negatively affected the conditions for farming. As a result, further land abandonment is to be expected.

Over many decades, in response to greater demand driven by improved standards of living, population growth and urbanisation, large-scale rationalization and industrialisation of agricultural production has taken place. This has led, amongst many outcomes, to pastures and semi-natural grasslands being converted to intensive farmland, with the consequent destruction of habitats such as hedgerows and ponds that have supplied, over at least the past 250 years, niches for a wide range of species. Moreover, conversion of marginal land to agriculture has taken place in parts of Portugal and Spain and to a smaller extent in the southwest of France. Withdrawal of farming has occurred in some mountain areas in southern Europe, as well as in many new Member States.

Agricultural intensification has brought about a rapid decline in semi-natural vegetation such as hedgerows and field borders. Wild-living species of both fauna and flora rely for their survival on habitats and the corridors that connect them — for example, roughly two-thirds of the currently endangered bird species depend on agricultural habitats. These have become increasingly fragmented, making the maintenance of viable species populations more difficult. As a result, over the last few decades, biodiversity on farmland has declined. Farmland species of particular conservation concern occur throughout Europe, but many of them are associated with high nature value (HNV) farmland, particularly in southern Europe and in the new Member States.

A realisation that the regional identity of European landscapes — testimony of the continent's combined natural and cultural heritage — is at risk has placed the conservation of biodiversity on agricultural land high on the political agenda. Of the many relevant conservation efforts at European level, the most important are the habitats and birds directives and the biodiversity action plan for agriculture. In the sixth environment action programme, the EU has committed itself to halting the decline of biodiversity by 2010.

Under the EU common agricultural policy (CAP), agri-environment schemes are being used as a tool to give farmers compensation for taking specific environmental measures that go beyond the good farming practice (cross compliance). These schemes could have a major influence on conserving Europe's biodiversity. However, the rate of uptake varies greatly: it is particularly low in southern European countries, including Portugal and Spain, where the share of High Nature Value farmland is relatively high. Thus, the challenge for agri-environment schemes is specifically to target those areas that could benefit most from conservation.



Nitrates from agriculture continue to damage the environment, contributing to eutrophication of coastal and marine waters and pollution of drinking water, especially where groundwaters have become contaminated. Problematically, substantial time lags can occur before changes in agricultural practices are reflected in groundwater quality. The length of these lags, which may be measured in decades, varies according to soil type and the specific hydro-geological conditions of the groundwater body and overlying substrate. It is generally cheaper to prevent nitrates reaching the water in the first place.

A review of the possible costs to farmers comes to an initial estimate of EUR 50–150 per hectare per year to alter farming methods to comply with standards set by the EU nitrates directive. This is considerably cheaper than the estimated costs of removing nitrates from polluted waters. Moreover, changing farming practices puts the responsibility on the farmers who have caused the pollution, rather than on the consumer.

Looking forward, forecasts suggest the nitrate levels will continue to increase in absolute terms. Currently nitrate levels in surface and groundwaters are lower in the EU-10 than in the EU-15. However, if agriculture intensifies in the EU-10, as expected, good implementation of the EU nitrates directive, supported by the CAP cross-compliance rules that tie funding to legislation and other measures, will be essential to avoid creating extensive, expensive and long-lived water pollution problems in the coming years.

Withdrawal for agricultural irrigation is the largest source of water abstraction in southern Europe and will continue to be so in the future. Technological developments have led to some improvements in efficiency — and there is scope for much greater uptake of these new technologies — but these have been more than offset by increases in the area of irrigated land. The hotter drier summers predicted as a result of future climate change will further increase pressures on water use in the next 20–30 years.

In northern Europe, abstractions for irrigation are relatively small, and may decrease further as a result both of improved technologies and of the expected wetter conditions. For the EU-10, as well as for southern Europe, savings in the future from more efficient irrigation systems are likely to be cancelled out by increases in the need to irrigate as a result of anticipated climate change.

The recent reform of the CAP and the new Rural Development Programme for the period 2007-2013 offers many opportunities for safeguarding Europe's rural environment and biodiversity. Farm payments have been decoupled from production and are linked cross compliance – ie farmers must respect 18 pieces of Eu legislation relating to the environment and animal welfare in order to meet the standards of good farming practice and qualify for payments.

Under the rural Development programme, farmers can also receive additional payments for carrying out activities for the environment that go beyond good farming practice, for instance, through agri-environmental schemes, or within less favoured areas, Natura 2000 sites etc... However, to be successful it is essential that these complex and inter-related schemes and measures are carefully planned in close partnership with the farming community and environmental authorities concerned. There is therefore a considerable and increasingly urgent role to be played here in sharing experiences and best practices across Europe.

4.3.4 Household and demography

Important drivers of Europe's changing environmental pressures are demographics and increasingly affluent lifestyles. The environmental pressures of personal consumption are generally lower than those of the production they drive, but are expected, as in the recent past, to grow substantially faster than overall GDP and in line with increased house building, transport use and tourism.

In line with trends throughout the developed world, the Europe of 2030 is likely to have a substantially higher proportion of older people. An older Europe may bring about changes in consumption patterns. More old people will mean an increasing proportion of the national income being spent on health. It is also conceivable that, as the number of old people unable or unwilling to drive increases, demand for public transport will also increase. Additionally, it has been suggested that, as the number of reasonably healthy and relatively wealthy older people grows, so too will the demand for tourism and second homes.

Europe, again in concert with much of the developed world, is also experiencing a reduction in the size of the average household. By 2030 this will have fallen from more than 3 in 1990, through the current figure of around 2.75, to around 2.4. In general, more households result in net increases in demand for energy and water and generate greater volumes of waste. More goods, including computers, stereo systems, mobile phones, household appliances and air-conditioning systems, are being bought.

Although new equipment is sometimes less wasteful of resources, this is not always the case. For example, many electronic goods run on stand-by mode when not in use, and so use substantially more electricity than their predecessors. The recent Green Paper on Energy Efficiency states that according to available studies as much as 20 % of energy savings could be realised in a cost-effective way by 2020. Demand-side improvements in efficiency will probably be more dependent on awareness-raising among end-use consumers and on providing incentives to change behaviour as well as on regulations that foster higher technical standards.

Within the EU-25, water withdrawals for household consumption are expected to increase at a rate less than expected household expenditure growth up to 2020. However, they are expected to increase substantially in the EU-10 as these countries approach average consumption levels in the EU-15 in the coming decades. In the 1990s the EU set a target of reducing the municipal waste stream to below 300 kilograms per person per year by 2000. Unfortunately this has not been achieved and waste production continues to rise. Landfill remains the most common route for its disposal. Consumers and industry seem happy to recycle their waste packaging, but extremely reluctant to take steps to avoid producing it in the first place.

Europe's growing demand for housing, food, consumer goods, transport, tourism and waste disposal are putting pressure on its land, water and air quality, as well as causing the loss and fragmentation of its wildlife habitats. In the coming years, these pressures are expected to be particularly strong along the Mediterranean and Atlantic coasts of southern Europe, and may be widely felt across rural Europe, as more people travel beyond their urban existence into the countryside to improve their quality of life and relax.

5. ENVIRONMENTAL POLICY FRAMEWORK

5.1 Introduction

The EU's Environmental Action Programmes set the framework for coordinating and implementing environmental policies and priorities across the European Union. The latest 6th Environmental Action Programme (the 6th EAP) was adopted in 2001 and establishes the environmental priorities for the EU for the period 2002-2012. The 6th EAP is complemented by a further seven thematic strategies which address specific issues in greater detail and offer a longer-term perspective by setting clear environmental objectives to around 2020.

This section briefly summarises this Environmental Programme and its accompanying strategies in order to provide a basis for evaluating the compatibility of the INTERREG IVC Operational Programme with EU environmental policy priorities. Considering the pan European nature of the proposed INTERREG IVC Programme and the strategic nature of its operation only documents considered most relevant and appropriate as reference points for the INTERREG Programme were considered. It would not have been useful or feasible to evaluate all acts of EU environmental law as there are over 200-300 of these.

5.2 Sixth Environmental Action Programme

5.2.1 Overview

The 6th EAP sets the framework for European environmental policy for the period 2002-2012. It identifies four priority areas for action:

- climate change
- nature and biodiversity
- environment and health and quality of life
- natural resources and wastes

For each of these areas, key objectives and targets are indicated and a number of actions are identified with a view to achieving the said targets. These objectives and targets constitute performance levels or achievements to be aimed at.

The 6th EAP makes it clear that meeting the challenges of today's environmental problems means looking beyond a strictly legislative approach and taking a strategic approach, using a whole range of instruments and measures to influence decisions made by business, consumers, policy planners and citizens.

It proposes five priority avenues of strategic action:

- improving the implementation of existing legislation;
- integrating environmental concerns into other policies;

- working closer with the market;
- empowering people as private citizens and helping them to change behaviour;
- and taking account of the environment in land-use planning and management decisions.

The EU Environmental Action Programme is the main delivery mechanism for the environmental component of the Community's strategy on sustainable development (the Gothenburg Strategy) which establishes a link between environment and European objectives for growth, competitiveness and employment.

5.2.2 Priority areas

PRIORITY 1: CLIMATE CHANGE

Aim:

Emphasising climate change as an outstanding challenge of the next 10 years and beyond and contributing to the long term objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

Objectives:

- ratification and entering into force of the Kyoto Protocol to the United Nations framework convention on climate change and fulfilment of commitments towards reduction in emissions by 2008-2012 compared to 1990 levels for the European Community as a whole;
- realisation by 2005 of demonstrable progress in achieving the commitments under the Kyoto Protocol;
- placing the Community in a credible position to advocate an international agreement on more stringent reduction targets for the second commitment period for by the Kyoto Protocol.

PRIORITY 2: NATURE AND BIODIVERSITY

Aim:

Protecting, conserving, restoring and developing the functioning of natural systems, natural habitats, wild flora and fauna with the aim of halting desertification and the loss of biodiversity, including diversity of genetic resources, both in the European Union and on a global scale.

Objectives:

- halting biodiversity decline with the aim to reach this objective by 2010, including prevention and mitigation of impacts of invasive alien species and genotypes;
- protection and appropriate restoration of nature and biodiversity from damaging pollution;
- conservation, appropriate restoration and sustainable use of marine environment, coasts and wetlands;
- conservation and appropriate restoration of areas of significant landscape values including cultivated as well as sensitive areas;

- conservation of species and habitats, with special concern to preventing habitat fragmentation;
- promotion of a sustainable use of the soil, with particular attention to preventing erosion, deterioration, contamination and desertification.

PRIORITY 3: ENVIRONMENT AND HEALTH AND QUALITY OF LIFE

Aim:

Contributing to a high level of quality of life and social well being for citizens by providing an environment where the level of pollution does not give rise to harmful effects on human health and the environment and by encouraging a sustainable urban development.

Objectives:

- achieving better understanding of the threats to environment and human health;
- contributing to a better quality of life through an integrated approach concentrating on urban areas;
- aiming to achieve by 2020 that chemicals are only produced and used in ways that do not lead to a significant negative impact on health and the environment;
- substitution of dangerous chemicals by safer chemicals or safer alternative technologies not entailing the use of chemicals;
- reducing the impacts of pesticides on human health and the environment;
- achieving quality levels of ground and surface water without significant negative impacts and risks, and sustainable rates of extraction from water resources;
- achieving levels of air quality without significant negative impacts and risks;
- substantially reducing the number of people regularly affected by long-term average levels of (traffic) noise.

PRIORITY 4: NATURAL RESOURCES AND WASTES

Aim:

Better resource efficiency and resource and waste management to bring about more sustainable production and consumption patterns, thereby decoupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment.

Objectives:

- aiming at ensuring that the consumption of resources and their associated impacts do not exceed the carrying capacity of the environment and breaking the linkages between economic growth and resource use;
- achieving a significant overall reduction in the volumes of waste;
- a significant reduction in the quantity of waste going to disposal;
- encouraging re-use for wastes that are still generated.

5.3 Thematic Environmental Strategies

The Thematic Strategies represent the next generation of environment policy. As their name suggests, they work with themes rather than with specific pollutants or economic activities as has been the case in the past. They take a longer-term perspective in setting clear environmental objectives to around 2020 and will thus provide a stable policy framework. Finally, they focus on identifying the most appropriate instruments to deliver European policy goals in the least burdensome and most cost effective way possible.

Based on the four priorities, the Sixth Environment Action Programme required the European Commission to prepare thematic Strategies covering the following seven areas:

1. air pollution
2. prevention and recycling of waste
3. protection and conservation of the marine environment
4. soil
5. sustainable use of pesticides
6. sustainable use of resources
7. urban environment

1. AIR POLLUTION

This theme falls (mainly) under Priority 3 ("Environment and health and quality of life"). The thematic strategy¹³ (adopted 21/09/2005) sets health and environmental objectives and emission reduction targets for the main pollutants.

In order to achieve the set objectives by 2020, there should be a reduction relative to the emissions in 2000 of:

- SO₂: -82%;
- NO_x: -60%;
- VOCs: -51%;
- ammonia: -27%;
- primary PM_{2.5}: -59%.

Actions:

- making environment legislation work better: simplification of air quality legislation; strengthening implementation, controlling human exposure to PM_{2.5} in ambient air, revision of the National Emission Ceiling Directive; ensuring greater coherence with other environmental policies;
- integrating air quality concerns into other policy areas: energy, transport, agriculture, Structural Funds, including the international dimension (USA, China,...).

¹³ Com (2005) 446 <http://ec.europa.eu/environment/air/cafe/index.htm>

2. PREVENTION AND RECYCLING OF WASTE

This theme falls (mainly) under Priority 4 (“Natural resources and wastes”). The long-term goal of the thematic strategy¹⁴ (adopted 21/12/2005) is for the EU to become a recycling society that seeks to avoid waste and uses waste as a resource. With high environmental reference standards in place the internal market will facilitate recycling and recovery activities.

The impact of the proposed changes should be:

- less waste to landfill;
- more compost and energy recovery from waste;
- more and better recycling.

Actions:

- a renewed emphasis on full implementation of existing legislation;
- simplification and modernisation of existing legislation;
- introduction of life-cycle thinking into waste policy;
- promotion of more ambitious waste prevention policies;
- better knowledge and information;
- development of common reference standards for recycling;
- further elaboration of the EU’s recycling policy.

3. PROTECTION AND CONSERVATION OF THE MARINE ENVIRONMENT

This theme falls (mainly) under Priority 2 (“Nature and biodiversity”). The objective of the thematic strategy¹⁵ (adopted 24/10/2005) is to protect and restore Europe’s oceans and seas and ensure that human activities are carried out in a sustainable manner so that current and future generations enjoy and benefit from biologically diverse and dynamic oceans and seas that are clean, safe, healthy and productive.

A framework for enhanced cooperation – legally binding but respecting subsidiarity – should ensure:

- a high level of protection for Europe’s oceans and seas;
- an improved knowledge base to inform policy making;
- integrated and cost-effective actions to reduce pressures;
- effective monitoring and assessment to make sure goals are achieved and actions deliver results.

Actions

- adoption of a Marine Strategy Directive (Com (2005) 505 final). Its objective would be to achieve good environmental status of Europe’s marine environment by 2021. Common objectives and principles are defined at EU level. But, it will be up to the formally established European Marine Regions to decide on the most appropriate means to implement these objectives in function of the hydrological, oceanographic and biogeographical features.

¹⁴ Com (2005) 666 final <http://ec.europa.eu/environment/waste/strategy.htm>

¹⁵ Com (2005) 504 final <http://ec.europa.eu/environment/water/marine.htm>

4. SOIL PROTECTION

This theme falls (mainly) under Priority 2 (“Nature and biodiversity”). The thematic strategy¹⁶ (22.9.06) should set qualitative and quantitative objectives and the means to achieve them, in order to:

- put an end to the accumulation in soil of substances which pose an environmental and health hazard;
- reverse the alarming trend towards erosion, compaction and sealing, the removal and contamination of soil;
- protect soil in its role in storing CO₂, securing water resources and preserving biodiversity;
- protect soil for the sustainable production of food and renewable resources.

5. SUSTAINABLE USE OF PESTICIDES

This theme falls (mainly) under Priority 3 (“Environment and health and quality of life”). The thematic strategy¹⁷ (12.7.2006) sets out its objectives as follows:

- to minimise the hazards and risks to health and environment from the use of pesticides;
- to improve controls on the use and distribution of pesticides;
- to reduce the levels of harmful active substances, in particular by replacing the most dangerous by safer (including non-chemical) alternatives;
- to encourage the use of low-input or pesticide-free crop farming;
- to establish a transparent system for reporting and monitoring progress including the development of appropriate indicators.

Actions

- adoption of a new framework directive to propose new measures that cannot be integrated into existing instruments (national action plans, stakeholder involvement, compulsory inspection of application equipment, prohibition of aerial spraying, enhanced protection of the aquatic environment, defined areas of zero pesticide use, handling, storage and packaging and remnants of pesticides...)
- integrating of new measures into existing instruments (eg improved systems for monitoring compliance, comparative assessment and the substitution principle...)

6. SUSTAINABLE USE OF NATURAL RESOURCES

This theme falls (mainly) under Priority 4 (“Natural resources and wastes”). The overall objective of the thematic strategy¹⁸ (adopted 21/12/2005) is to reduce the negative environmental impacts generated by the use of natural resources in a growing economy, a concept referred to as “decoupling”.

¹⁶ Com (2006) 231 <http://ec.europa.eu/environment/soil/index.htm>

¹⁷ Com (2006) 327 <http://ec.europa.eu/environment/ppps/home.htm>

¹⁸ Com (2005) 670 <http://ec.europa.eu/environment/natres/index.htm>

Actions:

- improve our understanding and knowledge of European resource use, its negative environmental impact and significance in the EU and globally;
- develop tools to monitor and report progress in the EU, Member States and economic sectors;
- foster the application of strategic approaches and processes both in economic sectors and in the member states and encourage them to develop related plans and programmes;
- raise awareness among stakeholders and citizens of the significant negative environmental impact of resource use.

7. URBAN ENVIRONMENT

This theme falls under Priority 2 (“Environment and health and quality of life”). The measures offered under the thematic strategy¹⁹ (adopted 11/01/2006) aim to contribute to a better implementation of existing EU environment policies and legislation at the local level by supporting and encouraging local authorities to adopt a more integrated approach to urban management and by inviting Member States to support this process and exploit the opportunities offered at EU level.

If implemented at all levels, the strategy will ultimately contribute to improve the quality of the urban environment, making cities more attractive and healthier places to live, work and invest in, and reduce the adverse environmental impact of cities on the wider environment.

Actions:

- guidance on integrated environmental management;
- guidance on sustainable urban transport plans;
- support for EU wide exchange of best practices;
- a Commission Internet Portal for Local Authorities;
- training;
- drawing on other Community Support Programmes (cohesion policy, research).

¹⁹ COM (2005) 718 http://ec.europa.eu/environment/urban/thematic_strategy.htm

6. COMPATIBILITY OF THE INTERREGIONAL COOPERATION PROGRAMME WITH THE EUROPEAN ENVIRONMENT POLICY

6.1 Introduction

The Interregional Cooperation Programme is a 'high level' programme that establishes the main areas for funding interregional cooperation initiatives through the new Structural Fund programming period (2007-2013). It sets the broad parameters for such funding but does not enter into details as regards the project selection criteria or eligible measures. These will be elaborated at a later stage once the programme has been adopted (the 'implementing rules').

In light of its strategic approach, the fact that it is an EU funding instrument and that one of its priority axes for funding is the environment and risk prevention, it was considered appropriate to assess the compatibility of the operational objectives and examples of cooperation activities against the European Environmental Policy Framework (as described in chapter 5).

This will help to determine whether the Interregional Cooperation Programme is in line with Europe's main policy priorities for the environment and sustainable development, and whether it focuses on those aspects of environmental problems and policies that are most relevant for interregional cooperation. The compatibility assessment is presented in the form of a matrix table later in this chapter.

6.2 Summary of main findings

The following highlights the key findings of the compatibility assessment (as derived from the table).

- None of the operational objectives are incompatible with the 6th EAP priorities or the thematic environmental strategies.
- As regards the first priority axis: innovation and knowledge economy, it has no direct relationship with the 6th EAP or the thematic strategies.
- As regards the second priority axis: environment and risk prevention, the relationship with the 6th EAP and European environmental policy priorities is more direct and is overall positive.

It should be noted that these findings are based on an analysis of the operational objectives identified under each priority in the Interregional Cooperation Programme. The examples given for each operational objective for the regional initiatives (type 1 actions) and the examples given in annex 3 for the fast track networks (type 2 actions) are not assessed as such as they are merely possible examples that may or may not be funded. Nevertheless, they have been considered when reaching a final conclusion on the analysis of the operational objectives and some comments are made on these examples.

6.2.1 Compatibility of the 2nd priority axis:

The following operational objectives listed under the 2nd priority axis of the Interregional Cooperation Programme **are directly relevant** to the 6th EAP priorities and the thematic environmental strategies:

- *Objective 3: Promoting the development of sustainable waste management activities and the movement to a recycling society*
- *Objective 4: Promoting the development of actions linked to biodiversity and the preservation of natural heritage, especially in NATURA 2000 sites and promoting the development of coastal management activities*
- *Objective 5: Stimulating energy efficiency and the development of renewable energies as well as better coordinated efficient energy management systems and promoting sustainable public transport*

The following operational objectives do not figure specifically 6th EAP but is clearly **of importance at European level** for the environment:

- *Objective 2: Promoting the enhancement of water management activities*

Objective 2 is not identified as a priority under the 6th EAP as it has already been substantially addressed through existing EU legislation such as the Water Framework Directive. The objective 2 is in line with the WFD Directive and the priority now is to ensure the timely and effect implementation of this ambitious Directive.

- *Objective 1: Developing plans and measures to prevent and cope with natural risks (especially fires, floods, desertification, droughts) and technological risks*

Objective 1 is a response to the negative effects of climate change which could have devastating consequences for the economy, human wellbeing and the environment if measures are not taken to prevent and cope with them. The objective could therefore be relevant to EU environmental policies, in particular the recent Commission proposal for a Directive on the assessment and management of floods (Jan 2006).

The following objective is not directly relevant to the 6th EAP or thematic strategies:

- *Objective 6: Protecting and enhancing the cultural heritage in support of socio-economic development and the promotion of cultural assets as potential for the development of sustainable tourism*

But an exchange of know how on good practices in tourism aspects with particular focus on integrating sustainability aspects should also benefit nature and biodiversity which is an integral part of the rural and urban environment.

6.2.2 Areas in the 6th EAP not covered:

Some areas of the 6th EAP and thematic strategies are not fully covered by the INTERREG IVC operational objectives.

- The 'Natural Resources' Strategy is linked to sustainable consumption and production patterns where the consumption of resources and their associated impacts do not exceed the carrying capacity of the environment. This is a developing area that requires also societal shifts and could benefit from greater cooperation and exchange of experiences and could therefore be also of interest for interregional cooperation.
- The Marine Strategy Directive is still at the stage of being a Commission proposal. Once adopted it will establish European Marine Regions on the basis of geographical and environmental criteria. Each Member State, in close cooperation with the relevant other Member States and third countries within a Marine Region, will be required to develop Marine Strategies for its marine waters with the overall objective of achieving good environmental status in all EU marine waters by 2021. In light of this, it may be more appropriate to address the territorial cooperation element through the transnational programmes under INTERREG IVB.
- The Pesticides Strategy: it is not clear how beneficial inter-regional cooperation could be in this respect. Some of the proposed actions in the strategy such as 'encouraging the use of low-input or pesticide-free crop farming' may be better addressed through the Rural Development Programme.
- The Soil Strategy: is a new developing area of European environmental policy aimed at reversing the trend towards erosion, compaction and sealing, and the removal and contamination of soil

6.3 Issues to consider

The exact phrasing of two of the operational objectives under the priority axis 2 'environment and risk prevention' may require additional consideration by the programmers in order to bring them fully into line with EU environmental policy priorities:

- Under Objective 2: whilst the examples of activities that could be funded seem to be in line with the Water Framework Directive it may be appropriate to stress this in the objective itself by modifying the text to '**promoting the enhancement of sustainable water management activities in line with the Water Framework Directive**'.
- Under objective 4: It may be appropriate to emphasise that the objective is aimed at '**promoting the development of sustainable coastal management activities in line with ICZM**'

Examples under regional initiatives (type 1)

- Objective 1: The example given for 'reaping the benefits of the sea' seems inappropriate. Europe's seas are already heavily exploited. Recognising this, the EU has proposed an EU Marine thematic Strategy and Framework Directive to promote the sustainable management and use of Europe's seas and marine resources. If this issue is to be covered under objective 1, it may be more appropriate to give an example that clearly relates to the EU marine thematic strategy and the promotion of an ecosystems approach to the sustainable management of Europe's seas.

Regarding the examples under the fast track networks (type 2) mentioned in annex 3 of the Operational programme:

- It is not clear how these relate to the thematic objectives
- there is no example given for thematic objective 4 on nature and biodiversity – yet this is a subject that could certainly do with good practice exchanges initiated by the Commission. However, the Operational Programme does say that other themes may be introduced later on.
- An example is giving again of 'reaping the benefits of the sea' the same comments apply as above. This does not appear to be in line with EU marine Conservation strategy.

Table 1 : Assessment of the relevance and consistency between the Interregional Cooperation Programme and EU Environmental Policy

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							COMMENTS
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	
Priority 1 : innovation and knowledge economy												
<p>Obj 1: improving the capacity of regions for strengthening research, technology and innovation</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Exchange and transfer of successful regional policies and approaches in support of research and development activities and actors. - Good practice collection and transfer on research and innovation infrastructure such as science parks, innovation centres, incubators or support to clusters. - Identification and development of methods for strengthening creative interaction in the knowledge - businesses - public sector triangle. - Strategic cooperation aimed at optimising / enhancing the use of new environmentally friendly technologies - Exchange of experiences on helping to restructure regions most heavily dependent on traditional industries ; - Bringing innovative ideas to the market more quickly. 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<p>No direct relationship with the 6th EAP or thematic strategies</p> <p>Although synergies may appear with 'eco-innovation' and the use of new environmentally friendly technologies (see eg)</p>
<p>Obj 2: Promoting and enabling entrepreneurship and the development of new business initiatives in all sectors of relevance to regional economies, in particular those that are knowledge based and innovative</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Exchange on policies related to promoting entrepreneurship and business start-up, especially in knowledge based, innovation driven sectors. - Exchange on regional business support structures and approaches to assist SMEs 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<p>No direct relationship with the 6th EAP or thematic strategies</p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							Comments
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	COMMENTS
Priority 1 : innovation and knowledge economy												
<ul style="list-style-type: none"> - Cooperation in the field of financial assistance to SMEs and the development of risk capital. - Strategic cooperation and networking between regions sharing an interest in a specific economic sector, aimed at strengthening the respective regions economic profiles and the global competitiveness of the sector. - Support to regional business clusters through interregional exchange of experience. - Cooperation activities for the support and promotion of female entrepreneurship - Support to the economic diversification of rural areas 												
<p>Obj 3: facilitating businesses, and in particular SMEs, to develop and grow in a more sustainable and innovative way through the transfer of specific services and the creation of shared facilities</p> <p><i>Examples of cooperation activities under <u>regional initiatives type 1</u>:</i></p> <ul style="list-style-type: none"> - As for objective 2 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<p>No direct relationship with the 6th EAP or thematic strategies</p> <p>Although overall in line with Gothenburg strategy in terms of promoting more sustainable growth in the business sector</p>
<p>Obj 4: helping to restructure regions most heavily dependent on traditional industries, including renewal of industrial zones for new business.</p> <p><i>Examples of cooperation activities under <u>regional initiatives type 1</u>:</i></p> <ul style="list-style-type: none"> - no specific examples given 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No direct relationship with the 6th EAP or thematic strategies

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							Comments
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	COMMENTS
Priority 1 : innovation and knowledge economy												
<p>Obj 5: promoting the use of new information and communication technologies by businesses, public services and the general public, especially in rural areas</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Exchange on development of ICT based public services to increase the effectiveness and competition of businesses and entrepreneurs. - Promotion of the development and use of ICT based services and products (for example in public services e-government and e-health, bringing e-government to regions and businesses). - Joint development of strategies to enhance participation of the public to the information society, e.g. programmes for improving computer skills - Strategies for establishing better ICT connections between regions 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No direct relationship with the 6th EAP or thematic strategies
<p>Obj 6: improving regional policies for employment, skills development training and education population.</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Improving qualifications for innovation - Exchange of best practices and cooperation in the field of local and regional employment policies aimed at safeguarding and creating new employment opportunities in innovation and knowledge based jobs - Exchange of best practice on training and retention of researchers - Cooperation and exchange on local employment development (LED) initiatives - Capacity building and knowledge transfer for staff involved in 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No direct relationship with the 6th EAP or thematic strategies

business development and support

	6th EAP				Thematic strategies							Comments
OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	COMMENTS
Priority 1 : innovation and knowledge economy												
<ul style="list-style-type: none"> - Exchange of regional strategies to increase investment in R&D related human capital - Joint activities for the enhancement of labour market participation of discriminated groups such as women and older workers - Exchange of experiences for improving the adaptability of workers and enterprises, promoting a healthy workforce in healthy workplaces and expanding and improving education and training systems. 												
<p>Obj 6 : creating the necessary framework conditions for regional economies adapt to major socio-economic challenges, notably globalization and demographic challenges</p> <p><u>Examples of cooperation activities under regional initiatives type 1:</u></p> <ul style="list-style-type: none"> - As for objective 2 	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No direct relationship with the 6th EAP or thematic strategies

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							Comments
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	Waste	Marine	soil	pesticides	Natural resources	urban	COMMENTS
Priority 2: environment and risk prevention												
<p>Obj 1: developing plans and measures to prevent and cope with natural risks (especially fires, floods, desertification, droughts, earthquakes) and technological risks</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Strategies for improving the monitoring of environmental risks - Exchange of best practice on awareness raising and emergency planning of local population located in very sensitive areas, such as heavily built-up basins, seismic areas, flooding prone areas, etc - Exchange of experience on how to deal with air pollution, and manage and communicate on associated risks; - Development or coordination of existing observatories for a better knowledge of natural hazards; - Strategies for preventing and reducing floods; - Exchange and transfer of knowledge on tools, action plans, awareness and capacity for response at the different levels when a maritime disaster, avalanche, landslide or forest fire occurs; - Exchange and transfer of knowledge on tools, action plans, awareness and capacity for response at the different levels on aspects relating to communication and compensation when a maritime disaster occurs; - Exchange of information concerning the transport of dangerous goods and identification of relevant actions to inform the relevant groups - Development of appropriate coordinated spatial planning measures in geographically sensitive areas; 	✓	✓	✓	?	✓	?	✓	✓	?	-	-	<p>Although not a direct target of the 6EAP or the thematic strategies this objective could help to meet some of the 6th EAP aims – protecting biodiversity, reducing pollution, sustainable river management.</p> <p>It is also in line with the Commission's proposal for a Directive on the assessment and management of floods and the Community action plan for civil protection in Europe.</p> <p>However, it is not clear what sort of plans and measures are likely to be supported to prevent or cope with natural and technological risks. They may be beneficial for the environment or they could be in conflict with environmental objectives if the latter is not taken fully into consideration at the planning stage – eg plans promoting the construction of concrete flood defence mechanisms which could lead to negative environmental impacts (for instance on water management and biodiversity).</p> <p>To consider additional safeguards during the implementation of the programme to ensure funded actions are in line with EU environmental objectives</p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							Comments
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	Waste	marine	soil	pesticides	Natural resources	urban	COMMENTS
Priority 2: environment and risk prevention												
<p>Obj 2: promoting the enhancement of water management activities</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Strategies for improving quality of water supply and treatment, including cooperation in the field of water management - Exchange and transfer of knowledge of integrated, sustainable and participatory approaches to river management; - Exchange of good practices and experiences on integrated coastal management (e.g. related to the Integrated Coastal Zone management Strategy and national coastal strategies) - Exchange on regional policies for reaping the benefits of the sea. 	-	✓	-	✓	-	-	?	?	-	✓	-	<p>Water is not listed as a priority under the 6th EAP and thematic strategies. But the EU has already introduced major legislation to address sustainable water management issues and the emphasis is now on timely and effective implementation</p> <p>The present objective is therefore in line with the Water Framework Directive</p> <p>It may be appropriate to emphasise that the objective is aimed at promoting the enhancement of <u>sustainable</u> water management activities</p> <p><i>Regarding the examples:</i></p> <p><i>An example is given for 'reaping the benefits of the sea' – The sea is already heavily exploited for transport, fisheries, aggregates etc... it does not seem appropriate to be promoting further exploitation unless it is in line with the Marine conservation Strategy and the need for an ecosystems based approach to the sustainable use and of its marine resources</i></p> <p><i>The example on coastal management may fit better under objective 4</i></p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6 th EAP				Thematic strategies							COMMENTS
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	
Priority 2: environment and risk prevention												
<p>Obj 3: promoting the development of sustainable waste management activities and the movement to a recycling society</p> <p><i>Examples of cooperation activities under <u>regional initiatives type 1</u>:</i></p> <ul style="list-style-type: none"> - <i>Moving to a recycling society</i> - <i>Exchange of experience on the enhancement of waste management methods and policies –Development of practical guides for integrated local waste management;</i> - <i>Development of innovative solutions for waste disposal as part of sustainable regional waste management systems;</i> - <i>Re-using landfill and waste-disposal sites</i> 	-	-	-	√√	-	√√	-	-	-	-	-	<p>The objective is directly relevant to the 6th EAP priority: natural resources and waste. It is also directly in line with the waste management strategy.</p> <p>The strategy stresses the concept of waste hierarchy: ie prevention, recycling and recovery are primordial, and waste disposal eg in land fill sites should only be considered as last resort .</p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6 th EAP				Thematic strategies							COMMENTS
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	Pesticides	Natural resources	urban	
Priority 2: environment and risk prevention												
<p>Obj 4: Promoting the development of actions linked to biodiversity and the preservation of natural heritage, especially in Natura 2000 sites and promoting the development of coastal management activities</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> • Identification and exchange of good management practices within the Natura 2000 network, to ensure the overall ecological coherence and robustness of the network and to addressing the problems of fragmentation and connectivity between sites within the network • Transfer of knowledge concerning management mechanisms (including management plans where necessary) related to sites designated as special areas of conservation • Promotion of species or habitat action plans that set management priorities for Natura 2000 species across their entire natural range in the EU • Large scale exchanges aiming at ensuring the overall coherence of the Natura 2000 network • exchange on the development of innovative approaches to land development, especially in environmentally sensitive areas • identification and exchange of good management practices aiming at improving air quality • development of measures to cope with health care related environmental problems 	-	√√	-	√	-	-	√√	?	√	√	-	<p>Directly relevant to 6th EAP priority: nature and biodiversity, and marine thematic strategy</p> <p>Also contributing to</p> <ul style="list-style-type: none"> • natural resources: ensuring that consumption of resources and associated impact do not exceed carrying capacity of the environment • pesticides: encourage the use of low- input or pesticide free crop farming – will be an important management prescription in most N2000 involving farming <p>The Commission has also adopted a recommendation on the promotion of Integrated Coastal Management Strategy (ICZM)</p> <p><i>It may be appropriate to emphasise that the objective is aimed at promoting the development of sustainable coastal management activities in line with ICZM</i></p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							COMMENTS
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	soil	pesticides	Natural resources	urban	
Priority 2: environment and risk prevention												
<p>Obj 5: stimulating energy efficiency and the development of renewable energies as well as better coordinated efficient energy management systems and promoting sustainable transport</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Moving to a low carbon economy, including information to industrial customers, service providers and citizens on issues such as how to reduce energy consumption - Exchange and transfer of knowledge concerning long-term targeted energy efficiency campaigns, including efficiency in buildings, notably public buildings; - Exchange and transfer of knowledge on mechanisms to stimulate investment in energy efficiency projects; - Exchange and transfer of knowledge on actions dedicated to improve energy efficiency in the transport sector and in particular to rapidly improve urban public transport in Europe's major cities; - Transfer of knowledge on best practice related to lower-consumption vehicles and new propulsion technologies to reduce emissions; - Promotion of the use of improved collective and non-motorised modes in conjunction with mobility management schemes; - Information systems for better traffic management and improving traffic flow and for improving the monitoring of urban travel data; - Exchange of knowledge concerning energy policy and energy matters between regional energy agencies. 	√√	-	√	-	√√	-	-	-	-	√	√√	<p>Directly relevant to 6th EAP priority: climate change, and urban and air pollution strategies</p> <p>Also in line with</p> <ul style="list-style-type: none"> • environment and health: better quality of life through integrated approach in urban areas; reducing N° people regularly affected by traffic noise. • Natural resources: consumption of resources not to exceed carrying capacity of environment and break links between economic growth and resource use

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	6th EAP				Thematic strategies							COMMENTS
	Climate change	Nature & biodiversity	Environment & health	nat resource & waste	Air pollution	waste	marine	Soil	pesticides	Natural resources	urban	
Priority 2: environment and risk prevention												
<p>Obj 6: enhancing the attractiveness of the territory in support of socio-economic development and sustainable tourism by protecting and enhancing cultural heritage and landscape</p> <p><i>Examples of cooperation activities under regional initiatives type 1:</i></p> <ul style="list-style-type: none"> - Development and exchange of common strategies and tools in the fields related to the protection and enhancement of cultural heritage and landscapes - Promotion of common systems for risk management in the field of cultural heritage and cultural landscape (both rural and urban contexts) - Exchange of know-how among local public administrations on good practise in tourism development with a particular focus on integrating sustainability aspects; - Development and exchange of common strategies for the promotion of cultural assets as potential for the economic development of the regions, notably for sustainable tourism 	-	√	-	-	-	-	-	-	-	-	-	<p>Not a priority under the 6th EAP – Although exchange of know how on good practices in tourism aspects with particular focus on integrating sustainability aspects should also benefit nature and biodiversity which is an integral part of the rural and urban landscape</p>

7. ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL EFFECTS

7.1 Strategic Environmental Assessment objectives

Following a review of the key environmental issues that are relevant to the INTERREG IVC area, and taking into account the issues covered by annex I of the SEA Directive, a number of SEA themes were identified for which SEA objectives could be developed.

In SEA assessments of lower hierarchy programmes that may have significant environmental effects, the SEA objectives are usually further broken down into sub-objectives and indicators in order to be able to go into some detail in the assessment of the likely environmental effects. This was however not considered appropriate in the present SEA. The strategic nature of the Interregional Cooperation Programme, the fact that no details are available at this stage on which projects may be funded, where and for how much, and considering that these projects will involve cooperation measures rather than physical 'on-the-ground' investments makes it virtually impossible to identify its environmental effects at a quantitative level.

The assessment therefore concentrates on key SEA 'headline' objectives which are considered commensurate with the scale and level of detail of the programme. The assessment is also qualitative, based on expert judgement and taking into consideration the baseline information in chapter 4.

SEA Themes identified	SEA objectives
<ul style="list-style-type: none">• Climatic factors (including energy and transport)	<ul style="list-style-type: none">• Reduce contribution to climate change• To adapt effectively to climate change
<ul style="list-style-type: none">• Biodiversity	<ul style="list-style-type: none">• To maintain and enhance biodiversity
<ul style="list-style-type: none">• Water	<ul style="list-style-type: none">• To meet the environmental standard set by the WFD
<ul style="list-style-type: none">• Waste	<ul style="list-style-type: none">• To minimize generation of waste
<ul style="list-style-type: none">• Air	<ul style="list-style-type: none">• To improve air quality
<ul style="list-style-type: none">• Human health	<ul style="list-style-type: none">• To protect and improve health of population
<ul style="list-style-type: none">• Cultural heritage	<ul style="list-style-type: none">• To protect and conserve Europe's natural and cultural heritage and landscapes

7.2 The assessment

Table 2 tests the INTERREG IVC operational objectives under priority axes 1 and 2 against the above SEA objectives in order to identify both potential synergies and inconsistencies between the proposed programme and the aspirations for the environment.

Again, because of the strategic nature of the Interregional Cooperation Programme only the operational objectives are tested, not the examples of cooperation activities under type 1 (regional initiatives) or type 2 (fast track actions) as they may or may not be subsequently be funded.

For the assessment, the following significance criteria are used:

Score	Description
Major positive (++)	very likely to lead to a significant opportunity or improvement, also in the long term
Minor positive (+)	Likely to lead to a moderate improvement in both short and long term
Neutral (0)	Unlikely to have any beneficial or negative effects on the objective being assessed
Minor negative (-)	Likely to lead to moderate detrimental effects /loss in both short and long term
Major negative (--)	Very likely to lead to a significant detrimental effects or loss, also in the long term
Mixed (+/-)	Likely to be a combination of beneficial and detrimental effects
Uncertain (?)	The effect is not known or is too unpredictable to assign a value

7.3 Summary of findings

The assessment indicates that there are no obvious significantly or moderately negative effects of the Interregional Cooperation Programme. On the contrary, many aspects under the second priority axis 'environment and risk prevention' are likely to have positive, albeit indirect, effects on Europe's environment. Because of the nature of the actions to be funded (cooperation, exchange of experiences) these effects are likely to be of a secondary nature, rather than of a direct nature.

Cumulative environmental effects are possible for certain objectives but these have not been considered further as they are too much based on qualitative issues. Mitigation measures are not proposed as there are not likely significantly negative environmental effects identified.

7.4 Issues to consider

There are nevertheless some areas where there may be a potential risk of negative effects later on in the implementation of the programme. Because of the high level of the Interregional Cooperation Programme much of the detail as regards the choice of projects, etc is left to later when implementation rules will be drawn up together with application manual and project assessment criteria.

It is therefore recommended that environmental safeguards are carefully considered in the project application manual and during the project selection procedures to avoid any potential conflicts or incompatibilities with, or between different, environmental objectives.

Possible examples of potential conflict might include:

- The development of renewable energies such as wind energy, biofuels, wave energy may negatively effect biodiversity, Natura 2000 areas and landscape if they do not take sufficient account of possible impacts early on at a planning stage. Promotion of good practices which do not take account potential conflicts with other environmental priorities should be avoided and if possible screened out or adjusted during the project selection phase.
- For the same reasons mentioned above the development of plans and measures to prevent and cope with natural risks should consider the services rendered by robust ecosystems such as wetlands, rivers, etc and seek to integrate these considerations into the plans themselves. Otherwise there is a risk that certain measures (such as hard engineering solutions to prevent floods or coastal erosion) may end up damaging the environment. Again networking or exchange of experiences and good practice focussing on integrated and sustainable measures to prevent and cope with natural risks should be given priority
- An example is given under both types of measures for 'reaping the benefits of the sea'. The European seas are already heavily exploited and an EU environmental priority as identified in the EU thematic marine strategy is to ensure that the seas and marine resources are managed sustainably. It would be more appropriate therefore to focus projects on helping to implement this ambitious thematic strategy.

Guidelines for the environmental assessment of project applications could be drawn up to help with project selection and 'screen out' projects that could be potentially incompatible with the protection of the environment

Table 2 : Assessment of the environmental effects of the Interregional Cooperation Programme operational objectives

[illegible]

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Reduce contribution to climate change	To adapt effectively to climate change	To maintain and enhance biodiversity	To meet the environmental standards set by the WFD	To minimize generation of waste	To improve air quality	To protect and improve health and wellbeing population	To protect conserve EU's natural cultural heritage & landscapes	Comments
Obj 1 developing plans and measures to prevent and cope with natural risks (especially fires, floods, desertification, droughts) and technological risks	0	++	+/-	+/-	0	0	++	+	<p>Likely to significantly help adapt to climate change and to protect humans</p> <p>Natural and technological disasters could have devastating effects on the environment if coping and prevention strategies are not developed.</p> <p>Could have benefits for biodiversity, rivers and soil if the values and natural function of ecosystems and the environment are taken into consideration at the outset. Eg protecting wetlands to absorb floodwater instead of creating dams and barriers, introducing more diversified biodiversity friendly forestry practices in intensive plantations.</p> <p>If these are not taken into account there is a risk that the proposed measures when implemented could have a negative effect on biodiversity and water resources</p>
Obj 2: promoting the enhancement of water management activities	0	+	+	++	0	0	0	+	<p>Likely to have significant benefits on water quality.</p> <p>Could help to adapt to climate change and conserve biodiversity and natural heritage</p> <p>NB although the examples stress the sustainable nature of these management activities it is not mentioned in the objective itself this could lead to miss-interpretation</p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Reduce contribution to climate change	To adapt effectively to climate change	To maintain and enhance biodiversity	To meet the environmental standards set by the WFD	To minimize generation of waste	To improve air quality	To protect and improve health and wellbeing population	To protect conserve EU's natural cultural heritage & landscapes	COMMENTS
Obj 3: promoting the development of sustainable waste management activities and the movement to a recycling society	0	0	0	0	++	0	0	0	Likely to have significant benefit for reduction in waste management
Obj 4: Promoting the development of actions linked to biodiversity and the preservation of natural heritage, especially in Natura 2000 sites, and promoting the development of coastal management activities	+	+	++	+	0	0	+	++	Likely to be significant benefits for maintaining and enhancing biodiversity Actions for biodiversity could also enhance the ecological functions and services of ecosystems, helping to absorb CO2 and adapt to climate change.... It may provide benefits for human health in terms of increased possibilities for relaxation and healthy outdoor pursuits. It is likely to benefit natural heritage and landscape
Obj 5: stimulating energy efficiency and the development of renewable energies as well as better coordinated efficient energy management systems and promoting sustainable transport	++	0	+/-	0	0	++	++	+	Likely to be significant benefits for reducing climate change and improving air quality. Sustainable public transport may increase transport efficiency and reduce need for new transport routes which could also be positive for biodiversity. Sustainable transport and use of less polluting fossil fuels (eg diesel) will help improve air quality and human health However, development of renewable energies such as wind energy, biofuels, wave energy may negatively effect biodiversity and Natura 2000 area

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Reduce contribution to climate change	To adapt effectively to climate change	To maintain and enhance biodiversity	To meet the environmental standards set by the WFD	To minimize generation of waste	To improve air quality	To protect and improve health and wellbeing population	To protect conserve EU's natural cultural heritage & landscapes	COMMENTS
Obj 6: enhancing the attractiveness of the territory in support of socio-economic development and sustainable tourism by protecting and enhancing cultural heritage and landscape	0	0	+?	0	0	0	0	++	Likely to have significant benefits for protection natural heritage, culture and landscapes

8. ALTERNATIVE OPTIONS

8.1 Selection of alternative options

The SEA Directive requires that ‘*the likely significant effect on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated*’

The environmental assessment so far has identified that the present Interregional Cooperation Programme is largely in line with the EU environmental policy priorities and is likely to have an overall positive environmental effect in several priority areas for the environment in Europe. As such, it already presents a ‘good deal’ for the environment.

During the Scoping Report, several environmental authorities suggested that a reasonable alternative might be to consider possible shifts in priorities between activities/spendings under the programme. They considered that the SEA gives an opportunity to set out the environmental effects of different funding levels and present them in advance of decision making. This would lead to better informed decision making.

At the moment, 55% of the budget of €321 million is foreseen for the first priority axis ‘innovation and the knowledge economy’ and 39% is foreseen for the second priority axis ‘environment and risk prevention (the remaining 6% is for technical assistance). According to the Operational programme this reflects both the priority given to innovation and knowledge economy as the main driving force for contributing to the revised Lisbon Strategy and the relative weight of each of these two themes in the number of operations co-financed under INTERREG IIIC

The analysis section of the Interregional Cooperation Programme also points out that a healthy environment also makes economic sense, and that the integration of environmental considerations at source is more cost-effective than expensive clean-up operations after the fact. The growing business of ‘eco-innovations’ and environmental management services is in line with the Lisbon objectives for creating an innovative knowledge-based economy and more jobs.

One alternative could therefore be to consider an increase in the share of INTERREG IVC financial allocations which is accorded to priority axis 2 - ie allocating more than 39% of the budget to this priority. However, it has not been possible to evaluate this alternative further through the assessment matrix. This is because the assessments of environmental effects are based on qualitative criteria, they will not be able to distinguish any impacts of increased funding.

A second alternative that has been considered is an alternative based on the areas originally identified for interregional cooperation in the European Regional Development Fund²⁰ under environmental and risk prevention (Article 5)

These are as follows:

- a. stimulating investment for the rehabilitation of the physical environment, including contaminated, desertified and brownfield sites and land;
- b. promoting the development of infrastructure linked to biodiversity and investments in NATURA 2000 sites, where this contributes to sustainable economic development and/or diversification of rural areas;
- c. stimulating energy efficiency and renewable energy production and the development of efficient energy management systems;
- d. promoting clean and sustainable public transport, particularly in urban areas;
- e. developing plans and measures to prevent and cope with natural risks (e.g. desertification, droughts, fires and floods) and technological risks;
- f. protection and enhancement of the natural and cultural heritage in support of socio-economic development and the promotion of natural and cultural assets as potential for the development of sustainable tourism;

8.2 Assessment of the alternative option

The above objectives have been tested in the following assessment matrix against the same SEA objectives used for testing the operational objectives of the Draft Programme.

This assessment reveals that the alternative objectives offer, overall, less positive environmental effects than the proposed programme objectives:

- there are no possibilities for interregional cooperation on water, coastal or waste management – yet these are major environmental issues for Europe and ones that would benefit greatly from exchange of good practices and networking
- instead the objective of rehabilitating the physical environment is proposed. Whilst this could benefit the environment by removing sources of pollution or help stem urban expansion in the case of rehabilitating brownfield sites – the overall environmental effects appear rather limited and have not identified as a environmental policy priority at EU level
- the emphasis in two of the alternative objectives relating to biodiversity and the rehabilitation of the physical environment place the emphasis on ‘investments’ and ‘infrastructures’.

²⁰ Regulation EC N°1080/2006 on the European Regional Development Funding and repealing Regulation (EC) N°1783/1999 OJ L 210/1 31.7.2006

In the case of stimulating 'investments' rather than information exchange on policy implementation attention is drawn to the fact that this may lead to concrete actions on-site. In this case it would be important to ensure that the SEA Directive provisions are respected during the selection of the projects to ensure that they will not lead to any significant negative environmental effects.

The overall conclusion is therefore that the current operational objectives as defined in the Interregional Cooperation Programme (3rd Draft) are likely to lead to more and stronger positive indirect environmental effects than the original thematic objectives identified for interregional cooperation in the European Regional Development Fund under environmental and risk prevention (Article 5).

Table 3 : Assessment of the environmental effects of the alternative option

	SEA Objectives								
OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Reduce contribution to climate change	To adapt effectively to climate change	To maintain and enhance biodiversity	To meet the environmental standards set by the WFD	To minimize generation of waste	To improve air quality	To protect and improve health and wellbeing population	To protect conserve EU's natural cultural heritage & landscapes	COMMENTS
Priority 2 : environment and risk prevention									
Obj 1: stimulating investments for the rehabilitation of the physical environment, including contaminated, desertified and brownfield sites and land	0	0	?	?	0	0	?	0	The environmental effects appear limited: they could benefit the environment by removing sources of pollution. The rehabilitation of brownfield sites in urban areas could help stem urban expansion
Obj 2: Promoting the development of infrastructure linked to biodiversity and investments in Natura 2000 sites, where this contributes to sustainable economic development and/or diversification of rural areas	+	+	+	+	0	0	+	+	<p>This objective focuses on biodiversity and Natura 2000 sites which are major environmental concerns. .</p> <p>However, it calls for the development of 'infrastructure' - it is unclear what is meant by this – the most important actions for Natura 2000 sites is linked to land management.</p> <p>If infrastructures mean visitor buildings etc then this is likely to be of less benefit to many sites and could even be counter productive for very fragile areas. If infrastructure refers to actions relating to the restoration of sites such as the building of dams, recreation of wetlands etc...then it would be more in line with the needs of Natura 2000.</p> <p>The doubts associated with the terminology used reduces the likelihood of the potential for the action to deliver significant environmental benefits.</p>

OPERATIONAL OBJECTIVES INTERREG IVC PROGRAMME	Reduce contribution to climate change	To adapt effectively to climate change	To maintain and enhance biodiversity	To meet the environmental standards set by the WFD	To minimize generation of waste	To improve air quality	To protect and improve health and wellbeing population	To protect conserve EU's natural cultural heritage & landscapes	COMMENTS
<p>Obj 3: stimulating energy efficiency and renewable energy production and the development of efficient energy management systems</p> <p>Obj 4: promoting clean and sustainable public transport, particularly in urban areas.</p>	++	0	+/-	0	0	++	++	0	No discernable differences in terms of likely environmental effects between these two objectives and objective 1 of the proposed programme
Obj 5 developing plans and measures to prevent and cope with natural risks (especially fires, floods, desertification, droughts) and technological risks	0	++	+/-	+/-	0	0	++	+	Exactly the same wording as in the proposed programme – hence no difference in the likely environmental effects which are largely positive
Obj 6: protecting and enhancing the natural and cultural heritage in support of socio-economic development and the promotion of natural and cultural assets as potential for the development of sustainable tourism	0	0	0	0	0	0	+?	++	The operational programme concentrates on cultural heritage, having included natural heritage under the biodiversity objective which affords it greater protection and takes away the aspect of promoting natural assess as potential for the development of sustainable tourism

9. MONITORING MEASURES

9.1 Monitoring Measures

The SEA Directive requires that *'Member States shall monitor the significant environmental effects of the implementation of the plans and programmes, in order, inter alia, to identify at an early stage unforeseen adverse effects....'*

Considering the strategic nature of the Interregional Cooperation Programme and the lack of details on the implementation rules, selection criteria and monitoring/performance indicators it has not been possible to propose any monitoring measures that might pick up unforeseen adverse effects.

It is recommended instead that consideration be given during the preparation of the application manual to help screen out projects that are not compatible with environmental objectives. Not enough is known at this stage about the project selection procedures to make any further recommendations to that effect but attention is drawn to the usefulness of such an initiative further downstream.

It is therefore recommended that:

- ***environmental criteria and safeguards are considered in the project application manual and during project selection to avoid potential conflicts/incompatibilities with environmental objectives and EU environmental policy***