

TERMS OF REFERENCE

ESPON Project 1.3.2: TERRITORIAL TRENDS OF THE MANAGEMENT OF THE NATURAL HERITAGE (2002-04)

(o) Political challenges for the ESPON projects

The Second Report on Economic and Social Cohesion, published in January 2001, presented for the first time a third territorial dimension of the cohesion (beside the economic and social cohesion), which calls for a better co-ordination of territorially relevant decisions. Stressing the persistence of territorial disparities within the Union, the report stated the need for a cohesion policy not limited to the less developed areas as well as the need to promote a more balanced and more sustainable development of the European territory.

The Second Cohesion Report represents in that respect a follow up of the European Spatial Development Perspective (ESDP), adopted at ministerial level in May 1999, calling for a better balance and polycentric development of the European territory.

The projects launched under the ESPON programme shall follow an integrated approach and, seen together, cover a wide range of issues, such as:

- Identifying the **decisive factors relevant for a more polycentric European territory**; accessibility of a wide range of services in the context of enlargement; integration of wider transnational spaces; promotion of dynamic urban growth centres; linking peripheral and disadvantaged areas with those centres; etc.
- Developing **territorial indicators and typologies** capable of identifying and measuring development trends as well as monitoring the political aim of a better balanced and polycentric EU territory
- Developing **tools supporting diagnoses of principal structural difficulties as well as potentialities**, such as disparities within cities and regenerating deprived urban areas; structural adjustment and diversification of rural areas; strategic alliances between neighbouring cities at transnational, national and regional scale; new partnerships between rural and urban areas; potential support from infrastructure networks in the field of transport, telecommunication, energy; etc.

- Investigating **territorial impacts of sectoral and structural policies** in order to enhance synergy and well-co-ordinated decisions relevant for territorial development within policy fields such as Structural Funds, agriculture, transport, environment, research and development; developing methods for measuring the territorial impact of sectoral and structural policies; etc.
- Developing **integrated tools in support of a balanced and polycentric territorial development**; approaches to enhance the potential of cities as drivers of regional development, new tools for integrated urban-rural development and planning, etc.

With the results of all the ESPON projects, the Commission and the Member States expect in particular to have at their disposal: **a diagnosis of the principal territorial trends** at EU scale as well as the difficulties and potentialities within the European territory as a whole; **a cartographic picture of the major territorial disparities** and of their respective intensity; a number of **territorial indicators and typologies assisting a setting of European priorities** for a balanced and polycentric enlarged European territory; some **integrated tools and appropriate instruments** (databases, indicators, methodologies for territorial impact analysis and systematic spatial analyses) to improve the spatial co-ordination of sector policies.

In this respect, the ESPON projects will serve as a strong scientific basis for the propositions of the Commission in the Third Report on Cohesion, at the end of 2003, in view of the reform of post-2007 Structural Funds.

(i) Relation to the ESPON 2006 programme

The priorities describing the work-programme of the ESPON 2006 Programme are structured in four strands:

1. **Thematic projects** on the major spatial developments on the background of typologies of regions, and the situation of cities.
2. **Policy impact projects** on the spatial impact of Community sector policies and Member States' spatial development policy on types of regions with a focus on the institutional inter-linkages between the governmental levels and instrumental dimension of policies
3. **Co-ordinating and territorial cross-thematic projects** represent a key component of the programme. These projects evaluate the results of the other projects towards integrated results such as indicator systems and data, typologies of territories, spatial development scenarios. The cross section projects help to thematically co-ordinate the whole programme and add value to the results and to fill gaps, which are unavoidable when different themes are dealt with in different projects.
4. **Scientific briefing and networking** in order to explore the synergies between the national and EU source for research and research capacities.

This project belongs to the first strand and therefore holds a key position for the elaboration of the whole programme by the preparation of the common ground for the

investigation of the basic net of spatial structure in Europe. Therefore a strong co-ordination with all other ongoing projects is needed, in particular with the other project in the same strand and with the coordinating and cross-thematic under priority three and the Co-ordination Unit.

ii) Thematic scope and context

Natural heritage is an essential part of the environmental assets of each country. The value of (bio)diversity has been largely recognized by EU policies. Such a heritage must certainly be preserved from hazards, but also creatively managed to reach a condition of sustainable development, for example by the recognition and valorisation of natural networks and individual natural assets in integrated development strategies. New forms of development must be found to assure synergy and co-existence of men activities and actions affecting the natural heritage.

According to the European Landscape Convention, adopted on 20 October 2000 in co-operation with the Council of Europe, the landscape contributes to the formation of local culture and is a basic component of the European natural and cultural heritage, promoting the consolidation of the European identity. Landscape is an important part of the quality of life of different areas of the European continent. However, development within many sectors of activity accelerates the transformation of landscapes.

At the same time, natural heritage is increasingly considered an asset and a development potential in the economic development of cities and larger territories. The location of new investments is progressively taking factors of qualities in the surrounding areas into account, such access to beautiful landscapes and sites during leisure time. This brings extra focus and potential synergy to the management of the natural heritage. By-in-large, it also calls for a management approach that integrates the natural heritage as an important part of the development of larger territories, cities and regions.

Any overlapping with regard to, on the one hand, the thematic scope of project 1.3.1 on natural and technological hazards and, on the other hand, to the forthcoming project 1.3.3 on cultural heritage, shall be avoided by strong co-ordination.

iii) General objectives

a) To refer to the three fundamental objectives with in the ESDP with regard to balanced and sustainable spatial development: the economic and social cohesion, the conservation of natural resources and cultural heritage and more balanced competitiveness of the European territory;

b) To contribute to the identification of the existing spatial structure of the EU territory, in particular the degree and diversity of physical and functional polycentrism at different geographical scales, and to gain concrete and applicable information on the EU wide effects of spatially relevant development trends and their underlying determinates. Therefore, the project should be sustained by empirical, statistical and/or data analysis;

- c) To define concepts and to find appropriate territorial indicators, typologies and instruments as well as new methodologies to consider territorial information linked to polycentrism, to detect territories (preferably below NUTS 2) most negatively and positively affected by the identified trends with special reference to regions in terms of accessibility, polycentric development, environment, urban areas, territorial impact assessment; particular attention will be paid to areas exposed to extreme geographical positions and natural handicaps such as mountain areas, islands , ultra-peripheral regions; reflections should as well be included on relevant issues from the perspective of Europe and its territorial structure in a global or world-wide context;
- d) To develop possible orientations for policy responses, taking the diversity of the European territory into account, and considering institutional, instrumental and procedural aspects;
- e) To consider the provisions made and to provide input for the achievement of the horizontal projects under priority 3, such as tools for diagnosis and observation and long term scenarios, as well as evaluation and assessment procedures.

In the efforts to meet these objectives the project shall make best use of existing research and relevant studies.

iv) Primary research issues envisaged

To agree on a list of indicators which deal with, at least, the four following themes:

- Land cover, land use, landscapes;
- Ecosystem diversity;
- Biodiversity;
- Natural resources: mainly water and soil.

(For each of these themes, the list of the indicators should conform to the DPSIR model. Synergies should be established with the European Environment Agency, Eurostat and DG Joint Research Centre of the European Commission, where a range of related indicators are being developed which provide starting points of this project:

- Land cover, land use, landscapes: dominant pressures of land use, land cover changes, land cover and land use change within and in the surroundings of protected areas, urban sprawl, access to green urban areas, landscape diversity, loss of small/linear landscape features, etc.;
- Ecosystem diversity: fragmentation of habitats and ecosystems, etc.;
- Biodiversity: species richness, number of threatened species, etc.;
- Natural resources: loss of organic matter in soil, soil sealing, soil erosion, contaminated sites, accumulation of heavy metal in soils, deposition of pesticides in soil, water use, water quality, nitrogen surplus by river basins, etc.)

To develop appropriate tools for the creation of a database encompassing these indicators and offering compatibility with a geographic information system, in order to provide a consistent, homogeneous, reliable, and up-datable database;

As regards these four themes, to identify “ecologically sensitive areas”¹, using spatial analysis methods and geographic information system tools. To identify the most relevant

¹ Sensitive areas in relation to hazards are subject to project 1.3.1.

criteria for defining such areas and for assessing the possible (positive as well as negative) impacts for the local/regional economies concerned (as regards for example, competition of locations);

To develop a diagnosis, at European level, for each of the four themes mentioned above. This diagnosis should focus on two points and take into account the spatial structure of the European territory and should make reference to the typologies of regions developed all ESPON projects in particular in project 1.1.1. (polycentrism) and 1.1.2. (urban-rural relation):

- The description of the current situation, the past evolution (long-term and recent) and future perspectives;

To develop some case studies selected on the base of a typology covering whole Europe , for example:

- Examples of areas where significant conflicts are emerging between man-made activities and their natural heritage.
- Cases of good practice, for each of the four themes mentioned above, in reconciling and managing the conflicts through planning, especially participatory planning mechanisms and where the natural heritage is used as an asset in integrated territorial development strategies;

To elaborate contributions to a medium (5-10 years) and long term (10-50 years) scenarios referring to the four themes and, at least, two situations, which are finalised in the future ESPON project 3.2.:

- a. Evolution under current trends;
- b. Evolution in a sustainable way.

The territorial impacts of these scenarios should be illustrated through a series of maps.

To highlight main points where policy responses might be brought to bear.

- To analyse how far Community policy related to each of the four themes affects the concept of a polycentric development.
- To identify which type of territorial development patterns would minimise conflicts and maximise synergy between natural heritage and economic activities and, hereby, contribute to the better management of an area's natural heritage.
- To identify conditions for taking better advantage of Community environmental policy objectives in relation to economic and social development as well as support to territorial cohesion
- To identify feasible structures at EU level in order to coordinate the Community environmental policy better with spatial policies and to provide reference for a better territorial orientation of the EU environmental policy. To identify whether a co-ordination with national policies is necessary.
- To analyse how Structural Funds and the Community environmental policy could develop a more coherent and effective approach in promoting territorial cohesion and environmental objectives.

v) Expected results and timetable

The research undertaken during the interim reports is supposed mainly to work on the data available at the national statistical offices, Eurostat and other national and European institutions, and normally be based on existing administrative units. From 2003 until August 2004, the research should complement the missing territorial/regional data and complement tools and territorial indicators if possible beyond the NUTS classification and the NUTS 3 level.

One of the main objectives of the ESPON 2006 Programme is to focus on research with policy relevance and to contribute to the development of relevant policies. Therefore, the deliverables of the research project should be highly operational and coordinated in time, as far as possible, to fit into the relevant political agenda. The following timetable and specification of output is reflecting this objective:

February 2003 (first interim report):

- a) Consensus on indicators required: Consensus on indicators and data needed, after a precise analysis of the availability and comparability of data at Community level, to develop new database, including territorial indicators and the facilities needed for map-making. For the analysis, the results of the study programme and the results of other ESPON projects in course, in particular under priority 3.1, should be taken into account. This task should also define the appropriate geographical level and technology required for data collection, taking into account the availability of relevant data.
- b) A first detailed and comprehensive list of main requests for statistical and geographical data to be collected mainly from Eurostat, the EEA and National Statistical Institutes and National Mapping Agencies in spring 2003.
- c) A preliminary overview on concepts and methodology and hypothesis for further investigation.

August 2003 (second interim report):

- d) Preliminary results on the basis of available territorial indicators, including European maps showing the existing spatial structure of the natural heritage, as far as possible related to settlement structure, areas facing problems of lagging behind and the accessibility to different parts and types of territories within Europe (in respect of the DPSIR model);
- e) A first overview on concepts and methodology and possible final results. Identification of the most relevant criteria for defining such areas and their impacts; For each of these themes, a descriptive diagnosis of the current situation, the past evolution, the future perspectives, as well as political measures related to them and their impacts;
- f) Establishment of a new database, so far based on indicators available and with the ability to produce European maps (EU 27 maps of “ecologically sensitive areas”),. with variables related to, at least, four themes selected:
 - Land cover, land use, landscapes;

- Ecosystem diversity;
 - Biodiversity;
 - Natural resources: mainly water and soil;
- g) A second revised and extended request for further indicators to be collected (mainly) from Eurostat and the EEA.

January 2004 (third interim report):

(g) A working report on the main results of the research undertaken including databases, indicators, map-making and a analysis/diagnosis of the transport sector in Europe, as well as the existing territorial imbalances and regional disparities in natural heritage based on the research questions above, including an extended number of available territorial indicators and European maps showing, as far as possible, interrelationships between the state and pressure of natural heritage and territorial features, such as the degree of polycentrism, accessibility to typologies of regions and territories, areas lagging behind (and eventually facing migration) and the territorial integration of candidate countries in an enlarged EU, including:

- Compilation of a number of case studies;
- For each of the 4 themes, at least two scenarios at European scale referring respectively to an evolution on the basis of current trends and evolution under sustainable conditions. Maps should accompany each of the scenarios;
- First proposals on how to contribute to the better management of an area's natural heritage and to improve policy responses. Definition of institutional settings and instruments in support of a better management.
 - First proposals of possible thematic adjustments regarding the Community environmental policy in order to avoid unintended spatial effects and benefit from synergy and potentials in relation to the ESDP and the Structural Funds policy.

(h) Preliminary results on the significance of natural heritage for spatial development regarding different types of regions

(i) Development of appropriate tools for the processing of the new database, indicators and map-making

(j) Applicable systems for the monitoring and benchmarking of new trends of territorial developments in the context of the European territory, including candidate countries and neighbouring countries;

k) Detection of typologies of regions revealing risks and potentials for the identified types of regions;

l) Policy recommendations, which provide the basis for the future focus of Community interventions post 2006 and the coordination of the EU environmental policy with the spatial development including institutional settings and instruments. Particular attention should be paid to regions with extreme geographical conditions..

August 2004 (final report):

m) An executive summary of the main results of the research undertaken and recommendations for policy development.

- o) Comprehensive presentation of the state and pressure, restrictions and potential of the natural heritage in relation to a polycentric and balanced development of an enlarged European Union;
- p) Presentation of access points and concrete ideas for policy responses to the territorial trends at different scales and in different parts of the Union, that could improve territorial cohesion;
- q) Presentation of the developed territorial indicators, concepts and typologies linked to natural heritage, including maps;
- r) Presentation of the database and the mapping facilities developed, covering as far as possible an enlarged EU and neighbouring countries
- s) Listing of further data requirements and ideas of territorial indicators, concept and typologies as well as on further developments linked to the database and mapping facilities as well as formulation of further research necessary in the policy field.

vi) Rationale and structure

The following text has the role of shaping the mind of thinking in developing a proposal for undertaking the ESPON action 1.3.2. The text is not meant to be exhaustive, but only to provide guidance for the tenderer.

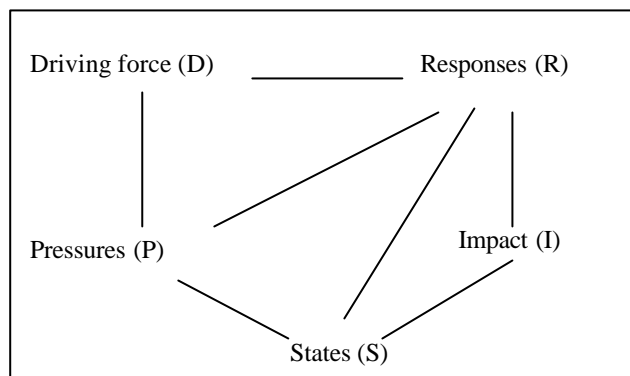
1. Approaches to the definition and methodology

The basic foundation for the project is the territorial integrated approach and the spatial policy orientations put forward by the ESDP and carried further by the Commission in the Second Cohesion Report proposing a territorial dimension in future Structural Funds. Apart from the points addressed under the specific research questions the following points should be deepened.

1.1. Background information: DPSIR Model

The work of the European Environment Agency is built around a conceptual framework known as the DPSIR assessment framework. DPSIR stands for Driving forces, Pressures, States, Impacts and Responses. Particularly useful for policy-makers, DPSIR builds on the existing OECD model and offers a basis for analysing the inter-related factors that impact on the environment.

The aim of such an approach is:
to be able to provide information on all of the different elements in the DPSIR chain;
to demonstrate their interconnectedness;
to estimate the effectiveness of Responses.



To agree on a list of indicators which deal with, at least, the four following themes:

- Land cover, land use, landscapes;
- Ecosystem diversity;
- Biodiversity;
- Natural resources: mainly water and soil.

For each of these themes, the list of the indicators should conform with the DPSIR model.

1.2. Focussing the methodology

The methodology should concentrate on those issues which are most important for the achievement of the ESPON objectives in the field of spatial development and natural heritage. Therefore it is of utmost importance to set the links between the issue of natural heritage and the spatial development. A conceptual framework should clarify the potential and the restrictions caused by the natural heritage with regard to the spatial development. It is evident that potentials and restriction very much depend on the type of regions, therefore close cooperation with the projects 1.1.1. and 1.1.2. is required.

As the management of natural heritage is also subject of this project a methodology should be developed which should be capable to cover the policy requirements in particular on the EU level and in relation to national polices.

2. Indicators and data

2.1. Reference and approaches

The indicator work must be related to the research question as already mentioned in the section (iv).

In addition 10 case studies selected on the base of a typology covering whole Europe, for example Examples of areas where significant conflicts are emerging between man-made activities and their natural heritage.

2.2. Statistical and geographical information

2.2.1. SPESP

Indicator	Type	Source	Scale	Resolution
Pressures on the environment	P	GISCO, CORINE Land Cover	Unknown	NUTS 5, 250 m grid
Emissions of polluting gases	P	EMEP, GISCO, AIRBASE, APIS, GIRAFE, CORINAIR	Unknown	50 km grid
Water quality	S	Large rivers databases, Pesticides in groundwater	Unknown	Unknown
Water resources	S	GISCO (Climatic section), CORINE Land Cover, DTM	Unknown	Unknown
Coastal value	S	CORINE Coastal Erosion, CORINE Land Cover	1:100.000	NUTS 5
Ecosystem diversity	S	CORINE Land Cover, DTM, Geological information	Unknown	NUTS 3 or 5
Biodiversity	S	European Atlas of flora, birds, mammals, amphibians, reptiles and invertebrates	Unknown	Unknown
Value according to Directive 92/43/EEC	S	Undetermined	Unknown	Unknown
Potential productivity	S	DTM, Climate data, Soil map	Unknown	Unknown
Natural hazards	S	Various	Unknown	Unknown
Threats to natural resources	S	ISRIC, European Network for Forest Damage Monitoring	Unknown	Unknown
Designated or protected areas	S	Common database on designated areas	Unknown	NUTS 5

Ref.: "1.6. Natural assets – Environmental indicators", in "Development of indicators reflecting criteria of spatial differentiation" [1999], INDUROT, Universidad de Oviedo (Spanish National Focal Point of SPESP), 80p. + Annexes

2.2.2. Indicators published by the European Environment Agency

The EEA has already published some indicators in respect of the DPSIR model which could be useful to examine land cover, land use, landscapes, ecosystem diversity, biodiversity, natural resources, mainly water and soil. For further information, see: http://themes.eea.eu.int/all_indicators_box

Driving force related to land cover; land use, landscapes

Change in area and use of grasslands

Pressures related to land cover; land use, landscapes

Pressures on grasslands
 Land take by transport infrastructure
Responses related to land cover; land use, landscapes
 Agri-environmental management contracts
 Protection of grasslands
 Implementation of strategic environmental assessment in the transport sector
Driving force related to ecosystem diversity and biodiversity
 Agricultural intensity
 Tourism intensity
States related to ecosystem diversity and biodiversity
 Species in dry grasslands
 Fragmentation of ecosystems and habitats
Impact related to ecosystem diversity and biodiversity
 Ecosystem damage area by air pollution
Responses related to ecosystem diversity and biodiversity
 Organic farming
 Pressures related to natural resources, mainly water and soil
 Percentage contribution to soil contamination from localised sources
 States related to natural resources, mainly water and soil
 Ammonium concentrations in rivers
 Biochemical oxygen demand in rivers
 Nitrogen concentrations in rivers
 Phosphorus concentrations in rivers
 Responses related to natural resources, mainly water and soil
 Urban wastewater treatment
 Expenditures on clean-up of contaminated sites
 Progress in management of contaminated sites

2.2.3. Indicators published by Eurostat

Land cover, land use, landscapes
 Agricultural area and organic farming
 Total forest area
 Growth of built-up area
 Ecosystem diversity and biodiversity
 Use of agricultural pesticides
 Protected area as a percentage of total area
 Number of threatened species
 States related to natural resources, mainly water and soil
 Intensity of water use
 BOD concentration in selected rivers
 Quality of bathing water

Apart from the points addressed under the specific research questions the following points should be deepened.

3. Quantitative and qualitative analysis

The elaboration of scenarios referring to the four themes should be supported by the case studies (both mentioned above). Cases of good practice, for each of the themes in reconciling and managing the conflicts through planning, especially participatory planning mechanisms should be considered in order to detect relations with the other thematic fields of the ESPON programme and to deduce policy responses. Focus could be on:

- Conflicts between natural heritage and transport: Today and even more in the future conflicts between transport and the preservation of the natural heritage exist. The 'ecologically sensitive areas' with certain regulations limiting the environmental impacts of transportation are expected for the future. Environmental criteria for defining such areas and possible impacts of the limitations to local economies concerned (regarding the competition of locations) could become part of the agenda of European spatial development planning.
- The identification of territorial development patterns which would minimise the conflicts between natural heritage and economic activities and, therefore, contribute to the better management of an area's natural heritage.
- Analyses of how far the Community policy related to each of the four themes (land use, ecosystem diversity, biodiversity and natural resources) affects the concept of a polycentric development and the urban-rural relations is another important issue.
- Identification on how to take better advantages of the Community environmental policy in terms of economic and social development.
- Analysis of a more integrated and efficient approach of Structural Funds and the Community environmental policy in promoting territorial cohesion and environmental objectives.

4. Conclusions and recommendations

The project should highlight the main points where policy responses might be brought to bear taking into account the results of good practice and the medium and long term scenarios concerning the potentials and restrictions for the territorial development in relation to management of natural heritage. Reference should be made to a broad variety of types of regions in Europe, including

- Integrated spatial planning for the natural heritage;
- Information on how national, regional and local authorities manage natural heritage in a promising way;
- Proposals to improve monitoring systems for natural heritage;
- The possible contribution of sound management of the natural heritage for an integrated spatial approach.

In contributing to the development of policy strategies reference should be made to all policy options in the ESDP which are connected with this issue. Recommendations have to address all relevant Community and national policies in order to promote the potential of the regions. The role of territorial governance as well as the European Strategy for Sustainable Development has to be integrated into propositions. Furthermore the coordination of the environmental policy with spatial development policy in particular on the EU level should be investigated.

It should be investigated how far the findings are relevant and could be applied to Structural Funds policy and other main policies with territorial impact (e.g. competition, transport) should also be made, bearing in mind co-ordination and coherence among them.

In view of deriving policy recommendations the study should also focus on the influence of territorial governance and institutional aspects, revealing the mechanism of power partitioning, decision making and co-operation processes. In this context, networking seems to be of great importance, in particular between “neighbours” across borders.

vii) Existing access points

The access points listed below can serve the purpose of providing the tenderer useful information for preparing a proposal. It is by no means meant to be exhaustive, but only as information that can be helpful in tracing additional useful background information

The Environmental Reports of the EEA already built a good starting base for the investigation of those kind of hazards with particular reference to their spatial effects. The SPESP already considered this topic under the spatial criteria of land use and natural assets.² The land use study already compared the list of important types of landscapes with the categories compiled in the land use statistics of Eurostat. The combination of these data with climate data supports the identification of areas with specific problems under climate change. In addition, the study presents the results of a survey undertaken among Member States on the assessment of different indicators in terms of their usability and availability in each Member State. The study on natural assets also compares different indicator systems available at EU (EEA), UN and OECD level referring to the driving force pressure and response system which provides a good starting point for further work. GIS referenced data and satellite information systems will play a major role for the investigation under this action. The new Commission’s/Eurostat’s Initiative on Environmental European Spatial Data Infrastructure (E-ESDI) can also considerably contribute. Interreg IIC and IIB projects are also dealing with this issue, therefore, providing some experience on a transnational scale.

- The SPESP has identified two conceptual frameworks for the identification and development of environmental indicators and for organising information:

² SPESP 2000 CD report of working group on natural assets p. 66 ff and working group on land use point 3.

- Structure by habitats, which permits an organization of the indicators and gives scientific coherence to the system: six thematic areas are developed: atmosphere, inland waters (quality/resources), coastal and marine environment, geological substrata and soils, as well as biosphere and natural hazards. Indicators can then make reference to one or several of them;
 - Causal framework, which takes into account the main elements involved in the decision-making process and for which the DPSIR model is used.
- Among the four thematic priorities and the 23 key actions of the Fifth framework programme of the European Community for research, technological development and demonstration activities (1998 - 2002), some are of interest for the study, for example, for the priority “Quality of life and management of living resources”, the key action “Sustainable agriculture, fisheries and forestry, including integrated development of rural areas” and for the priority “Energy, Environment and sustainable development”, the key action “Socio-economic aspects of environmental change”.
Ref.: <http://europa.eu.int/comm/research/quality-of-life/leaflets/en/>
and <http://europa.eu.int/comm/research/eesd/leaflets/en/generic01.html>
 - The **Sixth Environmental Action Programme** of the European Community 2001-2010 entitled “Environment 2010: Our Future, Our Choice” identifies four priority areas:
 - Tackling climate change: to stabilise the atmospheric concentrations of greenhouse gases at a level that will not cause unnatural variations of the earth's climate.
 - Nature and Bio-diversity - protecting a unique resource: to protect and restore the functioning of natural systems and halt the loss of bio-diversity in the European Union and globally. To protect soils against erosion and pollution.
 - Environment and Health: to achieve a quality of the environment where the levels of man-made contaminants, including different types of radiation, do not give rise to significant impacts on or risks to human health.
 - Sustainable use of natural resources and management of wastes: to ensure the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment. To achieve a de-coupling of resource use from economic growth through significantly improved resource efficiency, dematerialization of the economy, and waste prevention.
 - The **Global Monitoring for the Environment and Security (GMES)** Initiative (1998-2008) is to support the implementation of the 6th Environmental Action Programme (6th EAP) as it represents the environmental dimension of the Community's Sustainable Development Strategy.
GMES is a European initiative. The aim is to support Europe's goals regarding sustainable development and global governance, by facilitating and fostering over the next decade the provision of enhanced quality data, information and knowledge. It will do so by paying particular attention to better use of information

technologies and by stimulating partnership and co-operation across the whole variety of stakeholders and actors.

The components of the initiative are institutional (e.g. federating needs, securing long-term efforts) and technical (e.g. monitoring infrastructure, building information networks). Its added value resides in the relation of coherence and efficiency from the data acquisition to the production and use of information. The aim is to achieve a significant leap forward in the quality of information and services delivered.

Other websites of interest:

Natura 2000: <http://europa.eu.int/comm/environment/nature/natura.htm>

Emerald (network of Areas of Special Conservation Interest):

<http://www.nature.coe.int/english/cadres/emerald.htm>

In addition, an ESPON Data Navigator creating an overview, a handbook, giving information on principal data sources, contact points etc, is under elaboration. The Data Navigator is expected to cover, in principle, all countries in an enlarged European Union as well as neighbouring countries. The Data Navigator is scheduled to be finalised by end September 2002.