

MANUAL

for

**Environmental Assessment of Plans
and Programmes in Bulgaria**

SOFIA 2002

Title: *Manual for Environmental Assessment of Plans and Programmes in Bulgaria*

Developed by: This Manual has been developed under the project: Practical Implementation of EIA of plans and programmes in Bulgaria (MATO/BG/9/1)

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FOREWORD

Dear Readers,

A decade ago the development of environmental impact assessment (EIA) as a tool for preventive control used by environmental policy was initiated in Bulgaria. Following the requirements of the Environmental Protection Act of 1991, the EIA covered an extremely wide range of application: national and regional development programs, territorial and urban development plans; projects, including extension and/or rehabilitation; operating facilities. As a result, serious practical experience and a considerable number of positive and negative examples illustrating the complex character and procedure of the assessment were gained. Very indicative in this respect are the EIA cases of various types of spatial plans (according to Spatial Development Act).

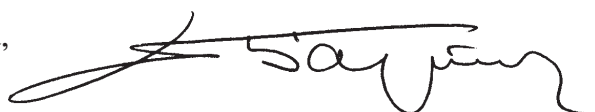
In view of the implementation of the National Accession Program and the start of the negotiations on Chapter 22 - Environment in 2001, the Ministry of Environment and Water undertook the commitment to transpose the latest *Directive 2001/42/EC on assessment of the effects of certain plans and programmes on the environment (SEA Directive)*. Under the new Environmental Protection Act, the term "EIA of plans and programs" has been replaced by "Environmental assessment of plans and programs". A special chapter in the Law provides general requirements for this type of assessment while emphasizing on the different approach to EA of plans and programs compared to EIA of investment proposals.

Concurrently with the legislation amendments and thanks to the beneficial collaboration between the MoEW and the Kingdom of Netherlands, the project Practical Implementation of EIA of plans and programmes in Bulgaria has been developed. This Manual is one of the benefits of this project. The purpose of the Manual is to provide a methodology and a framework for Strategic Environmental Assessment in our country in conformity with those accepted by the EU members.

I would like to express my cordial gratitude to DHV - Holland and the Bulgarian experts, authors of this extremely well-timed and useful paper, who provided valuable information and advice regarding the national characteristics, as well as to the team of the MoEW who competently coordinated and supported the work on the project.

Considering the extremely wide scope of SEA, I hope that this Manual will be useful to specialists from the Ministry of Environment and Water, EIA experts, initiators of plans and programmes, and to all who are interested in the assessment process and methodology.

Dolores Arsenova,



Minister of Environment and Water

1 INTRODUCTION

1.1 Context

The environment has long been recognised as a major concern in Europe. It is a general trend to integrate these environmental concerns into plans and programmes. In order to facilitate this, the European Union introduced Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment. In this manual we will refer to it as the Directive 2001/42/EC.

Since Bulgaria is in the pre-accession phase of joining the EU, the main principles of Directive 2001/42/EC have been transposed into the Bulgarian legislation. This will give Bulgaria the opportunity for implementation of the Directive and thus facilitate the funding from International Financial Institutions (IFI's) who often require some kind of environmental assessment of the proposed plan or programme.

1.2 Objective of this manual

The objective of this manual is to give practical guidance on how to apply environmental assessment of plans and programmes in Bulgaria. The manual proposes a general approach of integration of environmental assessment and planning procedures. It is expected to contribute to a higher quality of the examined plans and programmes.

1.3 The users of this manual

This manual is designed for the following group of users:

- Those who prepare plans and programmes;
- Environmental assessment teams;
- Planning authorities/investors;
- Competent environmental authorities;
- NGO's;
- General public.

2 LEGISLATION REQUIRING ENVIRONMENTAL ASSESSMENT

Requirements for environmental assessment of plans and programmes are set out in the following European and Bulgarian legislative documents:

- EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (2.1);
- Regulation 1260/99EC for the Structural Funds and Regulation 1268/1999 for agriculture and rural development (2.2);
- Bulgarian Environmental Protection Act (2.3).

2.1 Directive 2001/42/EC

In June 2001 the EU Directive 2001/42/EC was adopted “on the Assessment of the Effects of Certain Plans and Programmes on the Environment” (see Annex I of this manual). Member countries have to introduce their legislation for implementation of the Directive before 21 of July 2004. The Directive is based on the precautionary principle and its main objective is:

“To provide for a high level of protection of the environment and to contribute to the integration of environmental consideration into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

However this Directive is a framework and is of a procedural nature: each Member State should integrate the requirements of the Directive into existing procedures or incorporate in specifically established procedures. It gives a general indication of the plans and programmes, which should be assessed. Member States have to determine themselves the plans and programmes, which shall be subject to environmental assessment.

Concerning the timing of the environmental assessment, the Directive requires it to be carried out during the preparation of a plan or programme and before its adoption or submission to the legislative procedure.

2.2 Regulation 1260/99/EC for the Structural Funds and Regulation 1268/99/EC for agriculture and rural development

A lot of the development investments in the candidate accession countries in general, and in Bulgaria specifically, are funded by the European Union (granted or as a loan) through community financial assistance programmes. With three different pre-accession instruments the European Council of Ministers wants to help the candidate countries for a period of seven years (2000-2006) to prepare for accession. These instruments are:

- PHARE
for institution building, for developing community programmes, for regional and social development and for industrial development (structural funds)
- SAPARD
for the modernization of the agriculture and for rural development

- ISPA

for supporting of infrastructure projects in the field of transport and environment

Under the ISPA Regulation the elaboration of plans or programmes are not formally requested. ISPA concerns only the funding of 'projects' for which EIA is required. Since the subject of this manual is environmental assessment concerning plans and programmes and not environmental assessment of projects, we will not further elaborate the ISPA Regulation here.

PHARE requests the preparation of a National Development Plan (NDP). Under the current Structural Funds regulations a so-called ex-ante environmental analysis of the programmes is needed. This is not an environmental assessment strictly speaking, but it already contains some of its elements. The requirements for such an ex-ante environmental appraisal are stipulated in the Structural Funds Regulation No 1260/99/EC, article 41. In this regulation it is stated that the ex-ante evaluation of the environmental situation of the region concerned shall emphasise on:

- environmental sectors which will presumably be considerably affected by the plan or programme;
- the arrangements to integrate the environmental dimension into the plan or programme and how far they fit in with existing short- and long-term national, regional and local objectives;
- The arrangements for ensuring compliance with the Community rules on the environment.

SAPARD requests the preparation of Rural Development Plans (RuDP's). The obligations concerning the environmental appraisal of the RuDP's are stipulated in the EC Regulation No. 1268/1999 on "Community support for pre-accession measures for agriculture and rural development in the applicant countries of central and Eastern Europe in the pre-accession period".

According to this Regulation, the plans shall include measures for agriculture and sustainable rural development as well as a prior appraisal showing the anticipated economic, environmental and social impact of these measures.

2.3 Bulgarian Environmental Protection Act

In Bulgaria the Environmental Protection Act (EPA, 2002) is the main document of environmental legislation (see Annex II of this manual). The EPA incorporates the main provisions of the Directive 2001/42/EC.

A specific Section of the EPA deals with the environmental assessment of plans and programmes. The plans and programmes for which an environmental assessment is required, are described as follows:

'(1) The environmental assessment is mandatory for plans and programmes and their significant changes in the following sectors: agriculture, forestry, fisheries, transport, energy, waste management, water resources and industry including mining, communications, tourism, spatial planning and land use, in cases when these sectoral plans and programmes are setting up the frame for future development of investment proposals under Annexes 1 and 2.

(2) Local plans and programmes under paragraph 1 applied on small territories and insignificant changes to such plans and programmes are to be assessed when their application is considered to have significant impact on the environment.'

The EPA is also very clear about the timing of the environmental assessment and the co-ordination with the preparation of the plan or programme. It states that:

'Environmental assessment of plans and programmes shall be carried out during the preparation of the plan or programme while having in mind their objectives, territorial scope and level of details in order to identify, describe and evaluate accordingly the possible impacts of the investment proposals included in such plans and programmes.'

This Chapter of the EPA will enter into force from the 1 of July 2004. Meanwhile a Regulation for the order of carrying out of EIA of national, regional and district plans and programmes for development, spatial plans and their amendments.

3 ENVIRONMENTAL ASSESSMENT AND ITS BENEFITS

3.1 Environmental Assessment as an instrument for sustainable development

The need for sustainable development is now generally accepted. A number of documents ('landmarks') confirm sustainable development as an objective for the European Union and require that environmental protection is integrated into all EU policies.

In 1998 the European Council endorsed the principle that major policy proposals by the European Commission should be accompanied by its appraisal of their environmental impact (Commission's communication on integration). It noted the Commission's efforts to integrate environmental concerns in all Community policies and to evaluate this in individual decisions. It was stated that sustainable development is a concept that brings together concerns for social and economic development alongside protection of the environment, and that policies that result in environmental degradation and depletion of natural resources are unlikely to be a sound basis for sustainable development. One way to achieve this integration and thus sustainable development is by applying environmental assessment.

In the box 'Environmental Assessment Landmarks in the EU' several documents are summed-up which were approved and are related to the integration of environment into planning and decision-making process in order to reach a sustainable development.

In the Bulgarian Environmental Protection Act it is stated that environmental assessment aims at the integration of environmental considerations into the whole development process and introducing the sustainable development principle herein.

Box: Environmental Assessment Landmarks

1985 EU Directive 85/337/EEC on the environmental assessment of certain projects

In 1985 the first EIA Directive was adopted. According to this Directive (as amended by Directive 97/11/EC) an environmental impact assessment must be made for certain public and private projects which are likely to have significant effects on the environment. The statement of environmental impacts should be prepared prior to decision-making about the project.

1991 UN Espoo Convention on Transboundary EIA

The Convention on Environmental Impact Assessment in a Transboundary Context stipulates the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. In Bulgaria, this Espoo Convention has been into force since 10 of September 1997 and was promulgated in SG No 86/99 (amended SG No 89/99)

1993 Fifth Environment Action Programme: integrating environmental policy into other policy areas

This document was adopted by the European Council of Ministers for the Environment in 1993. The 5EAP runs to the year 2000 and commits the EU to promote sustainable development through its policies and actions. It sets out a series of key objectives and a strategy for achieving these. It states that key target sectors of economy should be responsible for their environmental impacts by ensuring that they integrate environmental aspects and sustainable development principles in their policies and instruments.

1997 Amsterdam Treaty: environmental policy should be integrated into sectoral policy

The Treaty of Amsterdam confirms sustainable development as an objective of the European Union and requires that environmental protection be integrated into all EU policies in particular with a view to promoting sustainable development.

1998 Cardiff-meeting of European Council

At its meeting in Cardiff on 15/16 June 1998, the European Council endorsed the principle that major policy proposals by the Commission should be accompanied by appraisal of their environmental impact.

2001 A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development

At its meeting in Helsinki in December 1999 the European Council invited the European Commission to prepare a proposal for a long-term strategy dovetailing policies for economically, socially and ecologically sustainable development to be presented to the European Council. In May 2001 the European Commission presented a communication as a response to that invitation. In it is stated that sustainable development is a global objective and that the EU has a key role in bringing about sustainable development within Europe and also on a wider global stage. To meet this responsibility the EU and other signatories of the 1992 United Nations "Rio declaration" committed themselves, at the 19th Special Session of the United Nations' General Assembly in 1997, to draw up strategies for sustainable development in time for the 2002 World Summit on Sustainable Development. This strategy forms the part of the EU preparations for that summit.

2001 EU Directive on the assessment of the Effects of Certain plans and programmes on the Environment

In June 2001 the Directive 2001/42/EC was adopted. The objective of this 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, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effect on the environment.

2001 Sixth Environment Action Programme: 'Environment 2010: Our Future, Our Choice'

The new programme gives a strategic direction to the Commission's environmental policy over the next decade. One of the aspects that is highlighted is the need to continue to integrate environmental considerations into other policies such as transport, energy and agriculture and the importance of spatial planning and action at the local and regional level to promote sustainable development.

2003 SEA Protocol

The Espoo Convention (see above) initiated in January 2001 negotiations on the UN/ECE Protocol on Strategic Environmental Assessment. It was agreed that the Protocol should deal with environmental assessment of plans and programmes (EU Directive) as well as with environmental assessment of policies and legislation. It should also provide new opportunities for assessment of health impacts and for public participation in SEA. The Protocol should be ready for signature by any member state of the UN/ECE in 2003 on the Kiev Conference 'Environment in Europe'.

3.2 Types of environmental assessment

3.2.1 Environmental impact assessment

Environmental assessment on a project level is called Environmental Impact Assessment (EIA). The goal of EIA is to provide decision-makers with invaluable environmental information before formal government decisions are made, to ensure that environmental effects can be taken into account by them.

EIA is associated with project consent decisions; usually one of the last major decisions before approval of a project. These are detailed decisions, mainly about the location and design of the project and about measures to mitigate, rather than prevent, environmental impacts. The EU Directive 85/337/EEC concerns the environmental impact assessment of project decisions (see chapter 2).

EIA can be described as:

a procedure for identifying the environmental effects of development projects. This legislative procedure is to be applied to the assessment of the environmental effects of certain public and private projects which are likely to have significant effects on the environment.

3.2.2 Strategic Environmental Assessment

In general, government decisions can be made at two levels:

1. Strategic level decisions: these concern legislation, policies, plans and programmes
2. Project level decisions: usually for approval the implementation of a specific project

Project-level decisions are usually preceded by strategic tiers of decision-making. These earlier decisions are defined as 'strategic decisions', as opposed to 'project decisions'. These strategic decisions can be policies, plans or programmes. Environmental assessment on a level of policies, plans and programmes is called Strategic Environmental Assessment (SEA). As with EIA, the goal of SEA is to provide the decision-makers with information, to ensure that they can take into account the environmental effects.

SEA can therefore be described as:

a systematic process for evaluating the environmental consequences of proposed policies, plans and programmes that form the planning framework for projects at the earliest stage of decision-making. The purpose of SEA is to take better account of environmental issues at the earliest stage of decision-making and to make the decision process more transparent by means of consultation and participation.

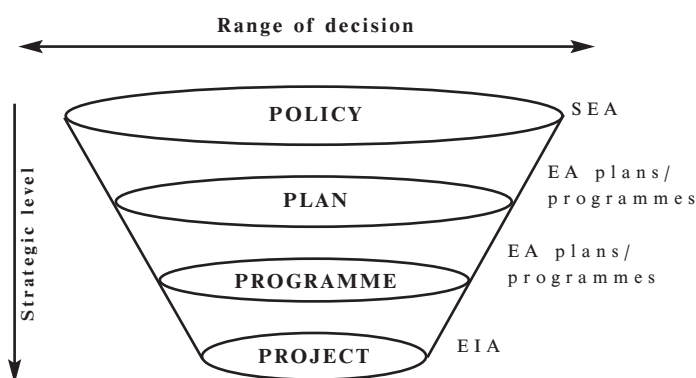
The term SEA does not occur in any legal document at EU level, but is generally used to refer to the Directive on “Environmental Assessment of Plans and Programmes” (EU Directive 2001/42/EC). The Directive 2001/42/EC will require an environmental assessment to be carried out for certain plans and programmes, but not for policies. Since this manual follows the Directive 2001/42/EC, it also only deals with the level of plans and programmes. We will not use the term SEA in this manual, but environmental assessment of plans and programmes.

3.2.3 Comparison of EIA of Investment proposal and Environmental assessment of plans and programmes

SEA and EA are tools for preventive control which support the final decision for approval or rejection of respectively investment proposals, plans and programmes.

The main difference between SEA and EIA are mainly linked to the subject of the assessment, which leads to different approach, methodology and procedure.

The figure below gives the links between decision levels and type of assessment applicable to the respective level.



In the next table the main differences in the environmental assessment of plans/programmes and projects are presented.

	EA of plans/programmes	EIA/projects
Data	Mixture between descriptive and quantified	Mainly quantified
Objectives / scope of impacts	Mainly, national, regional	Mainly local
Alternatives	E.g: more effective use of transport infrastructure, fiscal measures, spatial balance of location	E.g: location, technical variants, design, etc.
Impacts	Of all projects in a P/P	Of a specific project only
Methods for impact assessment	Simple (often based on matrices and use of expert judgment with high level of uncertainty)	Complex (and usually based on quantified data)
Outputs	General	Detailed
Measures	Prevent impacts	Mitigate impacts

Source: Handbook on Environmental Assessment of RDP's and EU Structural Funds Programmes

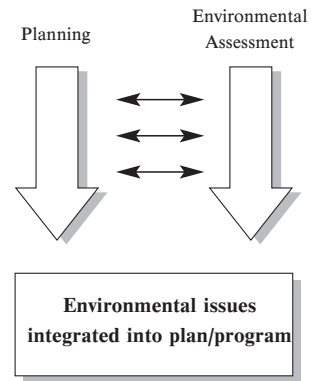
3.3 The process of environmental assessment of plans and programmes

3.3.1 Principles of environmental assessment of plans and programmes

The objectives of environmental assessment of plans and programmes can be achieved if it follows accepted principles:

Integration with planning process

The process of environmental assessment should be integrated with the planning process in order to ensure that environmental issues are taken into consideration. In an ideal case the assessment is integrated into the preparation process of the plan/programme. It may also mean that teams or persons responsible for different parts actively take part in each other's processes or use other means of frequent exchange of information to ensure close contacts between those preparing the plan/programme and those carrying out the assessment. Poor integration leads to mismatches and time and energy wasted on unimportant studies.



Dialogue in earliest stage

Environmental assessment should be applied at the earliest stage of decision-making. Planners should preferably start a dialogue with environmental experts as soon as it is decided that a new plan or programme is to be prepared. Timing the process in such a way that assessment data are available during the preparation of the plan/programme is a prerequisite for having any influence. If the environmental assessment is initiated after key decisions on the plan/programme have already been made, it is almost impossible to influence the plan/programme, even if it has not yet been formally adopted.

Responsibility

The plan initiator is responsible for the preparation of the environmental assessment report (the report where the findings of the environmental assessment process are presented). The initiator is best positioned to reduce impacts while achieving the plan objectives. He should collaborate with environmental authorities, which are responsible for achieving environmental objectives.

Decision-making

The report of the environmental assessment should be presented to the decision-makers at the same time as (or part of) the proposed plan. The competent authority should take the report into account in decision-making. When the competent authority makes its decision about a proposed plan, it should make explicit reference to the environmental assessment report, justifying its decision if it is unable to adopt some of the report recommendations.

The political will and the use of information is crucial for gaining any kind of influence. Although the process of assessment and the link of the environmental assessment to the preparation of the plan/programme are highly successful throughout, with open, wide and transparent participation of all the stakeholders, the effects on decision-making may nevertheless be negligible. The traditional and economic alternatives dominate and overrule the recommendations brought up in the assessment. Means to increase the political will to initiate and use environmental assessments are:

- awareness of politicians and the public;
- education on environmental issues;
- transparency in decision-making process (this puts pressure on decision-makers).

Consultation and participation

Environmental assessments of plans and programmes should involve both technical forecasting activity and frequent consultation (formal and informal) of environmental authorities, other agencies

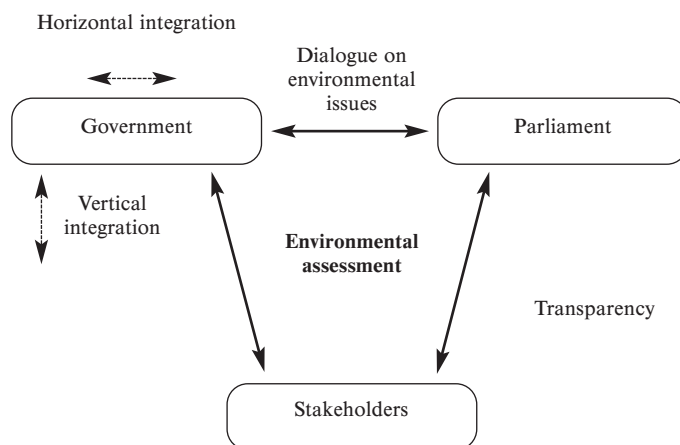
and interested groups. The public should participate in the process of environmental assessment. Interested and affected groups should be aware of the steps involved in an process of environmental assessment of plans and programmes and of the opportunities for participation available. The results of the environmental assessment process should be understandable to these groups.

Flexibility

The precise steps that are taken in an environmental assessment process, depend on the planning procedure to which the assessment is linked. The specific planning procedure is leading; the environmental assessment follows the planning procedure. The structure of an environmental assessment process, as an instrument for informed decision-making, should therefore be flexible. See also the next paragraph.

Democracy

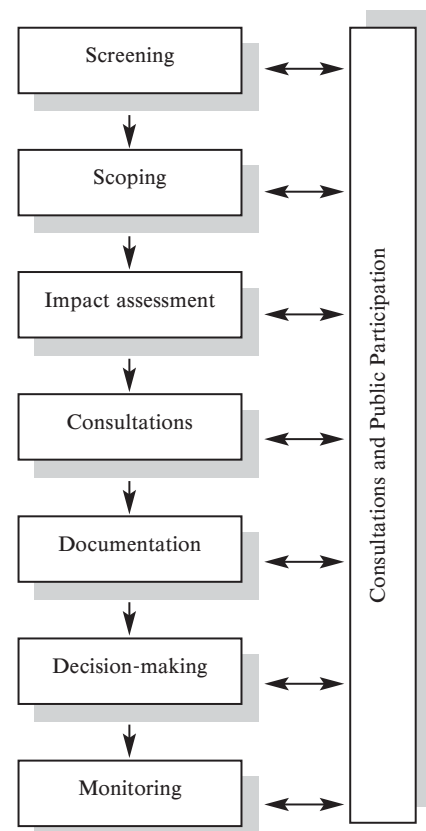
It is recognized that environmental assessment can improve the level of democracy in relation to decision-making concerning plans and programmes in a country: the consistency between different policy fields and between different levels of government and the public participation that environmental assessment ensures, may eventually lead to this. The link between environmental assessment and democracy is demonstrated in the picture.



3.4 Procedural elements of environmental assessment of plans and programmes

The most used general procedural elements of environmental assessment of plans and programmes are explained below:

- Screening
determine the need for environmental assessment
- Scoping
identify alternatives and elements to be assessed, exclude irrelevant information
- (Impact assessment)
- Consultations
seek input and advice of other governmental agencies, independent experts, interest groups and the public during scoping and after completion of the assessment
- Public participation
involve the public in the environmental assessment process, unless limited by legitimate confidentiality or timing requirements
- Documentation and information
present the information of the environmental assessment,



either in a separate document or a chapter or paragraph of the plan/programme

➤ Decision-making

take conclusions and recommendations of environmental assessment into account

➤ Monitoring

identify follow up measures of overall impact of projects and measures resulting from the plan or programme

These recommendations are included in leading systems for environmental assessment for plans and programmes. As already stated in the former paragraph, the precise steps that are taken in an environmental assessment process, depends on the planning procedure to which the assessment is linked. The structure of an environmental assessment process, as an instrument for informed decision-making, should therefore be flexible rather than followed in a narrowly defined sequence of fixed steps. In the schedule these flexible, but not to be missed procedural elements are presented.

4 INTEGRATION OF ENVIRONMENTAL ASSESSMENT WITH PLANNING PROCEDURES IN BULGARIA

4.1 Introduction

In this chapter a method for environmental assessment of plans and programmes is presented. For the development of this method the principles of environmental assessment of plans and programmes, as presented in paragraph 3.3.1 are used, as well as the legal requirements for environmental assessment as presented in chapter 2.

It was decided that the focus of the method should be on the tasks of the environmental assessment team, and to link these tasks with the tasks of the planners (as presented in paragraph 2.4, the first objective of environmental assessment is that it should be fully integrated with the planning process in order to ensure that environmental issues are taken into consideration). For this reason, first of all typical steps in the planning system are examined. This is done in 4.2. After that the requirements of the EA report (as stated in the EPA) are used to define the steps of the environmental assessment (4.3). These steps are translated into tasks for the planning team and the environmental assessment team and are integrated in 4.4. In 4.5 the tasks of the environmental assessment team are elaborated, and examples are given.

4.2 Steps in the planning process

Currently there are 2 specialized Acts in Bulgaria, which spell out planning procedures:

1. Spatial Development Act - gives guidance on the preparation of different types of Spatial plans at municipal level, and;
2. Regional Development Act, which gives guidance on the preparation of Plans for regional development at district, regional and level.

The aim of this Manual is not to propose an environmental assessment procedure applicable to a specific plan, but to any plan or programme. Therefore it was decided to use planning steps, which are general in the preparation of a plan or programme. Planning practice shows that there are 7 typical steps. In most cases they can be used directly, in others they have to be adjusted to a specific planning system spelled out in the legislation. In other words the first task is to identify the planning steps in order to formulate the corresponding tasks for the EA team.

General steps in the planning process:

1. Initiation of the P/P (its aims and relationships to other P/Ps)
2. Analysis of existing problems within the area/sector for which the P/P is being elaborated
3. Determination of specific goals of P/P
4. Design of possible "strategic" alternatives of the P/P
5. Detailed elaboration of selected alternative of P/P
6. Final proposal of P/P (including implementation and monitoring of its implementation)
7. Decision on P/P (+ justification for decision maker)

4.3 Steps in the environmental assessment

The part concerning environmental assessment of plans and programmes in the EPA gives an outline of an environmental assessment for a plan or programme. These requirements have been used to elaborate the steps in the environmental assessment. See table below.

Contents EA report (EPA)	Steps in the environmental assessment	
(1) outline of the contents, main objectives of P/P and relationship with other relevant P/Ps	Position of P/P in planning system	Public Consultations
(2) relevant aspects of current state environment and likely evolution without P/P (3) environmental characteristics of areas likely to be significant affected (4) existing environmental problems relevant to P/P	Analysis of relevant environmental problems, relevant to P/P	
(5a) environmental protection objectives at national/international level relevant to P/P	Determination of relevant environmental objectives for P/P	
(5b) way the environmental objectives/cons for P/P are taken into account	Evaluation how various alternatives of P/P meet environmental objectives relevant for P/P	
(6) likely significant impacts on environment	Evaluation of environmental impacts of final selected alternative of P/P	
(7) measures to prevent, reduce and offset adverse effects (9) measures concerning monitoring	Design of measures to mitigate and monitor specific environmental impacts of P/P	
(8) outline of reasons for selecting the alternatives dealt with and description of how the assessment was undertaken	Justification and summary for decision-maker.	
(10) non-technical summary	Presentation of the results in a understandable for the general public way.	

4.4 Integration of the planning and environmental assessment processes

The steps in the planning process and in the process of environmental assessment process are now 'translated' into tasks of the planning team and the environmental assessment team. These tasks are linked to each other. This is shown in the next table.

Overview of Proposed Integrated Procedure for Planning and Environmental Assessment of Plans and Programmes

(Joint) Steps in the planning process	Substantive tasks for planning team	Corresponding tasks for the EA team
1. <i>Initiation of the P/P</i>	<ul style="list-style-type: none"> ● Analysis of the past experience and current situation 	<ul style="list-style-type: none"> ● Description of the contents, main objectives of the plan and the links with other P/P ● Identification of the public that should be involved
2. <i>Analysis of the existing status of the areas/sectors for which the P/P is being prepared: baseline study</i>	<ul style="list-style-type: none"> ● Analysis of the problems/threats by areas/sectors ● Analysis of the strengths and opportunities for development (e.i. SWOT analysis) ● Combining the strengths/opportunities into development directions and priorities ● Coordination the development directions and priorities to the authorities responsible for planning (sectoral ministries, district and municipal government) 	<ul style="list-style-type: none"> ● Analysis of the problems/threats by areas/sectors ● Analysis of the existing condition of the environmental components and their eventual development without the plan ● Assessment of the expected impacts on the environment of the development directions/priorities ● Submitting and discussing the results of assessment and recommendations to the planning team ● Public participation.
3. <i>Determination of the objectives and setting targets</i>	<ul style="list-style-type: none"> ● Elaboration of objectives and setting targets when taking into account the recommendations of the EA team produced in step 2 ● Coordination of the objectives and targets with the planning authorities (getting approval if required). 	<ul style="list-style-type: none"> ● Description of the environmental protection objectives at national and international level relevant to the P/P ● Assessment if above environmental objectives and other considerations have been taken into account during preparation of the P/P. ● Preparation of recommendations for the planning team ● Submitting and discussing the results of assessment and recommendations to the planning team. ● Public participation
4. <i>Design of possible "strategic" alternatives</i>	<ul style="list-style-type: none"> ● Elaboration of possible "strategic" alternatives to achieve agreed objectives and targets ● Check if the strategies are in line with the main development priorities of the central and local government, businesses, NGO's, academic and scientific society, general public etc. ● Comparison of the proposed strategies in terms of to what extent the agreed objectives and targets could be achieved and in terms of costs ● Selection of preferred alternative based on the results of the comparison and the recommendations of the EA team 	<ul style="list-style-type: none"> ● Assessment to what extend the various alternatives of the P/P meet the environmental protection goals for the specific area/sector: ● Submitting and discussing the results of this assessment and recommendations to the planning team.

(Joint) Steps in the planning process	Substantive tasks for planning team	Corresponding tasks for the EA team
5. <i>Detailed elaboration of selected alternative</i>	<ul style="list-style-type: none"> ● Elaboration of the selected alternative into operational programmes, sub-programmes, measures, projects 	<ul style="list-style-type: none"> ● Assessment of environmental impacts of selected alternative, programmes, sub-programmes, measures, using criteria for determining the likely significant effect ● Proposal of measures for prevention, reduction and complete elimination, if possible, of the unfavourable consequences from the plan implementation · Submission and discussion of results of this assessment and recommendations to planning team.
6. <i>Preparation of the Draft final proposal of P/P (incl. Implementation and monitoring)</i>	<ul style="list-style-type: none"> ● Incorporating the environmental mitigation measures in the P/P; ● Preparation of detailed procedures for monitoring of implementation of the P/P ● Submission of the Draft final P/P to the Planning authority 	<ul style="list-style-type: none"> ● Assessment of implementation programme of the P/P ● Proposal and description of environmental monitoring measures ● Compiling the SEA report and Non-technical summary ● Submission to the Planning authority ● Participation in public hearing ● Presentation to the Competent environmental authority
7. <i>Approval of the P/P</i>	<ul style="list-style-type: none"> ● Necessary co-ordination and publicity, attracting co-financing from national, international public and private sources; ● Discussion on the P/P in the specialised bodies of the Planning Authority ● Approval of the P/P with a resolution of the Planning Authority 	<ul style="list-style-type: none"> ● Participation in discussions of the P/P

4.5 Elaboration of the EA team tasks

Further down are described the objectives of the EA process and the tasks of the EA team.

Step 1: Initiation of the P/P

Objectives for the EA process

To determine the need of environmental assessment

Tasks of EA team

The EA team shall propose scope of the environmental assessment taking into account the main objectives of the P/P and the relationship with other relevant P/P's.

It is very important that the EA team gives good recommendations to the Planning Authority about the public concerned with the P/P, which can be consulted and informed during the preparation of the P/P. The groups which should be involved in the EA process will be determined for each type of P/P. These can be governmental groups and public groups. See box below.

Box: Groups that can be consulted and informed in the EA process	
Governments	<ul style="list-style-type: none">• National, regional and local authorities and organisations responsible for environmental protection, nature conservation, heritage, landscape protection, land use (spatial) planning and pollution control• Sectoral governmental organisations which may be affected, such as in the sector of agriculture, energy, fisheries, forestry• International agencies, e.g. those responsible for the designation of areas of international importance• Governments and organisations in adjoining countries
Public	<ul style="list-style-type: none">• Local community representatives, landowners and residents' groups• Groups representing users of the environment (e.g.) farmers and research institutes• Employers' and employees' organisations• Environmental non-governmental organisations (NGO's)• The public in adjoining countries

Step 2: Analysis of the existing situation / baseline

Objectives of the EA process

- To provide the Planning Authority with relevant information on the current state of the environment for the concerning area and the foreseeable changes to it;
- To clarify the relationship between the P/P and the environment;
- To describe the data gaps in the environmental baseline.

Tasks of the EA team

The EA team has to describe the environmental situation in the concerned area. For this the study area has to be identified. The boundaries of a study area (and thus the data requirements) are

determined by a number of factors (see box). The scope of the baseline may need to be revisited at a later stage in the environmental assessment process, as further details on the content and key issues of the P/P emerge.

Box: Determining the study area	
The area where significant induced development can be foreseen	For example: a new development of a tourism area will cause induced development: traffic, economic and spatial. An initial analysis may determine the area where significant effects may be expected.
The area where significant environmental impacts can be foreseen	Features of the study area that could be affected must be described. Not all impacts extend to the same distance. For example: for the assessment of a transport infrastructure programme, the study area for local impacts can be limited to zones around the proposed infrastructure, whilst air pollution problems could be assessed for the whole country.
The area of the initiator's jurisdiction	It is not useful for the EA team to focus on areas where Planning Authorities are not interested in.
Source: Manual on Strategic Environmental Assessment of Transport Infrastructure Plans	

The EA team shall give characteristic of:

- Natural resources and ecosystems in the study area in order to determine the state of the environment. This information should focus on components such as water-quality and quantity, air-quality, natural resources and protected areas;
- Future situation without the P/P of these environmental components. The EA team shall describe what the environmental situation would be in, for example, 10 years, if the P/P is not implemented. This is important in order to make a good environmental assessment. The future situation can be predicted by focusing on development trends: the pressures on the environment from sectors such as transport, industry, agriculture, energy, need to be taken into account in terms of their impact on the state of the environment;
- When the P/P concerns a specific region the strengths and weaknesses of the environment of the specific region that will contribute or negatively affect development goals (for example, a region could be very suitable for wind or solar energy, thus helping to develop an energy strategy seeking to increase the production of renewable energy and reduce on non-renewable recourses and imports.

Information for the environmental baseline is often held by a wide range of stakeholders, including the ministry of environment, ministries with responsibilities for the development of the P/P, local and regional authorities, national statistical offices, environmental agencies and NGO's. If the P/P covers a specific area, feedback from consultations with local groups and communities can be very useful as well. Outputs of previous and related environmental assessments can also be used.

In the box below useful data sources for Bulgaria are presented. The baseline data should be adequately documented and updated at regular intervals in accordance with reliable procedures. This will facilitate the search for information for other assessments.

Box: Some Data sources for the baseline in Bulgaria	
State of the environment reports	Annual Bulletin on Condition of Environment - issued by EEA
Environmental policy plans	National Programme for Environmental Protection;
(Geographical) databases	Environmental Action Plan for CEE Countries National Statistical Institute; Hydrology and Meteorology Institute; Soil Institute Pushkarov; Ministry of Agriculture and Forests
Expertise from NGO's	Working in the field of Birds Protection; Energy Efficiency; Protection of Animals etc.
Environmental agencies	MOEW; Executive Environmental Agency; RIEW's; Ministry of Health, Ministry of Agriculture and Forests

It is very important that the analysis of the environmental baseline situation makes it explicit when information is missing or inadequate. On the one hand this is important because data gaps can have consequences for P/P development and decision-making. On the other hand the identification of data gaps can lead to recommendations (for example to statistics agencies) to optimization of existing databases, or setting-up new regular monitoring systems, that will provide data for future assessments.

At the end of this step the EA team shall pass the results of the assessment and corresponding recommendations to the planning team. It is strongly desirable that both teams sit together to discuss these recommendations.

The results of the assessment are documented and published for communication with public. EA team documentation will ensure incorporation of all received comments and proposals into background documentation of EA of P/P.

Box: Public Participation in EA of P/P

Public participation should be an integral part of the process of environmental assessment of P/P; it ensures procedural integrity and provides relevant information and input to the development of plans and programmes.

The form of public involvement selected should be consistent with the nature and scope of the issues generated by the plan or programme and reflect the interests and values affected. Depending on that determination, the strategic approach can be selected from the gradient of public involvement, comprising:

- Information
- Consultation
- Participation
- Mediation

With respect to their application, the following aspects are important:

- Setting clear time limits for public involvement;
- Providing relevant information to the parties involved;
- When relevant, ensuring that all participants have appropriate opportunity to provide inputs.

Some aspects of development policy making may require little more than public scrutiny of the process; others will lend themselves to widespread participation; and in certain situations, it may be appropriate to involve NGO's, e.g. for plans and programmes where the environmental effects are indirect or uncertain, and the general public may be less interested.

Source: SEA, Status, Challenges and Future Directions, 1996, the Netherlands

Step 3: Determination of the objectives and setting targets

Objectives for the EA process

- To determine the relevant environmental objectives for the P/P and make specific;
- To assess if these objectives are taken into account in the strategic goals of the P/P;
- To secure the right balance between development priorities and environmental priorities in the planning process.

Tasks of the EA team

It is important that during the preparation of the P/P, environmental objectives are integrated with development goals. Good determination of environmental objectives offers an important opportunity to secure the balance between development and environmental priorities. It will assist in defining and choosing between alternatives and enable the assessment of the environmental performance of a P/P.

To set the environmental goals, the EA team shall:

- Observe the current national and international environmental legislation and policy documents;
- Focus on the opportunities and benefits of integrating the environmental dimensions (current state, future situation from step 2) within the P/P.

The long-term strategic objective of Bulgaria regarding the environment is:

Improvement of the life quality of the population by provision of favourable environment and protection of the valuable nature on the basis of sustainable environmental management.

The following key environmental objectives were identified during the reading of the National Environmental Strategy and National Action Plan 2000-2006:

1. Provision of water with sufficient quantity and quality to the population and industry;
2. Meeting the standards for air quality in the "hot spot" settlements;
3. Protection and expansion of the areas with good quality of the environment;
4. Closer integration of the environmental policy with the policies for development of economic sectors;

5. Protection and maintenance of the valuable biodiversity;
6. Introduction of favourable conditions for implementation of the European environmental legislation and international environmental conventions;
7. Waste management improvement;
8. Reduction of noise loads;
9. More active public participation in environmental problems solving.

Box: Some Environmental legislation and policy documents to determine environmental objectives	
Municipal	<ul style="list-style-type: none"> ● Municipal Health & Environment Programme ● Waste Management Programme
National	<ul style="list-style-type: none"> ● National Environmental Strategy & National Action Plan 2000-2006 ● National Programme for Waste Management ● Action Plan of Health and Environment ● National Strategy for Protection of Biodiversity ● Environment Protection Act ● Biodiversity Act ● Protected Areas Act (1998) ● ISPA Strategy Paper ● National Programme for Priority Construction of WWTP's of Settlements with more than 10000 PE in the Republic of Bulgaria ● River Basin Management Plans
International	<ul style="list-style-type: none"> ● Birds Directive ● Habitat Directive ● Convention of Ramsar ● 10 Principles of Sustainable Development

After the EA team has set the environmental goals for the specific area/sector, it has to assess if these environmental goals have been taken into account by the planning team in determining the strategic objectives and targets for the P/P. The EA team shall scan if there are potential conflicts between the objectives and targets of the P/P and the environmental objectives.

After assessing these objectives and targets the EA team shall make recommendations to the Planning Team. It is suggested to do this in a discussion between the planning and the environmental team: they should jointly compare their objectives and targets and solve potential conflicts. Where a consensus cannot be reached, an explanation should be included, making the choice accountable.

The results of assessment shall be documented and published for communication with public. EA team documentation will ensure incorporation of all received comments and proposals into background documentation of EA of P/P.

Step 4: Design of possible alternatives

Objectives of the EA process

- to assess if the proposed alternatives meet the environmental goals for the area/sector of the P/P;
- to provide the planning team with recommendations and conditions for further elaboration of alternatives.

Tasks of EA team

In this stage the planning team has elaborated the objectives into possible alternatives. It is the task of the environmental team to assess if, and to what extent, these alternatives of the P/P meet the environmental protection goals for the area/sector.

Methods of Assessment

To present the results of the assessment in a simple way, matrices may be used as a method. If this is done, it is important to give the opportunity of individual recommendations. An example of how these results can be presented when using a matrix is shown in the next table. The environmental goals, which are used in this table are the set of goals for sustainable development as presented in the National Environmental Strategy and National Action Plan 2000-2006.

Table: example of a matrix assessing environmental goals of P/P's

Environmental goal	Alt. A	Alt. B	Comments
Provision of water with sufficient quantity and quality to the population and industry	+	0/+	
Meeting the standards for air quality in the “hot spot” settlements			
Protection and expansion of the areas with good quality of the environment			
Closer integration of the environmental policy with the policies for development of economic sectors			
Protection and maintenance of the valuable biodiversity			
Introduction of favourable conditions for implementation of the European environmental legislation and international environmental conventions			
Waste management improvement			
Reduction of noise loads			
More active public participation in environmental problems solving			
Key ++ highly positive impact + positive 0 no positive or negative impact - negative impact -- negative impact x irrelevant (not applicable) ? uncertainty of prediction or knowledge			

Other assessment techniques are:

- **Questionnaires, interviews and panels.** Useful to gather information from different kinds of groups. Advantages of this method are that it can lead to consensus building (what types of impacts are significant?) and that transparency is facilitated;
- **Checklists.** Can be used to identify significant impacts. Care should be taken in developing them since combined and cumulative impacts usually involve more complex cause and effect chains than project level assessment where checklists are often used;
- **Trend analysis.** To assess the state of natural resource, ecosystem or sensitive area over time. Usually results in graphical projection of past and future conditions and can be used to calculate changes;
- **Overlay mapping and Geographical Information Systems (GIS).** To add a spatial dimension to the analysis and the data gathered. Effective to identify areas where environmental impacts will be greatest or where development pressures tend to accumulate;
- **Biodiversity and ecosystem analysis.** Centers around holistic approaches and broad regional and inter-regional perspectives. It can help to address the issue of sustainable use of natural resources. It is normally based on natural boundaries or sensitive areas;
- **Networks and system diagrams.** To understand, explain and represent cause and effect relationships. Can help to identify indirect and cumulative effects.

The assessment of these alternatives can be very uncertain, since the assessments have to be based on strategic proposals, which are not as clearly elaborated as project alternatives. An important general forecasting method to determine the risk that environmental objective and targets may not be achievable with different alternatives, is expert judgment. This method is especially useful for building consensus among the different people involved in the assessment. In the box hereafter different types of uncertainties and examples how to deal with them are presented.

Box: Uncertainties in predicting impacts

Types of uncertainties

In environmental assessment at a strategic level, there may be many uncertainties:

- scientific uncertainties (due to long timescales or complex interactions or lack of knowledge);
- lack of precision in measuring the impacts;
- uncertainty about the precise activities and measures by which the P/P will be implemented ;
- lack of baseline information.
- This can lead to uncertainty in the prediction of impacts' magnitude or in the evaluation of impact significance.

How to deal with uncertainties

Uncertainties should be highlighted during the assessment. Examples how to deal with them, are:

- carrying out studies to investigate issues in more detail;
- use experience of similar situations in other countries/regions;
- carry out sensitivity analysis in which assumptions made in the assessment vary within a range of likely values. The environmental impact of tourism development depends on many factors which are still unknown, such as economic development, number of people that it will be attracted, mode of transport. At least one scenario for these factors is needed to enable assessment of the most

likely impacts. Extreme (but still plausible in the appropriate political conditions) scenarios may be used to show the possible variation in outcomes between optimistic and pessimistic scenarios.

- worst case approach. Uncertainty may not be as serious as it seems. For an infrastructure P/P for example, it may be possible to decide that new infrastructure is necessary even if its route is still undecided. The local impacts are still uncertain, but an assessment may demonstrate that in the worst case the impact would still be acceptable.

Source: Manual on SEA of Transport Infrastructure Plans

On the basis of the results of the assessment, the EA team shall make clear recommendations to the Planning team, preferably in practical solutions. It is suggested that the Planning and EA Team to discuss these recommendations and to see if and how these recommendations could be taken into account.

The results of assessment shall be documented and published for communication with public. EA team documentation will ensure incorporation of all received comments and proposals into background documentation of EA of P/P.

Step 5: Detailed elaboration of selected alternative

Objectives for the EA process

- to determine a set of environmental criteria;
- to assess the selected alternative using the environmental criteria;
- to propose alternative ways of meeting the objectives of the P/P and mitigation measures for negative environmental impacts of the P/P;
- to provide the planning team with recommendations for further elaboration of the selected alternative.

Tasks of EA team

With the elaboration of the P/P it will be easier to perform a more detailed assessment. The extend of the details of the assessment will be proportional to the extent of P/P detail. It should be kept in mind that the quantitative evaluation of effects (for example, determination of noise load), should be done as late as during the project EIA.

For each P/P the issues, on which the assessment focuses, will be different. The assessment needs to consider the potential implications from the implementation of the P/P for the area/sector covered by the P/P and the existing situation as presented in the environmental baseline. It is strongly recommended that the selection of the components to be assessed be based on experience with similar situations (in Bulgaria and in other countries) and expert judgment.

In their assessment, the EA team shall take into account on the direct, indirect, secondary, cumulative, synergetic, temporary and permanent impacts. In the box below these are explained.

Box: Types of environmental impacts	
Direct	Impacts of the plans and programmes that determine the plan or programme. The development of a new industrial area, for example, may cause noise for the people living in that specific area.
Indirect	For example, a noise barrier that reduces the direct impact of noise, may cause visual effects.
Secondary	These are impacts of induced developments, such as induced traffic or housing and economic development which is attracted by new transport infrastructure. For example, extending an airport may attract road traffic and therefore road capacity must be increased.
Cumulative	Impacts that arise from the combined effect of a number of proposed activities. Each individual effect may not be significant if taken in isolation. For example, the combined effect of a number of agricultural measures leading to more intensive production and use of chemicals.
Synergetic	A special type of cumulative impact where the impacts of several projects exceed the sum of their individual impacts. For instance, several projects that encroach on a wildlife site only minimally may, together, affect the site to an extent where it can no longer support certain species.

It is essential that the results of the assessment are presented in an understandable way. The use of matrices is strongly recommended, as a simple and clear presentation tool and as a framework to guide the assessment process. By using matrices the potential interactions between the P/P and the environmental aspects can be indicated, for example by using symbols and numbers. However, it should be kept in mind that the use of symbols and numbers in the matrix does not explain the cause and effect relationship. Therefore it is always essential to summarize the key issues and conclusions drawn from the matrix in written form. This can be done in the matrix itself, or in the text.

Where the potential impact of the P/P is considered undesirable/negative, the EA team shall propose alternative ways of meeting the objectives of the P/P. If there are no alternatives, they shall propose mitigation measures for negative environmental impacts of the P/P.

The results of the assessment (alternative solutions, mitigation measures and other recommendations) shall be provided to the planning team. It is strongly recommended that the two teams discuss the results.

The results of assessment shall be documented and published for communication with public. EA team documentation will ensure incorporation of all received comments and proposals into background documentation of EA of P/P.

Step 6: Preparation of Draft final proposal of P/P (including implementation and monitoring)

Objectives for the EA process

- To assess the proposed implementation programme of the P/P;
- To propose and discuss environmental monitoring measures, to be implemented in the P/P (evaluation)
- Assessment results to be presented as separate report or as part of the P/P

Tasks of EA team

In this step the EA team shall assess the proposed programme for monitoring the implementation of the P/P. It is the task of the EA team to propose environmental monitoring and evaluation measures to ensure that the environmental protection provisions of the P/P are implemented. In this way it is ensured that during the implementation, environmental impacts are accounted for in an appropriate manner. These environmental monitoring and evaluation measures shall be discussed with the planning team. The goal should be that these measures are integrated in the procedures for monitoring of the implementation of the P/P

During all the steps of environmental assessment, the EA team has documented the results of assessment (including the received comments during the public participation). During this step the EA team shall compile all this information into one EA report. The function of the EA report is to inform the decision-makers about the environmental impacts of the proposed P/P. To perform this function, the EA report has to be understandable. And it is therefore suggested that details of the analysis are excluded from the main report and put in an appendix. A non-technical summary of the EA report, understandable for the general public, has to be included.

After the EA report is finished, the EA team shall submit it to the Planning authority. In the public hearing for the EA report, the EA team shall participate in order to answer questions and give background information.

Step 7: Approval of P/P

Objectives for the EA process

- Recommendations of the EA taken into account

Tasks of EA team

If necessary, the EA team can be asked to participate in the discussion on the P/P in the specialised bodies of the Planning Authority.

5 EXAMPLES

5.1 Introduction

In this chapter 3 examples are presented of the application of environmental assessment at the level of plans and programmes. The first two deals with plans for regional development and the focus is on the approach and methodology of environmental assessment. The third one includes five cases from different sectors of the Dutch economy and here the stress is on the procedure and decision levels.

5.2 Pilot Environmental assessment of the Vratsa Municipality Strategy Plan 2000 - 2006 Introduction

The environmental assessment of the *Plan for Strategic Development of the Vratsa Municipality for 2000-2006* is a pilot project within the project of *Practical Implementation of EA for Plans and Programs in Bulgaria*, financed under MATRA program of the Government of the Netherlands.

According to the ToR it do not have official status. Therefore there is no official decision of the competent authorities on the scope of the assessment and no specific procedure for its elaboration.

The objectives of the assessment as a pilot project are as follows:

- *To demonstrate the application of such assessment for specific plans;*
- *To carry out training of local experts and competent authorities in planning process and environment protection;*
- *To demonstrate the benefits from public involvement in the process of environmental assessment of plans and programs;*

The Environmental Assessment of the Vratsa Strategy was elaborated in the period from September 2001 to May 2002 by a team of 5 local experts in cooperation with two consultants from DHV, Holland and POVVIK-OOS, Bulgaria. It has the following specifics:

- *This is the first environmental assessment of a development plan in Bulgaria;*
- *It has been carried out on a completed and adopted document, not a document in process of elaboration, as required by the current legislation.*

The pilot EA was prepared in accordance (to the extent possible) with the general requirements of the *EU Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment*

Process of Environmental Assessment

At the inception workshop with all stakeholders the environmentally most relevant development priorities in the strategy plan were identified. It was decided to focus on the development and assessment of sustainable tourism alternatives. Tourism development is not only promising in terms of socio-economic benefit, it is a national priority and has big potential in the region.

In various meetings the steps in the process of environmental assessment - *scoping, determining of alternatives for sustainable tourism development and methods and criteria for evaluating and scoring impacts.*

Steps of the assessment:

1. EA of Strategy Development Plan

- Consultations held with the municipal experts in planning and environment;
- Pre-Analysis of the Strategy;
- Scoping of the assessment;
- Expert and stakeholder meetings
- Identification of the development priorities that concern the environment;
- Assessment of the potential environmental impacts of the measures

2. Development of sustainable tourism

- Selection of environmentally relevant development priority i.e. sustainable tourism, with the participation of experts, stakeholders and NGO's;
- Description of the current state and the potential for development of the of the tourist sector;
- Sustainable tourism alternatives;
- Assessment of environmental impacts of the alternatives.

3. Recommendations for improving the strategy and the planning process.

The pilot EA provides some suggestions for updating and upgrading the Strategy, aiming at offering more attractive for financing by the EU the projects included in it.

The recommendations are specific, so that could be used for updating and upgrading the assessed document, as well as general, which could be used in the process of elaboration of other municipal plans and programs.

Strategy Development Plan of Vratsa Municipality for 2000-2006

Municipal development strategies (plans) are not explicitly stipulated in the relevant legislation - Regional Development Act (RDA) which specifies the elaboration of development plans at national, regional and district level.

These are elaborated according to the instruction of the MRDPW and they set the frame for future development of investment projects on the territory of municipalities, and serve as a base for elaboration of the district development plans.

The Strategy Development Plan of the municipality of Vratsa for 2000-2006 comprises two sections. Section 1 presents background demographic and socio-economic information about the municipality. Section 2 defines the main development priorities and strategic objectives and includes 24 projects for achievement of some of the objectives.

The 6 development priorities are as follows:

I. Improvement and development of the technical infrastructure in order to stabilize social and economic processes in the settlements of Vratsa Municipality;

II. Development of an efficient agriculture industry and competitive food-processing sector by enhancement of market and technology infrastructure and strategic investment policy aiming at the achievement of the European standards;

III. Restructuring and development of industry in the Vratsa Municipality making

maximum use of the available physical and technical equipment, accelerating and giving priority to the development of small and medium-sized enterprises.

IV. Improvement of the environment on the territory of Vratsa Municipality in order to create favorable living and working conditions for the citizens of the Municipality and to attract lasting investments in this respect.

V. Development and upgrading of the social infrastructure in Vratsa Municipality.

VI. Non-manufacturing sphere.

The priorities and objectives in the Strategy Development Plan of the municipality of Vratsa are in line with those set in the National Plan for Regional Development and the National Economic Development Plan.

The national objectives in the field of environment have been taken into account when formulating the objectives of the municipal strategy plan.

Current status of the components of the environment and their development without implementation of the Strategy Plan

Presented in the table below (see the table):

Current status of the components of the environment and their development without implementation of the strategy plan

Components of the environment	Current status	Development of the components without the implementation of the plan
Surface and ground waters	<ul style="list-style-type: none"> ● Problems with availability of ground and surface water sources due to the karstic character of the region; ● Poor quality of the surface and ground waters impacted by past industrial pollution and incomplete sewerage network. 	<ul style="list-style-type: none"> ● Tendency to exhausting of the natural resources due to constant increase of drinking water losses; ● Worsening of the surface and ground water quality due to discharge of untreated wastewater in the earth bowels and water bodies.
Earth bowels	<ul style="list-style-type: none"> ● No active sites for exploration of mineral resources; ● Compressing of Russian natural gas in the Chiren gas storage (to the north of Chiren village). Operation - through the main pipelines from the national network of Bulgargas - AD Sofia. 	Development is not expected
Lands and soils	<ul style="list-style-type: none"> ● 0,7 % from the total area of Vratsa Balkan is affected by erosion processes; erosion protection activities are undertaken by State forestry service - Vratsa. ● There are areas in the Vratsa valley, which are heavily polluted by heavy metals. 	Development is not expected
Flora and Fauna. Protected natural areas	<ul style="list-style-type: none"> ● Large number of rare and endangered flora species; ● Wide variety of fauna species; ● Destroy of wild animals due to conversion of forests into arable lands; ● There are 8 protected areas in the municipality which statute is in accordance with the Protected areas Act. 	Development is not expected
Landscape	<ul style="list-style-type: none"> ● Availability of natural landscapes with rich morphological forms and formations. 	Development is not expected
Waste	<ul style="list-style-type: none"> ● There is an existing well-engineered regional landfill on the territory of Vratsa, which should serve all the settlements of the municipality. ● Availability of non-regulated dump sites due to poor organization of the collection and transportation of generated waste. 	Tendency to worsening due to continuation of waste disposal at non-regulated dump sites.
Air	<p><u>Vratsa town</u></p> <ul style="list-style-type: none"> ● Frequent exceeds of the average daily MAC for ammonia when “Chimco” is operating; ● SO2 emissions above the allowable limits during the winter due to use of coal for heating; 	<p><u>Vratsa town</u></p> <ul style="list-style-type: none"> ● SO2 emissions above the allowable limits during the winter;

Components of the environment	Current status	Development of the components without the implementation of the plan
	<ul style="list-style-type: none"> ● Single exceeds for dust and H2S emissions; ● Occasional exceeds of single MAC for lead aerosol at some crossings (sq. "Ruski" and sq. "Blagoev"). <i>Out of Vratsa town territory</i> ● Air pollution of some settlements and adjacent territories with dust, NO_x, CO, CO₂ and SO₂ due to close industrial activities: A) Villages Beli Izvor, Vlasatitsa (in the vicinity of Beloizvorski cement factory); B) Chiren village - asphalt mixing facility of Patstroi-engineering and Venaleks Ltd.; B) Pavolche village - asphalt mixing facility of Ingstroi Ltd. 	<ul style="list-style-type: none"> ● Same level of dust, CO, CO₂ and lead aerosols emissions. <i>Out of Vratsa town territory</i> <p>Development is not expected</p>
Cultural heritage	<ul style="list-style-type: none"> ● The region is rich of historical, archeological and architectural sites in a relatively good condition 	Development is not expected
Health risk	<ul style="list-style-type: none"> ● Tendency of increase of the population morbidity 	Continuation of the tendency

Existing environmental problems relevant to the Strategy

Favorable environmental conditions are important for the socio-economic development of Vratsa Municipality. In the present situation some environmental problems exist that have a negative impact on economic development possibilities and living conditions. The main environmental issues in the area that are relevant for the development of Vratsa Municipality are identified as follows:

Water resources and water management

- The Karst nature of the region and the limited annual rainfall poses problems for the quantity and availability of ground and surface water sources for drinking purposes;
- Water distribution network is very obsolete and water losses are about 60%.
- The quality of ground and surface water is negatively influenced by past industrial pollution and by discharges from the incomplete sewerage system.

Air quality

- Until recently ammonia emissions from the Chimco fertilizer plant caused air pollution. The downturn of industry has more or less eliminated these emissions.
- Coal burning by households is the main cause of this type of air pollution. Mostly in the wintertime the levels of sulphur dioxide in the air are high.

Waste management

- Modern regional landfill for municipal solid wastes has been constructed in the area of the Vratsa Municipality that should serve the whole population in the Municipality.
- By the reason of poor management of waste collection and transportation there are still cases of using some waste disposal sites (dump sites).

Identification of environmentally relevant development priorities in the Strategy Plan

The Development Strategy covers a broad range of municipal activities. The table below gives analyses of the environmentally relevant development priorities. Thus, it's only these priorities that have been further concerned in this elaboration, the implementation of which is considered to have direct impact on some of the components of the environment.

Development priority	Environmental relevancy
<p>1. Improvement and development of technical infrastructure</p>	<ul style="list-style-type: none"> ● The supply of good quality water for all communities and the completion of the sewerage system including the treatment of wastewater are highly environmentally relevant. ● The environmentally sound use of energy (heat supply, electricity) is another chapter in this priority section that is environmentally relevant (air quality- CO₂, SO₂). ● The expansion and modernisation of roads does have important environmental impacts on landscape, air (dust, lead aerosols) and natural habitats in the phases of construction and operation.
<p>2. Development of effective agricultural and competitive food processing sectors.</p>	<ul style="list-style-type: none"> ● The increase of agricultural land occupied by cereals and planting of new vineyards requires irrigation and fertilization. The potential impacts are increased use of water resources and pollution of ground and surface water with nitrates , nitrites and phosphates. ● Building of family farms would have potential impact on surface and ground water.
<p>3. Restructuring and development of industry making the most of the existing base</p>	<ul style="list-style-type: none"> ● Restructured and new enterprises will operate using natural resources and generating wastes, and some of them will be a source of emissions. ● It is feasible the restructuring can take place within the present area of the industrial estates. ● Dealing with past environmental damages is an important issue, which however is not dealt with in this development plan.
<p>4. Improvement of the environment for the purpose of creating favorable living conditions and attracting investments</p>	<ul style="list-style-type: none"> ● Implementation of proper management for both household and industrial waste is of great importance for human health and clean environment. ● Control of air emissions and reduction of pollution is relevant for the living conditions. ● Development of sustainable tourism offers the opportunity for economic growth and investments together with safeguarding the natural environment.
<p>5. Development of social infrastructure</p>	<p>Though important for the local society these priorities will not directly concern the environment.</p>
<p>6. Social sphere</p>	<p>Development of healthcare, education and cultural awareness are not directly environmentally relevant, though they might surely contribute to a better awareness and mentality of the general population concerning the environment.</p>

Assessment of the objectives/measures of the selected priorities

As the strategy plan is a completed document it does not present alternatives to achieve the objectives. Therefore the objectives of the strategy are scrutinized and assessed against the (e.g. national) strategic environmental objectives.

In addition have been developed and assessed four alternatives for development of sustainable tourism. The assessment approach has been carried out as follows:

- Assessment of the objectives/measures in comparison with the national environmental objectives;
- Assessment of tourism development alternatives compared to sustainable development indicators.

Assessment of objectives/measures

Assessment approach

The idea of the assessment team was to assess measures in comparison with national environmental objectives. However, after careful examination of the measures of each development priority it was found that:

- Part of the measures have been formulated as objectives;
- No measures have been suggested for some of the objectives.

Therefore the following approach has been applied:

- For priorities 1, 2 and 3 instead of measures the objectives have been assessed compared to the national environmental objectives;
- For priority 4, where the measures are well defined, they have also been assessed.

The national environmental objectives are described in the National Environmental Strategy and National Action Plan 2000 - 2006 as follows:

- ① *Provision of water with sufficient quantity and quality for the population and industry;*
- ② *Meeting the standards for air quality in the “hot spot” settlements;*
- ③ *Protection and expansion of the areas with good quality of the environment;*
- ④ *Closer integration of the environmental policy with the policies for development of economic sectors;*
- ⑤ *Protection and maintenance of the valuable biodiversity;*
- ⑥ *Introduction of favourable conditions for implementation of the European environmental legislation and international environmental conventions;*
- ⑦ *Waste management improvement;*
- ⑧ *Reduction of noise loads;*
- ⑨ *Active public participation in environmental problems solving.*

Assessment Matrix

In order to simplify and unify the assessment of each individual objective of the Strategy Plan of Vratsa, a matrix was applied using the following symbols for assessment of impact significance:

++	highly positive	-	negative	?	missing background data
+	positive	--	highly negative		
0	indifferent	x	irrelevant		

Assessment of the objectives for Priority I

I. Improvement and development of technical infrastructure, aiming at stabilization of socio-economic processes in the settlements of the Vratsa Municipality	Strategic Environmental Objectives								Reformulated objectives/conditions for implementation of measures	
	①	②	③	④	⑤	⑥	⑦	⑧		⑨
1. Provision of the necessary quantities of potable water, to ensure round the clock water supply for all settlements in the Municipality	++	x	+	+	+	+	x	x	+	<ul style="list-style-type: none"> ● Through reconstruction of water-supply system mainly; ● Non-digging technologies and up-to-date materials should be used
2. Completion of the Vratsa sewerage network - secondary branches	+	+	++	+	+	+	+	0	+	HDPE pipes should be used at most
3. Development of heating distribution network in Vratsa	0	++	++	+	+	+	+	0	+	Gas conversion of the heating plants should be introduced
4. Development of low voltage networks and construction of transformers	x	0	+	+	0	+	x	0	0	
5. Extension of existing and construction of new telephone networks in the Municipality	x	x	x	+	x	x	x	x	0	
6. Improvement of the technical and administrative services for the population and preparation of digital models of the cadastral and spatial plans	+	x	+	+	+	+	+	0	+	
7. Extension and modernization of road and street networks and increase of the safety of traffic through reconstruction and improvement of the technical equipment for production, exploitation and maintenance of the municipal roads	0	+	+	+	-	+	+	+	0	<ul style="list-style-type: none"> ● Accent should be put on rehabilitation and improvement of the existing roads and streets. ● Street rehabilitation should be carried out together with the construction and reconstruction of W&S system, heating and communication infrastructure.

Assessment of the objectives for Priority II

II. Development of effective agricultural sector and competitive food- processing sector through the improvement of market and technological infrastructure and strategic investment policy aiming at achievement of the European standards.	Strategic Environmental Objectives								Reformulated objectives/conditions for implementation	
	①	②	③	④	⑤	⑥	⑦	⑧		⑨
1. Establishment and maintenance of favourable economic conditions for creation and development of vital structural units for production of agricultural goods	+	0	+	+	?	+	+	0	x	
2. Securing funds and conditions for production of agricultural products to satisfy the needs of the Municipality	-	0	?	+	-	+	x	x	x	<ul style="list-style-type: none"> • These funds should be used mainly for rehabilitation of the existing irrigation infrastructure; • Environmentally sound methods of agricultural production should be used.
3. Ensure stable level of income for the farmers	x	x	x	?	?	+	+	x	x	
4. Encourage and restructure agriculture through the use of local production	+	x	x	+	?	+	0	x	x	Not clearly defined objective

Assessment of the objectives for Priority III

III. Restructuring and development of industry in the Vratsa Municipality through making the most of physical and technical equipment and giving priority to the development of small and medium sized enterprises	Strategic Environmental Objectives								Reformulated objectives/conditions for implementation of measures	
	①	②	③	④	⑤	⑥	⑦	⑧		⑨
1. Creation of new work positions and reduction of unemployment level in the Municipality	0	0	0	+	0	+	+	0	+	
2. Maximum utilisation of existing facilities for development of new productions oriented towards buying and processing of agricultural production, tailoring, etc.	?	?	0	+	0	+	?	0	x	The best available techniques should be used when opening new enterprises for processing of agricultural production
3. Establishment of small municipal and private companies in the field of services, light and food industry	-	0	0	+	0	+	-	-	+	Under approved town plans and use of “cleaner technologies”
4. Development of labour force in the Municipality through qualification and re-qualification level improvement, assistance in the transition from unemployment to employment, as well as stimulation of beginning of private business	+	+	+	+	+	+	+	+	+	Indirect positive effect on the environment through improvement of the population qualification

Assessment of the objectives for Priority IV

IV. Improvement of ecological environment of the Vratsa Municipality, aiming at creation of favorable living and working conditions for the citizens and attraction of permanent investments in this respect	Strategic Environmental Objectives							Reformulated objectives/conditions for implementation of measures			
	①	②	③	④	⑤	⑥	⑦		⑧	⑨	
1. Implementation of the municipal solid waste management programme	+	+	+	+	+	+	++	+	+	+	
2. Improvement of organisation of freight, bus and trolley bus transport on the territory of the Vratsa Municipality	0	++	+	+	+	+	+	++	+	+	
3. Tourism development	-	-	-	0	-	+	-	-	-	+	Promoting the development of sustainable tourism only while using the existing facilities and infrastructure as much as possible and strict control of the activities.
4. Implementation of energy efficiency programme	++	++	+	++	+	+	+	0	+	+	
5. Carrying out the “Clean town” movement activity through urbanization of inter-block and green areas	-	+	++	+	+	+	+	+	++	++	Reclamation and greening of industrial areas should be added to this objective as well.

Assessment of the measures for Priority IV

IV. Improvement of ecological environment of the Vratsa Municipality, aiming at creation of favorable living and working conditions for the citizens and attraction of permanent investments in this respect	Strategic Environmental Objectives								Reformulated objectives/ conditions for implementation of measures	
	①	②	③	④	⑤	⑥	⑦	⑧		
1. Construction of regional landfill for municipal solid waste from the settlements of Vratsa and Mezdra municipalities	0	0	+	+	0	+	++	0	+	The measure is already implemented
2. Development of a system of organised waste collection and transportation from the villages of Vratsa and Mezdra municipalities	0	0	0	+	0	+	++	0	+	Measures for reduction of waste generation should be added
3. Reclamation of old dump sites in the villages	+	0	++	+	+	+	++	0	++	
4. Construction of plant and animal refuse composting facilities	0	0	+	0	+	+	+	0	+	
5. Construction of a recycling center at the regional landfill for SDW	0	0	0	++	0	+	++	0	++	
6. Construction of a Treatment Plant for the leachate from the regional landfill	+	0	0	0	0	+	+	0	+	
7. Construction of incinerator for hazardous waste	0	-	0	0	0	+	+	0	0	A solution on regional or national level should be looked for.
8. Construction of a landfill for disposal of WWTP' sludge	0	0	0	0	0	+	+	0	0	The possibility for their disposal at the existing landfill should be examined.
9. Construction of facility for disposal of medical waste	0	0	0	+	0	+	+	0	0	Quantitative assessment of this type of waste is necessary
10. Extension of trolley bus network in the town of Vratsa	0	+	+	+	0	0	0	+	+	
11. Completion of Vratsa by-pass road	0	0	0	+	-	0	0	+	+	
12. Tourism and recreation along the Leva River between the Zgorigrad village and Vratsa	+	0	+	+	0	+	0	0	++	Under strict control of the activities
13. Use of energy saving appliances for electric street-lighting	0	+	0	+	0	0	0	0	+	
14. Use of energy saving devices in the heating systems of the municipal buildings	0	+	0	+	0	0	0	0	0	To be added for the residential buildings as well.

Appraisal of alternatives for sustainable tourism development

Despite the big tourism potential of the region and the fact that tourism development is one of the strategic objectives under Priority IV there is only one relevant project in the Strategy Plan. In addition, four tourism development options have been developed in order to upgrade the plan and to demonstrate how environmental assessment may be carried out. These alternatives are presented in *Annex 1* to the report.

A qualitative assessment has been made of the potential impacts of the alternatives on the components of the environment and on some other indicators of sustainable development.

For the purpose of impact assessment have been used the following symbols:

- + positive
- 0 indifferent
- negative
- n.a. not applicable

Appraisal of alternatives for sustainable tourism development

Components and Indicators	Alternatives			
	I Culture and recreation	II Rural and eco-tourism	III Sports and outdoor activities	IV International tourism
Natural habitats and landscape, impacts on - Protected areas and nature parks - Biodiversity (flora, fauna, ecosystems) - Protected landscape features - Cultural heritage	0 0 0 +	0 + 0 +	- - 0 0	- - - 0
Natural resources, impacts on - Air quality - Water quality and conservation - Soil and land-use quality	0 0 0	0 0 +	0 0 -	- - 0
General environmental sustainability, impacts on - Energy efficiency - Use of renewable resource - Transport modality (energy efficiency) - Generation of waste - Climate change - Use of dangerous substances	n.a. n.a. 0 - n.a. n.a.	n.a. n.a. 0 0 n.a. n.a.	n.a. n.a. - 0 n.a. n.a.	n.a. n.a. - - n.a. n.a.
Socio-economic sphere, impacts on - Employment and job creation - Attracting investments - Human health and safety	0 + +	+ + +	+ + +	+ + 0

Mitigation and monitoring

Some mitigation measures are proposed under point 6.1 in the form of conditions for implementation of the strategy plan. For the tourism alternatives an indication of mitigation measures is presented in the table below.

Indicators are also recommended in order to monitor whether the strategic and environmental goals have been achieved

Indicative example of mitigation matrix to counteract negative effects

Components and Indicators	Alternatives			
	I Culture and recreation	II Rural and eco-tourism	III Sports & outdoor activity	IV International resort tourism
Natural habitats				
Protected areas and nature parks			Strict surveillance Routing	Strict Surveillance Zoning
Biodiversity (flora, fauna, ecosystems)			Strict surveillance Off limits natural areas	
Protected landscape features				Building regulations Zoning
Natural resources				
Air quality				Public transport Limited car access
Water quality and conservation				Strict control over water use
Soil and land-use quality			No access to vulnerable areas	
General environmental sustainability				
Transport (Energy efficiency)			Use of energy efficient devices, no motorised sports	Public transport, no new access roads
Waste generation				Strict control of activities

Priority	Monitoring indicators	Unit	2012	2013	2014	2015	2016
I. Improvement and development of technical infrastructure	Settlements on water shortage	%	90				
	Water losses (potable)	%	60				
	Population (settlements over 2000 PE) connected to sewerage system	%	70				
	Population (settlements over 2000 PE) connected to WWTP	%	70				
	Road and street network in good condition (surface)	%	30				
	Settlements provided with telephone lines	%	87				
	Population with interrupted power supply	%	5				
	Population connected to District heating system (Vratsa town)	%	70				
II. Development of effective agricultural sector	Established family farms	Number					
	Contaminated lands due to agricultural activities	ha					
III. Restructuring and development of the industry	Restructured enterprises	Number					
	New established small and medium enterprises	Number					
	Contaminated lands due to industrial activities	ha					
	Emissions in the air above the MAC	Number					
	Emissions in the waters above the MAC	Number					
IV. Improvement of the environment and sustainable development	Waste disposed at the regional landfill	%	80				
	Reclaimed dump sites	Number					
	Population with organized waste collection and transportation	%	80				
	Composted waste	%	0				
	Recycled waste	%	0				
	Population served by trolley bus lines (Vratsa town)	%	50				
	Power consumption - street lighting	kWh					
Heat consumption in municipal buildings	Gcal						
V. Development and upgrade of the social infrastructure	Municipal buildings for rehabilitation:	Number					
	Hospitals	Number					
	Schools	Number					
VI. Non-manufacturing sector	Kindergartens	Number					
	Cultural, architectural and historical sites for repair	Number					

Findings and recommendations for upgrading the Strategy Plan

Findings

- *National environmental objectives relatively well taken into account;*
- *Most of the measures under Priority 2 are formulated as objectives, which makes them useless;*
- *There are objectives without measures*
- *Tourism development is translated into a single project despite the big potential of the area.*

Recommendations for improvement of the 2000-2006 Strategy Plan of the Municipality of Vratsa

- *Take into account the conditions set in the tables under point 6.1 when implementing the strategy;*
- *Use the proposed (see point 7) monitoring indicators to follow achievement of strategic and environmental objectives;*
- *Use the tourism development alternatives for the elaboration of the relevant objective in the Strategy Plan.*
- *Formulate specific projects for the tourism development in the municipal strategy for the next time period.*

Recommendations for improvement of the planning process

- *Integrate environmental issues in the planning process and organize a working exchange between planning team and assessment environmentalists in order to incorporate environmental objectives in the planning process;*
- *Discuss the results of the environmental assessment with the experts who prepare the plan or program at each planning stage;*
- *Use the assessment to propose feasible modifications to the plan being drafted to optimize the environmental performance;*
- *Involve all stakeholders (public, NGOs, business etc.) at the earliest possible stage of planing and environmental assessment;*
- *Use the results of environmental assessment in the early stages of planing before final decisions are made to improve the plan (informed decision making);*
- *Use, when feasible, specific targets for achieving objectives to be able to monitor implementation;*
- *Use lessons learned during implementation of a plan/program in the preparation of the plan/program for the next period;*
- *Define priorities and formulate objectives on the basis of SWOT analysis.*

5.3 Environmental Assessment of the Regional Development Plan of Czech Republic

Summary

The Strategic Environmental Assessment (SEA) of the draft Regional Development Plan of the Czech Republic was undertaken in the period July 1999-January 2000. The assessment was organised within the planning process for the future use of EU Structural Funds in the Czech Republic. It was based on the combination of SEA provisions in the Czech EIA law, and on the general guidelines for SEA provided for in programming documents for EU Structural Funds. The assessment incorporated both policy appraisals as well as impact assessment elements. The SEA documentation was elaborated by the Regional Environmental Centre (REC) for Central and Eastern Europe (CEE) in co-operation with the Czech Academy of Science.

Regional Development Plan of the Czech Republic (RDP-CR) ¹⁾

RDP-CR aims to provide a planning framework for the use of relevant EU financial instruments in six sectors and eight NUTS II regions. It was initiated by Czech Government Resolution No. 40/1999 on “Establishing Conditions for the Use of European Union Structural Funds and Cohesion Fund”. Elaboration of the RDP was co-ordinated by the Ministry for Regional Development and the National Programming Committee for Economic and Social Cohesion (NPC-ESC).

The first draft RDP-CR was prepared for the period 2000-2006. It analysed the key regional development issues in the relevant economic sectors, and outlined key priority measures that could be supported in 2000-2006 within Pre-accession Instruments and, after EU accession, within the EU Structural and Cohesion Funds. The first draft RDP-CR consisted of:

- Introductory analysis of socio-economic issues and determination of priority areas for interventions under Pre-accession Instrument and Structural Funds;
- Six sectoral consultation documents (Human Resources, Industry, Transportation and Communications, Environment, Rural Development and Multi-functional Agriculture, Tourism). Sectoral consultation documents have been drawn up by the relevant ministries in co-operation with a rather limited number of economic partners;
- Eight regional consultation documents parts were elaborated (eight - based on the statistical division of all eight NUTS- II regions in CR). Regional consultation documents were elaborated by the Regional Management and Monitoring Committees that included key regional stakeholders in the NUTS-II regions. Regional consultation documents were based heavily on the general regional development strategies in the respective regions;
- annexes outlining monitoring indicators for the implementation of RDP-CR.

The elaboration of the RDP-CR attracted the considerable interest of non-governmental organisations (NGOs), which have demanded since late 1998 that a thorough SEA is undertaken in relation to it based on the relevant requirement of the Czech EIA Act as well as requirements for the ex ante evaluation of programming documents for EU Structural Funds. Based on these requests, a

¹⁾ *Can be referred to also as a National Development Plan of the Czech Republic.*

formal agreement on the initiation of the SEA for RDP-CR was reached between the Ministry of Environment and the Ministry of Regional Development. The SEA of the draft RDP-CR was subsequently officially initiated by the Czech Government resolution No. 714/1999.

Legislative framework

The SEA of the first draft RDP-CR CR for 2000-2006 was undertaken on a combined procedure that incorporated provisions of two principal legislative norms, namely:

- The Czech EIA Act, which lays down in Article 14 general procedures for the environmental impact assessment of governmental strategies; and
- The proposed EC regulation (EC/98/0090) on the EU Structural Funds in the period 2000-2006.

SEA Provisions of the Czech EIA Act

Article 14 of the Czech Environmental Impact Assessment Act (No. 244/1922 Coll.) deals specifically with the assessment of “concepts”. It defines a 'concept' as one submitted and approved at the level of the central authorities of State Administration in the fields of energy, transport, agriculture, waste treatment, mining and processing of minerals, recreation and tourism. Under the Act, territorial planning documentation and the General Water Management Plan are also 'concepts'. Art. 14 stipulates that the above “concepts” cannot be approved before the Ministry of Environment issues its SEA Standpoint to the concept using the following procedure:

1. The proponent of the concept must prepare an SEA Documentation. The scope of the assessment is pre-defined in the Annex 3 to the EIA Act outlining the general scope of EIA Documentation. SEA Documentation should - as appropriate - address the key environmental impacts, as pre-determined for the project-level EIA Documentation (see Box 1 for details).
2. proponent must make the concept and its SEA Documentation publicly available for 60 days of review. The specific procedure for public notification and collection of comments is jointly determined - on an ad-hoc basis - by the proponent and the Ministry of Environment.
3. proponent must provide the concept, its SEA Documentation and attendant public comments to the Ministry of Environment, which in turn must issue within 30 days its Standpoint to the concept.

Box 1: Contents of the SEA Documentation according to the Czech EIA Act

Annex 3 of the Czech EIA Act, which determined the contents of the EIA Documentation request assessment of the following potential environmental impacts (including direct, indirect, secondary, cumulative, synergetic, short-term, temporary, long-term and permanent impacts):

Impact on inhabitants (*health risks, impacts on health and well-being of local population, social and economic consequences*)

Impact on eco-systems, their components and functions (*impact on air, climate, water, soil, territory, geological conditions, flora, fauna*)

Impacts on anthropogenic systems, their components and functions (*impact on constructions, rural areas, culture values*)

Impact on the structure and functional utilization of the territory (*impact on transport, infrastructure development, aesthetic quality of the territory, recreational utilization of the landscape*)

Other impacts

Large-size impact on the landscape (*environmental capacity, overall affect of all spatial impact and factors*)

The SEA Documentation should also indicate the likely significance of the above impacts, and should also suggest measures for their prevention, elimination, minimization or compensation.

SEA Provisions in the relevant EC Regulations and guidance on the EU Structural Funds

Requirements for all RDPs and other programming documents for EU Structural Funds are defined by the relevant regulations on the use of EU Structural Funds in the given programming period. The proposed EC/98/0090 regulation on the Structural Funds for period 2000-2006 included a request in 1998 that countries applying for Structural Funds provide “ex ante” evaluation of RDPs (evaluation of specific economic, environmental and social implications of RDP), which also includes assessment of their potential environmental impact¹). These general requirements were further developed in:

- Vademecum, Plans and Programming Documents for Structural Funds 2000-2006 (DG XVI, 1999), which requests countries to fully integrate environment assessment outcomes into RDPs;
- Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds, (DG XI, 1998), which provides the general procedural and methodological guidance for the SEA of RDPs in EU member states. The Handbook advocates for assessments carried out via a policy-appraisal approach: the proponent and the environmental authorities are advised to first define environmental goals and targets for the RDP, and subsequently measure their achievement within the relevant programming stages of the RDP. The Handbook also defines the 10 principles of sustainable development than can be used to guide development of environmental goals and targets for each individual RDP (see Box 2 for details).

Although the elaboration of RDPs in Central-East Europe (CEE) is not in a strict sense governed by the above regulations and other guiding EU documents, it is highly desirable that all PHARE countries simulate, to the maximum possible degree, the standard operations of EU Structural Funds.

Box 2: The principal criteria of sustainable development defined by the EC Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds

The Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds issued by the European Commission - DG Environment in 1998 defines the following set of principal goals of sustainable development that may be relevant to operations of EU Structural Funds:

1. Minimum consumption of the use of non-renewable sources
2. Consumption of renewable sources within their regeneration capacity.
3. Environmentally friendly management of wastes and pollutants
4. Protection and support of conditions for fauna, flora, and landscape)
5. Conservation and improvement of soil and water sources quality
6. Conservation and improvement of historical and cultural heritage
7. Conservation and improvement of the quality of urban environment
8. Protection of atmosphere (global warming)
9. Development of environmental consciousness, education
10. Support for public participation in decision-making regarding sustainable development

Approach and Methodology

Methodology

The SEA of the RDP-CR was governed by two distinct legal norms: the Czech EIA Act and the proposed EC regulation (EC/98/0090) on the Structural Funds for period 2000-2006.

The SEA of the RDP-CR therefore combined two approaches toward environmental assessment. The first assessment was based on the appraisal of the proposed RDP's compliance with the 10 principles of sustainable development as defined in the EC Handbook (DG XI, 1998). The second assessment of the RDP focused on the evaluation of potential environmental impacts according to the Czech EIA Act.

In addition, the proposed sectoral priorities and RDP measures were reviewed against the goals and measures suggested for each individual sector by the relevant national environmental protection policies and programmes (e.g. the State Environmental Policy and the State Programme of the Protection of the Nature and Landscape).

The above assessments were carried out only on the level of qualitative assessments. This approach was chosen for two reasons, including the time constraints and general nature of the RDP (many proposed measures in the RDP were very general and referred to a broad scale of possible activities and related impacts). The intention behind qualitative assessment was that a sufficiently large and qualified SEA team would be able to arrive to quick and qualified expert conclusions on the proposed RDPs. In order to simplify and unify the assessment of each individual component of the RDP, a modified Leopold matrix was developed. The matrix consisted of the following assessments:

	Achievement of sustainable development principles	Assessment of significance of possible environmental impacts	Suggested mitigation and compensation measures	Uncertainties in the assessment and other comments
	<i>10 Sustainable development goals</i>	<i>Six categories of environmental impacts</i>	<i>Reformulation of measures or conditions for its implementation</i>	
Proposed measure 1				
Proposed measure 2				
Proposed measure 3				
Proposed measure 4				
Proposed measure 5				

Each expert filled in the matrix by using the following symbols to illustrate the potential environmental impact of the proposed measure, or its relation to sustainable development goals:

- ++ highly positive
- + positive
- 0 indifferent
- negative
- highly negative
- x irrelevant (not applicable)
- ? missing background data

The goal of this assessment was to suggest environmental modifications to the RDP for the planning teams. The main purpose was therefore not only assessment, but also the formulation of suggestions in to initiate dialogue between the members of the SEA and RDP planning teams.

Position of the SEA Team and its mandate within the planning process

The Ministry of Regional Development sub-contracted the preparation of the SEA Documentation to the REC, which in turn established - in cooperation with the Czech Academy of Sciences - an SEA team to assess the entire RDP. The team consisted of 17 experts - approximately half of the team members were recruited from EIA consultants or environmental scientists; the other half of the SEA team was recruited from environmental NGOs ¹⁾.

Each SEA team member was given a role to assess a specific part of the RDP (either sectoral or regional). The duty of these SEA experts was twofold: their first task was to assess the given part of the RDP-CR using the common methodology. Their second task was to communicate their findings to planning teams

¹⁾ When analysing retrospectively the quality of individual assessments, it can be concluded that there was no difference in the quality between assessments performed by the “professional” and “NGO-based” experts.

with in order to provide recommendations for the environmental optimisation of the planning documents.

The original intention was that the entire SEA team would meet regularly to discuss the key issues arising from the SEA (e.g., difficulty with the individual assessments, lack of acceptance of their recommendations by the planning teams, etc.) Given the time constrains and the extent of the assessment, this goal has never materialized, and the SEA team actually met only once to discuss the proposed methodology.

Public participation

The preparation of RDP was based on the so-called “partnership principle”, which enables a limited set of partners (i.e., state administration, local government, NGOs, academic institutions and business) to provide input into the planning of RDP. In order to ensure maximal transparency, in addition to “partnership” discussions during RDP planning, the SEA team ensured proper publishing of the draft RDP-CR and open public commenting. The specific approach employed within the SEA process were agreed by the Ministry of Environment and Ministry of Regional Development, and included Notification of the general and concerned publics, as well as the gathering of public comment.

The general and concerned publics were notified through:

1. passive notification of the general public was done through national and regional media and the Internet (mainly through the Ministry of Regional Development's web site)
2. active notification of the concerned public was targeted at environmental NGOs and relevant state authorities. The relevant state authorities, besides being notified themselves, were also asked to make the notification documents available to the wider public)

Public comments were gathered through:

- submission of written comments (through direct mail, fax and e-mail);
- two public hearings were held at the national level (the first public hearing was an SEA scoping meeting, the second one was review of SEA Documentation);
- Three public hearing workshops were held at the regional level (during the review of SEA Documentation).

Steps of the SEA

Initiation of SEA

The SEA of the RDP-CR was officially initiated by Czech Government resolution No. 714/1999, which formalized agreement between Ministry of Environment and the Ministry of Regional Development on the initiation of the SEA. This decision came when the first draft RDP (the regional and **sectoral** portions) was elaborated.

Initial publicizing of the RDP-CR

Draft RDP-CR was publicized and a public discussion initiated in order to identify critical points and issues to be considered within the assessment

- At the beginning a press conference was organized, which included the deputy ministers of the Ministry of Environment and the Ministry for Regional Development (MMR CR), to publicize and initiate the assessment of the draft RDP;
- Documents were introduced on the Internet, and a specific e-mail address was provided for the submission of comments regarding the possible environmental impact of the first draft RDP-CR.

For the publicizing of the first draft RDP-CR on Internet, a MMR CR web page was used, in addition to other relevant web pages. The Internet page included contact information for submitting public comments of regarding the environmental impact of RDP. The state administration authorities were addressed via direct mail, including an information leaflet for public.

Statement on the scope of the assessment of the regional and sectoral documents

Based on the expert findings and public comments, a scoping statement for the SEA was developed. The scoping phase of the SEA took place despite the fact that it is not obligatory under Czech legislation.

Elaboration of SEA Documentation

Each SEA team member was asked to assess a specific part of the RDP (either sectoral or regional) and to communicate their findings to planning teams in order to provide recommendations for environmental optimisation of the planning documents. The acceptance of comments from the SEA team differed greatly. Some SEA team members managed to push through reformulations of the RDP, while other had quite disappointing contacts with the planning teams, including instances when comments from the SEA were not taken fully into account by the planning teams.

SEA Documentation summarized the key findings by all SEA team members. It consisted of the following documents:

- Assessment of the comprehensive part of the first draft RDP-CR;
- Assessment of the informative set of the monitoring and evaluation indicators;
- Assessment of the sectoral parts;
- Assessment of the regional parts.

Publicizing the draft RDP-CR and SEA Documentation

The draft RDP-CR, including all annexes and the SEA Documentation for RDP-CR, was promulgated for public comment for a 60 days (in accordance with § 14 of the Act. 244/1992 Coll.). Since the Czech EIA Act provided only vague public participation requirements (e.g., details of public notification), a written agreement was made between the Ministry of Regional Development and the Ministry of Environment, regarding the means of notification and public comments. The agreement was signed by the deputy ministers of both ministries.

Public discussion involved a national public hearing and regional meetings in the form of public hearings or workshops. All the public comments received either in writing or through the public

hearings were recorded and considered by the SEA Team. A report summarizing the SEA team's responses to public comments was then put on Internet.

SEA first draft RDP-CR Documentation

SEA Documentation, the overview of public comments, and of the SEA Team's responses to them were submitted to the Ministry of Environment. The Ministry of Environment issued its official SEA Standpoint to RDP-CR, which generally approved the planning document and outlined a set of measures governing the further development and implementation of RDP-CR.

Future Recommendations

A portion of the SEA team internally evaluated the effectiveness of the SEA for RDP, as well as a set of critical elements which should be used to govern the next SEAs for RDP-CR. These elements were then addressed in the SEA Methodology for Regional Development Policies, which was developed under the auspices of the Ministry of Environment and the Ministry of Regional Development in 2001.

The key critical elements for an effective SEA of RDP (and of related documents) are:

1. The SEA should start as early as possible within RDP planning. The SEA should run parallel to the RDP planning process and should provide input into all stages of RDP reformulation. This would increase efficiency of both the assessment and the planning, and would minimize delays and conflicts which usually occur when SEA is undertaken in the late stages of the planning process (e.g. when the draft plan is ready).
2. More user-friendly means should be employed for notification, making the SEA Documentation accessible, and managing public comments. Standard public hearings did not prove effective since their structure does not enable a detailed, substantive discussion of strategic documents. Conferences and workshops may be used to facilitate an interactive dialogue among planners, the SEA team and the public concerned.
3. The SEA Team should have a clear mandate establishing its position within the RDP planning team. SEA team members should be allowed to take part and communicate with the developers of the document.
4. The SEA of RDP, which serves as a basic strategic planning document for the socio-economic development of an entire country, is quite an extensive process. The SEA Team should have very good system for effective consultation among all members of the SEA Team (sectors, regions). The entire SEA team should meet regularly to co-ordinate their assessments and evaluate the relationships between the regional and sectoral parts of RDP.
5. The draft RDP-CR outlined a general implementation scheme and monitoring/review systems. The next round of the SEA for RDP should pay equal attention to the formulations of strategic interventions, as well as the quality of RDP implementation. The SEA should make

RDP more explicit. It should also suggest clear and transparent indicators for monitoring RDP implementation.

6. The SEA Team should coordinate its activities with teams preparing other parts of “ex ante” evaluation of RDP (clarity of RDP, economic impacts, etc.). Co-ordination between the SEA and “ex ante” evaluation (making sure that they respect each other) can significantly improve the position of the SEA within the overall RDP planning.

5.4 Dutch example: Five cases of tiering

The application of the EU Directive 2001/42/EC on the assessment of environmental effects of certain plans and programmes is expected to be of benefit to EIA at the project level. The five Dutch cases which are presented below, are analyses and descriptions of the relationship between application of environmental assessment at the level of policies, plans and programmes (SEA), and EIA for projects. These cases are part of a study that has been commissioned by the Dutch Ministry of Environment with support of the European Union.

1) High Speed Rail (HSR) Zuid, the Netherlands

The HSR Zuid is a major new high speed rail line from Rotterdam to the Belgian border, and linking with the Belgian and French HSR networks. Decisions concerning its route through the Netherlands were made in the following tiers.

Indirectly, decision-making about High Speed Rail in The Netherlands began with the approval of a plan for the development of the national airport (the so-called PKB Schiphol, which was based on an SEA). The airport plan was partly based on the assumption that, part of the increase of medium-range travelling should be accommodated by a new HSR system, and it increased the feasibility of an HSR.

Environmental assessment of the HSR-Zuid began through an international SEA of the regional High Speed Rail network, between Paris, Brussels, Koln, Amsterdam and London (PBKAL-project). A document entitled 'Thematic study of the PBKAL project' was prepared on behalf of the Belgian railway company, and co-financed by the European Commission (this case is described in Mens & Ruimte Consultants, 1997). This SEA considered the impacts of transport (modal) alternatives for an HSR. It was not directly connected with a PPP.

Government policy on allowable impacts, also operating at the highest level, is aimed at reducing the environmental impacts of railways. Noise standards have been introduced together with compensation for local impacts on biodiversity. Many of these policies had been subject to some form of environmental assessment and participation.

The first level of actual decision-making about the HSR-Zuid was the Spatial Planning Key Decision (PKB) about the HSR in the Netherlands. In this decision, it was decided *whether* rail capacity between the Netherlands and the South was necessary, and *what mode* was most appropriate. There was a choice between making use of the existing railway network at normal speed, constructing a new high speed railway, or a completely different mode.

The information in the PKBAL SEA was used again in a mandatory SEA for the PKB. The proposed route of the HSR was roughly determined (*where*), and the impacts of many indicative routes were compared. The vertical alignment was also taken into account.

In a second tier of decision-making (Route Decision, TB), the selected route was developed in detail. Detailed alignment and the design of mitigation and construction methods were determined. A voluntary EIA was undertaken at this level.

Summary

Tier	Environmental Assessment	Considered Alternatives
1. Spatial Planning Key Decision (PKB)	mandatory (acc. EIA Decree)	whether, what type, where, how (indicative)
2. Route Decision (TB)	voluntary (acc. EIA Decree)	where, how (detailed)

2) Wind Energy Planning Zeeland, The Netherlands

The first tier of this case study was the Structure Scheme Electricity Supply (SEV). The decision-making process of the SEV followed a procedure defined in physical planning legislation, the 'spatial planning key decision' (PKB). The EIA Decree required an EIA (it is referred to as an SEA in this report, because it is not the last (project) tier of decision-making: the formal EIA procedure is applied on a PPP).

The main decisions and alternatives in the SEV with respect to wind energy were:

- A production target of 1000 MW of wind energy in the year 2000 and 2000 MW in the year 2010. The Province of Zeeland, for example, was given a target of 250 MW. These figures were based on an assessment of alternative power supply scenarios;
- alternative site selection strategies for wind energy parks and turbines.

The second tier was the Regional Plan of the Province of Zeeland, which provides for a wind power capacity and legally requires an SEA (according to the EIA procedure). The SEA was to assist in site selection for wind energy parks. This SEA was still being conducted early in 1998.

The third tier involved the development of future individual wind energy projects. Installation of wind turbines requires a municipal Local Plan for the site, as well as an environmental permit. Wind energy parks require an EIA if the number of turbines or their capacity exceed the legal limit.

Summary

Tier	Environmental Assessment	Considered Alternatives
1. Structure Scheme Electricity Supply	mandatory (acc. to EIA procedure)	whether, how (generic)
2. Regional Plan of Zeeland	mandatory (acc. to EIA procedure)	where
3. Local Plans	voluntary (acc. to EIA procedure)	where (detailed), how
4. Environmental Permits	no	not applicable

3) VAM Bioreactor, The Netherlands

The first tier was the second Ten-Year Programme Waste Management (10JPA). This is a national level, non-binding plan. It included policies and guidelines for the planning of waste management projects. A voluntary SEA (using the EIA procedure) was undertaken (1996).

The SEA studied the following alternatives:

- scenarios for reduction of waste processing needs with a relatively adverse environmental impact (prevention, recycling);

- scenarios for development of waste treatment and disposal capacity. Several technological systems were compared.

The second tier was a proposal by the largest waste treatment company in The Netherlands, the VAM (1997). It concerned a plant for composting the green fraction of household waste. The VAM preferred the so-called Bioreactor-technique. An EIA was required, which focused on alternative waste treatment technologies.

Summary

Tier	Environmental Assessment	Considered Alternatives
1. Ten-Year Programme Waste Management	voluntary (acc. to EIA procedure)	whether, what type
2. Environmental permit Bioreactor project	mandatory (acc. to EIA procedure)	what type

4) International Business Park Friesland (IBF), The Netherlands

In its desire to stimulate economic development and employment, the Province of Friesland decided to establish a large scale business park to attract internationally operating companies; the International Business Park Friesland (IBF).

The Provincial authorities selected a site in the Municipality of Heerenveen and the local authorities informally approved the plan. The industries admitted to the business park included chemical manufacturers, automobile supplies companies and consumer goods producers. No SEA was conducted.

At the municipal level the Local Plan (Bestemmingsplan) for the site had to be approved. Its contents are binding for private enterprises, the general public and the municipality itself. According to the EIA Decree, the Local Plan required an SEA (because the IBF covered more than 200,000 square metres). After the legal procedures for Local Plan for the site and SEA had been started, local residents started to make objections to the site and, supported by politicians, threatened to delay decision-making at the local level. One of their objections was that no SEA had been conducted for site selection, and other sites could in fact be more suitable.

The Province of Friesland was not willing to negotiate on alternative sites within the framework of the SEA at a local level. It would be more efficient to select a site, set up an SEA, applying the same legal procedures as for EIAs, formalise the selected site by the Regional Plan and then continue at a local level with development of the details of the selected site. The procedures at local level were therefore suspended until the Regional Plan had for this site had been approved. It was not a legal obligation to do that before approval of the Local Plan for the site.

In the site selection SEA, four sites were compared. The site in Heerenveen ranked second on environmental criteria. However, overriding arguments with no connection to possible environmental impacts, led the Province to stick to the original site at Heerenveen, and not to select the location that ranked first on environmental criteria.

Once the IBF was approved, the individual enterprises might also require project EIAs. At the time, however, names of companies candidate for admittance to the IBF were unknown.

Summary

Tier	Environmental Assessment	Considered Alternatives
1. Industrial development policy Friesland	no	not applicable
2. Regional Plan	voluntary (acc. to EIA procedure)	where
3. Local Plan	mandatory (acc. to EIA procedure)	what type, how (whole business park)
4. Environmental permits	some mandatory (acc. to EIA procedure)	how (individual industries)

5) Policy Plan Drinking Water Supply (BDIV), The Netherlands

A national water supply policy was formulated in the (third) 'Policy plan drinking water and industrial water supply' (BDIV). This is the highest tier of decision-making in this case study. The BDIV preparations followed a legal procedure defined in spatial planning legislation, the 'spatial planning key decision' (PKB). An EIA was required (in this report referred to as an SEA, because the formal EIA procedure was applied on a PPP). When finally the initiator decided that the BDIV would not need the status of a PKB, he continued the SEA on a voluntary basis.

The final BDIV included the following main policies:

- sustained priority for production of sufficient drinking water of good quality;
- continuation of strict requirements for drinking water production;
- enforcement of quality assurance and environmental management systems and procedures during production and distribution;
- use of a number of policy instruments to curb the increase of water demand in order to reduce the environmental impact of water supply activities;
- avoidance of natural areas in site selection to minimise impact of land use and soil dehydration;
- revision of the formal planning system for water supply (tiered system and methods for trade-off).

At the second tier, the Water Supply Company Midden Nederland (WMN) had to shift its water intake from groundwater to surface water (this was in response to a provincial target to reduce soil dehydration by 20% in 2000). The seven projects that were necessary to realise this shift were jointly submitted to an EIA procedure. WMN conducted the EIA in three phases:

1. assessment and decision with regard to the method for water extraction (how question)
2. assessment and decision with regard to the site selection for (a) extraction of bankfiltration, (b) infiltration and extraction of surface water and (c) reduction of present ground water extraction (where question), and
3. assessment and decision with regard to the design of chosen sites (how question)

The intermediate decisions, after stage 1 and 2, were made internally by the WMN. Only the result and the overall justification were (as permit applications and in the EIA), submitted to the provincial authority for approval. External parties were consulted in all three EIA phases.

Summary

Tier	Environmental Assessment	Considered Alternatives
1 National Policy Plan Drinking Water Supply	voluntary (acc. to EIA procedure)	whether, what type, how
2 Seven environmental permits for water production facilities	mandatory (acc. to EIA procedure)	whether, what type, how, where

ANNEX 1: GLOSSARY AND ACRONYMS

GLOSSARY

Alternatives	a range of strategic options which can best achieve the plans and programmes' objective(s) at the lowest cost and/or greatest benefit to the environment and sustainability, or which achieves the best balance between conflicting objectives (for example: demand reduction, alternative location, different types of development which can achieve the same objective)
Coordination	Discussion and agreement
Cumulative impacts	the added-up impacts (positive and negative, direct and indirect, long-term and short-term impacts) arising from a range of activities throughout an area, where each individual effect may not be significant if taken in isolation. Such impacts can arise from the growing volume of traffic, the combined effect of a number of agriculture measures leading to more intensive production and use of chemicals, etc. Cumulative impacts include a time dimension, since they should calculate the impact on environmental resources resulting from changes brought about by past, present and reasonably foreseeable future actions
Proponent of plan or programme	The person or body, who finances the plan or programme
Environmental Authorities	all governmental bodies and agencies responsible for developing environmental policy and legislation, and which play a role in its implementation and monitoring
Environmental Impact Assessment	a procedure for identifying the environmental effects of investment proposals. This is now a legislative procedure to be applied to the assessment of the environmental effects of certain public and private investment proposals, which are likely to have significant effects on the environment
Horizontal Integration	harmonisation of national policy, which can be reached through improved communication between the different ministries
Impact	Every impact on the environment, that may arise from the implementation of the investment proposal for construction, activity, or technology, including on the people's health and safety, flora, fauna, soil, air, water, climate, landscape, historical monuments, and other material valuables or the interaction between these factors.
Impact Matrix	in the context of environmental assessment of plans and programmes, a multi-dimensional array used to show the effects of policy, plans or programmes on the environment
Mitigation	action taken to prevent, avoid or minimise the actual or potential adverse impacts of a policy, plan, programme or project. It may involve abandoning or modifying a proposal, relocating it, changing the focus from new development to improved performance of existing facilities, etc.

Monitoring	a combination of observation and measurement for the performance of a plan or programme and its compliance with environmental policy and legislation against a set of predetermined indicators, criteria or policy objectives, e.g. compliance with environmental policy
Objectives	political statements about the desired effects of a plan (or other actions)
Plans and programmes	Plans, programmes, strategies and other similar documents and their amendments, which: <ul style="list-style-type: none"> a) are required by legislative, regulatory or administrative provisions; b) are subject of preparation and/or acceptance of public body at national, regional or local level or which are prepared by a given body for acceptance through a procedure approved by the Council of ministers or Parliament.
Policy	a general course of action or proposed overall direction that a government is, or will be, pursuing and which guides ongoing decision-making
Spatial Plans	Plans for spatial development of municipal territories as whole or separate parts of them or settlements with their lands.
Investment proposal	Preliminary (Pre-investment) studies or the ToR for design of new construction, activity or technology and significant change in a certain activity.
Scoping	deciding which issues should be considered in an environmental assessment
Screening	deciding whether a plan or programme needs an environmental assessment
Strategic Environmental Assessment	a systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure that they are fully included and appropriately addressed at the earliest possible stage of decision-making in the same way as with economic and social considerations; as a result of Directive 2001/42/EC Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 21 July 2004
Target	a specific goal or objective expressed in quantitative terms: can be either physical or financial
Tiering	distinguishing different policies, plans and programmes which are prepared consecutively, and which influence one another
Vertical Integration	a well established co-operation structure between government parties

ACRONYMS

EA	Environmental Assessment
EIA	Environmental Impact Assessment
EPA	Environmental Protection Act (Bulgaria)
MAF	Ministry of Agriculture and Forestry
MoE	Ministry of Economy
MoEER	Ministry of Energy and Energy Resources
MoEW	Ministry of Environment and Water
MoTC	Ministry of Transport and Communications
MRDPW	Ministry of Regional Development and Public Works
NGO	Non Governmental Organisation
P/P	Plan/Programme
REWI	Regional Environment and Water Inspectorate
SEA	Strategic Environmental Assessment
UN/ECE	United Nations Economic Commission for Europe
IFI	International Financing Institutions

ANNEX 2: EU DIRECTIVE 2001/42/EC ON THE ASSESSMENT OF THE EFFECTS OF CERTAIN PLANS AND PROGRAMMES ON THE ENVIRONMENT

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission(1),

Having regard to the opinion of the Economic and Social Committee(2),

Having regard to the opinion of the Committee of the Regions(3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty(4), in the light of the joint text approved by the Conciliation Committee on 21 March 2001,

Whereas:

(1) Article 174 of the Treaty provides that Community policy on the environment is to contribute to, inter alia, the preservation, protection and improvement of the quality of the environment, the protection of human health and the prudent and rational utilisation of natural resources and that it is to be based on the precautionary principle. Article 6 of the Treaty provides that environmental protection requirements are to be integrated into the definition of Community policies and activities, in particular with a view to promoting sustainable development.

(2) The Fifth Environment Action Programme: Towards sustainability - A European Community programme of policy and action in relation to the environment and sustainable development(5), supplemented by Council Decision No 2179/98/EC(6) on its review, affirms the importance of assessing the likely environmental effects of plans and programmes.

(3) The Convention on Biological Diversity requires Parties to integrate as far as possible and as appropriate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans and programmes.

(4) Environmental assessment is an important tool for integrating environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment in the Member States, because it ensures that such effects of implementing plans and programmes are taken into account during their preparation and before their adoption.

(5) The adoption of environmental assessment procedures at the planning and programming level should benefit undertakings by providing a more consistent framework in which to operate by the inclusion of the relevant environmental information into decision making. The inclusion of a wider set of factors in decision making should contribute to more sustainable and effective solutions.

(6) The different environmental assessment systems operating within Member States should contain a set of common procedural requirements necessary to contribute to a high level of protection of the environment.

(7) The United Nations/Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context of 25 February 1991, which applies to both Member States and other States, encourages the parties to the Convention to apply its principles to plans and programmes as well; at the second meeting of the Parties to the Convention in Sofia on 26 and 27 February 2001, it was decided to prepare a legally binding protocol on strategic environmental

assessment which would supplement the existing provisions on environmental impact assessment in a transboundary context, with a view to its possible adoption on the occasion of the 5th Ministerial Conference “Environment for Europe” at an extraordinary meeting of the Parties to the Convention, scheduled for May 2003 in Kiev, Ukraine. The systems operating within the Community for environmental assessment of plans and programmes should ensure that there are adequate transboundary consultations where the implementation of a plan or programme being prepared in one Member State is likely to have significant effects on the environment of another Member State. The information on plans and programmes having significant effects on the environment of other States should be forwarded on a reciprocal and equivalent basis within an appropriate legal framework between Member States and these other States.

(8) Action is therefore required at Community level to lay down a minimum environmental assessment framework, which would set out the broad principles of the environmental assessment system and leave the details to the Member States, having regard to the principle of subsidiarity. Action by the Community should not go beyond what is necessary to achieve the objectives set out in the Treaty.

(9) This Directive is of a procedural nature, and its requirements should either be integrated into existing procedures in Member States or incorporated in specifically established procedures. With a view to avoiding duplication of the assessment, Member States should take account, where appropriate, of the fact that assessments will be carried out at different levels of a hierarchy of plans and programmes.

(10) All plans and programmes which are prepared for a number of sectors and which set a framework for future development consent of projects listed in Annexes I and II to Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment(7), and all plans and programmes which have been determined to require assessment pursuant to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna(8), are likely to have significant effects on the environment, and should as a rule be made subject to systematic environmental assessment. When they determine the use of small areas at local level or are minor modifications to the above plans or programmes, they should be assessed only where Member States determine that they are likely to have significant effects on the environment.

(11) Other plans and programmes which set the framework for future development consent of projects may not have significant effects on the environment in all cases and should be assessed only where Member States determine that they are likely to have such effects.

(12) When Member States make such determinations, they should take into account the relevant criteria set out in this Directive.

(13) Some plans or programmes are not subject to this Directive because of their particular characteristics.

(14) Where an assessment is required by this Directive, an environmental report should be prepared containing relevant information as set out in this Directive, identifying, describing and evaluating the likely significant environmental effects of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme; Member States should communicate to the Commission any measures they take concerning the quality of environmental reports.

(15) In order to contribute to more transparent decision making and with the aim of ensuring that the information supplied for the assessment is comprehensive and reliable, it is necessary to provide that authorities with relevant environmental responsibilities and the public are to be consulted during the assessment of plans and programmes, and that appropriate time frames are set, allowing sufficient time for consultations, including the expression of opinion.

(16) Where the implementation of a plan or programme prepared in one Member State is likely to have a significant effect on the environment of other Member States, provision should be made for the Member States concerned to enter into consultations and for the relevant authorities and the public to be informed and enabled to express their opinion.

(17) The environmental report and the opinions expressed by the relevant authorities and the public, as well as the results of any transboundary consultation, should be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.

(18) Member States should ensure that, when a plan or programme is adopted, the relevant authorities and the public are informed and relevant information is made available to them.

(19) Where the obligation to carry out assessments of the effects on the environment arises simultaneously from this Directive and other Community legislation, such as Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds(9), Directive 92/43/EEC, or Directive 2000/60/EC of the European Parliament and the Council of 23 October 2000 establishing a framework for Community action in the field of water policy(10), in order to avoid duplication of the assessment, Member States may provide for coordinated or joint procedures fulfilling the requirements of the relevant Community legislation.

(20) A first report on the application and effectiveness of this Directive should be carried out by the Commission five years after its entry into force, and at seven-year intervals thereafter. With a view to further integrating environmental protection requirements, and taking into account the experience acquired, the first report should, if appropriate, be accompanied by proposals for amendment of this Directive, in particular as regards the possibility of extending its scope to other areas/sectors and other types of plans and programmes,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives

The objective of this 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, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.

Article 2

Definitions

For the purposes of this Directive:

(a) “***plans and programmes***” shall mean plans and programmes, including those co-financed by the European Community, as well as any modifications to them:

- which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and

- which are required by legislative, regulatory or administrative provisions;

(b) “***environmental assessment***” shall mean the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of

the consultations in decision-making and the provision of information on the decision in accordance with Articles 4 to 9;

(c) “*environmental report*” shall mean the part of the plan or programme documentation containing the information required in Article 5 and Annex I;

(d) “*The public*” shall mean one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.

Article 3

Scope

1. An environmental assessment, in accordance with Articles 4 to 9, shall be carried out for plans and programmes referred to in paragraphs 2 to 4 which are likely to have significant environmental effects.

2. Subject to paragraph 3, an environmental assessment shall be carried out for all plans and programmes,

(a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC, or

(b) which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC.

3. Plans and programmes referred to in paragraph 2 which determine the use of small areas at local level and minor modifications to plans and programmes referred to in paragraph 2 shall require an environmental assessment only where the Member States determine that they are likely to have significant environmental effects.

4. Member States shall determine whether plans and programmes, other than those referred to in paragraph 2, which set the framework for future development consent of projects, are likely to have significant environmental effects.

5. Member States shall determine whether plans or programmes referred to in paragraphs 3 and 4 are likely to have significant environmental effects either through case-by-case examination or by specifying types of plans and programmes or by combining both approaches. For this purpose Member States shall in all cases take into account relevant criteria set out in Annex II, in order to ensure that plans and programmes with likely significant effects on the environment are covered by this Directive.

6. In the case-by-case examination and in specifying types of plans and programmes in accordance with paragraph 5, the authorities referred to in Article 6(3) shall be consulted.

7. Member States shall ensure that their conclusions pursuant to paragraph 5, including the reasons for not requiring an environmental assessment pursuant to Articles 4 to 9, are made available to the public.

8. The following plans and programmes are not subject to this Directive:

- plans and programmes the sole purpose of which is to serve national defence or civil emergency,
- financial or budget plans and programmes.

9. This Directive does not apply to plans and programmes co-financed under the current respective programming periods(11) for Council Regulations (EC) No 1260/1999(12) and (EC) No 1257/1999(13).

Article 4

General obligations

1. The environmental assessment referred to in Article 3 shall be carried out during the preparation of a plan or programme and before its adoption or submission to the legislative procedure.

2. The requirements of this Directive shall either be integrated into existing procedures in Member States for the adoption of plans and programmes or incorporated in procedures established to comply with this Directive.

3. Where plans and programmes form part of a hierarchy, Member States shall, with a view to avoiding duplication of the assessment, take into account the fact that the assessment will be carried out, in accordance with this Directive, at different levels of the hierarchy. For the purpose of, inter alia, avoiding duplication of assessment, Member States shall apply Article 5(2) and (3).

Article 5

Environmental report

1. Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects 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 information to be given for this purpose is referred to in Annex I.

2. The environmental report prepared pursuant to paragraph 1 shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

3. Relevant information available on environmental effects of the plans and programmes and obtained at other levels of decision-making or through other Community legislation may be used for providing the information referred to in Annex I.

4. The authorities referred to in Article 6(3) shall be consulted when deciding on the scope and level of detail of the information which must be included in the environmental report.

Article 6

Consultations

1. The draft plan or programme and the environmental report prepared in accordance with Article 5 shall be made available to the authorities referred to in paragraph 3 of this Article and the public.

2. The authorities referred to in paragraph 3 and the public referred to in paragraph 4 shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure.

3. Member States shall designate the authorities to be consulted which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes.

4. Member States shall identify the public for the purposes of paragraph 2, including the public affected or likely to be affected by, or having an interest in, the decision-making subject to this Directive, including relevant non-governmental organisations, such as those promoting environmental protection and other organisations concerned.

5. The detailed arrangements for the information and consultation of the authorities and the public shall be determined by the Member States.

Article 7

Transboundary consultations

1. Where a Member State considers that the implementation of a plan or programme being prepared in relation to its territory is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the plan or programme is being prepared shall, before its adoption or submission to the legislative procedure, forward a copy of the draft plan or programme and the relevant environmental report to the other Member State.

2. Where a Member State is sent a copy of a draft plan or programme and an environmental report under paragraph 1, it shall indicate to the other Member State whether it wishes to enter into consultations before the adoption of the plan or programme or its submission to the legislative procedure and, if it so indicates, the Member States concerned shall enter into consultations concerning the likely transboundary environmental effects of implementing the plan or programme and the measures envisaged to reduce or eliminate such effects.

Where such consultations take place, the Member States concerned shall agree on detailed arrangements to ensure that the authorities referred to in Article 6(3) and the public referred to in Article 6 (4) in the Member State likely to be significantly affected are informed and given an opportunity to forward their opinion within a reasonable time-frame.

3. Where Member States are required under this Article to enter into consultations, they shall agree, at the beginning of such consultations, on a reasonable timeframe for the duration of the consultations.

Article 8

Decision making

The environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of any transboundary consultations entered into pursuant to Article 7 shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.

Article 9

Information on the decision

1. Member States shall ensure that, when a plan or programme is adopted, the authorities referred to in Article 6(3), the public and any Member State consulted under Article 7 are informed and the following items are made available to those so informed:

(a) the plan or programme as adopted;

(b) a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8 and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with, and

(c) the measures decided concerning monitoring in accordance with Article 10.

2. The detailed arrangements concerning the information referred to in paragraph 1 shall be determined by the Member States.

Article 10

Monitoring

1. Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.

2. In order to comply with paragraph 1, existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring.

Article 11

Relationship with other Community legislation

1. An environmental assessment carried out under this Directive shall be without prejudice to any requirements under Directive 85/337/EEC and to any other Community law requirements.

2. For plans and programmes for which the obligation to carry out assessments of the effects on the environment arises simultaneously from this Directive and other Community legislation, Member States may provide for coordinated or joint procedures fulfilling the requirements of the relevant Community legislation in order, inter alia, to avoid duplication of assessment.

3. For plans and programmes co-financed by the European Community, the environmental assessment in accordance with this Directive shall be carried out in conformity with the specific provisions in relevant Community legislation.

Article 12

Information, reporting and review

1. Member States and the Commission shall exchange information on the experience gained in applying this Directive.

2. Member States shall ensure that environmental reports are of a sufficient quality to meet the requirements of this Directive and shall communicate to the Commission any measures they take concerning the quality of these reports.

3. Before 21 July 2006 the Commission shall send a first report on the application and effectiveness of this Directive to the European Parliament and to the Council.

With a view further to integrating environmental protection requirements, in accordance with Article 6 of the Treaty, and taking into account the experience acquired in the application of this Directive in the Member States, such a report will be accompanied by proposals for amendment of this Directive, if appropriate. In particular, the Commission will consider the possibility of extending the scope of this Directive to other areas/sectors and other types of plans and programmes.

A new evaluation report shall follow at seven-year intervals.

4. The Commission shall report on the relationship between this Directive and Regulations (EC) No 1260/1999 and (EC) No 1257/1999 well ahead of the expiry of the programming periods provided for in those Regulations, with a view to ensuring a coherent approach with regard to this Directive and subsequent Community Regulations.

Article 13

Implementation of the Directive

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 21 July 2004. They shall forthwith inform the Commission thereof.

2. When Member States adopt the measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

3. The obligation referred to in Article 4(1) shall apply to the plans and programmes of which the first formal preparatory act is subsequent to the date referred to in paragraph 1. Plans and programmes of which the first formal preparatory act is before that date and which are adopted or submitted to the legislative procedure more than 24 months thereafter, shall be made subject to the obligation referred to in Article 4(1) unless Member States decide on a case by case basis that this is not feasible and inform the public of their decision.

4. Before 21 July 2004, Member States shall communicate to the Commission, in addition to the measures referred to in paragraph 1, separate information on the types of plans and programmes which, in accordance with Article 3, would be subject to an environmental assessment pursuant to this Directive. The Commission shall make this information available to the Member States. The information will be updated on a regular basis.

Article 14

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Communities.

Article 15

Addressees

This Directive is addressed to the Member States.

Done at Luxembourg, 27 June 2001.

For the European Parliament

The President

N. Fontaine

For the Council

The President

B. Rosengren

(1) OJ C 129, 25.4.1997, p. 14 and

OJ C 83, 25.3.1999, p. 13.

(2) OJ C 287, 22.9.1997, p. 101.

(3) OJ C 64, 27.2.1998, p. 63 and

OJ C 374, 23.12.1999, p. 9.

(4) Opinion of the European Parliament of 20 October 1998 (OJ C 341, 9.11.1998, p. 18), confirmed on 16 September 1999 (OJ C 54, 25.2.2000, p. 76), Council Common Position of 30 March 2000 (OJ C 137, 16.5.2000, p. 11) and Decision of the European Parliament of 6 September 2000 (OJ C 135, 7.5.2001, p. 155). Decision of the European Parliament of 31 May 2001 and Decision of the Council of 5 June 2001.

(5) OJ C 138, 17.5.1993, p. 5.

(6) OJ L 275, 10.10.1998, p. 1.

(7) OJ L 175, 5.7.1985, p. 40. Directive as amended by Directive 97/11/EC (OJ L 73, 14.3.1997, p. 5).

(8) OJ L 206, 22.7.1992, p. 7. Directive as last amended by Directive 97/62/EC (OJ L 305, 8.11.1997, p. 42).

(9) OJ L 103, 25.4.1979, p. 1. Directive as last amended by Directive 97/49/EC (OJ L 223, 13.8.1997, p. 9).

(10) OJ L 327, 22.12.2000, p. 1.

(11) The 2000-2006 programming period for Council Regulation (EC) No 1260/1999 and the 2000-2006 and 2000-2007 programming periods for Council Regulation (EC) No 1257/1999.

(12) Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds (OJ L 161, 26.6.1999, p. 1).

(13) Council Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain regulations (OJ L 160, 26.6.1999, p. 80).

Annex I

Information referred to in Article 5(1)

The information to be provided under Article 5(1), subject to Article 5(2) and (3), is the following:

(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;

(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;

(c) the environmental characteristics of areas likely to be significantly affected;

(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;

(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;

(f) the likely significant effects⁽¹⁾ on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;

(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;

(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;

(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;

(j) a non-technical summary of the information provided under the above headings.

(1) These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Annex II

Criteria for determining the likely significance of effects referred to in Article 3(5)

1. The characteristics of plans and programmes, having regard, in particular, to
 - the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources,
 - the degree to which the plan or programme influences other plans and programmes including those in a hierarchy,
 - the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development,
 - environmental problems relevant to the plan or programme,
 - the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).
2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to
 - the probability, duration, frequency and reversibility of the effects,
 - the cumulative nature of the effects,
 - the transboundary nature of the effects,
 - the risks to human health or the environment (e.g. due to accidents),
 - the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),
 - the value and vulnerability of the area likely to be affected due to:
 - special natural characteristics or cultural heritage,
 - exceeded environmental quality standards or limit values,
 - intensive land-use,
 - the effects on areas or landscapes which have a recognised national, Community or international protection status.

Chapter Six
Environmental Assessment and Environmental Impact Assessment

P a r t I
General conditions

Article 81

(1) Environmental assessment and Environmental impact assessments (EIA) shall be performed on plans, programmes and investment proposals for constructions, activities and technologies or changes of such, which execution is supposed to cause significant impact on the environment as follows:

1. environmental assessment is performed for plans and programmes in process of preparation and adoption by central or territorial structures of the executive power and the National Assembly
2. environmental impact assessment is performed for investment proposals for construction, activities and technologies according Annexes 1 and 2

(2) Environmental assessment and Environmental Impact Assessment aim at the integration of the environmental considerations into the whole development process and introducing the sustainable development principle in accordance with art. 3 and 9 herein.

(3) Environmental assessment of plans and programmes shall be carried out during the preparation of a plan or programme while having in mind their objectives, territorial scope and level of details in order to identify, describe and evaluate accordingly the possible impacts of the investment proposals included in such plans and programmes.

(4) The environmental impact assessment under par.1 p. 2 shall, in an adequate manner and for each case, determine, describe and evaluate the direct and indirect impacts of the investment proposals for construction, activities and technologies on human beings, biodiversity and its elements, including flora and fauna, soils, water, air, climate and landscape, bowels of the earth and material and cultural heritage and their interaction.

(5) EA of plans and programmes and EIA of investment proposals linked to the defense and national security is not carried out

(6) The EIA on investment proposals procedure is not carried out when they are adopted under another specialized law and the adoption procedure includes similar assessment and the public access to information is ensured

Article 82

(1) The assessment under art. 81 par. 1 p. 1 shall be fully compliant with the current procedures for preparation and approval of plans and programmes.

(2) The assessment under art. 81 par. 1 p. 2 could be done in compliance with the preparation of the preliminary investment research or the projected ToR and should be carried out before the project visa is issued.

(3) Where the realization of the investment proposal requires other auxiliary activities or maintenance in relation to the main subject of assessment and for which EIA is mandatory, the assessments of the individual proposals shall be combined.

(4) EA of plans and programmes is completed by Minister of Environment and Waters' or

relevant Regional Inspectorate of Environment and Water Director's statement which form and content are regulated by the Regulation under art. 90 herein. The responsible authorities for the approval and implementation of the plan or programme are to obey the statement.

(5) The investment proposals' assessment is completed by decision issued by the competent authority under art. 94 par. 1 which is mandatory for the investor. The decision is an integral part of the design permit, issued according to the Spatial Development Act.

Article 83

(1) The assessments under art. 81 par. 1 are commissioned to registered experts - Bulgarian and foreign natural persons, who should declare they have no personal interests in the implementation of the plans, programmes or investment proposals

(2) The assessment is commissioned to the experts by the authority assigning the plan or programme or by the investor for the investment proposal under art. 81 par. 1 p. 2

(3) The experts shall issue a conclusion guided by the principles of lowering the human health risks and ensuring sustainable development in compliance with the environmental quality norms effective in the country.

(4) The Ministry of Environment and Waters is registering in a public register the Bulgarian and foreign natural persons under paragraph 1, holding educational degrees on subjects acquired in higher education facilities and carrying one or more of the following activities for at least 5 (five) years out of the last 10 (ten):

1. designing;

2. working in production enterprises;

3. making of expert assessments and expertise, written consultations, environmental impact assessment reports, environmental audits or ecological analyses;

4. teaching in higher education facilities and/or scientific work;

5. control.

(5) Removal from the register shall be made of the experts for whom evidence exists that in their environmental impact assessment practices:

1. they have been three times authors of sections of environmental impact assessment reports returned for re-working during the evaluation of the contents of the report under Article 96, paragraph 6,

2. their declaration under par. 1 was legally proved false.

(6) The Minister of Environment and Water shall issue the certificate for entry into the register or for a motivated written refusal within 14 days.

(7) The certificate under par. 6 is valid for 5 years

(8) The refusal, as well as the silent refusal under paragraph 6 shall be subject to appeal before the Supreme Administrative Court within 14 days of its announcement or the end of the term under par. 6.

(9) The way and order for establishment and maintenance of the register and the procedures for application by the persons for entry in the register shall be determined with a regulation of the Minister of Environment and Waters.

P a r t I I
Environmental Assessment of plans and programmes

Article 84

(1) The competent authority on issuing the statement on Environmental Assessment of plans and programmes under art. 82 par. 3 is the Minister of environment and water or the Director of the relevant RIEW.

(2) The statement is based on the EA Report prepared by the registered experts.

Article 85

(1) The EA is mandatory for plans and programmes and their significant changes in the following sectors: agriculture, forestry, fisheries, transport, energy, waste management, water resources management and industry including mining, communications, tourism, spatial planning and land use, in cases when these sectoral plans and programmes are setting up the frame for future development of the investment proposals in Annexes 1 and 2.

(2) Local plans and programmes under par. 1 applied on small territories and insignificant changes to such plans and programmes are to be assessed when their application is considered to have significant impact on the environment.

(3) Plans and programmes linked to the national security and civil defense, as well as independent financial plans and budgets are not subject to EA.

(4) The need for carrying out EA of each proposed plan and programme and their change according the procedure described in the Regulation under art. 90 is assessed case-by-case by the Minister of Environment and water or the Director of the relevant RIEW according the following impact significance criteria:

1. The characteristics of plans and programmes having regard, in particular, to:

a) the stage to which the plan or programme sets a framework for projects and other activities, either with regard to location, nature, size and operating conditions or by allocating resources,

b) the promotion of the sustainable development and achievement of the National and Regional objectives

2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to: nature, scope, reversibility and cumulative nature of the effects; the potential transboundary effect, potential effect and human health and environment risk, the magnitude and spatial extend of the effects, the value and vulnerability of the area likely to be affected; the effects on landscapes and elements of the National Ecological Network;

3. The degree to which the plan or programme influences other plans and programmes

(5) The responsible authorities under par. 4 are issuing the statement in 3 months after the application by person assigning the plan or programme in accordance to their specifics and complexity; the motivated statement of the assessment is then publicly announced.

Article 86

(1) EA is commissioned under the terms and conditions stated in art. 83 par. 1-3 after the statement for the assessment under art. 85 par. 5 was publicly announced.

(2) The EA Report shall include the information about the level of detail in the plan or programme and the assessment methods used

(3) The EA report shall mandatory include:

1. an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes
2. the relevant aspects of the current state of the components and factors under art. 4 and 5 and the likely evolution thereof without implementation of the plan or programme
3. the environmental characteristics of areas likely to be significantly affected
4. any existing environmental problems identified at different levels which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance
5. the environmental protection objectives, established at National and international level, which are relevant to the plan or programme and the way those considerations have been taken into account during its preparation
6. the likely significant effects on the environment, including the components and factors under art. 4 and 5 and the interrelations between them
7. the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme
8. an outline of the reasons for selecting the alternatives dealt with, and description of how the assessment was undertaken including the any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information
9. a description of the measures envisaged concerning monitoring of the plan or programme's implementation
10. a non-technical summary of the EA

Article 87

(1) The person assigning the plan or programme should:

1. ensure the necessary support of the registered experts for performing consultations with the authorities interested and concerned and especially with the ones, competent about preparation and implementation of the plan or programme, subject to the EA.
2. Organise the consultations with the public and the interested parties, concerned by the plan or programme's implementation
3. Send a copy of the plan or programme and the report under art. 86 to each state likely to be affected by the implementation of the plan or programme, subject to EA
4. Organise the consultations with the state under par. 3

(2) The results of the consultations are inscribed in the EA Report and are taken into account in the Minister's or RIEW Director's statement

Article 88

(1) The statement under art. 82 par. 4 and its reasons compulsory include the motivation for the decision on the alternative chosen regarding the environment and the envisaged measures under art. 89

(2) The statement under par. 1 is publicly accessible which includes the national public, the parties interested and concerned and every state that is likely to be affected by the plan's or programme's implementation

Article 89

The implementation monitoring and control measures are to be agreed between the Minister of Environment and Waters or the relevant RIEW Director and the responsible authority regarding the plan's or programme's implementation.

Article 90

(1) the terms and conditions as well as the methods for carrying out the EA are defined with a Regulation of the Council of Ministers.

(2) The Regulation under par. 1 should set down the requirements regarding:

1. the assessment of the necessity for, the scope and the methods for carrying out the EA of the possible impacts of the plan's or programme's implementation

2. the obligations of the authorities that are assigning or implementing the plan or programme, subject to EA

3. the scope, contents and form for the EA Report

4. the terms, conditions and the way of carrying out consultations with the public and third parties likely to be affected by the plan or programme

5. the form and contents of the Minister of environment and water or RIEW Director's statement

6. the conditions for inclusion in the Minister's or Director's statement under par. 5 of the results or the consultations under par. 4

7. monitoring and control of the execution of the conditions set in the Minister's or Director's statement during the process of plan's or programme's implementation

8. the monitoring and control of the environmental impacts from plan's or programme's implementation in order to take the necessary measures for prevention or reduction of the environmental harms arising from the implementation

Article 91

(1) EA of plans or programmes is done independently of the EIA under part III of this Chapter

(2) The information compiled, the analysis made in the process of carrying out EA of plans and programmes and issuing Minister's or Director's statement are used in the reports preparation and decision taking for the EIA of investment proposals in Annexes 1 and 2.

LITERATURE

1. Commission for Environmental Impact Assessment, The Netherlands. April 1998. *New Experiences on EIA in The Netherlands; Process, Methodology, Case Studies*. Utrecht, The Netherlands.
2. Commission for Environmental Impact Assessment, The Netherlands. April 2001. *Further Experiences on EIA in The Netherlands; Process, Methodology, Case Study*. Utrecht, The Netherlands.
3. DLG, for sustainable land and water management. 1999. *Guidance on Environmental Appraisal - Towards Sustainable Rural Development in the Context of SAPARD*. Prepared in the context of the Project' Environmental Appraisal and Environmental Impact Assessment in Rural Areas in the Applicant Countries. Financially supported by the Social Transition Programme Central and Eastern Europe (Matra) of the Netherlands Ministry of Foreign Affairs.
4. Dusík, J. (ed). November 2001. *Proceedings of International Workshop on Public Participation and Health Aspects in Strategic Environmental Assessment*. Convened to support the development of the UN/ECE Protocol on Strategic Environmental Assessment to the Espoo Convention, 23-24 November 2000, Szentendre, Hungary. Published by The Regional Environmental Center for Central and Eastern Europe.
5. Dusík J. and S. Šulcová, Regional Environmental Centre for CEE. *Environmental Assessment of the Regional Development Plan of Czech Republic*.
6. European Commission. 1985. *Council Directive 85/33/EEC of 27 June 1985 on the Assessment of the Effects of Certain Private and Public Projects on the Environment*. Official Journal of the European Communities, Volume L 175, 40-49.
7. European Commission. 1997. *Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the Assessment of the Effects of Certain Private and Public Projects on the Environment*. Official Journal of the European Communities, Volume L73, 5-15.
8. European Commission. 1998. *A Handbook on Environmental Assessment of Regional Development Plans and EU Structural Fund Programmes* Directorate-General XI, Brussels.
9. European Commission. 1999. *Manual on Strategic Environmental Assessment of Transport Infrastructure Plans*. Directorate-General VII, Brussels.
10. European Commission. 2001. *Council Directive 2001/42/EC of 21 June 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment*. Official Journal of the European Communities, Volume L197/30.
11. Furman E and M. Hildén (eds.). 2001 (in collaboration with the Finnish Ministry of the Environment and the Ministry of Transport and Communication). *Transport Planning: Does the Influence of Strategic Environmental Assessment/Integrated Assessment Reach Decision-making*. Final Report of a workshop, Espoo, Finland, 14-15 May 2001. The Finnish Environment 534.
12. Ministry of Environment and Water, Bulgaria. 2002. *Environmental Protection Act*
13. Sadler, B. and Verheem, R. 1996. *Strategic Environmental Assessment: Status, Challenges and Future Directions*. Report 53, Ministry of Housing, Spatial Planning and the Environment, the Hague.
14. Thérivel, R., E. Wilson, S. Thompson, D. Heany and D. Pritchard. 1992. *Strategic Environmental Assessment*. Earthscan Publications Ltd, London
15. Thérivel, R. and M. R. Partidaro. 1996. *The Practice of Strategic Environmental Assessment*. Earthscan Publications Ltd, London.
16. United Nations Economic Commission for Europe (UN/ECE). 1992. *Applications of Environmental Impact Assessment Principles to Policies, Plans and Programmes*. Geneva: UN/ECE Environmental Series No. 5.