SEA and Integration of the Environment into Strategic Decision-Making

European Commission Contract
No. B4-3040/99/136634/MAR/B4

Volume 3

Case Studies

Prepared by:

Imperial College Consultants Ltd (ICON)
William Sheate, Suzan Dagg

Babtie Allott & Lomax, UK
Jeremy Richardson, Peta Wolmarans

Wissenschaftsladen Graz/Austrian Institute for the Development of Environmental Assessment (ANIDEA) Austria
Ralf Aschemann

ECA, Spain
Juan Palerm

CESAM, University of Aarhus, Denmark
Ulla Steen

May 2001

ICON
IC CONSULTANTS LTD

SEA and Integration of the Environment into Strategic Decision-Making

Volume 3 (Case Studies)

Final Report to the European Commission
Contract No. B4-3040/99/136634/MAR/B4

Authors:

William Sheate
Suzan Dagg
Jeremy Richardson
Ralf Aschemann
Juan Palerm
Ulla Steen
Peta Wolmarans

May 2001

Imperial College Consultants Ltd
College House
47 Prince's Gate
Exhibition Road
London
SW7 2QA
United Kingdom

Tel: 020 7594 65465
Fax: 020 7594 6570
Email: icon@ic.ac.uk

ICON
IC CONSULTANTS LTD

Contents – Volume 3 (Case Studies)

Tables

Figures

Chapter 1

Introduction

Volume 3 provides an analysis of SEA and Integration procedures in 20 selected case studies. These include countries within the European Union (EU), non-EU countries and an international financing institution. An introduction is provided for each case study followed by an analysis using the following headings:

- Description and Evaluation of Decision-Making Context
- Description of Decision-Making Bodies and Stakeholders
  - Actors taking part in decision-making process
  - Mechanisms of communication
- Description of SEA/Integration Procedure
- Summary and Commentary on Effectiveness of SEA/Integration

Some cross-referencing is made to the relevant individual country reports contained in Volume 2.

Task 3 Methodology

A long list of case studies was produced by the partners of potential examples of SEA and/or integration in the EU and elsewhere (see Volume 1, Appendix 2). This list was presented to the Steering Committee for further discussions, along with justifications (Volume 1, Appendix 3) for the proposed short list of 20 case studies, in accordance with Task 3 (see Table 1.1 below). The criteria for selecting the short list of case studies are also described below.

Selection Criteria

The short list of potential case studies for further investigation resulted from the application of a set of systematic selection criteria. However, it was also important that particularly innovative examples were examined, as well as possible poor or problematic examples. Table 1.1 below shows the agreed short-listed case studies, having applied the following criteria:-

$ A need to examine relationships between SEA and integration in the wider sense: therefore, an appropriate mix of examples is needed from integration/sustainable development and from SEA;
$ Avoid duplication of previous research, unless particularly relevant experience to this study, and aspects of which may not have been examined previously in this context;
$ Balance of examples from national, regional and local levels of integration;
$ Balance of examples from national, regional and local levels of SEA;
$ Balance of examples from centralised and federal countries;

- $ Balance of examples of strong and weak integration, and full, partial or voluntary SEA;
- $ Examples needed where SEA is already linked to wider sustainable development integration;
- $ Case studies selected should be complete or nearing completion during the time-scale of this study;
- $ Case studies should be as recent as possible and have readily accessible information;
- $ Case studies to be drawn from at least 8 EU member states, plus non-EU countries and international aid agencies, with the majority from the EU;
- $ Within the EU, appropriate geographical balance of examples from major regions, e.g. Scandinavian, Mediterranean etc. countries).

Justifications for the selection of the individual case studies are provided in Volume 1, Appendix 3.

Data Collection

Twenty case studies were undertaken, selected after discussion with the project Steering Committee and on the basis of the criteria described above. Responsibility for data collection, analysis and reporting was divided equally amongst the partners. A combination of documentary evidence and semi-structured interviews was used to collect the data for each country. Where possible the interviews were conducted face to face, otherwise telephone interviews were found to be satisfactory, and in a few cases e-mail correspondence. Interviews were conducted with personnel who had been directly involved in the management and practical undertaking of the SEA or integration process, and wherever possible from a range of organisations and stakeholders, as appropriate (see Table 1.2).

A Case Study Framework was developed to ensure that all the basic information was collected and the write up was undertaken in a standard format. However, care was taken not to be too prescriptive and to allow the necessary flexibility to bring out individual points relevant to a particular case study. As part of this framework two sets of criteria were developed based upon the country report criteria (see Volume 2), in order to assess the nature, degree and effectiveness of Integration and SEA's role in helping to achieve it. The criteria played a crucial role in developing questions for interviews and structuring the analysis of the data, the results of which can be seen in the two main tables throughout the case study chapters. The two sets of generic criteria are reproduced in Tables 2.2 and 2.3 in Volume 1.

The framework also helped develop a standard reporting format that was agreed and circulated to all project partners. However, as stated above a degree of flexibility allowed some additional diagrams and figures to be included on a case by case basis.

Table 1.1 List of Final 20 Case Studies

Country	Decision Level of Integration			Decision level of SEA or equivalent		
	National	Regional	Local	National/Policy	Regional	Local
Austria			Local Agenda 21 Graz.			SEA of Land Use Plan of Municipality of Weiz (Styria).
Canada				Framework of SEA for Trade Negotiations.		
Denmark				SEA of Report on National Planning 1999/2000.		
Finland	Thematic Evaluation on Environment and Development in the Finnish Development Co-operation, Ministry for Foreign Affairs, 1998.					
France					SEA and Multi-Modal Infrastructures: the case of the North Corridor, 1999.	
Germany						Land-Use Plan and Integrated Landscape Plan Erlangen. Full SEA with comprehensive documentation.
Ireland	Marine & Coastal Areas and Adjacent Seas (1999) – part of North Atlantic assessment under OSPAR Convention.			Eco-Audits (Appraisals) of: Pilot Eco-audit of National Development Plan 2000 – 2006 (Dept. of Finance).		

Country	Decision Level of Integration			Decision level of SEA or equivalent		
	National	Regional	Local	National/Policy	Regional	Local
Netherlands	National Environmental Policy Plan 3 (1998).					
New Zealand		Canterbury Regional Council – Local Environmental Management Strategies and Stakeholders.				
Portugal	National Council for the Environment and Sustainable Development.					
Slovak Republic						Land-Use Plan Bratislava.
Spain				Regional Development Plan 2000-2006 (Objective 1).	Castilla y Leon: SEA for Wind Power Regional Plan.	
Sweden					Drinking Water Supply for the Stockholm Region	
United Kingdom	Greening Government: Environmental Audit Committee and Green Ministers.			SEA of Strategic Defence Review.	Yorkshire Forward Sustainability Appraisal.	
World Bank	Country Assistance Strategies and The Environment Programme.					

Table 1.2 Case Study Contacts

Country	Case Study	Contact Name	Affiliated Body
Austria	SEA of Land-Use Plan, Weiz	Dr. Ursula Platzer	Federal Ministry of Agriculture, Forestry, Environment and Water Management.
	Local Agenda 21, Graz	Dr. Peter Gspaltl	Environmental authority Graz.
Canada	Framework of SEA for Trade Negotiations	Aaron Cosbey Morag Carter Thomas Gillmore	International Institute for Sustainable Development. The Council of Canadians. Department of Foreign Affairs and International Trade (DFAIT).
Denmark	SEA of Report on National Planning	Jacob Hjortskov Jensen Gert Johansen Henrik Wullf	Department of National Spatial Planning, Ministry of Energy and Environment. Specialist consultant, Department of National Spatial Planning, Ministry of Energy and Environment. Department of National Spatial Planning, Ministry of Energy and Environment.
Finland	Thematic Evaluation on Environment and Development in Finnish Development Co-operation	Mikael Hilden	Finnish Environment Institute
France	SEA and Multi-Modal Infrastructures: the Case of the North Corridor	Pierre Skriabine Anne Gerrero	Department of Roads and Motorway Engineering (SETRA), Ministry of Public Works, Transport and Housing. INGEROP (Consultants).
Germany	Land-Use Plan and Integrated Landscape Plan, Erlangen	Dipl.-Ing. Claudia Riehl Ing. Rolf Schneider	University of Technology Berlin. City development and planning authority Erlangen.
Ireland	Eco-Audit	Noel Casserly Maureen Doyle Efthimis Zagorianakos	Department of Environment and Local Government. COMHAR. PhD Student – Trinity College Dublin.
	Marine and Coastal Areas and Adjacent Seas – an Environmental Assessment.	Geoffrey O'Sullivan Rick Boelens	Marine Institute. Project manager, Marine Institute.
Netherlands	National Environmental Policy Plan (NEEP3)	Jan Jaap de Boer Rob Verheem	Ministry of Housing, Spatial Planning and the Environment. EIA Commission.
New Zealand	Canterbury Regional Council – Local Environmental Management Strategies and Stakeholders.	John Glennie David Gregory	Regional Policy Manager, Environment Canterbury. Senior Resource Management Planner, Environment Canterbury.
Portugal	National Council for the Environment and Sustainable Development	Dr. Aristides Leitão Maria Eduarda Gonçalves Isabel Rosmaninho	Executive Secretary, National Council for the Environment and Sustainable Development. University of Lisbon. Institute for Environmental Protection (IPAMB).

Country	Case Study	Contact Name	Affiliated Body
Slovak Republic	**Land-Use Plan, Bratislava**	Dr. Ingrid Belcakova Prof. Dr. Maros Finka	Slovak University of Technology and EIA Centre of Slovak University of Technology. Slovak University of Technology.
Spain	**Objective 1 Regional Development Plan**	Lola Manteiga Carlos Domínguez Collado Fe Sanchis Raul Zorita Immaculada Cordiales	Terra Centre for Environmental Policy. Head of the Network of Environmental Authorities. Terra Centre for Environmental Policy. European Commission. Social and Economic Council.
	Castilla y León Wind Power Plan	Dolores Hedo José Antonio Ruíz Carlos Palma Pilar Martín Rafael Ayuste Juan Ocampo Yolanda Clemente	Spanish Ornithological Society. Head of Projects Area, Council of Public Works, Government of Castilla y León. Spokesperson of the Regional Eolic Group of The Merindades. Association for the Defence of Nature of Soria (ASDEN). Regional Energy Entity(EREN). President, Friends of Velilla. Member, Friends of Velilla and Journalist.
Sweden	**Drinking Water Supply for the Stockholm Region**	Aili Kaarik Tuija Hilding-Rydevik Prof. Staffan Westerlund	National Board of Housing, Building and Planning. Nordregio. University of Uppsala.
United Kingdom	**Greening Government: Environmental Audit Committee and Green Ministers**	Richard Mellish Fergus Reid Paul Hamblin	Sustainable Development Unit DETR, UK Government. Clerk to the Environmental Audit Committee House of Commons, UK. Council for the Protection of Rural England, Greening Government Officer, London, UK.
	Yorkshire Forward Sustainability Appraisal	Lez Newby Lynn Seeney	Yorkshire and Humberside RDA, Leeds, UK. Government Office for Yorkshire and Humbersdie Wakefield, UK.
	Strategic Defence Review	Emma Dolman David Saul Roger Smithson Emma Loat Vicki Elcoate Joanna Wright Andrew Brookes Helen Byron	MoD, Defence Estates Agency. MoD, Defence Estates Agency. Department of the Environment, Transport and the Regions. Council for National Parks. Council for National Parks. Land Use Consultants. Environment Agency. RSPB.
World Bank	**CASE Programme Studies**	Kirk Hamilton	CASE Team leader, Policy, Economics and Pollution Environment Department, The World Bank.

Chapter 2

Austria - SEA of Land-Use Plan Weiz

2.1 Introduction

In general spatial planning became an important issue during the 1970s, driven by the growing environmental consciousness and the fact that available areas were limited. For its spatial planning policies Austria has to consider that it is a frontier country, an Alpine country, a landlocked and a transit country. The measures concerned, taken by Austrian authorities, have to consider relevant influences of European spatial policies and also the horizontal development co-operation with neighbouring countries which has to be intensified according to the planned enlargement of the EU.

The chosen case study deals with the third revision of the land-use plan ("Flaechenwidmungsplan") of the municipality of Weiz, a city with approximately 9,200 inhabitants, located in the northern part of Austria's south-east province Styria. There are areas for housing, transport (traffic, railway, pedestrians, bikes and so on), industry, agriculture as well as for recreation (wood, river, garden etc.) and infrastructure (hospital, schools, shops etc.). The total area of Weiz is 507 hectares. The Plan's revision was subject to an SEA according to the (since revised) EU SEA proposal from December 1996. The SEA, commissioned by the Austrian Ministry of Environment and the Styrian provincial government, was carried out on a voluntary basis. The main goal was to test whether the EU proposal on SEA, mentioned above, would work in practice and what lessons could be learnt.

2.2 Description and Evaluation of Decision-Making Context

Structure of Austrian spatial planning

The approach to undertake the SEA was to integrate the SEA provisions into the procedure for revising the land-use plan according to the Styrian Spatial Planning Act. In Austria spatial planning is a competence of the (nine) provinces, not of the federal government. The federal government may issue sectoral regulations for spatial planning in areas that come within the responsibility of the national government according to Austria's constitution ("Bundesverfassungsgesetz"). All other aspects of governmental authority for spatial planning issues is within the competence of the provinces (supralocal spatial planning). The municipalities/communities (local authorities) are responsible for spatial planning at the local level (local development concepts, land-use plan and building regulation plans).

In Styria (and also in other Austrian provinces) there is a tiered system of spatial planning plans and programmes. The instruments concerned are the (Styrian) provincial spatial

planning programme (including sectoral development programmes for waste management, forestry, air quality and so on), and for the whole province, the regional spatial planning programme as well as sectoral regional development programmes (each Austrian province is subdivided in regions/districts. For example, there are 16 regions in Styria. Its capital Graz has a special constitution as a municipality).

At the local level the municipalities (local authorities) are responsible for the three local spatial planning concepts: the local development concept, the land-use plan (both for the whole municipality) and the building regulation plan (for a special site, project and so on). In Styria, for example, there exist 543 municipalities plus its capital Graz. This means that every municipality is obliged to set up the concepts and plans mentioned. Similarly to the supralocal level it is possible to set up sectoral development programmes for the municipality like a traffic concept or an energy concept (Volume 2).

Details of the land-use plan Weiz

For updating purposes all plans are valid only for a specific time period and have to be revised regularly, for example, every five years in the case of the land-use plan. The third revision of the land-use plan substitutes the second one and is valid for the time period 1999 – 2004. Besides the no action alternative the environmental effects of two plans were identified, analysed, described and assessed. These were the plan with the planning intentions of the municipality and a plan with ecological friendly intentions concerning the future land-use pattern.

The SEA started at the end of 1997. At the beginning of 1999 the land-use plan was approved. The integration of SEA provisions according to the EU proposal mentioned above was one of the main challenges in that pilot project, which represents the first completed SEA in Austria. The cost of the SEA is approximately 20% of the overall cost. However, it is expected that the cost for future SEAs will be less because it is obvious that a "pioneer project" needs more time and money. The organisational structure of the whole SEA process was to establish one co-ordination person within the Styrian provincial government. As well as this person, the project group did a lot of co-ordination and organisational work, for example, invitations to scoping meetings, exchanging information between all actors concerned and so on.

The legal framework was the Styrian Spatial Planning Act as well as the EU SEA proposal from December 1996 (COM (96) 511 final). It was a pilot project and therefore no SEA guidelines were available. In the environmental statement one can find much reference to national and regional environmental objectives, pointed out in chapters 2 and 3 of the environmental statement (for example, noise or air pollution thresholds). The goals of a lot of other plans and programmes influenced the SEA and the land-use plan's revision processes (for example, provincial development programme, regional development programme, climate map, building demand concept and so on).

The level of detail was adapted to the plan hierarchy within the tiered system of spatial planning instruments within Styria (see section 2.1): The land-use plan is above the level of constructing concrete buildings, but below the level of provincial or regional plans. Consequently, the level of detail for plan and SEA provisions was appropriate to that fact.

Table 2.1 Environmental Integration Background

Political Leadership	Spatial planning is a competence of the Austrian provinces. The municipality is the decision-making body for their land-use plan and the local development plan, but the provincial government (highest level for spatial planning issues) is responsible for the final approval. There is a strategy for sustainable development within Styria (since 2000). Weiz itself has many environmental goals and approaches.
Institutional Commitment	The provincial government, is an institution with a limited integration remit. It has to weigh ecological and socio-economic interests against each other when approving (or refusing) the land-use plan.
Co-ordination	The provincial government is also responsible for co-ordination. Besides the municipality it has to ensure that plans above the land-use plan (provincial and regional development programme) are considered and taken into account.
Communication Reporting	The communication and reporting measures are defined in the Styrian Spatial Planning Act. The SEA provisions were added according to the EU SEA proposal, on a voluntary basis.
Guidance Training	Currently no special guidance/training courses.
Awareness Raising	Information on integration is easily available; for example, all inhabitants of Weiz have access to all plans and drafted plans.
Targets/Objectives/ Indicators	The targets, goals and objectives used in the SEA process are clearly defined, for example, carbon dioxide threshold according to the goals of the "Climate Alliance".
Appraisal/ Assessment	Yes, the land-use plan touches all relevant policies/sectors.
Instruments	Instruments of integration are in place.
National/Local Sustainability	Provincial and local sustainability strategies are in place (for example, "Eco Plan Weiz", conducted by the Austrian Institute for Applied Ecology, Vienna)
Allocation of Spending	Yes (see section 2.2).
Monitoring/Auditing	No monitoring/auditing procedures in place, but the next revision of the land-use plan in 2004 can be seen as a monitoring/evaluating measure.

2.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The three main actors within the process of developing the SEA and the land-use plan were:

- The competent authority (City Council of Weiz), acting as decision-making body as well as the authority, which is developing the plan (in most cases a private planner is commissioned).
- The environmental authority (Provincial Government of Styria).
- The public concerned (according to the Spatial Planning Act, in principle everyone).

The project group produced the environmental statement as well as the assessment. Members of that group were:

- a team of the architect and planner, which was also responsible for setting up the land-use plan, and
- an expert from the Science Shop Graz.

As well as the project group the EIA/SEA section of the Federal Ministry of the Environment was involved during the whole SEA process as a fifth actor. The public concerned is defined within the provisions of the Styrian Spatial Planning Act. Generally, every inhabitant of Weiz is part of the public. The Act enumerates special actors like some divisions of the provincial government, neighbouring municipalities, Chamber of Commerce, Chamber of Labour, Chamber of Agriculture. The public can comment on the drafted plan and on the environmental statement within a period of eight weeks in written form and with a justification.

Mechanisms of communication

The designated person of the provincial government (see section 2.1) as well as the project group was responsible for organising and co-ordinating the whole project as mentioned above, therefore they were also responsible for the communication processes. Moreover, the Styrian Spatial Planning Act contains some provisions regarding the communication process (for example, public participation).

The pilot project showed that the quality of the communication structure is one of the crucial issues for a successful SEA. The mechanisms and instruments used for the SEA of the Weiz land-use plan were round tables, formal meetings with the municipality and within it (for example, committee for spatial planning) a public hearing, some scoping meetings, communication platforms between the municipality and the provincial government and more.

2.4 Description of SEA Procedure

The procedure of revising the land-use plan can be described briefly with the following steps:

- Decision of the City Council to revise the land-use plan.
- Everyone can make public his/her/its planning interests within four months.
- Elaborating the Local Development Concept, parallel information/participation of the public.
- Decision of the Local Development Concept, announcement and public inspection.
- Drafting the land-use plan.
- Possibility to comment on the draft within a period of eight weeks, the draft is accessible for everyone; taking into account all comments, revising the draft of the land-use plan, giving information for the whole city/municipality the City Council is counselling.
- Decision of the City Council concerning the final land-use plan, information, how comments have been considered.
- Submission to the provincial government who has to review and to examine the land-use plan. Afterwards it will adopt/approve (then announcement is following) or refuse the land-use plan.

For example, there is a mandatory public participation provision within the Spatial Planning Act (see above). Participation was also used for the SEA document. As well as the drafted land-use plan it was made accessible to the public for a period of eight weeks and everyone could comment on both documents. That means there was only one public participation "step" and no additional expenditure due to the SEA. The integration of the SEA into the land-use plan revision made only the following additions necessary:

- Scoping with corresponding consultation of the environmental authority.
- Producing the environmental statement (but a lot of parts of the "normal" documents according to the Spatial Planning Act have been used for it).
- Amendment of the public participation (as mentioned above).
- Similar amendment of the information, how the environmental statement and that public participation were taken into account for the plan approval.

The main methodology to assess the environmental effects of the no action alternative and the two planning options (planning intentions of municipality, ecological friendly land-use) against the baseline conditions was the use of matrices. The rating in their cells starts by "1" (means positive impact), continues to "2" via "3" (neutral) to "4" and "5" (very negative impact on the environment), see Figure 2.1 below.

Besides the ecological assessment (eight categories, representing for example, state and forecast of the development of soil quality, water quality, air quality) there was also an appraisal of socio-economic effects (for example, categories like technical infrastructure,

settlements, economic development) conducted (see Figure 2.1). This helps to indicate and identify potential conflicts between environmental and socio-economic interests easily.

Form for Area No. x of Land-Use Plan	No Action	Municipality Intention	Ecological Friendly
General description			
Ecological impact (eight subdivisions like soil, water, fauna and flora)			
Socio-economic impact (six subdivisions like local economy, technical and social infrastructure)			
Weighting process			
Suggestions, mitigation measures			

Figure 2.1 Matrix Used to Assess Environmental Effects.

It was feasible and not very difficult to integrate the provisions of the SEA EU proposal. The SEA helped in developing, assessing, amending and delivering the revision of the land-use plan. For example, without SEA it was unusual to have an alternative plan, but due to the SEA the competent authority developed an alternative plan with ecologically friendly intentions. Moreover, the SEA raised the environmental awareness of all actors concerned. It is important to state that the SEA caused no time delay in revising the land-use plan. Finally, it is crucial to mention that the competent authority ignored a lot of the information of the SEA and the environmental statement within its plan approval. The decision-makers used their right to decide how the plan would look and recognised that SEA is only a decision-making support tool.

Table 2.2 Environmental Assessment Components

Objectives Led	Yes (for example, thresholds for air quality, water quality). Integrated in the environmental statement. The assessment of the effects was a baseline-based appraisal, see Figure 2.1).
Integration	Yes. The SEA provisions have been integrated in the procedure of revising the land-use plan according to the Styrian Spatial Planning Act.
Alternatives /Options	Yes, three: do nothing and ecological friendly planning alternative, beside the intended plan, carried out by the municipality.
Backcasting (Visioning)	Yes (the land-use plan is valid for five years until 2004, afterwards a new revision of the land-use plan is requested by the Spatial Planning Act).
Environmental Statement	An environmental statement (51 pages), containing the assessment matrices, maps as well as the report requested by the EU SEA proposal (that means including a non-technical summary with four pages) was produced, and was available to the public.
Methodologies	Use of indicators and matrices (see section 2.4). Moreover, public hearing, opinion of experts (expert judgement) and consultation with stakeholders (generally, process driven methodologies).
Participation	Yes. According to provisions of the Styrian Spatial Planning Act. That meant that the drafted plan and the environmental statement was available to the public, everyone is able to comment on both within a period of eight

	weeks, all comments have to be taken into account by the competent authority.
Timescales	Approximately 15 months from start to plan approval. Informal preparations for drafting the land-use plan began half a year before; the land-use plan is valid for five years, normally; time scale of the objectives: different, mostly some years.
Sustainability Impacts	Yes (for example, relating to carbon dioxide).
Significance	Yes (for example, impacts were quantified where possible).
Non-Technical Summary	Yes (see "environmental statement").
Monitoring	No provisions. Perhaps the next revision of the land-use plan in 2004 can be seen as a kind of monitoring/evaluating measure.

2.5 Summary and Commentary on Effectiveness of SEA

A full SEA has been applied in the revision of Weiz land-use plan by integrating the provisions of the Styrian Spatial Planning Act and the proposed EU SEA Directive by avoiding duplication. The results of the pilot project demonstrated that the involvement of the SEA into the revising process of the land-use plan was feasible and easy to conduct. Also, its effectiveness regarding integration of the environment can be rated as fair. The new instrument SEA led to a growing environmental consciousness for the actors concerned. Moreover, the SEA led to the formulation of a second planning alternative beside the no action alternative and the plan intended by the municipality.

The assessment of the effects of the three plans mentioned above (see Figure 2.1) included not only environmental ones, but socio-economic ones, as well. This is usual for setting up and revising land-use plans, but not for SEA according to the EU proposal. The results are provided in an overall assessment that allows the decision-making authority to identify potential conflicts between ecological and economic or social interests easily. The SEA developed, assessed, amended and delivered the land-use plan to a certain extent and as a result it contributed to the integration of the environment into strategic decision-making regarding land-use policy. Moreover, the land-use plan considered environmental criteria (and therefore the SEA) by setting up its objectives. Generally, all actors concerned (see section 2.3) were willing to participate and support the SEA. For the public, SEA was a new instrument and so detailed information was necessary. Consequently, the project group conducted a short and easy-to-understand explanation paper and published it in the local official newspaper including a simplified map of the drafted land-use plan and a non-technical summary of the environmental statement. Nevertheless, the public felt that the SEA was somewhat abstract. This perception has to be taken into account for future SEAs.

The SEA also started too late. In SEA literature one can often find the suggestion "start with the SEA as soon as possible". The experience of the pilot project underlines that clearly. It is a pity that the City Council did not choose the most environmentally sustainable option.

The integration of the environment into strategic decision-making was not optimal in the analysed case study, because informal preparations for drafting the land-use plan began half a year before starting the SEA. This meant that some decisions were made before the SEA had been started. A suggestion for a future SEA is that it should begin as early as possible in order to unfold its full potential impact on integration of the environment. Another recommendation is not to have an SEA of the land-use plan alone, but of all local spatial planning plans (for example, local development plan and land-use plan).

The information on how the environmental statement and the consultation process influenced the decision-making, showed that the City Council decided in several cases for land-use patterns that can and probably will lead to negative environmental effects. That is not caused by a poor quality of the SEA or the environmental statement, but by political pressure and investor interests. The main lesson learned from that experience was that SEA is a supporting tool for the decision-making process, not more, but not less. Some conclusions drawn after completing the SEA were:

- Make sure there is a successful and transparent communication process between all actors concerned by establishing a co-ordination person/committee.
- Ensure that there is sufficient preparation and public relation measures regarding public participation
- There is more research needed. For example, concerning the assessment of indirect environmental effects, uncertainty, development of SEA guidelines and standard indicators (appropriate to the plan level).

Chapter 3

Austria - Local Agenda 21 Graz

3.1 Introduction

The Local Agenda 21 (referred to in this report as LA 21) of the Styrian capital Graz (approximately 250,000 inhabitants, second biggest city of Austria, located in the south-east of the Republic) is part of the Local Development Plan Graz. This is one instrument within the Styrian spatial planning system (see Volume 2). Other names for the LA 21 Graz are "Local Environmental Programme" ("Umweltsachprogramm" or "Sachprogramm Umwelt") or "Eco city 2000" ("Ökostadt 2000").

Generally, LA 21 Graz provides an integrated concept for the City of Graz, which makes it possible to take the numerous aspects of various environmental topics, problems and framework conditions into account when it comes to the level of local environmental policy. The programme includes situation analyses as well as guidelines for Graz's environmental policy up to the turn of the millennium. In order to achieve a new quality in local environmental policy many measures including timeframes and responsible actors are integrated in the LA 21, which is seen as an on-going process.

LA 21 Graz is not only a follow-up of the UN Conference on Environment and Development (UNCED) 1992 in Rio de Janeiro and its Agenda 21, but also of the "European Sustainable Cities and Towns" initiative, better known as the "Aalborg initiative" (founded in May 1994) and of the Fifth Action Programme of the Commission of the European Union. The LA 21 Graz has a lot of mutual relationships with other local activities like "Ecoprofit" (abbreviation for "Ecological project for integrated environmental technology", a programme dealing with environmental protection measures within firms, for example, waste reduction, energy saving and so on), "Ecodrive" (increased use of electric and solar vehicles as well as using specially processed old edible oil as diesel for vehicles), "Thermoprofit" (building and technical measures for reducing energy and especially heating costs), and plans and programmes like the Local Energy Plan Graz at local level or the "Climate Alliance" at international level. It does not claim to be a complete programme, and it is obvious that the implementation of all proposed measures depends heavily on the co-operation and willingness of all authorities, offices and institutions involved. In 1996 Graz won as the first city in Europe the "European Sustainable City Award" for its ambitious LA 21 approach[1].

[1] Some success stories: one billion litres drinking water saved, waste recycling quote of 65 %, 20,000 m^2 solar collector area, more than 100 km bicycle paths, "Kyoto"-goal (carbon dioxide) nearly reached, furthermore good results e.g. regarding clean air and clean surface water policy, cf. Figure 3.2.

3.2 Description and Evaluation of Decision-Making Context

As well as LA21 the local energy plan ("Kommunales Energiekonzept Graz, 1995) of Graz, the programme for its green areas and other plans and programmes are elements of the Local Development Plan (valid for the period from 1990 to 2000; a local development plan is requested by the Styrian Spatial Planning Act for all Styrian municipalities and cities (see Volume 2)). Currently, that plan is under revision. After its adoption it will be called "local development plan 2000" ("Stadtentwicklungskonzept 2000").

The competent authority for setting up the Local Development Plan and also its secondary plans like the Local Energy Plan or the Local Environment Programme is the City Council of the City of Graz. The LA 21 Graz was completed in 1995 and adopted (unanimously) by the City Council on July 6 1995, but preparations for setting up the LA 21 started much earlier in 1990. In 1991 a draft version was published and the public had the opportunity to comment.

In 1999 the first evaluation of LA 21 Graz was started. This was commissioned by the City Council. The competent body for that monitoring was called "Eco team Graz" ("Grazer Oekoteam"); for details see section 3.3. The LA 21 Graz can be seen as an objectives led plan and also as an ambitious task which can act as a "shining example" not only for other cities and municipalities in Styria, but for those in Austria as a whole and perhaps Europe also. In order to be able to measure the degree of achievement, some key quantitative sustainability indicators have been developed, see Figure 3.1 below.

Area/Factor	Sustainability Parameter/Indicator	Goal by 2000, Reference in ( )
Air quality	Emission of SO_2, CO and dust Emission of NO_x, VOC	- 30 % (1987) - 60 % (1988, 1985)
Noise	Streets with more than 65 dB(A)	- 10 % (1994)
Energy & climate	Extent of CO_2 emissions Energy consumption (only electricity) Proportion of renewable energy sources	- 20 % (1987) - 7 % (1994) 25 % (1994: 16 %)
Transport (beside the three parameters there is another goal regarding "modal split")	Traffic performance (private vehicles) Kilometres performance of buses, tramways Vehicle's registrations	- 2 % (1991) + 10 % (1993) Balance (1989)
Waste	Overall local waste Local residual waste Trade/industry waste Hazardous waste	- 13 % (1993) - 30 % (1993) - 30 % (1993) - 50 % (1993)
Water	Amount of drinking water Water quality category	- 5 % (1993) Category 1 or 2
Soil	Built-up surface	Balance
Nature/green areas	Additional protected areas Additional nature reserves Additional natural monuments	+ 50 hectare (1995) + 30 hectare (1995) + 7 (1995)

Figure 3.1 LA 21 Graz – Sustainability Indicators

Table 3.1 Environmental Integration Background

Political Leadership	Responsibility was at local level. At highest level the City Council approved LA 21 Graz unanimously in 1995.
Institutional Commitment	The environmental authority worked with an integration approach and tried to involve a lot of other authorities, but it had no official integration remit at its disposal.
Co-ordination	The environmental authority is responsible for the co-ordination process within the City of Graz - one clerk is responsible exclusively for LA 21 issues, the so called "LA 21 commissioner" (or representative).
Communication Reporting	There is an evaluation of the programme every five years (first started in 1999 and was finished in 2000, see Figure 3.2) and a report is requested for that purpose. The report was approved by the City Council in 2000.
Guidance/Training	This is one of the tasks of the LA 21 commissioner/representative. For example, he organized workshops, "Eco team" meetings (see section 3.3) and so on.
Awareness Raising	Yes. The evaluation report is easily accessible. A CD-ROM was produced with all relevant information on the LA 21. Also, some leaflets for the general public and so on.
Targets/Objectives/ Indicators	Yes, see Figure 3.1.
Appraisal/ Assessment	Yes, see Figures 3.1 and 3.2.
Instruments	A lot of instruments/measures (exactly 224) to implement LA 21 and to reach its goals are laid down, including the naming of responsible actors and timeframes.
National/local Sustainability	Beside LA 21 Graz there is the Sustainable Development Programme of the Province ("Landesumweltprogramm Steiermark", 2000) and the National Environment Plan ("Nationaler Umweltplan", 1995) at federal level; currently a revised national SD programme is under preparation.
Allocation of Spending	Yes. There are special funds for LA 21. Also, there is the LA 21 representative/commissioner, as mentioned above.
Monitoring/Auditing	Yes. See section 3.3 for the first monitoring/evaluating process (every five years there is such a comprehensive process in order to control the quality of the LA 21 progress made. The next is planned for 2005).

3.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The leading actors for setting up the LA 21 Graz are:

- The environmental authority as part of the administration ("Magistrat der Landeshauptstadt Graz") of the City of Graz.
- The public as stated in the Styrian Spatial Planning Act (this is in principle everybody)
- The Styrian provincial government as authorizing authority (also, regulated in the Styrian Spatial Planning Act).

- The "Eco-team Graz".

The tasks of the Eco-team included examination and evaluation/monitoring of the progress of the activities, based on the quantitative goals of the programme. If some goals could not be reached, reasons for that had to be explained in detail, and plans for the next evaluation date had to be presented and described. The first meeting of the "Eco team" took place on January 14, 1999. In the meantime the evaluation report has been completed on February 7, 2000 and was approved by the "Eco team" in early March 2000. Also, on March 16, 2000 the City Council approved the report of the "Eco team". This event completed the first evaluation phase of LA 21 Graz. The "Eco team" is a composition of various actors: its chairman is the head of the environmental authority, the deputy chairwoman is a member of an NGO. There are also eleven other members (five persons from the City of Graz, three persons from the provincial government, two persons from the two big Graz universities and one person from an NGO).

The "Eco team" formed four working groups (one for soil, air and water issues; another one for transport and noise issues; a third one for energy issues; and a last one for waste management issues and nature protection. The latter one was subdivided into three sub working groups). Those working groups completed 24 meetings with 68 representatives from different sectors (government, NGOs, universities, Chamber of Labour, Chamber of Commerce, firms, police and so on). The results of that evaluation are as follows:-

Planned Goal (see Figure 3.1), in Brackets: Reference Year	Sustainability Parameter/Indicator	Status Quo of the Indicators (According to the 1st Evaluation /Monitoring Completed in 2000)
- 30 % (1987) - 60 % (1988) - 60 % (1985)	Emission of SO_2, CO, dust Emission of NO_x Emission of VOC	- 50 %, - 49 %, - 36 % (++) - 22 % (+) - 22 % (+)
- 10 % (1994)	Streets with more than 65 dB(A)	+ 6 % (-)
- 20 % (1987) - 7 % (1994) 25 % (1994: 16 %)	Extent of CO_2 emissions Energy consumption (only electricity) Proportion of renewable energy sources	- 4 % (+)[2] + 12 % (-) 16 % (0)
- 2 % (1991) + 10 % (1993) Balance (1989)	Traffic performance (private vehicles) Kilometres performance of buses, tramways Vehicle's registrations	+ 5 % (-) + 2 % (+) + 12 % (-)
- 13 % (1993) - 30 % (1993) - 30 % (1993) - 50 % (1993)	Overall local waste Local residual waste Trade/industry waste Hazardous waste	+ 12 % (-) - 15 % (+) - 39 % (++) + 4 % (-)
- 5 % (1993) Category 1 or 2	Amount of drinking water Water quality category	- 6 % (++) Category 1 or 2 reached (+)
Balance	Built-up surface	Negative development (-)
+50 hectare (1995) +30 hectare (1995) +7 (1995)	Additional protected areas Additional nature reserves Additional natural monuments	+/- 0 hectare (0) +/- 0 hectare (0) - 22 (-)

Figure 3.2 Results of the First Evaluation/Monitoring of LA 21 Graz (2000)

[Symbol explanation: **++** means objective has been reached or more than reached

+ means partly reached (trend in the right direction) **0** means no change

- means not reached (trend in an unsustainable direction)]

[2] From transport – 1 %, from households – 5 % (calculated without trade and industry!)

Only in seven out of 22 indicators (less than one third) was the development negative regarding sustainable development goals, in 3 there is no change and in 12 there is either a positive trend (6) or even the goal has been more than reached (6). For the next evaluation (planned for 2005) the objectives are still valid. As a consequence of the first evaluation one of the main tasks for the environmental policy until 2005 will be focused on the development of measures to reduce noise (Gspaltl , 2000, pers. comm).

Mechanisms of communication

The competent authority for setting up the LA 21 Graz is the City Council, but in practice the main task was carried out by the environmental authority. On the one hand this is positive, because LA 21 contains a lot of environmental quality goals. However, on the other hand the influence of the environmental authority is limited, because it has no official general integration remit and therefore the authorities dealing with social and economic tasks cannot be forced to co-operate.

The environmental authority had to co-ordinate its work with a lot of other authorities involved: policy formulation regarding reaching the quality goals of the LA 21 touch, for example, the competencies of the authorities responsible for city planning, city development, nature protection, transport planning or health.

It should be stated that a large number of the authorities (who together shape the administration of the City of Graz) were actively involved in the whole process of developing and setting up a Local Agenda 21. So in reality we can talk about a suitable case study for integrating the environment into strategic decision-making. A key person in the whole process is a so-called "LA 21 commissioner or representative", a civil servant of the City of Graz, who is working full time exclusively for LA 21 issues[3].

The LA 21 representative is responsible for the co-ordination of the LA 21 process within its own authority as well as with a lot of other authorities of the City of Graz (horizontal communication). Also, he has to deal with authorities from the provincial government and with the public (vertical communication). As well as formal meetings and workshops a lot of informal meetings enriched the LA 21 process.

3.4 Description of Integration Procedure

The LA 21 Graz process can be seen as a very suitable and successful example of integrating the environment (and also economic and social issues) into strategic decision-making. The LA 21 commissioner played (and is still playing) a key role in co-ordinating the whole process and ensuring a transparent and continuous communication between all actors involved.

[3] An interview with him was used to provide input to this case study analysis

The objectives led approach (see Figure 3.1) and the regular monitoring process (results of the first one see in Figure 3.2) lead LA 21 Graz to become a powerful instrument for the future development of the City of Graz and a crucial supporting tool for decision-makers. LA 21 is directly linked to a number of concrete measures and projects. It named exactly 224 measures (including timeframes and corresponding responsible actors) for nine main tasks (private households; public facilities; enterprises; agriculture; water management and development of nature and green areas; historical burdens; transport; noise reduction and avoidance; protection of the earth's atmosphere) in order to reach the environmental quality goals. All those measures are subdivided into general ones and specific ones (for example, chemicals in households or legal measures regarding enterprises).

For obtaining environmental data the "environmental information system" of the City of Graz was created, and is still under construction. However, in its preliminary phase it is already able to deliver the authorities with information.

Table 3.2 Environmental Assessment Components

Objectives Led	Yes. See Figure 3.1.
Integration	Yes. LA 21 as a good case study for integrating the environment into a lot of sectoral policies.
Alternatives/ Options	There are a lot of options (single measures or combination of measures) for reaching the environmental quality goals (see section 3.4 and Figure 3.1).
Backcasting (Visioning)	Yes. Formulated objectives have to be reached by the year Also, there is an ongoing process for the next years (goals are still valid for 2005).
Environmental Statement	Yes. For example a report on how LA 21 has been set up, or report of the first Evaluation. (see Figure 3.2 which summarises all environmental impacts by a quantitative measurement according to the selected indicators from Figure 3.1).
Methodologies	A set of different methodologies was used (for example, Measurement regarding air quality, amount of waste, traffic, noise et al, computer models, maps, thermal scanner).
Participation	There is a continuous participation process, for example, citizens were involved in setting up LA 21, the "Eco-team" was a crucial actor for the evaluation, the "Graz Citizen Information" (free of charge, delivered to every household) called for comments etc.
Timescales	Five to 15 years time gap between reference year(s) for the indicators and the first evaluation/monitoring process, completed in 2000.
Sustainability Impacts	Yes (for examples see Figure 3.1).
Significance	Yes. All impacts for the indicators have been quantified and can be measured).
Non Technical Summary	Yes. For example, a CD-ROM with all relevant information on LA 21 issues has been produced and a number of leaflets for the general public.
Monitoring	Yes. See Figure 3.2. Every five years there is a comprehensive monitoring/auditing process in order to control the quality of the LA 21 progress made.

3.5 Summary and Commentary on Effectiveness of Integration

The analyzed case study can be assessed as an example of a strong and effective integration. Such a judgement requires clear evidence of effective implementation: the results of the first evaluation showed that more than two thirds of the objectives (measured by indicators, see Figures 3.1 and 3.2) have been (partly) reached. LA21 Graz also reached a high level and a significant depth of integration, both in the vertical and the horizontal dimension. The involvement of numerous actors within and without the administration, the comprehensive catalogue of concrete measures, the fact that all indicators can be measured, the existence of a special LA 21 commissioner and public participation made the whole process successful. Consequently, Graz was the first European municipality to win the "European Sustainable City Award" in 1996.

Of course there are limitations. It is not only the merit of LA 21 that the overall development is positive regarding environmental goals, but the Agenda served as a widely accepted framework. Also, the key person for the overall co-ordination task was a civil servant of the environmental authority, who had no official integration remit. Nevertheless, the co-operation and information exchange with the other authorities worked well and also non-governmental actors and stakeholders (for example, Chambers, NGOs) were willing to participate. Also, the City Council underlined the importance of LA 21 (and of supporting integration of the environment into strategic decision-making) with its unanimous approval in 1995. LA 21 Graz is one part of the Local Development Plan as well as the Local Energy Plan and others. The result is a combination of different integrating tools.

As well as the (dominant) environmental aspect, LA 21 also integrates economic (for example, the "Ecoprofit" programme (see section 3.1) and social issues (for example, specific measures in the Graz settlement "Denggenhofsiedlung").

The case study deals with a local strategy, so some influences like the growing use of vehicles driving from outside of Graz into Graz (there are approximately 70,000 people commuting daily to Graz) are "out of scope" and they therefore need a regional or even a national planning approach. One step forward in this direction of a tiered planning system might be the establishment of a forum with representatives from the federal government, the provincial government and the City Council of Graz. Also, their environmental and sustainable development strategies and programmes have to be adjusted to each other in order to achieve optimized environmental solutions.

Chapter 4

Canada - Framework of SEA for Trade Negotiations

4.1 Introduction

Canada has shown a concern to integrate the environment into all decision-making levels, as can be seen through recent developments in legislation. The Canadian Environmental Protection Act (CEPA) was first issued in 1988 and recently amended in 1999; in CEPA sustainable development plays a major role as a guiding principle for environmental protection. The Auditor General Act was amended in 1995 and the figure of the Commissioner of the Environment and Sustainable Development created to "provide sustainable development monitoring and reporting on the progress of category I departments towards sustainable development…".

With the purpose of assisting departments in preparing their strategies, the Government prepared a Guide to Green Government. The amended Act also requires each Minister for each category I department to prepare sustainable development strategies. By 1997 28 departments had finalised their sustainable development strategies (the second-generation strategies are expected to be finalised by December 2000).

Previous to the amendments to the Auditor General Act, a Cabinet Directive had been issued in 1990 requiring federal departments and agencies to consider environmental factors in government policy and programme proposals. This directive was followed-up in 1993 with the issuance of procedural guidance: The Environmental Process for Policy and Program Proposals, and in 1995 with the publication of Strategic Environmental Assessment: A Guide for Policy and Program Officers. Most recently, a Cabinet Directive on Environmental Assessment of Policy, Plan and Programme Proposals was issued in 1999, mandating federal departments and agencies to consider environmental issues when promulgating government policy, programme, plan and regulatory proposals. Guidelines for the implementation of the Directive were prepared in 2000 (Canadian Environmental Assessment Agency, 2000).

Responding to the new requirements, the Department of Foreign Affairs and International Trade (DFAIT) prepared their sustainable development strategy in 1997: *Agenda 2000*. The strategy committed the Department to conducting environmental reviews[4] of all recommendations to Ministers and to Cabinet.

A first SEA of international negotiations had already been undertaken in 1992 for the North American Free Trade Agreement (NAFTA), although the assessment process was not yet

[4] In Canada *Strategic Environmental Assessments* are also called *Environmental Reviews*.

legislated. The SEA was undertaken by an interdepartmental committee with two aims: to ensure that the potential environmental effects of the various negotiating options would be considered, and to document the potential effects of the Agreement on Canada's environment.

In 1994 an ex-post SEA was undertaken of the Uruguay Round of Multilateral Trade Negotiations (MTN), which led to the creation of the World Trade Organisation (WTO). DFAIT undertook a SEA of the results of the Uruguay Round through an interdepartmental committee (comprising representatives of the departments of Foreign Affairs and International Trade, Agriculture, Environment and Finance). In contrast to the NAFTA SEA, the SEA for the Uruguay Round was initiated after the conclusion of the final negotiations[5]. The purpose of this SEA was to inform ministers on the consistency of the results of the Uruguay Round with the government's commitment to environmental protection and sustainable development.

In 1999 DFAIT issued a Discussion Paper on Canada's policy and position in WTO negotiations, and launched a subsequent consultation process. Participants to the consultations agreed there was a need to assess the environmental impact of international trade agreements and many supported an early start on an ongoing review of the new WTO round. In October 1999 Canada communicated to the WTO their intention to conduct a SEA of the next round of negotiations and proposed to enable an exchange of information amongst all members in order to make the process most efficient and useful to all parties. Finally, DFAIT issued a Draft Environmental Assessment Framework for Trade Negotiations (September 2000) which was released for public review.

The Environmental Assessment Framework for Trade Negotiations has two stated objectives:

1. to help Canadian negotiators integrate environmental considerations into the negotiating process by providing information on the environmental impacts of trade agreements, and
2. to address stakeholders' concerns by demonstrating that environmental factors are being considered in the course of trade negotiations.

This document will establish a formalised methodology for the undertaking of SEAs for trade negotiations. Although the final Framework has not been defined and no SEA has been produced making use of the Framework, this case study is interesting as it provides an example of the application of SEA at high level decision-making.

[5] The Uruguay Round negotiations commenced in September 1986, before Canada passed its non-legislated SEA process.

4.2 Description and Evaluation of Decision-Making Context

The undertaking of SEAs of WTO negotiations to inform negotiators is the competence of the DFAIT, which chairs an Environmental Assessment Committee for Trade Negotiations, comprising representatives from relevant federal government departments. These SEAs are required by the 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, for which implementation guidance has been issued. The SEAs address decision-making at national level (they only address potential environmental impacts within Canada).

This case study presents an objectives-led approach to SEA. The SEA, being an ex-ante assessment, informs the plan preparation process (e.g. the definition of negotiation strategies and positions) prior to the negotiating process. The actual SEA procedure will be defined in the Environmental Assessment Framework for Trade Negotiations.

Table 4.1 Environmental Integration Background

Political Leadership	All ministers are responsible for considering the potential environmental effects of their departments' policies, plans and programmes. Each federal department must have developed a sustainable development strategy.
Institutional Commitment	Ministries are responsible for integration within their department. Environment Canada has primary responsibility for formulating national environmental policy.
Co-ordination	Environment Canada has responsibility for co-ordinating the development of federal policies and the actions of other departments with respect to the environment. On the inter-jurisdictional level, Environment Canada co-ordinates federal and provincial policies through the Canadian Council of Ministers for the Environment.
Communication Reporting	Reporting mechanisms are defined for the different levels of integration. Reporting is conducted through the official fora, such as the Council of Ministers for the Environment, reporting to the Cabinet by different departments, and allowing for public review of proposals.
Guidance Training	Yes. For example, computer based training in SEA is provided to departmental personnel at the DFAIT. Guidance on how to develop sustainable development strategies is provided in A Guide to Green Government. Guidance is also provided on the implementation of the SEA Directive.
Awareness Raising	Yes. All sustainable development strategies, guidance documents, and other relevant documents are easily available through the internet.
Targets/Objectives/ Indicators	Targets and objectives are defined in the Guide to Green Government as well as in each of the sustainable development strategies. Indicators are not readily available.
Appraisal/ Assessment	Yes, as required by the 1999 Directive on SEA.
Instruments	Yes – various.
National/Local Sustainability	Sustainable development strategies exist for all category I federal departments. LA21s have also been developed.

Allocation of Resources	SEAs for WTO negotiations will be paid by federal funds and undertaken by the Interdepartmental Committee.
Monitoring/Auditing	The Commissioner of the Environment and Sustainable Development is responsible for monitoring and auditing the sustainable development performance of federal departments.

4.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The proponent and body responsible for undertaking a SEA for the WTO negotiations is the DFAIT. The actors preparing the SEA would be members of the Environmental Assessment Committee for Trade Negotiations, with representation from relevant federal government departments and chaired by DFAIT. The public would have an important role by providing input during various phases in the SEA process, mainly by being given an opportunity to present their comments on draft versions of the environmental assessment.

Mechanisms of communication

Two sets of mechanisms will be differentiated: those taking place during the preparation of the Assessment Framework, and those which would take place during an SEA (i.e. implementing the framework). During the preparation of the framework, DFAIT first issued a Discussion Paper where the creation of the framework was proposed and on the basis of which the public was invited to help define the lines it should follow. Consultations included five meetings (apart from allowing an opportunity for the public to send their comments) in various localities across the country (Halifax, Montreal, Toronto, Calgary and Vancouver) where more than 80 individuals and organisations participated. Responses obtained on the discussion paper were very supportive for the development of such a framework. A draft framework was issued in September 2000 and the comments were received until 6th October, on the basis of which the final framework is being developed.

The SEA procedure proposed in the Framework consists of the following 4 steps:

1. *Issuance of a notice of intent to conduct an environmental assessment.*

Notices of intent would be issued in the *Canada Gazette* and/or posted on the DFAIT web site. Comments would be sought during 45 days from other levels of government, First Nations and the public on the environmental matters relating to the proposed negotiations in order to help prepare the initial environmental assessment.

2. *Preparation of initial environmental assessment and release in advance of negotiations.*

Following discussions and consultations with the Environmental Assessment Committee for Trade Negotiations, and representatives from other levels of government, First Nations, and

the public, DFAIT would prepare an initial environmental assessment according to the Framework. The initial EA would be released in the *Canada Gazette* and/or posted on the DFAIT web site prior to the negotiations. Comments would be sought in a manner similar to the notice of intent during 45 days (unless a different period of time is deemed appropriate).

3. *Preparation of a draft environmental assessment and release at the start of negotiations.*

After the initial assessment is refined in light of the previous consultations, the resulting document would be the draft environmental assessment. As well as in the previous stages, this draft would be released in the *Canada Gazette* and/or posted on the DFAIT web-site. Public input would be sought during 45 days before the final negotiating objectives are finalised. As the fundamental purpose of this draft environmental assessment is to inform negotiators during the conduct of negotiations, the comments received would be considered during the course of negotiations.

During the negotiations, further analyses may be undertaken but not made publicly available, due to the confidentiality to which this information is subjected. However, it would be integrated in the final environmental assessment report issued at the conclusion of the negotiations. However, in some cases, the Environmental Assessment Committee for Trade Negotiations may seek advice from a Special Advisory Team, comprising representatives from environmental NGOs, the private sector and academic institutions. The draft environmental assessment and the opportunities for public participation to which it is subjected, provides an ongoing input for the integration of environment during the negotiation processes.

4. *Preparation of the final environmental assessment report.*

The final environmental assessment report would be issued in the *Canada Gazette* and/or posted on the DFAIT web-site after closure of the negotiations, including any re-evaluations carried out during the negotiations. This final report would help notify other levels of government, First Nations and the public of any final recommendations for mitigations and/or enhancement measures, as well as any proposed follow-up actions to monitor particular impacts. Comments on the final report would be welcome, although not expressly sought.

4.4 Description of SEA Procedure

The SEA process can be classified as objectives-led, as it helps to develop a policy option (i.e. a negotiating position) prior to the initiation of the negotiations as well as to amend it throughout the negotiations. As well, it is integrated to other levels of decision-making, as it provides options for enhancement/mitigation to be used by other levels of governments in the aspects of the agreements that pertain them.

The analytical framework contained within the framework consists of four stages, namely:

1. Identification of the trade liberalisation effect of the agreement to be negotiated.
2. Identification of the likely environmental impacts of such changes.
3. Assessment of the significance of the identified likely environmental impacts.
4. Identification of enhancement/mitigation options to inform the negotiations.

The framework provides guidance on how to undertake the four stages, mainly by proposing lines of inquiry. No other methodologies are proposed such as the use of checklists, matrices or GIS.

Table 4.2 Environmental Assessment Components

Objectives Led	Yes. The SEA begins prior to the negotiations and informs negotiators. However, indicators or targets are not explicit.
Integration	Yes. The SEA helps develop negotiating positions, assesses their potential impacts, may amend negotiating positions and helps deliver final agreements during negotiations.
Alternatives/Options	An analysis of alternatives is not explicitly required by the framework.
Backcasting (visioning)	Not explicit.
Environmental Statement	Three versions of the environmental assessment are produced and made publicly available for review (initial, draft and final).
Methodologies	Non-technical; mainly based on following lines of inquiry.
Participation	Early participation from the moment the notice of intent is issued. Then opportunities for participation are provided after issuing the initial environmental assessment and the draft environmental assessment. 45 days for public review are allowed and public meetings may be arranged.
Timescales	Depending on the negotiations being held.
Sustainability Impacts	Not considered explicitly in the framework.
Significance	Stage 3 of the analytical framework assesses significance of identified potential impacts.
Non Technical Summary	Not required.
Monitoring	Not considered explicitly in the framework.

4.5 Summary and Commentary on Effectiveness of SEA

SEA as a formal process, informing decision-making of policies, plans and programmes has taken a larger degree of relevance since the 1999 Cabinet Directive on SEA. Besides applying to all government departments and agencies, all major departments must have their own sustainable development strategies. In the case of the DFAIT, SEAs are now required for trade negotiations, , according to the forthcoming environmental assessment framework (now in its draft stage). So far, only ex-post assessments of trade negotiations

had been undertaken (i.e. for the NAFTA and the Uruguay Round), and the proposed framework, which considers ex–ante assessments, is yet to be finalised and implemented.

As the framework has not yet been applied, it is difficult to assess its effectiveness, except according to the text's perceived strengths and weaknesses. During the consultations, the framework was praised, but also criticised. It was praised for its innovative efforts to assess the potential environmental effects of trade negotiations (not only limited to WTO negotiations), especially for the fact of proposing an ex-ante approach. Amongst its perceived weaknesses, the following issues are most recurring:

1. The lack of independence due to the fact that DFAIT acts as the proponent and its own evaluator (actually, the assessment is undertaken by an interdepartmental committee, but chaired by DFAIT).
2. Inadequate opportunities for public participation. Various aspects have been criticised here:
   (a) 45 days not being enough time for review.
   (b) The notification in the Canada Gazette and/or DFAITs web site is inadequate, other means have been suggested, such as the organisation of consultations and direct invitations to participate in meetings.
   (c) The lack of public participation during negotiations (due to alleged secrecy of the information being generated) is also deemed inadequate. Some suggestions have been made, from having a review group with representatives from NGOs who would respect the secrecy of the proceedings (through a confidentiality agreement), to making the negotiations completely transparent to public scrutiny.
3. The scope of the assessment has been criticised for being too narrow. It focuses exclusively on the potential environmental impacts to Canada, neglecting the assessment of environmental impacts to other countries. However, some groups would be willing to have an initial framework with this limitation, in order to facilitate its implementation and gain experience using it, but keeping in mind that the framework should be amended at later stages, expanding its scope.

The Environmental Assessment framework as it stands in its draft version of September 2000 provides an opportunity to undertake an ongoing assessment of the potential environmental impacts of trade negotiation positions from the moment the initial positions are defined and throughout the full negotiations. The framework allows negotiators to integrate environmental considerations in their decision-making from the earliest stages, and also gives them an opportunity to modify their decisions throughout negotiations due to the ongoing assessments being produced.

In spite of their evident potential benefits, participants to the consultations believe that the September 2000 version can still be enhanced in several respects. These include larger degrees of transparency, better opportunities for public participation and ensuring a larger degree of accountability by limiting the level of control that DFAIT may have on the assessments. Nevertheless, a final Environmental Assessment Framework is still to be produced, which may very possibly reflect some of the views expressed by the public during

the consultations. As well, its practical implementation will show its effectiveness and will bring to light any institutional/procedural elements that may inhibit the achievement of its full potential or, on the other hand, that may act as driving forces to achieve such potential.

Chapter 5

Denmark - SEA of Report on National Planning, 1999/2000 (Local Identity and New Challenges)

5.1 Introduction

This case study concerns the strategic environmental assessment procedure that was carried out as an integrated part of the Danish National Spatial Planning 1999/2000. The SEA was carried out on voluntary basis. However, the performed procedure should also be viewed as contributing to the development of an assessment procedure that meets forthcoming SEA Directive requirements. The report 'Local Identity and New Challenges' was the second report on national spatial planning to undergo SEA following the 1997 plan on 'Denmark and European Planning Policy'.

The stepwise SEA that applied to each phase of the national planning process was primarily carried out within the framework of a project organisation. One working group held responsibility for ongoing development of the SEA concept while others had to collect information and data. A steering committee together with the project secretariat held responsibility for assessment and impact predictions. The SEA process could be characterised as being objectives led.

The key impacts of the overall national spatial planning objectives and proposed activities were identified by use of a checklist and matrix. The predictions of environmental impacts of proposed activities included specification of directions for the environment rather than more precise predictions of environmental impacts. The overall nature of the objectives and activities to undergo environmental assessment implied that some of the (key) impacts could only be predicted as positive or negative.

During the planning process the proposed activities were revised in line with the outcome of each SEA step. The opportunity for public involvement existed twice during the whole planning process, however only public organisations and very few individuals made comments on the assessment during these hearing periods. An alternative to the proposal for national planning report was elaborated by an independent group of experts, researchers and politicians.

The comprehensiveness of the national planning process together with the fact that it was the first time that SEA was carried out as an integrated part of the national planning process may explain why the environmental effects of the national planning report did not

get much public attention[6]. Also, the overall quality management of the SEA process turned out to be difficult because of the aforementioned reasons.

5.2 Description and Evaluation of Decision-Making Context

The Minister for the Environment and Energy is responsible for carrying out comprehensive physical national planning and for having the necessary investigations undertaken in this connection. After an election the minister must submit a report on the national planning to the Government in order to signal the proposed planning programme for the new Government (see Volume 2). Although the national planning report is called a plan the action could be said to be a policy document as well as a plan. The plan is not formally binding for any sector or actor. The National Planning Reports that set out spatial planning objectives and strategies, however, become implemented at different regulatory levels through the planning system.

The overall legislative framework for the implementation of the Danish policy on spatial planning is formed by the Danish Planning Act that constitutes a hierarchy of planning. The Minister of Energy and Environment has the competence to lay down National Directives whereas the 14 Danish County Councils are responsible for the elaboration of County or Regional Plans. These latter plans include Local Agenda 21 work that has been initiated on the basis of the Local Agenda 21 strategy. Regional planning must be carried out in compliance with the National Directives. Finally, the County plans or regional plans set the framework for the municipal planning that is undertaken by the 275 Danish Municipalities.

A long-term strategy, based on an imaginative outline of how cities, the countryside, the overall transportation system and tourism shall be developed towards 2018, was developed by the end of the 1980s. This long-term strategy followed by a number of national planning reports was, in 1997, supplemented by a new comprehensive vision of the map of Denmark in year 2022. This new map formed the point of departure for the 1999/2000 National Planning Report. In particular the objectives and visions that related to the co-ordination of spatial planning, business development and sustainable transport were selected for extension and further elaboration. On the basis of these priorities a rough framework for the forthcoming national planning report was outlined for the purposes of pre-consultation and for the determination of the scope of environmental assessment to be carried out, respectively.

The formal Danish requirements for strategic environmental assessment apply to bills and other governmental proposals. The report on national planning can be categorised as 'other governmental proposal'. However, so far, national sectoral plans in general have not been judged as subjects for formalised SEA processes.

[6] The same observations on public participation were made in a case study of the 1997 national planning report (Case Studies on Strategic Environmental assessment, EC Commission, 1997).

Table 5.1 Environmental Integration Background

Political Leadership	The Ministry of Energy and Environment has to present the National Planning Report to the Parliament. A parliamentary Committee takes part in the preparation of the plan. The Danish Planning Act includes a purposeful provision directed towards implementing authorities. This implies that decisions shall include a weighting of ecological and socio-economic interests.
Institutional Commitment	The National Spatial Planning Department is responsible for elaboration of the National Planning Report. A project organisation comprising a steering committee, working groups and a project secretary was set up exclusively for carrying out SEA as an integrated part of the national planning process in The Steering Committee identified the environmental criteria to focus on.
Co-ordination	National planning process - includes two hearing phases, that makes it possible for counties and municipalities to respond to proposed objectives and activities. SEA – in 1999 carried out as integrated part of the national planning process for the first time. A project secretariat facilitated the communication between itself and the steering committee as well as the information gathered by working groups became co-ordinated by the secretariat.
Communication Reporting	National planning process - in pre-hearing and ordinary hearing phases the proposal for National Planning Report was available from home-page and as hard copy. Information on activities was given in a newsletter. SEA - the progressing integrated planning and assessment process became documented through notes that were forwarded to the involved stakeholders.
Guidance Training	National Planning Report – the counties are given guidelines for revision of the regional plans. SEA -a start up seminar regarding the SEA process to be carried out was held for involved stakeholders.
Awareness Raising	The National Spatial Planning Department provides information to authorities and the public by use of a home-page and news-letter. Information was made available for the public by use of the ministry home-page and news letter. Public pre-consultation was held for the first time on the basis of a rough framework of the planning report to become elaborated.
Targets/Objectives/ Indicators	The overall objectives related to business development, transport and land use formed the starting point for specification of objectives and scope of strategic environmental assessment.
Appraisal/ Assessment	In particular, housing, business development and transport policies became Subject to appraisal but also other policy areas were looked upon.
Instruments	The national planning objectives are implemented as part of the county and town planning.
National/Local Sustainability	Action Plans covering different sectors have been elaborated as follow ups of the Brundtland Report and Rio Conference. These plans were elaborated on the basis of a kind of environmental assessment.
Allocation of Spending	No information.
Monitoring/ Auditing	The reports on national planning are thematic. The themes to be focused on are selected in accordance with the issues that are high on the political agenda at the time for carrying out the planning process. SEA -the Danish Protection Agency carried out the quality control of the SEA process, though not without problems.

5.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

A project organisation responsible for the elaboration of the report on national spatial planning and the SEA process was established. The organisation comprised a steering committee, a project secretariat, working groups and an independent environmental assessment expert. The intention was to integrate a stepwise process making SEA a part of each of the decision-making phases. The steering committee was responsible for the elaboration of the report.

One working group held responsibility for on-going development of the SEA concept and the inter-linked steps of SEA to be carried out during the planning process. This working group included an independent environmental assessment expert, the person responsible for SEA in National Spatial Planning Department and a representative from the project secretariat. The role of the external expert was to advise the project secretariat regarding the prediction of environmental effects of various decisions. The external expert also had to take part in the dissemination of the experience gathered during the national spatial planning process in 1999.

The other working groups had to describe the state of the environment in relation to current spatial planning policy and its related activities. This meant the strategic environmental assessment was carried out on the basis of existing knowledge and data. The working groups had no obligation to predict the environmental effects of their work.

Mechanisms of communication

The project secretariat was located in the National Spatial Planning Department. The secretariat had to facilitate communication and co-ordination between the participating parties. Also, they held responsibility for the prediction of environmental effects on the basis of the information gathered and the decisions that had been taken. The steering group got involved when decisions on activities to be included in the planning report had to be taken. The secretariat drafted the proposals for the planning report.

Information concerning the planning process and the proposal for the national spatial planning report was disseminated via the homepage of the National Spatial Planning Department and in the Department's newsletters. The comments and reactions gathered during pre-consultation and consultation periods came from counties and municipalities, in particular. Some organisations and a few individual persons made comments. The SEA process was documented during the process through brief notes elaborated by the project secretariat and finally in a Spatial Department publication. The notes were distributed to stakeholders and other selected groups. The Environmental Protection Agency held overall responsibility for the quality management of the SEA process and carried out the quality control of the different SEA steps. Also, experts within different policy areas, for example, the transport sector, contributed to ensure the quality of the SEA.

5.4 Description of SEA Procedure

The framework for the first SEA to be integrated as part of the national spatial planning process, was set up by a group of persons who had experience with the 1997 process. Figure 5.1 provides an outline of the SEA steps.

Steps of SEA	Output
Public pre-consultation	Ideas and proposals
1. On the basis of screening of all-over ministerial objectives and comments from the public	Fixing of scope of report on national planning
2. Screening of environmental impacts of activities included in rough frame of national planning report. Environmental criteria for assessment were identified on the basis of experience gained in SEA at county plan level	List of key impacts of selected objectives. The list was circulated between ministry personnel and experts
3. Fixing of scope for environmental assessment	Selection of activities to be focused on in assessment of environmental impacts.
4. Assessment of each selected activity	Assessments form the basis for evaluation of need for revision of proposal
5. Prediction of total environmental impacts of plan proposal	a) impacts of each activity b) impacts related to each area of activities c) the total impacts of proposed plan
6. Public hearing	Comments to be included in final environmental assessment of national planning report
7. Final national planning report, including an account of environmental assessment procedure	National planning report

Figure 5.1 SEA Steps

An introductory seminar was arranged for the project organisation that should carry out the SEA. The project organisation was provided with a 'tool box' for starting up their work. This included an overview of the planned SEA process (as outlined above), the environmental criteria to be put into focus (identified by the steering committee[7]) and finally the selected overall objectives of the national spatial planning policy and other relevant policy objectives(for example, environmental policy, transport policy, industry and trade policy). The Environmental Protection Agency was chosen to carry out quality control of the SEA process.

[7] The environmental criteria to be used in the environmental assessment procedures were identified on the basis of a modification of the methods, criteria and procedures used in a previous SEA process that was carried out as a part of the regional planning process in the county of Northern Jutland (Elling 1998). The criteria and factors/indicators that were identified included natural resources and specific global, national and local indicators, respectively. The committee responsible for the development of the SEA concept emphasised that they found the identification of criteria and indicators relating to global issues especially tricky and difficult.

The screening and scoping processes were carried out on the basis of a checklist and matrix included in the 'Guidance on Procedures for Assessing the Environmental Impacts of Bills and other Governmental Proposals' published by the Ministry of Energy and Environment in 1995. This matrix was applied to each of the selected objectives/activities and their potential key impacts were identified. The impacts on, for example, different media such as surface and groundwater, resources, waste, human health and welfare and landscape had to be evaluated. This process led to pointing out 'directions for the environment' rather than more precise impacts.

The working groups, on the basis of, for example, county, municipal plans and information from ministries including the Ministry of Transport, elaborated the specifications of 'the direction for the environment'. The result of this work implied that, for example, environmental effects of environmentally friendly forms of transport, localisation of areas for business and industry, integration of considerations on environment and energy use in companies' transport strategies, became subject to assessment. The content of objectives and activities to be included in the different chapters of the planning report were extended during the on-going planning phases. The prediction of environmental impacts of proposed activities implied that the proposed activities were continuously adjusted in line with the results of the assessments. These first steps of the SEA process, that included a pre-public hearing phase, took place in autumn 1998 whereas the first proposal for the national planning report was published in April 1999. The pre-consultation procedure was the first to be carried out as part of the national planning process. The hearing took place before the scope of the environmental assessment was fixed. However, hardly any comments on environmental issues were submitted in this phase of the process. The comments gathered through the hearing period mainly came from counties, municipalities and organisations; only very few individuals participated.

The National Planning Report – proposal and final report

The proposal for the National Planning Report focused on the interplay between business development, local transport policy and physical planning by use of the maps of Denmark. These maps had been elaborated on the basis of the selected objectives, proposed activities and the results of the stepwise SEA. The description of the environmental effects of the proposed plan was integrated into each chapter of the plan rather than in a seperate SEA report. Only half a page of the first proposal concentrated on the total effects of the activities to be initiated within the context of the Government's maps of Denmark.

The environmental assessment of the overall report indicated that more effective use of existing transport infrastructure should be put in place, that traffic junctions facilitating inter-modal transport solutions should be established and that business, industry and housing areas should be located near collective transportation. Apart from the above-mentioned maps the proposal included an alternative map. The Danish Parliament decided in 1997 that future national planning reports should present genuinely alternative options in national planning. As a result an alternative proposal for national planning policy was elaborated by an independent group of experts, researchers and politicians. The patterns

of public participation were the same in the ordinary hearing phase as in the pre-hearing phase.

The final or adopted national planning report included some substantial changes that were decided late in the national planning process. The outcome of the final SEA step may have contributed to the changes. The final report included an annex emphasising the environmental effects of the plan. It also pointed out the new issues that had been put on the Agenda during the period from first draft of the plan to the final version.

Table 5.2 Environmental Assessment Components

Objectives Led	Overall objectives were specified and related activities were adjudged on the basis of the results of the stepwise SEA during the national planning process.
Integration	Different SEA steps were carried out as integrated part of the national planning process.
Alternatives/Options	Since 1997 a proposal for national planning shall be presented by an independent group as an alternative to the Government's maps of Denmark.
Backcasting (visioning)	A map of visions 2022 expressing the Government's visions was elaborated in 1997 and related objectives and activities outlined. The objectives regarding business development, transport and land use were selected for specification in the national planning report 1999/2000.
Environmental Statement	Presentations of environmental impacts were incorporated as part of each chapter of the National Planning Report. An account of the total impacts of the planning report was outlined in an annex to the final planning report.
Methodologies	Objectives led approach. Use of matrix in scoping phase.
Participation	Twice during the national planning process – pre-consultation; ideas and comments from the public are taken into consideration in determination of scope of assessment. Second hearing on the basis of first proposal for planning report.
Timescales	Long term - map of visions 2022. Short term – implementation of national planning policy through regional and municipal plans.
Sustainability Impacts	Sustainability is an overall objective of Danish Environmental Policy and the need for balancing of environmental and socio-economic impacts are emphasised in the planning report.
Significance	The overall objectives and activities to undergo environmental assessment implied that it some cases the only possibility of prediction of environmental impacts was to state if they were likely to be positive or negative.
Non-Technical Summary	Yes.
Monitoring	The Environmental Protection Agency carried out quality control of SEA process. They had, however, problems as some of the impact predictions were rather vague.

5.5 Summary and Commentary on Effectiveness of SEA

Issues related to the organisation of assessment

The integration of SEA as part of the national planning process was planned in advance. A note from the Department of Spatial planning outlined the different SEA phases and the project organisation participated in an introductory seminar. Communication and documentation of the progressing SEA took place continuously in the first phases of the decision-making process. After the presentation of the first draft of the national planning it is more unclear and less documented how the SEA at later stages of the decision-making process was carried out. The public participation dimension of the SEA process seems to have been the weakest part. Very few members of the public made comments in the pre-consultation and ordinary consultation processes and the comments submitted from counties and municipalities did not relate to the environmental effects of the plan. This lack of attention may be explained by the fact that the evaluations of environmental effects indicated only directions for the environment rather than more concrete predictions of impacts.

Issues related to goals of assessment/definition of scope

The overall nature of objectives and activities made the screening and assessment procedures difficult. In some cases the significance of environmental impacts could only be judged as positive or negative. Tradeoffs had to be made at each step of the planning process. The imprecise and broad nature of impact predictions may have left the public with an unclear picture of the linkage between the assessment procedure and the plan procedure. A clear definition of which policies and (action) plans should be subject to SEA needs to be developed. The Danish circular on SEA requires that Bills and 'other 'governmental proposals' undergo environmental assessment. National sectoral plans apart from reports on national planning should in accordance with a natural interpretation of this term be made subject to SEA. Also, a knowledge base and a systematic approach should be developed.

Some development of methodologies and techniques appears to be needed. A systematic approach for screening of environmental impacts of the often very broad policy concepts is also needed. The fixing of scope for assessment is essential for making more specific impact predictions as part of each SEA step. Development of techniques for making more precise impact predictions of broad objectives and activities will also constitute a good basis for improvement and development of the quality control system.

SEA procedure viewed from key-persons perspective

Key members of the project organisation emphasised that it had been difficult to predict the environmental impacts of the very broad objectives and activities proposed within the different areas of the spatial planning policy. These difficulties also implied that the quality control of the SEA that was carried out by the Danish Environmental Protection Agency was

found to be problematic. It was recognised by the project organisation that the public participation dimension of the SEA has to become central in forthcoming national planning processes.

SEA outcomes

The Spatial Planning Department has taken some very important steps regarding the development of an SEA process that can be applied as an integrated part of the national spatial planning process. The SEA process carried out cannot be characterised as a full SEA. However, it seems obvious that the SEA helps integration of the environment in the area of national spatial planning. The strengths of the SEA process related to the success of applying SEA at a really early stage of the national planning process. The objectives and priorities included in the adopted National Planning Report reflected changes that had been made in the final part of the planning process. The final SEA steps may have influenced these changes.

Chapter 6

Finland - Thematic Evaluation on Environment and Development in Finnish Development Co-operation

6.1 Introduction

This case study concerns the Thematic Evaluation on Environment and Development in Finnish Development Co-operation that was carried out by a group of researchers in 1998-1999. The study comprised a main component focusing on general aspects of environment and development and seven sub-components looking into specific issues, as for example, Finnish development co-operation with Nepal and Nicaragua and sector development co-operation of Finland in Sub-Saharan Africa.

The Finnish Government's Development Co-operation is specified in the Government's Decision-in-Principle from 1996, that contains general comprehensive and demanding policy statements. The aim of the thematic evaluation was the examination of the relevance of the policy and the policy related process by focusing on the mechanisms for translation of policy statements, formal commitments and the Decision-in-Principle to the operational level. The overall policies relevant to development co-operation as well as guidelines and working practices were assessed and evaluated through analysis of documents, thematic and structured interviews and a survey. The thematic evaluation was applied at two levels; the general policy level and programme and plan level. The evaluation looked into Finnish environmental policy objectives, planning in the organisation of development co-operation programmes and projects, implementation, and operation of programmes. Also, monitoring and management issues were assessed.

This case study, on the one hand, summarises the findings of the Finnish researchers regarding integration of environment at different decision-making levels of Finnish development co-operation (sections 6.3, 6.4 and 6.5, Tables 6.1 and 6.2). While on the other hand the study also describes the research design for carrying out the thematic evaluation (section 6.1 and 6.3). The Thematic Evaluation covered bilateral and multilateral development co-operation as well as concessional credits. In this case study, however, only the bilateral development co-operation is referred to when describing mechanisms of integration.

6.2 Description and Evaluation of Decision-Making Context

Development co-operation is considered to be an integral part of Finnish foreign policy. The overall objective of the Ministry of Foreign Affairs is to promote universal goals such as

poverty alleviation, democracy and human rights, and sustainable development through international co-operation. The Ministry also has a co-ordinating role in relation to other Ministries such as the Ministries of Environment, of Agriculture and Forestry and of Trade and Industry. The Ministry has a role in negotiation of international agreements, while sector ministries are responsible for the implementation

The Thematic Evaluation reviewed the management of environmental issues within the organisation of the Ministry of Foreign Affairs. In particular the Department for International Development Co-operation, which has planning and co-ordination functions, plays an important role in development co-operation. The evaluation reviewed the environmental management within the structure of the Ministry prior to 1998. The actual structure of the Ministry was, however, taken into account in the analysis of results and drawing of conclusions. The general environmental policy of Finland's Development Co-operation was specified in the Government's Decision-in-Principle of 12 September 1996. According to this environmental considerations will be included in all activity, while environmental programmes and development of environmental administration are supported, and developing countries are supported in fulfilling their environmental obligations.

The Thematic Evaluation on Environment and Development in Finnish Development Co-operation disclosed the integration or lack of integration of environmental considerations at different levels of decision-making by the identification of present practices regarding policy making and planning in the Ministry. Also, the development of programmes and projects and their implementation in partner countries were assessed in sub-component projects.

The Act on EIA that came into force in December 1994 states that environmental impacts must be assessed when authorities plan and prepare activities that might have significant impacts. The law applies to strategic planning of development co-operation, such as plans of action and financing, the preparation of decisions on allocation of funds, and the preparation of country strategies and programmes and thematic strategies and programmes. The Thematic Evaluation was, however not able to identify systematic procedures for such types of strategic assessment.

The development co-operation programmes and projects are prepared, implemented and operated in accordance with the principles of the so-called project cycle. The different components of the cycle that include identification and formulation of projects, financial decisions, tendering and contracts, various steps of implementation, completion and evaluation have to fully integrate environmental considerations according to the Guidelines for Programme Design, Monitoring and Evaluation (Ministry of Foreign Affairs, 1998). Monitoring and evaluations are standard features of the project cycle. The evaluation results should ideally be used as part of environmental management in the Ministry. Also, the results should be taken into consideration when the Development Policy is renewed.

Table 6.1 Environmental Integration Background

Political Leadership	The general environmental policy of Finland's Development Cooperation has been specified in the Government's Decision-in-Principle of 12 September EIA legislation forms the frame for decision making at policy, programme, plan and project level, however guidelines based on logical framework analysis have superseded the EIA guidance applying to development co-operation projects.
Institutional Commitment	Department of International Development Co-operation. Integration of EIA in the strategic planning of development co-operation implies the Comparison and environmental justification of different alternatives for the allocation of development co-operation funds. No systematic procedure for this type of strategic assessment, although the issues were discussed on ad hoc basis.
Co-ordination	General policy level – Co-ordination of Trade and Industry policy with Environmental policy and Agricultural and Forest policy was recognised as problematic. Co-ordination at interstate level of the countries' bilateral development co-operation programmes – not to an appropriate extent. At programme and project level committees are responsible for co-ordinating different mechanisms for integration. Vertical and horizontal (for example, European and national, and health and transport).
Communication Reporting	Reports on the general Finnish Development Co-operation Policy are Published. Programme/Project level – Reporting is included as part of LFA (logical framework analysis) – programme and project teams report to Ministry of Foreign Affairs.
Guidance Training	Ministry of Foreign Affairs does not provide training for their own Personnel and consultants in a systematised way. At project level partner Countries and contractors are made aware of their roles and Responsibilities through Terms of Reference.
Awareness Raising	The general policy of Finnish development co-operation is published in Reports as well as projects carried out. These are reported and made Available to the public through a series published by the Ministry. At Programme and project level the project teams have the responsibility for awareness raising.
Targets/Objectives/ Indicators	Indicators of performance are included as part of the Guidelines for Programme Design, Monitoring and Evaluation (Ministry of Foreign Affairs, 1998).
Appraisal/ Assessment	The Finnish Development Co-operation policy is developed taking into Consideration environmental, agricultural and forest policies as well as Trade and industry policy. Environment is considered as a cross cutting I Issue in development co-operations like gender, democracy and poverty.
Instruments	The instruments used correspond with the different areas of the development co-operation.
National/Local Sustainability	The Finnish co-operation strategy of 1996 and the Decision-in-Principle are results of a development that was initiated on the basis of the 1992 Rio Conference.
Allocation of Spending	In accordance with the priorities of the Finnish Development policy and the Ministry's allocation of funds.
Monitoring/Auditing	Monitoring and evaluations of programmes and projects are standard features of project cycle. Track records are not used systematically at Ministry level.

6.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in evaluation project

A research team comprising a 'main component team' and separate 'sub-component teams' in 1998-1999 studied the mechanisms of translation of policy statements, formal commitments and the Decision-in-Principle to the operational level. The general frame of reference for the evaluation was composed of the Finnish policy documents on development and environment and of the international environmental framework, environmental conventions and their follow up agreements and obligations to which Finland is a party through acceptance, ratification or signature. The main document analysis covered documents from 1989-1998. Interviews and a survey supplemented the document analysis in order to fill gaps.

The main component evaluation team comprised 6 researchers, three researchers from the Finnish Environment Institute had overall responsibility for planning, analysis and reporting whereas two researchers carried out and reported studies in Kenya and Costa Rica and a third described the development of Finnish Development Co-operation Policy. Each of 7 sub-component teams comprised of national experts/researchers and in some cases two local or regional experts selected with regard to the perspectives of Finnish Development Co-operation included in the sub-component.

Interviewees were selected on the basis of their familiarity with development co-operation work and issues, and/or their direct involvement in decision-making relating to the evaluation's Term of Reference. Questionnaires were distributed to the Parliamentary Foreign Affairs Committee, Advisory Board for Relations with Developing countries, Bilateral Partner countries, other countries, Consultants and NGOs for the purpose of gaining simple factual information and some broad statements relating to the development co-operation policy. In the foreword of the main report of the Thematic Evaluation (main component on policy issues and general management) it is stated that the Evaluation became a process of mutual learning. The evaluation team gained insights into the working of Finnish development co-operation while those working with Finnish development co-operation actively considered options for improving ways to deal with environmental concerns. The different evaluation teams shared experiences and were able to check and verify each other's findings. The overall conclusions and recommendation of the thematic evaluation discussed in a two day Synthesis Workshop of the Thematic Evaluation were directed towards the Ministry of Foreign Affairs.

Finnish Development Policy – actors taking part in decision-making at different levels

The Ministry of Foreign Affairs holds responsibility for the Development Co-operation policy. The Department for International Development Co-operation, which has planning and co-ordination functions, plays an important role. At international level the different donor countries co-operate and to a certain extent try to co-ordinate the national development co-operation policies. Within the organisation of the Ministry of Foreign

Affairs several departments and divisions have to co-operate. Desk officers in two regional units have responsibility in directing ongoing projects and programmes and in supporting initiation and preparation of new activities. The Evaluation and Internal Auditing Unit takes care of the overall evaluation of development co-operation activities. At project level local representatives and consultants have discussions on environmental issues. However, the environmental information is not always systematic or fully used. In a number of cases the environmental components have been forgotten. Occasionally project identification and preparation are reported to have been participatory (including NGOs).

Mechanisms of communication

In bilateral development the country negotiations are a key forum for establishing specific environmental objectives. There are no specific environmental objectives and targets at the functional or unit level in the Ministry. The Department for International Development Co-operation personnel found that the Guidelines are the main tool for directing the programme and project management. Some of the interviewees felt that the Guidelines do not set specific environmental demands, other than the demand for a preliminary EIA, and as a result much is left to the skills of the professionals and the motivation of the individual officer and contractor.

Project teams have to report to the Ministry and the Evaluation and Internal Auditing Unit has the overall responsibility for collection and review of track records and external project evaluations. The Ministry of Foreign Affairs was, at the time of the Thematic Evaluation, reported to suffer from a lack of institutional memory due to rapid rotation of desk officers. The communication between Ministry of Foreign Affairs and interested parties (for example, partner countries, Parliament and the public) was reported to have improved in later years. Environmental issues are reported at a general level in an annual report to the Parliament and to OECD, while the reporting on individual activities varies considerably.

6.4 Description of Integration Procedure

The Thematic Evaluation dealt with assessing the relevance, impact, effectiveness, efficiency and sustainability of environmental policies, guidelines and working practices. These different levels of decision-making and implementation of Finnish Development Co-operation Policy are related through links from a general policy level to activities in concrete development co-operation, the observed actual impacts on the environment and a feedback system. The Thematic Evaluation used three basic methods that complemented each other: a document analysis, thematic and structured interviews, and a survey. The general approaches of the Major Component to the Thematic Evaluation were process oriented, with an emphasis on systems and the procedures of Ministry of Foreign Affairs for handling environmental considerations in development co-operation, and more generally, in relation with developing countries. In this approach a standard environmental management system ISO 14001 was used as a reference in the search for functions and specific management solutions that fitted the reality of development co-operation, and the

process that could or should be improved. This research design of course to a certain extent determined the outcome of the Thematic Evaluation.

The mechanisms for translation of overall objectives to operational levels were disclosed by focusing on key issues for structuring information. The key issues were drawn from the ISO 14001 standard. The themes used were: Relevance of environmental policy, planning in the organisation, implementation and operation of development co-operation, measuring and evaluating results and review of management and improving of practices (evaluation of the role of the top management in the Ministry). The Guidelines for Programme Design, Monitoring and Evaluation were used as an approach for assessments of relevance as well as impacts and effectiveness of development co-operation policies. Questions such as 'Do the policies make sense within the context of their environment?', 'what happened as a consequence of the policy?' and 'to what extent has the policy purpose been achieved and to what extent is the achievement a result of the policy?' were raised. The sustainability considerations were based on the question 'Will the impacts of the policy continue to be beneficial in the long run or are adverse effects likely to occur?'

a) Finnish Environmental Policy Objectives

The examination of the relevance of environmental policy was focused towards how the top-management of the Ministry of Foreign Affairs had ensured the relevance of the policy to development co-operation activities and how the policy had been considered within the frame of the overall legal framework. The Decision-in-Principle was found sufficient as a policy statement and consistent with Finland's commitment in international fora. However, conflicts between trade policy and policies based on the decision in principle were detected. The formulation and documentation of concrete objectives and targets were found to be incomplete and no systematic procedure for carrying out strategic assessment was identified, although strategic plans on action and finance are subject to formal environmental assessment. The Decision-in-Principle was found to be well known among those involved in Finnish development co-operation, whereas the Ministry's approach to implementation of the Decision-in-Principle was expressed as unclear by actors outside the Ministry.

b) Planning in the organisation of development co-operation programmes and projects

The lack of specific and concrete objectives can lead to unclear project logic. The interviewees within the selected target groups emphasised the importance of integration of environmental considerations into decision-making at a very early stage of the planning process of programmes and projects. Preparation of country strategies and thematic strategies includes EIA. The thematic evaluation was, however, not able to identify any systematic procedure for this type of environmental assessment, although the issues were discussed on an ad hoc basis. The mainstreaming of environmental considerations is a stated objective and is clearly a starting point in the present project and programme guidelines. The interviewees using the Guidelines for Programme Design, Monitoring and

Evaluation emphasised that the Guidelines totally rely on a logical framework design and analysis and that no references to EIA guidelines for development projects were made. As a result the importance of the EIA guidelines, which included descriptions of the EIA process to be followed, had faded.

c) Implementation and operation of programmes and projects

In principle the Department for International Development Co-operation does not implement projects and programmes. The responsibilities are on the partner country and the consultants. During the implementation phase the Ministry's role is focused on monitoring. The design and operation of Finnish programmes and projects is, to a large extent, consultant driven (finding of sub-component – Nicaragua evaluation). No systematic environmental training programme having expatriate consultants and Ministry personnel as target groups was identified in the Thematic Evaluation. Discussion on 'what does the Decision-in-Principle mean at operational levels?' is essential. The main mechanism for ensuring environmental considerations in bilateral projects is the Terms of Reference, the preparation of which is done through collaboration by advisers, desk officers and local representatives. The interviewees emphasised that they lacked guidance on the setting of environmental objectives at project level. In the project cycle the different review and report procedures as well as project meetings provide systematic procedures for dealing with environmental aspects of activities.

d) Monitoring measures and evaluation at national and programme/project levels

The guidelines on programme monitoring and evaluation, which primarily concern bilateral projects, require information to track performance, relevant operational controls and conformance with the Ministry. The lack of specified operational environmental objectives for activities hampers collection of meaningful information on track records and using the information for feedback. A meaningful use of feedback records requires base-line studies and monitoring in intervention planning. Several interviewees noticed that the Department for International Development Co-operation has placed a high standard on the evaluation function and that the establishment of an evaluation unit has contributed to a significant improvement.

Table 6.2 Environmental Assessment Components

Objectives led	There are three overall objectives of the Finnish Development Co-operation. The Decision-in-Principle is a policy statement that is applicable in general policy making, comprehensive discussions, negotiations and decision-making.
Integration	There are formal requirements for environmental assessment at strategic levels as with planning of actions and finance. No systematic procedure for SEA was found by the Thematic Evaluation. The Guideline for development co-operation projects does not include EIA at operational levels as earlier guidance. However, the actual guidance seeks to ensure that environmental considerations are integrated in all phases of the

	project cycle.
Alternatives /Options	Project level: Alternatives are considered when development co-operation projects are identified as part of the project cycle
Backcasting (Visioning)	None
Environmental Statement	Environmental issues are reported at a general level in the annual reports and to OECD.
Methodologies	The budgetary procedure set the framework for the whole planning of the development co-operation. Environmental issues are considered at the general level. The plan for allocation of funds requires reference to Decision-in-Principle. The Guidelines for Programme Design, Monitoring and Evaluation demand full integration of environmental considerations into the project cycle.
Participation	The Advisory Board participating in strategic planning and preparation has NGOs and Industry as members. At programme and project level NGOs are involved in certain parts of decision making.
Timescales	The budgetary procedure sets the framework for the whole planning of Development co-operation. The expected time for fulfilling of environmental objectives varies due to type of programmes.
Sustainability impacts	Positive impacts are observable at a local and district level. However, at country or regional level the Finnish project type activities are generally too small to have significant impact. Successful environmental activities have often been linked to other development activities such as dairy production and pine forest management.
Significance	Difficulties in setting environmental objectives and targets hamper the possibilities for prediction of significant environmental impacts of activities at programme and project level.
Non Technical Summary	Non technical summaries are not documents included in the project cycle reporting and documentation.
Monitoring	The Evaluation and Internal Monitoring Unit related to Department of International Development Co-operation has contributed to an increase in understanding of the strengths and weaknesses of Finnish Development Co-operation (expressed by several interviewees). The strategic use of evaluation findings was, however, found to be limited. Monitoring and evaluation are standard features of the project cycle. Evaluation reports are published in a series. Limited strategic use of evaluation findings.

6.5 Summary and Commentary on Effectiveness of Integration

Issues related to the organisation of integration

The overall objectives of Finnish Development Co-operation Policy and the Decision-in-Principle set the frame for translation of policy statements and the above-mentioned principle to operational levels. At ministerial level the institutional memory is reported to be poor and lessons learnt from past actions were found to be slow due to quick rotation of Ministry personnel. The Guidelines for Programme Design, Monitoring and Evaluation set the framework for integration of environmental considerations in all phases of the project cycle. The project cycle that, facilitates different planning and implementation processes by

use of a log-frame approach, is the only tool in use for systematic integration of environment in decision making. The Guidelines do not include the EIA procedure that was included in older guidance.

The Ministry of Foreign Affairs did not provide environmental training of Ministry personnel and consultants although discussions on how to turn the Decision-in-Principle into real world activities are essential. The lack of such training implies that the performance then relies on personal competencies. Monitoring and audit issues have been given much attention in later years. However, no systematic use of project evaluations was reported to take place in the Ministry of Foreign Affairs.

Issues related to goals of assessment/definition of scope

The specification of concrete objectives and targets in Finnish Development Co-operation Policy was found weak at policy level. This implied that the setting of objectives and targets at lower levels was found difficult. No specific objectives and targets at the functional or unit level in the Ministry of Foreign Affairs were found. The Guidelines were found to be the main tool for directing project and programme management. A checklist of criteria with simple descriptions served the setting of operational sub-targets.

Integration process viewed from key-persons perspective

The Thematic Evaluation disclosed that the Ministry of Foreign Affairs' approach to implementation of the Decision-in-Principle was not clear to actors outside the Ministry. The interviewees emphasised the importance of integration of environmental consideration at a very early stage of the planning of programmes and emphasised the difficulties related to the setting of operational objectives and targets at programme and project levels. All consultants used the Guidelines on Project Design and Monitoring and Evaluation. These guidelines do not include EIA as part of project preparation to the same extent as previous guidelines, which was seen as a disadvantage among the interviewees.

Integration outcomes

The integration outcomes vary at the different levels of decision-making. At policy level conflicts between the policies related to the Decision-in-Principle and Trade Policy could not be easily overcome. At other levels the integration of environmental considerations in decision-making to a large extent relied on the qualifications of the decision-maker/decision-making bodies.

Chapter 7

France - SEA and Multi-Modal Infrastructures: the Case of the North Corridor

7.1 Introduction

France has a history of environmental protection and environmental impact assessment since the late 1970s. Strategic environmental assessment is provided for in a number of cases including Municipal and Urban Zoning Plans (see Volume 2), although changes have been made in recent years for the provision of environmental statements for whole programmes. A Circular introduced in 1998 makes it mandatory for an environmental assessment to be carried out on the development of new legislation (Ministry of Environment, 1999). Figure 7.1 below provides an outline of the different levels of planning to which environmental assessment methodologies have been applied in France. The area highlighted is the level that is the subject of this report. This report looks at a SEA methodology that was developed in France in 1999 as a result of a European Commission proposal to produce guidance on strategic environmental assessment for infrastructure plans (see section 7.2 for further detail). It should be noted that the SEA methodology produced is based on trial circumstances and is purely illustrative.

Level that the Environment is Taken into Account.	Object of the Assessment	Application in France
Impact Statement of legal, administrative, social, economic and budgetary processes.	Projects of Law and Decrees of the Administrative Council (Conseil d'Etat)	Experiment and enforced by a recent Circular but the environment is only taken into account for the improvement of social well being.
Strategic Environmental Assessment level I	National infrastructure programmes	Experimented but further work is needed.
Strategic Environmental Assessment level II	Infrastructure programmes relating to Corridors.	No
Preliminary Study of the Environment	Large linear infrastructures.	Yes
Environmental Impact Assessment	Amenities and buildings.	Yes

Figure 7.1 Different Levels of Planning to Which Trial Methodologies Have Been Applied. [Source: Translated from Etude BCEOM/INGEROUTES/Sept 98 – Evaluation environnementale des programmes nationaux d'infrastructures de transports (Ingérop, 1999).

7.2 Description and Evaluation of Decision-Making Context

Despite the level of environmental impact assessment regulation in France there is no SEA regulation for cases involving multi-modal infrastructures i.e. involving more than one type of infrastructure, although an inter-modal study was carried out on the North Corridor in 1992. Also in 1992, the European Commission introduced a White Paper on a Common Transport Policy. In this the European Commission stated that SEA would be applied to large multi-modal transport infrastructure plans. The principles of SEA were formally endorsed in 1997 by the European Council of Ministers of Transport (European Commission, 1999). As a result there was a requirement by the European Parliament and the European Council, under Article 8 of the guidelines on development of the Trans-European Transport Networks (TENs), that SEA methodologies be developed. Several EU countries were involved (France, United Kingdom, Austria and Belgium) including one EU accession country (the Czech Republic). The French Ministry of Public Works, Transport and Housing was the body responsible for initiating the study of the North Corridor. The results from these methodologies contributed to the production of a manual on Strategic Environmental Assessment of Transport Infrastructure Plans. This was published by the European Commission in 1999.

Table 7.1 Environmental Integration Background

Political Leadership	Yes. The Ministry of Public Works, Transport and Housing and its sub-department SETRA (Roads and Motorways Engineering Department)
Institutional Commitment	The French Government has, for ten years, been trying to create an initiative which involves looking at environmental effects before a plan is finalised.
Co-ordination	Very little co-ordination between the bodies involved.
Communication Reporting	Only communication between SETRA and INGEROP (see section 7.3)
Guidance Training	No.
Awareness Raising	No.
Targets/Objectives/ Indicators	Yes. Creation of indicators during phase 3 of the SEA Methodology.
Appraisal/ Assessment	Yes. Municipal and Urban land use plans.
Instruments	Databases and geographical information systems.
National/Local Sustainability	Concern over future 'saturation' of the North Corridor Infrastructures.
Allocation of Spending	The project was co-financed between the European Commission and the Ministry of Public Works, Transport and Housing and cost an estimated 395,000 French Francs (without tax).
Monitoring/ Auditing	No.

7.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The main bodies involved in the development of the SEA methodology for the North Corridor are outlined in Figure 7.2 below. The study was co-financed between the European Commission and the Ministry of Public Works, Transport and Housing. The consultancy INGEROP was chosen to work on this study as it had previous experience of carrying out similar work in this area.

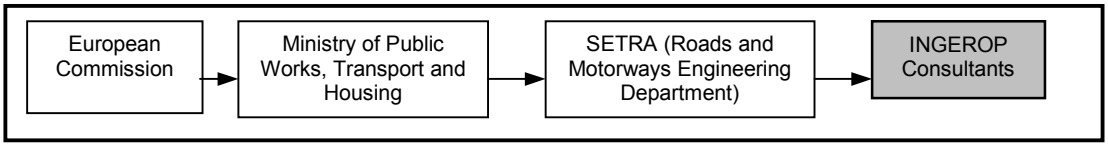

Figure 7.2 Main Actors in the Decision-Making Process

Mechanisms of communication

The main methods of communication between the various bodies involved, including those people contacted during data collection etc., were meetings, faxes, telephone calls and e-mail. However, contact did not occur between all parties mentioned in Figure 7.2:

- During the study INGEROP only had consultations with SETRA.
- Two months after the official start for the French project there was a progress meeting held between all participating countries and the European Commission. At this meeting countries were able to present the work which had been done so far. However, due to the lack of communication prior to this meeting it was discovered that different countries were working at different levels. For example, all other countries involved had a different start date to France i.e. they had started more than two months before the progress meeting. Despite this, France was able to complete the work at the same time as the other countries.
- At the end of the project INGEROP presented the results in report format to SETRA. There was no presentation made to either the Ministry of Public Works, Transport and Housing or the European Commission.

7.4 Description of SEA Procedure

The area affected by this study is the North Corridor, which covers an area between North Paris and the South of Brussels with a total of 22,000 kilometres^2 (20,000km^2 in France and 2,000km^2 in Belgium). This Corridor was chosen because it is predicted that in the future the present infrastructure is going to be 'saturated' and therefore new infrastructure needs to be created. The Corridor involves three modes of transport: road, rail and river. Four different scenarios were created for the North Corridor (see Figure 7.3). The final impact statement pointed out a number of issues that made it difficult to compare the different scenarios. Firstly, they are not of equal importance. Secondly, there are

individual effects from each infrastructure but they may also have global effects. Thirdly, some of the infrastructures are new and some are improvements on existing infrastructures and finally the infrastructures will not be built at the same time and therefore impacts will not occur at the same time.

Scenario	Infrastructure
1. Western Road scenario	Creation of one motorway and one two lane road.
2. Eastern Road scenario	Creation of a motorway as extension to existing motorway, one new two lane road and additional 2 lane roads as extensions of four existing 2 lane roads as a link to a motorway.
3. Dominant Rail scenario	Creation of one new rail track for TGV, a rail track for freight and one two lane road.
4. Ambitious and Multimodal scenario	Creation of one motorway, one rail track for TGV, one rail track for freight and one large canal.

Figure 7.3 Different Scenarios for the North Corridor.

Figure 7.4 below provides an outline of the SEA methodology. During the gathering of environmental information, data used in a previous study on this corridor of the road A79 (see section 7.2) was utilised. Five databases were used which included a database of the French Environment Ministry; database of maps from l'IGN (Institute National Geographic) France and l'IGN Belgium; and a database - Corine Land Cover - which has European coverage. In all cases, except l'IGN Belgium, SETRA was able to pass a 'convention' to use the information free of charge. Despite the large amount of data available a number of disadvantages were identified:

- Data from the French Environment Ministry database was quite old (1992) with some gaps in the type of information available and some areas not having enough precise information.
- In the case of l'IGN Belgium SETRA had to buy the right to use the database and it was too expensive to buy both the map database and corresponding explanatory database. Therefore, only the map database was used.
- For the Corine Land Cover database there were several difficulties. First it was difficult to identify the different people who gathered the information. In some countries the information was gathered and stored on a computer database whereas in others the information was only stored on paper. Also, there were several distributors of the information in one country, which made gathering data even harder. Secondly, there were differences between the information on Belgium and France and software was needed to translate this information. Thirdly, for the Belgium part of this database SETRA was charged 2.5 Euro per squared kilometre.
- Each database worked to a different scale. In most cases this made them incompatible. For example, scales ranged from 1/50,000 in the case of l'IGN France, 1/250,000 in l'IGN Belgium and from 1/100,000 to 1/1,000,000 in the French Environment Ministry database.

- There were no tools available to help compare the different databases although a common language is used with regards to longitude and latitude. Special software (Lambert 2) was used to translate the map information.

Once all this information was gathered it meant that there was a very diverse range of information with little environmental information being gathered for Belgium.

Following the information gathering stage there were three main phases to the SEA Methodology:

1. *Identification, validation and location of environmental values.*

Information gathered was used to identify twelve environmental 'themes' with 54 associated elements for the North Corridor. However, for the purposes of the 'trial' study only 8 key themes were used with 29 associated elements. The themes included surface water, ground water, natural environment, agriculture, ecology, landscape, human and industrial activity and ancient monuments. These themes and elements were put into a table and a value was set against each, under three criteria identified for the case of the A79 (see Figure 7.4). The values were rated from 5-6 for very major value, 3-4 for major value and 1-2 for low value. Environmental quality was shown through these value ratings. However, due to the disadvantages listed above some data was very poor and in some cases missing. For example, there were no themes for tourism. Also, data varied considerably between France and Belgium.

2. *Integration of environmental factors into the design of each scenario.*

Information created in phase 1 was used to produce highly specialised maps. These included:

- One map of major environmental factors.
- One map of the general occupation of the land.
- 3 maps relating to each mode of transport showing the sensitivity of the project on the environment.
- 3 maps relating to each mode of transport showing the impacts of the project after mitigation.
- 1 map for each mode of transport showing its capacity of insertion into the North Corridor.

3. *Identifying and analysing the effect on the environment of the different modes of transport and comparison of the values with each scenario.*

From each of the elements identified in phase one a number of indicators were developed. In general the indicators showed the effects of the new infrastructure on the environment and how the environment has been degraded. The indicators were also used to compare new effects with effects that have already occurred due to previous constructions. For this study there were three stages for comparing the various indicators: 1. North Corridor

without any infrastructure, 2. Important present infrastructures i.e. space consumed by the present infrastructures and 3. Different scenarios shown against present infrastructures. In the final impact statement maps are provided for three of the indicators. For example, there is one map each showing actual infrastructures, noise and natural environment. The individual scenarios were then compared against each of these maps. A number of elements were taken into account during the indicator exercise. These included social well-being such as noise, air quality and landscape, richness and diversity of the natural environment and important national monuments, natural resources, human activity including urbanisation and agriculture and the difficulties of inserting each scenario into the environment. It is recognised by those involved in the SEA methodology that due to the number of indicators used in a multiple context a new process was created.

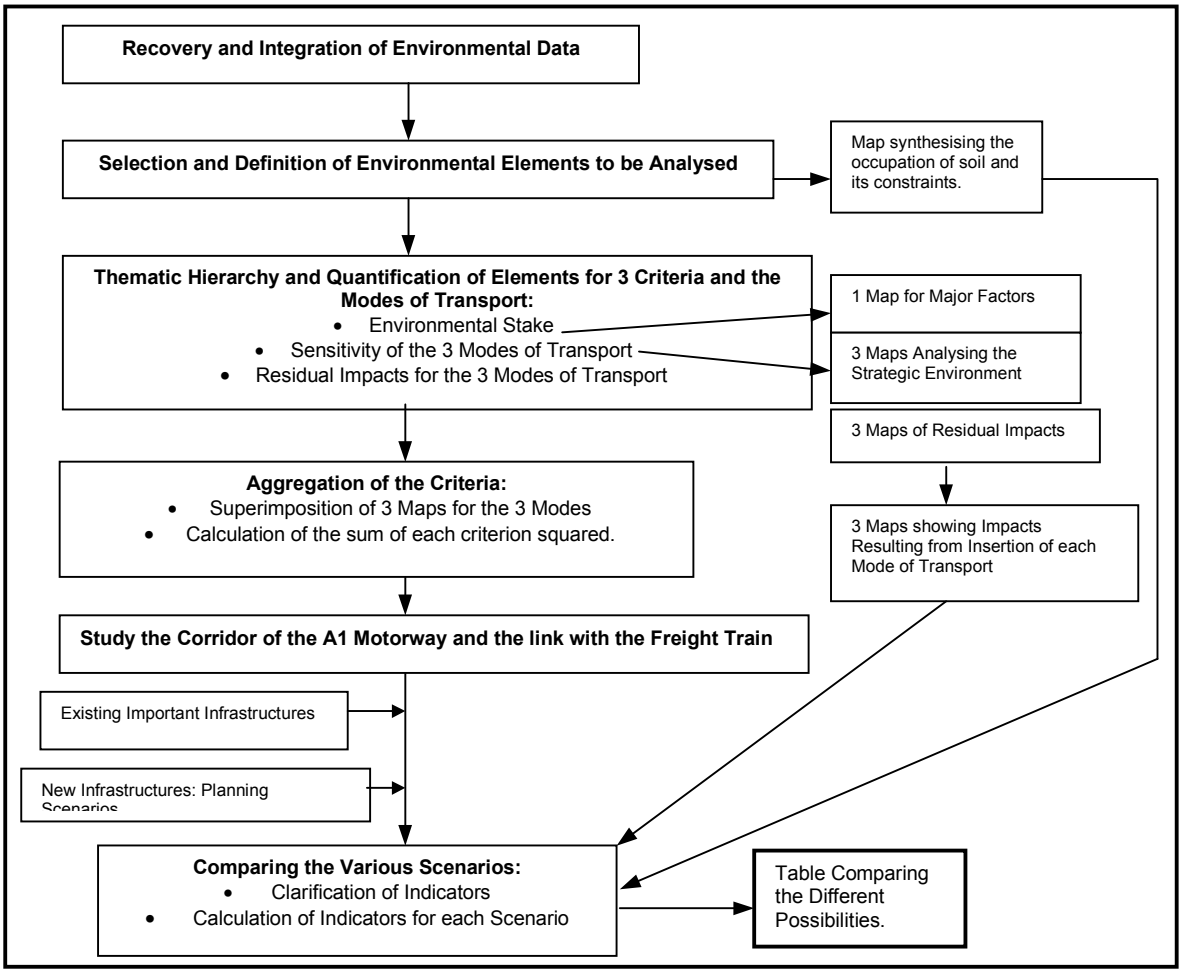

Figure 7.4 Methodology for Environmental Assessment for the North Corridor Developed by INGEROP [Source: Translated from- Optimisation de la méthodologie d'évaluation stratégique environnementale développée par les services du Ministère de l'Equipement, des Transports et du Logement pour les réseaux d'infrastructures multimodales. Page 104]

Table 7.2 Environmental Assessment Components

Objectives Led	No.
Integration	No.
Alternative/Options	Yes. Four scenarios considered.
Visioning	No.
Environmental Statement	Yes. 108 page document providing technical detail on methods and results, including maps.
Methodologies	Yes. Databases and value tables.
Participation	Non existent.
Time-Scales	The study started in May 1998 and was completed and published in February 1999.
Sustainability Impacts	No.
Significance	Yes. Through valuation method. Five point qualitative scale.
Non-Technical Summary	Yes. 33 page document.
Monitoring	No.

7.5 Summary and Commentary on Effectiveness of SEA

The SEA Methodology developed and applied to the North Corridor is the first of its kind in France with regards to multi-modal infrastructures. However, due to its nature as a test case it is very hard to judge at this stage how effective it will be towards the integration of the environment in strategic decision-making. In general the level of integration can be described as being weak. Although it is a trial study it is hoped that it will help to improve/inform future SEAs.

Disadvantages were identified throughout the study and it is clear that further development/improvements will be needed before a method such as this can become fully effective. In particular the databases created many problems with regards to gathering the data and the difficulty in evaluation and analysing the database objectively. Also, a lot of time, almost 50% of the time, was spent gathering data. Those working on the study would have preferred more time to analyse the data with perhaps further impetus being given to improving the various problem areas. The trial study involved the processing of several hypotheses, which was very comprehensive. Also, those working on the study considered the budget to be too small. This will invariably restrict the amount of work that can be achieved. It was felt that for an 'actual' study the hypotheses was not very good, the results were not easy to interpret because of the wide variance in data and it was hard to calculate all of the indicators. It is suggested in the impact statement that for future assessments of Corridors the European Union should create a special spatial database on the same scale i.e. make it homogenous.

The public was not involved at any stage throughout the SEA methodology. It is the opinion of those working on the study that it would be impossible to involve the public due to the large area involved. However, it was suggested that perhaps political representatives or

environmental associations would be involved in the future, as they tend to act on behalf of the general public.

Despite these shortcomings it is important to note that this study is the first of its kind in France and that it is only the beginning. Upon reflection of the work carried out improvements can be made to make the SEA methodology more effective for multi-modal scenarios. The main advantages, which came out of this study, included the fact that manual processes are no longer needed. The Geographical mapping systems (GIS) and databases were used all the time and the GIS in particular was found to be an indispensable tool for analysis. Manual assessment would have made the work almost impossible to analyse. The downside to this, of course, is that even more data can be handled and so even greater data resources are needed and demanded.

Chapter 8

Germany - Land-Use Plan and Integrated Landscape Plan Erlangen

8.1 Introduction

Germany, as a federal state (see Volume 2) provides a tiered, comprehensive and dense planning system, especially within spatial planning and landscape planning issues. The planning instruments of those two planning systems, subdivided to their local areas, concerned "Bundesland" (there are 16 "Bundeslaender" in Germany, e.g. Bavaria, Berlin or Lower Saxony), region (part of a "Bundesland"), and city/municipality, were presented in Table 7.1, Chapter 7, Volume 2.

This case study is of the City of Erlangen which is located in the middle of Northern Bavaria. The city with its approximately 100,000 inhabitants covers an area of 77 km^2 and is part of the city triangle "Nuernberg-Erlangen-Fuerth". That region is characterised through its economic potential and its importance as a centre of gravity for economic and scientific development (for example, research centre of Siemens, universities and so on). The analysed case study deals with the local level of spatial planning as well as landscape planning, presenting the combination of the land-use plan of the City of Erlangen with its integrated landscape plan. Integrated means, that both plans are adjusted to each other and co-ordinated into line. For the land-use plan a voluntary SEA was conducted, following the German EIA Act. Therefore, the case study is dealing with an SEA case study as well as with a special form of integration approach, because the land-use plan and the landscape plan of the City of Erlangen were developed in an integrated way following a decision by the City Council on December 14, 1994.

The SEA has already been completed. Part of it was subject to a study, commissioned by the Federal Environment Agency and financed by the Commission of the European Union and the German Ministry of Environment, Nature Protection and Nuclear Safety (see Volume 2 or Hübler et al (1995)). The land-use plan and the integrated landscape plan were approved by the City Council on November 30, 2000, demanding several applications for changes. That means that the planning procedure is not completed yet because, for the required changes, another public participation step is necessary (details see section 8.4). The responsible civil servant within the administration of the City of Erlangen, Mr Schneider, expects that the plan will enter into force end of 2001 ("wirskam werden").

The horizon of the land-use with integrated landscape plan is approximately 10 to 15 years. Consequently, the land-use and development policy of the City of Erlangen under that new plan will reach into the second decade of the 21st century.

8.2 Description and Evaluation of Decision-Making Context

The legal framework for setting up and/or revising land-use plans is the German Federal Building Code ("Baugesetzbuch"). There are two different development plans ("Bauleitplanverfahren") regulated at the local level,

(I) the preparatory land-use plan ("Flaechennutzungsplan", instrument of the "vorbereitende Bauleitplanung"), a physical and comprehensive plan, which has to consider the superior spatial planning levels (like planning of the whole "Bundesland" Bavaria and regional planning), and

(II) the legally binding land-use plan ("Bebauungsplan", instrument of the "verbindliche Bauleitplanung").

Similarly, we find the landscape plan (legal framework: Federal Nature Protection Act, "Bundesnaturschutzgesetz" as well as Nature Protection Acts of the "Laender", e.g. Bavaria has its own Bavarian Nature Protection Act) at the local level, which has to take into account the superior landscape planning levels ("landscape programme" for the "Laender", and "Landscape frame plan" / "Landschaftsrahmenplan" for the region). Note: In Bavaria e.g. the "landscape programme" is not an independent programme, but it is incorporated into the development programme. The Bavarian development is subdivided in

i. general objectives ("allgemeine Ziele") and
ii. technical objectives ("fachliche Ziele"), a part of those technical objectives covers "nature and landscape protection", which serves and is been used as landscape programme.

Also, the "landscape frame plan" in Bavaria is incorporated into the regional development plan. In several of the "Bundeslaender" there exist so-called "Gruenordnungsplane", a subdivision to landscape plans with detailed regulations at local level sites. The German EIA Act (as of February 12, 1990) required an EIA according to the EU directive 85/337/EEC (meanwhile amended and changed through EU directive 97/11/EC) for (certain) preparatory and legally binding land-use plans, but exempted the first ones with Article 11 of the "Investitionserleichterungs- und Wohnbaulandgesetz" as of April 22, 1993.

The analysed case study is therefore a voluntary SEA, dealing with the land-use plan of the City of Erlangen. The decision for revising the old land-use plan of 1983 (entered into force on June 23, 1983) was taken in 1990, in the same year the scoping process for its SEA began. At the end of 1994 (see section 8.1) the City Council decided to develop the land-use plan with an integrated landscape plan as a common plan (for example, one map for both purposes, common public participation, as far as the content is concerned and so on). Therefore, the case study also represents an integration example. The measure of integrating both plans led to a higher plan quality.

As mentioned before, the land-use plan and the integrated landscape plan was approved by the City Council on November 30, 2000, demanding a lot of changes. After dealing with those according to the legal framework and its regulations and procedures (laid down in the Federal Building Code and the Federal Nature Protection Act, see the beginning of

this section) the final decision for approving the plan is to be expected end of 2001. That means more than ten years were needed for the whole procedure. It is not unusual having such a relatively long time frame, and the reason for that is easily explained: In 1996 there were elections at the local level, which brought a change of the City Council. As a consequence some planning intentions of the City have been changed. Such a change of political majorities is often one of the main reasons, that a land-use plan cannot be finished within one working period of a City Council ("Legislaturperiode"). Until 2002 (when the next regular elections will take place) the City of Erlangen is ruled by a coalition of the Christian Social Party ("Christlich Soziale Union, CSU") and the Freedom Party ("Freie Demokratische Partei, F.D.P./Freie Waehlergemeinschaft, FWG").

Table 8.1 Environmental Integration Background

Political Leadership	Regarding the local level the responsibility at the highest level is with the City Council. No local sustainability strategy as yet.
Institutional Commitment	Integration worked through a co-ordination person within the administration of the City of Erlangen.
Co-ordination	The responsible co-ordination person for the land-use plan is a civil servant of the administration of the City of Erlangen. Both vertical (for example, to the regional government) and horizontal (for example, to the environmental authority) co-ordination work was undertaken.
Communication Reporting	Yes. Clear lines regulated through legal framework (see section 8.2).
Guidance Training	Yes. For example, the case study as a pilot project was subject to different seminars and courses. Software has been developed ("small world") with a graphic surface, aiming to be easily readable and user-friendly.
Awareness Raising	Yes. For example, an easy to understand version of the land-use plan and integrated landscape plan was produced, containing a simplified map of the plan and a lot of explanatory comments.
Targets/Objectives/ Indicators	There are clear targets and objectives - all are explained in the land-use plan documentation ("Erlaeuterungsbericht") – have been influenced by the SEA.
Appraisal/ Assessment	Yes. Land-use planning is a "cross section" issue, an assessment of various policies was undertaken
National/Local Sustainability	No local sustainability strategy in place as yet.
Allocation of Spending	Yes, there was an extra amount for advising the SEA process, supported by the EU.
Monitoring/Auditing	No formal monitoring and auditing, only on a voluntary and informal base.

8.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

Important actors who should be named are:

- The City Council (responsible inter alia for introducing the planning intention and for approving the final plan),
- Different departments of the administration of the City of Erlangen (especially the authority for city development and city planning and the authority for environmental protection and energy issues) for setting up the land-use plan. Fulfilling the requirement that all relevant concerns (for example, economic, ecological, social and cultural ones) have to be considered and weighted against each other in a so called weighting process ("Abwaegung") and conducting the strategic environmental assessment,
- Organised public (according to § 4 Building Code, for example, the university, the different Chambers as representatives for interest groups, certain authorities, holders for energy, electricity, gas, drinking water, public transport and so on; so called "Traeger oeffentlicher Belange") and the general public (according to § 3 Building Code).

Also, a regional planning body ("regionaler Planungsverband") was involved and external experts were commissioned to conduct a draft landscape plan. For special tasks (for example, emission issues) further external expertise was needed. For a (simplified) description of the whole procedure see section 8.4.

Mechanisms of communication

The mechanisms of communication are clearly defined. For example, there are several regulations within the Federal Building Code. For selecting sites ("darstellen") within the land-use plan a lot of co-ordination and adjustment work was necessary and was mostly done by a lot of interdepartmental discussions and meetings within the different departments and authorities of the administration of the City of Erlangen.

The organisation of the information and involvement/participation of the public (organised and general public) is another important communication task. Also, a lot of co-ordination meetings with institutions and persons outside the municipal administration were needed (for example, to the experts who drafted the landscape plan, meetings of City district councils). Regarding the vertical direction of communication the municipal administration had to adjust its tasks with the provincial government as well as with the City Council, which is the competent authority. Finally, there are also various informal communication measures. For example, a symposium with neighbour municipalities has been organised, and special meetings with farmers have taken place. Voluntarily the plan was also discussed in secondary schools, using it as a useful and practical subject for teaching.

An interesting personal opinion regarding communication mechanisms was the following: It is more important how actors involved understand (and respect and maybe like) each other rather than to lay down theoretical regulation mechanisms for communication flows.

Overall, the communication flows can be shown in the following (simplified) scheme (see Figure 8.1).

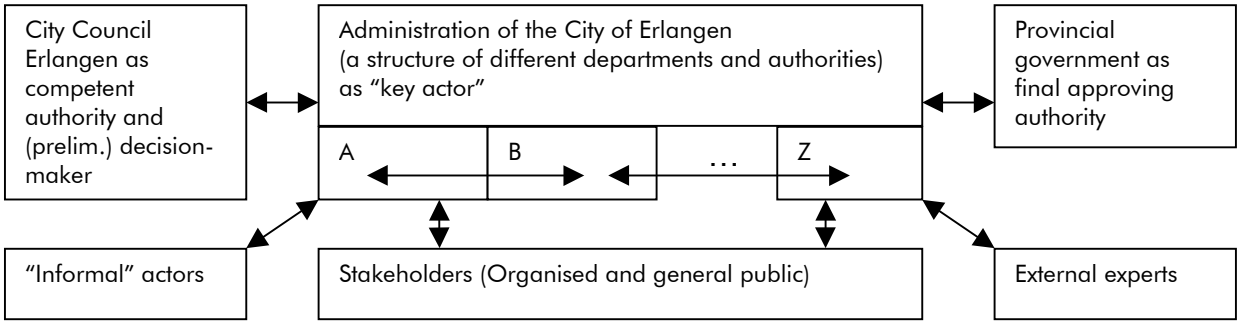

Figure 8.1 Communication Flows

8.4 Description of SEA

The SEA was done as a two-tiered and integrated assessment, using both environmental and significance criteria and informing and involving the general public as well as the organised public. From the beginning the SEA was integrated in and co-ordinated with the planning steps for the development of the revised land-use plan (and later with the integrated landscape plan, as well). A comparative environmental assessment of specific areas was carried out, using both qualitative and quantitative methods. The whole SEA process can be assessed as a sophisticated one. Its milestones are described below:

- In May 1990 the City Council decided to revise its land-use plan.
- In the same year the corresponding SEA started its scoping process.
- The SEA was subdivided in two steps with different levels of detail. The first step from May to October 1992 was a broader assessment for the overall area, dealing with a first appraisal of the site alternatives for settlements (for example, regarding environmental issues, social issues, infrastructure issues, transport issues and so on) and an assessment focussing on landscape ecology issues (for example, regarding groundwater contamination, noise due to traffic, climate effects). The result of that first step was a crucial input for conducting a so-called "conflict map", indicating areas with potential ecological conflicts. The first draft of the plan was produced.
- In December 1992 it was decided to revise the first draft of the plan.
- From February to August 1993 the first public participation phase took place and its results have been taken into account. Afterwards the second SEA step began, focussing on more detailed examinations, especially in ecologically sensitive areas. Those examinations have been undertaken within a framework of an EU research project with an integrated scientific evaluation (Hübler et al, 1995).
- In November 1993 new planning intentions were formulated to conduct new examinations.
- In October 1994 the (preliminary) SEA document (environmental report or statement) was completed, taking into account both SEA steps and special examinations. Its main results were (a) detailed descriptions and environmental assessments of certain areas, focussing on emission issues and landscape ecology,

and (b) a comprehensive assessment matrix with the structure laid out in Figure 8.2 below:

Area	Indicators Regarding Imission Protection (IP)	Interim Assessment of IP - Indicators	Indicators Regarding Landscape Ecology (LE)	Interim assessment of LE - Indicators	Final Overall Assessment (IP and LE Indicators)
In all 57 areas, see below	quantitative	qualitative	quantitative	qualitative	qualitative, see below

Figure 8.2 General Structure of the Summarising SEA Documentation

16 housing areas ("Bauflaechen"), 14 industrial areas, 11 traffic areas, six special areas and ten green areas were weighted against four IP indicators and seven LE indicators, using a system of five appraisal grades, leading to a list of 13 "conflict areas" (for which further more detailed assessments are necessary) and to a three-tiered verbal overall assessment ("agreement", "conditional agreement", "refusal").

- In December 1994 it was decided to integrate the landscape plan into the land-use plan.
- Due to a change of the City Council in 1996 there was a delay in the process. Because the new government articulated some new planning intentions, several elements of the plan had to be revised again.
- From October 1 to November 5, 1999 there was the public participation phase related to the new drafted plan.
- Afterwards the final weighting process within the administration took place, considering the SEA as well as the results of the involvement of the stakeholders.
- For the conflict areas mentioned above, which are relevant to the SEA (8 out of 13), another form was developed in order to assess their environmental effects.

  Sections of that form for those conflict areas are:
  1) State regarding planning regulations, general description.
  2) Current state of the environment (subdivided in eleven ecological categories, some of them again subdivided).
  3) (Expected) effects of the planned activities and their alternatives subdivided in ten ecological categories, considering interactions as well (environmental assessment step).
  4) Description of resources (for example, energy, water).
  5) Verbal judgement.
  6) Mitigation measures.

- On November 30, 2000 the City Council approved the land-use plan with integrated landscape plan, claiming several changes. For those changes (but only for them and not for the whole plan) another public participation phase is necessary.

- From March 12 to April12, 2001 the partly revised plan is accessible for the public. Its comments have to be taken into account by the City Council. It is planned, that the City Council will approve the final plan ("Feststellungsbeschluß") on July 19, 2001. Afterwards (probably beginning with September 2001) the plan's examination done by the provincial government ("Bezirksregierung") will lead to its decision. It is possible, that the provincial government decides to make some restrictions ("Auflagen") to the plan, it is also possible, that it will finally adopt it without any changes. It is expected that the final plan will enter into force end of 2001 (Schneider, 2000, pers. comm.), publishing it in the formal gazette of the City of Erlangen.

Table 8.2 Environmental Assessment Components

Objectives Led	Yes. There are environmental criteria and criteria for significance, sometimes case-to-case based (pragmatic approach).
Integration	SEA conducted as an integrated assessment. Also, integration of the landscape plan into the land-use plan.
Alternatives /Options	Yes. During the site selection different alternatives were developed.
Backcasting (Visioning)	Yes. As the new plan is the revision of the "old" land-use plan and itself baseline for the next land-use plan, different scenario techniques have been applied (forecast of population, housing area, demand for transport, drinking water and so on).
Environmental Statement	Yes. Good summary of the whole process in a separate document, including maps and references and overview to the whole process (in all 52 pages).
Methodologies	A combination of different methods has been applied. For example, scenario techniques, expert judgement, interpretation of measurements and so on.
Participation	Yes. General and organised public was informed and involved according to the Building Code regulations. Also, there were meetings of City district councils ("Ortsbeirat", eight of them are within the City of Erlangen), meetings of the citizens of all parts of the city ("Buergerversammlung"), special meetings with farmers, and more was organised. Voluntarily, some secondary schools used the plan as an subject for their courses.
Timescales	10 to 15 years as horizon for the land-use plan and integrated landscape plan.
Sustainability Impacts	Yes. There is a set of environmental indicators (soil quality, groundwater and surface water quality, air quality, noise and so on). Also, there are some socio-economic impacts (for example, cultural heritage).
Significance	Yes.
Non Technical Summary	Yes. The environmental statement can serve as a non-technical summary. Also, a small map with explanations has been produced and widely distributed.
Monitoring	Not mandatory, only voluntary measures.

8.5 Summary and Commentary on Effectiveness of SEA

As mentioned before the analysed case study is a good example for the integration of the SEA into the land-use plan and for the integration of the landscape plan into the land-use plan. Both the approach of a land-use plan with an integrated landscape plan and the SEA of the land-use plan strengthened the integration of the environment into the decision-making. Overall, the analysed SEA case study of the land-use plan Erlangen and the integrated landscape plan can be rated as a full and effective SEA and also as a special kind of integration due to combining both plans. The mutual and reciprocal influence of SEA and integrating the two plans led to a relatively strong integration of the environment into strategic decision-making.

In relation to the organisation of the SEA a high degree of integration can be stated, because numerous communication flows (horizontal and vertical, formal and informal ones) were necessary to fulfil the task (see section 8.3).

Especially, in terms of "tiering" there is a information transfer from the (preparatory) land-use plan level to that of the building plan level (legally binding land-use plan), because e.g. the assessment matrix of the SEA is part of the weighting process at that lower level and has the potential to influence it.

Both for the land-use plan and for the integrated landscape plan civil servants of the municipal administration of the City of Erlangen served as "key co-ordination" persons. The environmental authority was fully involved (with equal rights like the other authorities concerned) in the SEA process and also the process of revising the plan. The SEA was not designed as an integral part, but as an integral part in developing the certain plan phases. The SEA influenced also the definition and formulation of the objectives of the land-use plan itself, but related to the (expected) result the effectiveness of the SEA was limited, in other words the SEA influenced the final decision-making partly (or conditionally) positively.

Finally, an important weakness should also be mentioned. Certain political influences and investor interests concerning specific elements of the whole plan did not consider all SEA results. Such a judgement means, that in the weighting process ("Abwaegung") of the decision-makers some of the suggestions made in the SEA have been less considered than socio-economic ones.

Chapter 9

Ireland - Eco-Audit (Pilot)

9.1 Introduction

Before the 1990s Ireland had a poor history of integrating the environment into strategic decision-making. However, after the EU 5th Action Programme on the Environment, the Irish Government made sustainability a key issue for government policies and in 1997 a National Sustainable Development Strategy (NSDS) ("Sustainable Development: A Strategy for Ireland") was developed. This strategy made it clear that the integration of the environment into government policies was the key means by which a balance could be drawn between economic and social developments and environmental protection (Bannon & Cassidy, 1999). It also provides a principal framework for sustainable development policy in general.

National Development Plans (NDP) and their associated Operational Programmes (OPs) are thought to be the key means for promoting integration (Department of Environment, 1999) (see Volume 2). These Development Plans are produced every six years with the latest being for the period 2000 - 2006. The latest National Development Plan provides a strong socio-economic focus and gives higher priority to the environment than its predecessors (Zagorianakos, 2001).

One of the main tools for environmental integration at policy level is the Eco-Audit, also known as an Environmental Appraisal, which was developed in 1999. The identification of environmental impacts of government policies and the elimination or mitigation of those impacts is the overall objective of the Eco-Audit. It is also hoped that the Eco-Audit will enable consideration of environmental, economic and social dimensions of policies in an integrated way (Department of Finance, 2000). This report looks at the Eco Audit of the National Development Plan 2000-2006 which is the first formal environmental appraisal at policy level in Ireland (Casserly, 2000, pers. comm), although an SEA was carried out by the European Commission in 1997 on the Irish National Development Plan 1994-1999.

9.2 Description and Evaluation of Decision-Making Context

The Eco-Audit was developed in June 1999 under the Government's Action Programme for the Millennium and initiated by the Department of the Environment and Local Government for application at the policy level. At a formal level, environmental appraisals of policies have not been undertaken before and because of this the Eco-Audit is being carried out on a trial/pilot basis.

A desktop review of best practices within other countries, namely the Netherlands, UK and Denmark, helped to develop the Eco-Audit. New and existing policies in the agriculture, energy, transport, industry, tourism, forestry and marine and natural resources sectors are subject to the appraisal as well as national development plans and their associated operational programmes. The first pilot exercises (ten in total) were chosen in November 1999.

There are no legal requirements for carrying out an Eco-Audit. Instead, it has occurred as a result of a number of Government commitments and decisions. For example, the Government is committed to meeting the objectives set out under "Sustainable Development: A Strategy for Ireland". In 1999 a new Planning and Development Bill was introduced which included a requirement to include the provision of planning and sustainable development in local development plans. Compliance with planning, environmental and land-use planning legislation is still required by those projects implemented under a policy which has been Eco-Audited. Also, as a result of the Treaty of Amsterdam (1997) financial instruments of the European Union are required to work towards sustainable development and the European Council in Vienna made integrating the environment into structural and agricultural policies a political priority in the context of Agenda 2000 (Department of Finance, 2000). The forthcoming National Greenhouse Gas Abatement Strategy will also have implications for a wide range of sectors and policy areas and its success will depend on whether measures in individual policy areas including Operational Programmes take account of and are implemented in support of the national policy (Comhar, 2000).

It is expected that a SEA system will be developed within 3 years, as a result of "Sustainable Development: A Strategy for Ireland", which will apply to major sectoral plans and programmes. This will also coincide with the proposed EC Directive on SEA. It is anticipated that the Eco-Audit will continue to be applied at Government policy level.

Table 9.1 Environmental Integration Background

Political Leadership	The Department of Environment and Local Government is the lead body for the Eco-Audit. Each government department/agency is responsible for carrying out an Eco-Audit of it's associated OPs or NDP. There is a National Sustainable Development Strategy.
Institutional Commitment	Yes. Sustainable Development is a key issue for government departments. Each is committed to fulfilling the objectives of the NSDS. Support structures have already been implemented as a result of the Strategy such as the Green Network of Government Departments and Comhar.
Co-ordination	Liaison officers responsible for co-ordination of Eco-Audit process.
Communication Reporting	Yes. Communication exists within the government departments but also externally, where necessary, with other associated agencies.
Guidance Training	Yes. Some in-house expertise exists. 'Help desk' available at the Department of Environment and Local Government which provides guidance. No specific training courses. Guidelines for carrying out Eco-

	Audits available but will be further developed following the pilot scheme.
Awareness Raising	No. Information on Eco-Audit not readily available. Results summarised in memoranda to Government on policy/legislative proposals, as explanatory memorandum to Bills and in policy statements. Results from Eco-Audit of the NDP are summarised as appendix of plan and can be downloaded from the Internet. Possibility that fact sheets on the Eco-Audit will be provided in the future (Casserly, 2000, Pers. Comm). General environmental integration information available from 'ENFO' (public information service on environmental matters provided by the Department of Environment and Local Government).
Targets/Objectives/ Indicators	The Department of the Environment and Local Government's Statement of Strategy 1998 – 2002 sets out goals, strategies and performance indicators. Also, two reports used to assist in the use of appropriate indicators to measure contribution to sustainable development: 'Environmental Evaluation of the Irish Community Support Framework 1994-99' and 'Environmental Indicators and Structural Funds Programme in Ireland: A Guidance Document'. Others include 'Environment in Focus – Discussion Document on Key National Environmental Indicators' and 'Ireland's Environment – A Millennium Report' both produced by the Environmental Protection Agency (EPA)[8]. 'Environment in Focus' (produced by EPA) in 1999, helped during the preparation of the National Development Plan and provided indicators on environmental threats. Specific objectives and strategies are laid out in the NDP.
Appraisal/ Assessment	SEA of NDP undertaken by the European Commission in 1997. The Eco-Audit is the first appraisal undertaken at policy level.
Instruments	Green taxes on energy and fuels.
National/Local Sustainability	Yes. Sustainable Development projects at local level. Environmental Partnership Fund established to promote environmental awareness at local levels. Regional and national networks that include local authority officers promote Local Agenda 21.
Allocation of Spending	No. Each government department is responsible for funding it's own Eco-Audit. It is considered that Eco-Audits could result in significant savings in the future.
Monitoring/Auditing	Yes. The Green Network of Government Departments responsible for evaluating the results of the Eco-Audits once completed. Also, a workshop is to be held.

9.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

There are a number of other Government Departments, including the Department of Environment and Local Government, which are partaking in the pilot Eco-Audit exercises (see Figure 9.1). Each department or agency is responsible for carrying out, financing and

[8] The Environmental Protection Agency (EPA) is an independent authority set up under legislation in 1993 and partly funded by the Department of Environment and Local Government. The EPA plays a significant role in the licensing and control of activities that cause environmental pollution. It also carries out significant activities such as monitoring, promotion (training and guidelines), advice, supervision, consultation and information services.

evaluating it's own environmental appraisal. Some departments have in-house expertise on the environmental appraisal process. The Department of Finance has overall responsibility for carrying out an Eco-Audit of the National Development Plan 2000 - 2006, although it had significant input from the Department of Environment and Local Government.

Other bodies involved include the Green Network of Government Departments which is responsible for evaluating the overall results of the pilot exercises once they are completed. Comhar, the National Sustainable Development Partnership established in 1999 as a result of Sustainable Development: A Strategy for Ireland, is responsible for advising the government on the consideration of policy proposals and issues relating to the environment and sustainable development. Although Comhar does not have direct influence on the Eco-Audit process it has input into overall policy development. Regarding the National Development Plan Comhar was able to offer advice on its sustainable development profile. Although Comhar is not involved in any way directly with Eco-Auditing it has had an input, within its remit of providing policy consultation and advice, through the provision of a number of comments on various draft OPs including some comments related to Eco-Audits of all OPs.

An overall evaluation of the results of the pilot Eco-Audit exercises will be undertaken by the Green Network of Government Departments (otherwise known as the Environmental Co-ordinating Committee). Decisions will also take place on the basis for future Eco-Auditing. The Environmental Protection Agency does not have a direct input into the Eco-Audit process but its contribution towards the provision of environmental information, in particular environmental and sustainability indicators, is invaluable. As mentioned in footnote 8 the Environmental Protection Agency also plays a significant role in monitoring activities. A 'help desk' is available at the Department of Environment and Local Government, which provides advice on carrying out Eco-Audits and assistance in the review process. Also, liaison officers are appointed to co-ordinate the Eco-Audit process. Guidelines on carrying out an Eco-Audit are available from the Department of Environment and Local Government. These guidelines include an Eco-Audit checklist (see section 9.4) and advise on content and reporting requirements.

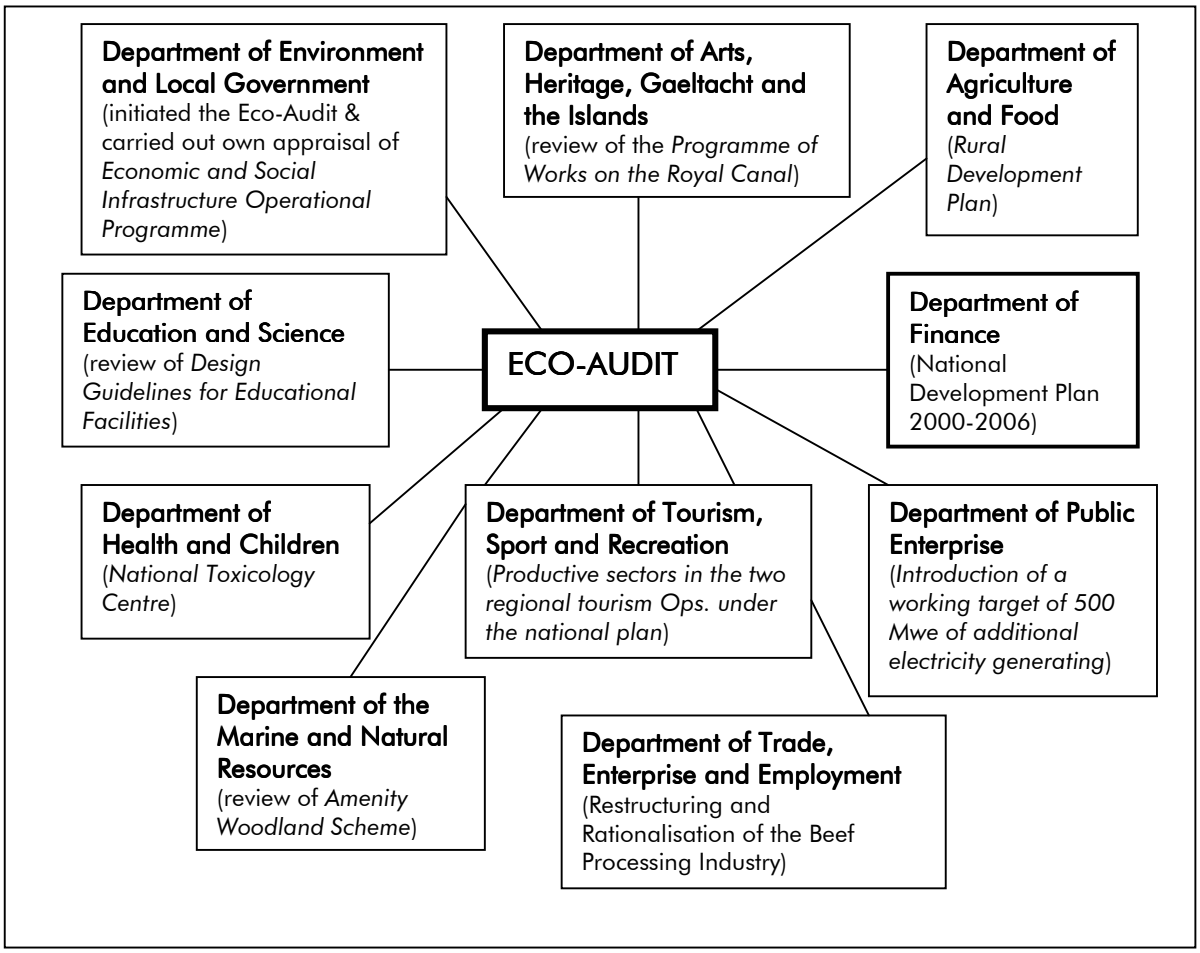

Figure 9.1 Government Departments Involved in the Pilot Eco-Audit Exercise. (Note: words in *Italics* are the Operational Programmes/Development Plans that are being piloted)

Mechanisms of communication

As already mentioned the Eco-Audit was developed through a desktop review of best practice in other European countries. Representatives from these countries were invited to talk with people in Irish government departments on their experiences. Consultations/liaisons between government departments and other independent/non-governmental bodies/agencies took place during the Eco-Audit process as recommended in the Eco-Audit guidelines (Department of Environment and Local Government, Undated). In the case of the NDP consultation included the circulation of the draft overview of the Plan prior to finalisation and sectoral meetings with regional and public authorities and with economic and social partners. Also, although there is no mandate for public consultation within the Eco-Audit process the Department of Finance consulted two environmental NGOs during the Eco-Audit of the NDP (Zagorianakos, 2001).

A workshop is to be held between members of the Environmental Co-ordinating Committee upon completion of the pilot exercises. Also, there has been no public involvement in the

Eco-Auditing of Operational Programmes, although this may change for future environmental appraisals (Casserly, 2000, pers. comm).

9.4 Description of SEA Procedure

The Eco-Audit is one of the key tools for maintaining the government's commitment to sustainable development. It assesses the level of significant environmental impacts of a particular policy and where possible takes action to mitigate or eliminate those impacts. The objective is to undertake the Eco-Audit at the policy formation process (Casserly, 2000, pers. comm). The procedure for carrying out the Eco-Audit is outlined in Figure 9.2. The process is similar to that of project level EIA.

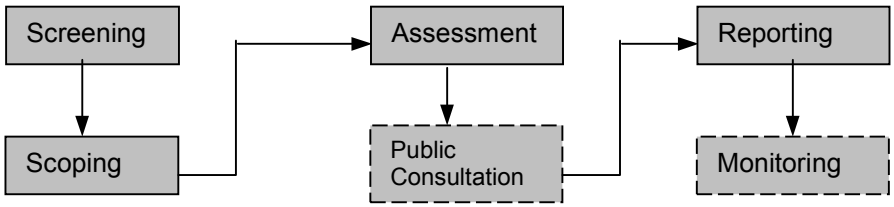

Figure 9.2 Eco-Audit Procedure [Note: Although there is no mandate for public consultation the Department of Finance consulted two environmental NGOs. Also, the Eco-Audit guidelines recommend the provision of assessment of impacts following implementation. However, no provisions have been made to date.]

The process starts with the 'screening' stage. Here a checklist is used (see Figure 9.3), which is included in the Eco-Audit guidelines, to identify policy areas which could have impacts on the environment. The level of environmental impacts is determined through levels of 'significance'. The significance of environmental effects is based on the number of headings identified. For example, there may be one area with 'significant' effects but two or more areas may have effects of only 'some significance'.

The second stage of the Eco-Audit involves a 'scoping' exercise. The subsidiary headings in the checklist are used to identifying which impacts are to be assessed and their degree of environmental effect. The guidelines specify that Eco-Audits address significant positive and negative impacts (direct/indirect) and their significance for the state of the environment, nationally and in a transboundary/global context. Consideration may also be given at this stage to alternative policy options although there was no such consideration in the case of the NDP.

Thirdly, the 'assessment' stage is where a more detailed description of each impact is provided and where possible the use of quantitative data. Quantification of environmental effects of policies is encouraged in the guidelines, although there was no evidence of such quantification in the Eco-Audit report of the NDP (Zagorianakos, 2001). Also at this stage descriptions are provided on measures to eliminate or mitigate any harmful/significant

environmental impacts. Environmental policy or regulatory requirements which policies or projects implemented under the policy will have to comply with are also identified at this stage.

As mentioned in section 9.3 at present there are no provisions to involve the public in the Eco-Audit process, although the Department of Finance involved two environmental NGOs. Members of the public were able to view the results of the Eco-Audit of the NDP in the final policy document (see below) although they did not have any direct input into the process. After the pilot exercises a formally structured system for the Eco-Audit will be produced which may include provisions for public consultation (Casserly, 2000, pers. comm). The next stage involves the 'reporting' of results/conclusions. Reporting takes place in three forms: as official notes to Government on policy/legislative proposals; as an explanatory memorandum to Bills; and included in policy statements. In the case of the National Sustainable Development Plan the results of the Eco-Audit can be found in appendix 4 of the Plan. Finally there is a 'monitoring' stage. The guidelines recommend that assessment of impacts following implementation be carried out. However in the case of the Eco-Audit no such provisions were made.

Effect of Policy on:	Significant	Of some Significance	Insignificant	None
Water Quality and Quantity • Water quality • Polluting discharges to surface, ground or marine waters • Water quality				
Air Quality • Air quality (local) • Air quality (transboundary) • Polluting discharges to atmosphere • Emissions of greenhouse gases				
Biodiversity • Quality of areas of habitats • Population or range of species • Protected areas • Threatened or protected species				
Land-Use • Land-use patters • Landscape				
Resource Conservation • Energy use • Waste recovery • Natural resource/material use • Extraction or use of non-renewable resources				
Waste • Waste production • Disposal				
Architectural and Archaeological Heritage • Buildings and structures of architectural or historic importance • Archaeological sites, monuments and artefacts				
Health and Welfare or Population • Noise levels • Security and safety of the public				
Dangerous Substances • Use of dangerous substances • Risk of accidents during the transport, use and manufacture of dangerous substances				

Figure 9.3 Eco-Audit Checklist [Source: Department of the Environment and Local Government, 1999].

Table 9.2 Environmental Assessment Components

Objectives Led	Yes – partly. However, the objectives of the National Development Plan do not include environmental factors, but instead socio-economic objectives.
Integration	Yes. Sustainable Development: A Strategy for Ireland.
Alternative/Options	Not in this case. Alternative policy options recommended for consideration during scoping exercise, but this did not occur during the Eco-Audit of the NDP.
Backcasting/ (Visioning)	No.
Environmental Statement	Results of the Eco-Audit should be presented (as laid out in guidelines) as official notes to Government on policy/legislative proposals; as an explanatory memorandum to Bills; and included in policy statements. The Department of Finance exceeded these specifications with regards to the NDP and environmental impacts were discussed in various sections of the NDP (Zagorianakos, 2001).
Methodologies	Checklist (see Figure 9.3).
Participation	Non existent, except in the case of the NDP where the Department of Finance consulted two environmental NGOs (Zagorianakos, 2001).
Time-Scales	One Year for trial exercises. Once government bodies/agencies become more familiar with the process it may take a shorter length of time.
Sustainability Impacts	Socio-Economic.
Significance	Yes. See Check list Figure 9.3. It appears that much discretion is left to the Government Departments to judge what is significant and what it not.
Non-Technical Summary	Results summarised as annex to the Plan – Appendix 4 of NDP. The summary is particularly short (only two and a half pages) and provides little information on the results of the Eco-Audit process as described above.
Monitoring	Yes/No. For Operational Programmes there are Monitoring Committees. However, there are no provisions for the monitoring of potential impacts after a Development Plan has been implemented ((Zagorianakos, 2001).

9.5 Summary and Commentary on Effectiveness of SEA

Integration of the environment into strategic decision-making has been strengthened through the establishment of such bodies as the Sustainable Development Partnership Forum (Comhar) and the Environmental Co-ordinating Committee (Green Network of Government Departments). The Eco-Audit/Environmental Appraisal is a tool developed by government to further help the integration of the environment into strategic decision-making.

The Eco-Audit is a new process and is at present only being implemented on a pilot basis. Zagorianakos (2001) reports that the Eco-Audit provides a clear focus on integration as it enables environmental dimensions of policy to be considered with the broad social,

economic and other dimensions. It is hard to judge at this stage whether the Eco-Audit process has been effective and how much it has contributed to the integration process. An evaluation of the Eco-Audit results and workshop to be held at the end of the pilot exercise (both being carried out by the Environmental Co-ordinating Committee) should help to study how effective the process has been and to identify areas where further development/improvement are needed.

A member of the Department of Environment and Local Government considers the Eco-Audit as a positive step towards the Government's commitment towards the achievement of sustainable development and states that environmental integration is stronger now than in the past (Casserly, 2000, pers. comm). However, while Comhar welcomes the introduction of the Eco-Audit and the Governments commitment to Eco-Auditing, it points out that a number of areas need improvement in order for the Eco-Audit to be carried out fully and effectively. Comhar identifies a number of areas which need attention/development with regards to the Eco-Audit of draft Operational Programmes (Comhar, 2000). They are worth mentioning as lessons may be learnt from these areas for the development of future Eco-Audit processes:

- Commitment to Eco-Audit – two regional OPs have failed to carry out an Eco-Audit.
- Full/Effective Eco-Audits – the principle of Eco-Auditing not fully understood/accepted in a number of OPs e.g. no environmental impacts, positive or negative, identified in Eco-Audit of draft Employment and Human Resources Development OP. Comhar states that this is not a realistic assessment and it suggests inadequate appreciation of Eco-Auditing.
- Identification of Impacts – draft OPs show concentration on direct impacts i.e. consequences of specific measures. Comhar states that indirect impacts should also be identified, as this is particularly important from a wider national policy aspect through structural changes in economy and society.

It should also be mentioned that a lot of discretion is given to the Government departments on how to carry out the Eco-Audit process. This could lead to unwanted discrepancies. Zagorianakos (2001) identifies a number of positive and negative elements of the Eco-Audit of the NDP. Positive areas include the incorporation of procedural elements such as screening and scoping, signs of a continuous and iterative process, and results being documented throughout the NDP text. Negative aspects include the poor implementation of guidelines, no consideration of alternatives, lack of analytical rigour and no public participation.

The Department of Environment and Local Government recommends that departments should make a start now, keep the process short and simple, use appropriate information sources and share their experiences. However, it also identified a number of potential constraints to the Eco-Audit process such as lack of data, prioritisation of resources, time pressure and insufficient experience (Casserly, 2000). Despite the number of shortcomings identified opinion suggests that Eco-Auditing can do nothing but strengthen the level of

environmental integration and although the overall process of the Eco-Audit has been slow to take off it will have added value for strategic decision-making (Casserly, 2000, pers. comm). The Eco-Audit can be seen as a form of appraisal inspired SEA.

Chapter 10

Ireland - Marine and Coastal Areas and Adjacent Seas - An Environmental Assessment (1999)

10.1 Introduction

The coastline of Ireland, which totals 7,500 kilometres is predominately healthy and unpolluted. This makes it a valuable resource and host to a range of economic activities and recreational users as well as being at the centre of transatlantic shipping routes. As with any coastline the potential for impacts from marine pollution, particularly oil pollution from shipping, makes it a vulnerable environment. The government recognises that the high quality of the marine environment is an important element of Ireland's natural endowment and its protection must be a key element of overall marine policy (Parliament of Ireland, 1999).

There is a wide range of legislation in Ireland relating to its marine areas and a number of policy instruments. However, since 1997 a range of measures has been introduced both nationally and internationally in a bid to increase and improve the quality of standards towards protection of the marine environment. The 1997 Sustainable Development Strategy ("Sustainable Development: A Strategy for Ireland") recognises marine resources as a strategic section and contains a chapter on the sustainable use of marine resources (United Nations, undated). Other measures include the introduction, at national level, of the Sea Pollution (Amendment) Bill in 1998 to help protect and enhance the marine environment, and internationally the 1998 Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR) to which Ireland is a contracting party. It is as a result of OSPAR that an environmental assessment of Ireland's marine and coastal and adjacent seas was undertaken.

The OSPAR Convention, which opened for signature in 1992 and which entered into force in 1998, contains an Annex (IV) on the assessment of the Quality of the Marine Environment. This commits contracting parties to carry out an assessment on the status of their marine environments. By doing so the OSPAR Commission (the governing body) aims to assess the status of the marine environment for the whole North-East Atlantic region. This assessment (Quality Status Report – QSR) was completed in 2000 and is made up of a number of Regional QSRs from each of the regions under the OSPAR Convention area. There are five regions in total: Arctic Waters (Region I); Greater North Sea (Region II); Celtic Seas (Region III); Bay of Biscay and Iberian Coast (Region IV); and Wider Atlantic (Region V). This report focuses on the Irish contribution to the Region III assessment.

All Regional QSRs were required to assess the environmental conditions of the maritime environment. This includes a description of the characteristics of the eco-system, the

human activities taking place and the impacts/pressures arising from this, for example, biological and chemical, and finally an overall assessment of the marine environment. The Region III assessment was divided into two reports, one covering Ireland's waters and another carried out by the UK on the Irish Sea and the Bristol Channel. Each completed sub-regional report was integrated into an overall regional report for that area. The Marine Institute (the body charged with the task of carrying out the assessment of Ireland's waters) describes the report, arising from the Irish environmental assessment, as providing a basis by which environmental policies and associated management requirements can be reviewed (Marine Institute, undated).

10.2 Description and Evaluation of Decision-Making Context

The Departments of Environment and Local Government and of Marine and Natural Resources both form part of the Green Network of Government Departments. The Green Network of Government Departments was set up in the late 1990s to promote the integration of the environment into government policies and programmes and the co-ordination of different government departments on environmentally related issues (see Volume 2).

The Department of the Environment and Local Government is responsible for decisions concerning pollution from land-based sources and for coastal zone management (United Nations, undated), and plays a lead role in the development and co-ordination of environmental legislation, policies and programmes. The work of the Department is centred on five main areas, which include waste management; environment international/environment awareness; environment policy; air/climate; and water quality. The water quality section carries out work relating to the OSPAR Convention. The work of the Department in relation to water and wastewater is objectives led. Strategic environmental and economic objectives are laid down in the National Development Plan 2000 – 2006.

Decisions relating to the marine environment fall under the remit of the Department of Marine and Natural Resources. The Department operates within an overall national policy framework and has important linkages with other government departments such as the Department of Environment and Local Government[9]. The Department oversees the work of the Marine Institute, which undertakes, co-ordinates and promotes marine research and development in Ireland. As well as being involved internationally with organisations such as OSPAR, the Marine Safety and Environment division of the Department is responsible for the formulation of policies and the introduction and implementation of primary and secondary legislation concerning marine safety and marine environment[10].

The body that governs the OSPAR Convention is the OSPAR Commission. The Commission is made up of representatives from each of the contracting parties. There are a number of bodies within the Commission, which worked towards the production of the overall QSR.

[9] http://www.irlgov.ie/marine/aboutUs/index1.html
[10] http://www.irlgov.ie/marine/about…s/marine/marineSafety/index1.html

The Environmental Assessment and Monitoring Committee (ASMO) is responsible for reviewing maritime conditions and effectiveness of measures taken and planned as well as the provision of advice on priorities of action as set out in Article 6 and Annex IV of the OSPAR Convention (OSPAR Commission, Undated). The working groups associated with ASMO each made important contributions towards the preparation of the QSR (see Figure 10.1 for further detail). Each group reports to the ASMO. Under OSPAR's 'rules of procedure' each contracting party is required to meet the expenses of its delegates and each is required to contribute 2.5% to a basic budget.

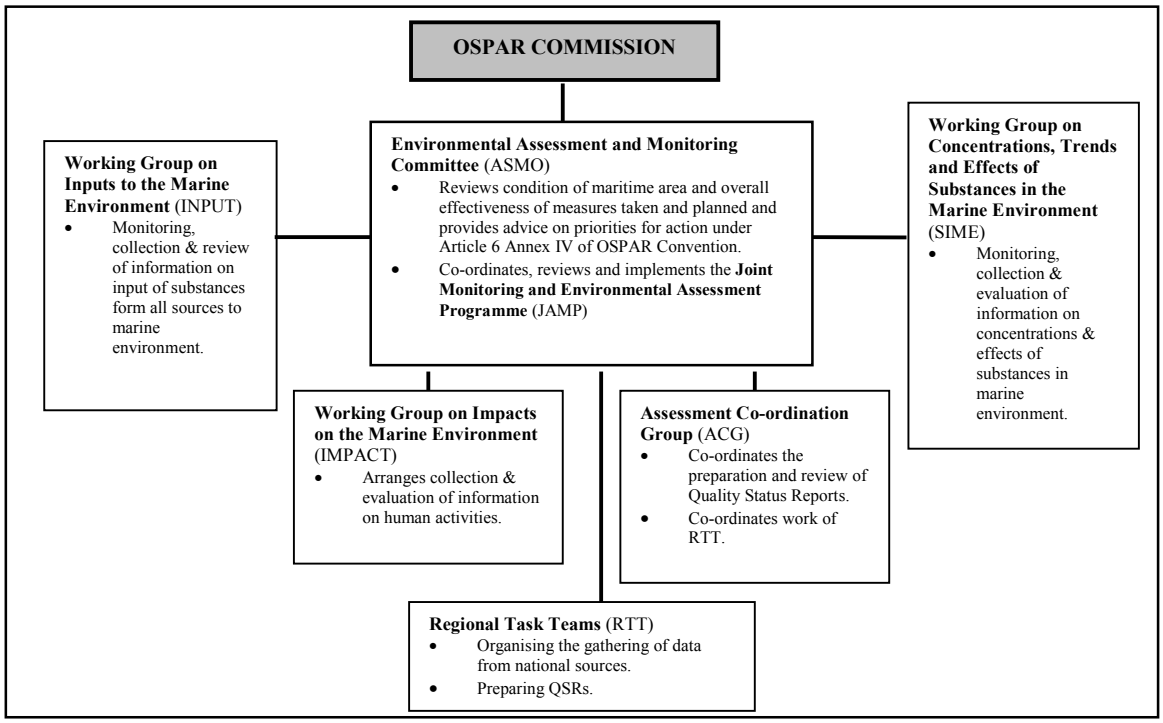

Figure 10.1 OSPAR Commission's ASMO and Associated Working Groups [Source: Information adapted from OSPAR web page – http://www.ospar.org]

Table 10.1 Environmental Integration Background

Political Leadership	Yes. OSPAR Commission is the governing body for the process of the Quality Status Reports. The Departments of the Environment and Local Government and Marine and Natural Resources are responsible at national level and as contracting parties to the OSPAR Convention for carrying out a marine environmental assessment. Sustainable development of marine resources is contained in the document Sustainable Development: A Strategy for Ireland. The 1992 declaration of the ministerial meeting reaffirmed the Commission's commitment to the principle of sustainable development.
Institutional Commitment	As contracting parties to the OSPAR Convention the Irish Government is committed to carrying out an assessment of the marine environment.
Co-ordination	Yes. Co-ordination bodies within the OSPAR Commission, for example, the Assessment Co-ordination Group. For the regional Quality Status

	Reports a steering committee set up to supervise and co-ordinate the team responsible for carrying out the assessment. Ireland's Green Network of Government Departments plays co-ordinating role.
Communication Reporting	The Irish Steering Committee met with the Scientific Team 3-4 times per year. Meetings at regional level, involving Ireland and UK, occurred 2-3 times per year. Under the OSPAR Convention the Scientific Team (RTT) was required to report to the ASMO and ACG.
Guidance Training	Scientific team made up of professional environmental scientists chosen at beginning of process. Therefore were fully trained in gathering data in their fields of expertise.
Awareness Raising	Representation at conferences. Results from assessment purchasable from the Marine Institute. Summary of chapter 6 on overall assessment available on the internet. Information gathered available in the Institute's library. Information about the QSRs and summaries of results from different regions available on OSPAR web-site (www.ospar.org).
Targets/Objectives/ Indicators	OSPAR Commission has five strategies. An action plan from 1998 – 2003 also exists. The work of the Departments of Environment and Local Government and of Marine and Natural Resources is objectives led. These objectives are outlined in the National Development Plan 2000-2006.
Appraisal/ Assessment	The marine environmental assessment was the first of its kind to take place in Ireland.
Instruments	n/a
National/Local Sustainability	Sustainable Development: A Strategy for Ireland contains a chapter on marine resources.
Allocation of Spending	The Department of Environment and Local Government and the Department of Marine and Natural Resources were responsible for funding the environmental assessment. Draft budgets were created between the Marine Institute and the Department of Environment and Local Government before the scientific team was formed. A budget for two years was produced and reviewed after one year. Funding allocation for the Department of Marine and Natural Resources is laid down in the National Development Plan 2000-2006. It should be noted that Ireland invested considerably more money than other contracting parties (Boelens, 2000, Pers. Comm).
Monitoring/Auditing	The Environmental Assessment and Monitoring Committee is charged with the responsibility of co-ordinating, reviewing and implementing the Joint Monitoring and Environmental Assessment Programme (JAMP). With regards to monitoring this Programme will among other things: • Consider and specify the required scientific basis and advise on the effective conduct of monitoring activities. • Will be responsible for determining questions of quality assurance, sampling, analytical methods etc (OSPAR Commission, undated).

10.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

As mentioned above the OSPAR Commission was the main decision-making body for the marine environmental assessment process. Its associated working groups help the Commission to carry out its functions. Each contracting party to the OSPAR Convention, who are also represented on the Commission, were delegated with the responsibility of carrying out an assessment of the marine environments of their particular areas.

In the case of Ireland, the contracting party was the Department of the Environment and Local Government. Together with the Department of Marine and Natural Resources, the Marine Institute (which works under the aegis of the Department of Marine and Natural Resources) was commissioned to carrying out an assessment of Ireland's marine and coastal areas. The environmental assessment was carried out solely as a result of the OSPAR Convention. A team of four scientific experts from the Marine Institute carried out the assessment. This team was made up of a project manager, who was also editor of draft texts and the final report, and three other people each experienced in human activities, marine biology and marine chemistry.

Co-ordinating the work of the scientific team (or Regional Task Team (RTT)[11]) was the responsibility of the Assessment Co-ordination Group (ACG) of the Commission (see Figure 10.1). This group established such things as frameworks and timetables for the QSRs. Both the RTT and ACG had a duty to report to the ASMO. The work of the scientific team was supervised by a national steering committee. This steering committee was made up of representatives of the Department of the Environment and Local Government, the Department of Marine and Natural Resources, and the Marine Institute and the Environmental Protection Agency (EPA)[12]. A range of institutions, organisations and government bodies both from the UK and Ireland were involved in reviewing the various chapters within the assessment.

Mechanisms of communication

In order to make the public aware of the environmental assessment the Marine Institute attended a number of conferences: national conference, marine conference and Irish Sea forum. The Marine Institute hoped that this would encourage people to come forward with information that might be useful for the assessment. However, only a few enquiries were made from the public and of those who made contact it was for information requests only. At the beginning of the assessment half-day presentations were also conducted at universities to try to draw out information from people working/researching at these institutions.

[11] Under the terms of reference for the RTT other arrangements which are more appropriate to the contracting parties can be established.
[12] The EPA is an independent authority, which plays a significant role in the licensing and control of activities that cause environmental pollution.

Other communication processes included meetings between the Scientific Team and the Steering Committee 3-4 times per year. Also, meetings took place between Irish bodies and those bodies in the UK charged with carrying out an assessment of the Irish Sea and Bristol Channel, the Department of Environment, Transport and the Regions (DETR) and the Centre for Environment, Fisheries and Acquaculture Science (CEFAS). These meeting took place approximately 2-3 times per year.

When necessary meetings were held at the headquarters of the Marine Institute in Dublin to discuss requirements. For the purposes of gathering data 90% of people involved were already known to those in the Scientific Team. The budget for travel was limited and as a result the main modes of communication between these bodies were via letters, telephone calls and e-mails (Boelens, 2000, pers. comm). The overall assessment took 2 years to complete.

10.4 Description of Integration Procedure

Ireland's regional environmental assessment can be seen as a way of integrating the environment into both national and international decision-making processes. Internationally the results from the QSR will provide an invaluable insight into the state of the marine environment for the whole of the North-East Atlantic and will act as a guidance document for the future work of the OSPAR Commission. Also, the assessment will contribute to environmental reviews by the European Environment Agency (Marine Institute, 1999). Although the assessment was carried out solely as a result of the OSPAR Convention the outcomes of the assessment will be an invaluable resource to decision-making for scientists, environmental managers and policy makers. It should be noted that this is the first time an assessment like this has been undertaken in Ireland.

The structure for the QSR had a large bearing on the procedure for carrying out the assessment. The ACG (see Figure 10.1) established the framework, but it was left up to the Marine Institute as to how the assessment was carried out. The scientific team, employed full time for the assessment, divided the workload into three parts: sourcing; reviewing; and drafting. Data was sourced from institutions, government agencies, universities and research institutions. Many of the other contracting parties to OSPAR focused their data collection exclusively through national and international agencies, whereas in Ireland scientific information was not available through international programmes, and instead national independent scientific information was gathered (Boelens, 2000, pers. comm).

Methods used to assist in the collation and presentation of data included an internal computer network for fast and efficient exchange of data, the use of mapping information (Map Info) for the production of graphics and the use of Powerpoint software in conjunction with Map Info. The latter was not very successful as it provided problems with regards to map styles (Marine Institute, 1999). Also, members of the scientific team had no prior knowledge on the use of the mapping software so extra time was required for training.

Table 10.2 Environmental Assessment Components

Objectives led	Yes. As a contracting party the Department of Environment and Local Government is bound by the objectives of the OSPAR Commission which are laid out in Annex IV, Articles 2 and 3 of the Convention.
Integration	Results will help to inform the decisions of the OSPAR Commission. Also, it is hoped that the report of Ireland's assessment will be used in reviewing marine environmental policies and associated management requirements at a National level.
Alternatives /Options	Alternatives/options are not considered in this assessment.
Visioning	Regional reports are expected to be prepared at intervals of 5-7 years.
Environmental Statement	There is an environmental statement (Quality Status Report) containing the results of Ireland's marine environmental assessment. This was completed in March 1999 and is a comprehensive document of 388 pages. This along with other regional QSRs will be fed into an overall over all QSR for the North-East Atlantic region. The main QSR was completed in 2000 and will be published in 2001.
Methodologies	No specific data gathering methodologies mentioned apart from the use of E-mail, letters and telephone calls. However, mapping information software for graphic production was used.
Participation	Although the Marine Institute made it widely known to members of the public that the assessment was taking place there was limited public participation and consultation. Few people contacted the Institute looking for information rather than contributing to the process.
Time-Scales	The assessment took two years to complete. With such a long time scale there is a risk of data becoming old or out of date. It should be recognised that such assessments need to be on-going processes if information is to be kept up to date. It is expected that the OSPAR Commission will require further similar assessments to take place every 5-7 years.
Sustainability Impacts	Sustainability impacts of marine nature resources.
Significance	Software was used to map information (Map Info) and show levels of significance. In some cases when only small amounts of data existed opinions were given on the significance of changes for marine life, biological diversity and productivity (Marine Institute, 1999).
Non-Technical Summary	A non-technical summary of the environmental assessment does not exist. However, the Marine Institute produced a small document based on the Institute's experiences in preparing the QSR and the lessons learnt from that experience.
Monitoring	The Environmental Assessment and Monitoring Committee is responsible for the monitoring of the OSPAR Commission's activities including the co-ordination of an integrated monitoring programme and advice on monitoring activities.

10.5 Summary and Commentary on Effectiveness of Integration

The commitment of contracting parties to the OSPAR Convention in carrying out an environmental assessment of their marine environments is clearly seen in the resulting regional QSRs. It is hard at this stage to judge how effective this information will be in the decision-making process and whether it will have an effect on levels of environmental integration. However levels of integration could be described as partial.

The results, which are fed into an overall QSR, will probably have an effect on future decisions made by the OSPAR Commission. Whether the assessment leads to a more integrated approach to decision making is not yet clear (Boelens, 2000, pers. comm). It is also expected that the European Environment Agency will use the assessment as a contributing factor towards environmental reviews. This is the first such comprehensive assessment carried out in Ireland and will be recognised as a useful reference for scientists and decision-makers. On the one hand it is a useful reference tool for policy decision-making, but on the other hand the process takes such a long time that some policy changes or new policies are likely to be introduced before the assessment results are published.

The assessment process was well organised with overall co-ordinating and monitoring groups within the OSPAR Commission, the scientific teams and steering committees. However, there were some instances where the process did not run very smoothly. Firstly, there was some overlap regarding the sub-regional areas to be covered by the Marine Institute and the UK bodies, DETR and CEFAS. Also, difficulties occurred when the Marine Institute tried to include interrelated topics into the structures for the QSR which had be laid out by the Assessment Co-ordination Group (ACG) of the OSPAR Commission. Minor alterations to the structure of the report were proposed, but these were turned down by the ACG. However, the creation of a small, fulltime, multi-disciplinary scientific team is seen as a fundamental development in the overall success of the assessment.

There are a number of factors within the environmental assessment process, which may inhibit environmental integration. These factors are listed in Figure 10.2. However, the scientific teams project manager and the chairman of the steering group identified ten steps towards the improvement of marine environmental assessment. These improvements are highlighted in Figure 10.3.

- ***Process takes too long*** – one and a half years to produce sub-regional report and two years to produce final QSR = issues identified may already have been dealt with, therefore too late to influence decision-making.
- ***More dialogue*** needed between OSPAR Commission and RTTs.
- ***Little/no public participation***
- ***Too many committees*** involved
- Possible ***duplication of data***

Figure 10.2 Shortcomings of the environmental assessment process

1. The environmental assessment should be a ***core activity within the national marine science programme***.
2. ***Immediate planning for future regional QSRs*** with participation of agencies at home and abroad. ***Methods should be standardised*** for generating and recording data.
3. The ***co-ordination and close integration*** of all assessment functions should be provided for. This will ensure the smooth flow of information from sampling and measurement, through data processing and evaluation, to report production.
4. A ***central assessment data bank*** should be developed and maintained. This should include socio-economic as well as scientific information in conjunction with relevant data sources.
5. To assist in the provision of information for the assessment data bank and to mobilise agencies, sectoral bodies and social scientists, ***access to information on practices affecting the marine environment*** should be made available.
6. The efficiency of carrying out the assessment could be increased ***through better use of electronic databases*** such as geographical information systems (GIS) and mapping systems.
7. The ***time between data collection and the reporting of results should be reduced*** so that any future assessments can be more up-to-date.
8. ***Clear targets and schedules*** for publication of thematic reports should be developed.
9. Design of ***contaminant monitoring in the Irish Sea*** should be reviewed and adapted as appropriate. Compatibility between Irish and UK approaches will be increased.
10. ***Dialogue should be stimulated*** on developing more ***realistic criteria*** of environmental quality and on improving ***the structure of assessment reports***.

Figure 10.3 Ways of improving the marine environmental assessment process [Source: Adapted from Marine Institute (1999) Quality Status Report 1999 Ireland: Experience gained – lessons learned]

In order for the process to be more effective at national level individual government bodies need to realise the assessment as a successful and on-going process. It is suggested that small groups of scientists' need to continually collect information that can be easily incorporated into future such assessments when the need arises. Also, rather than have one assessment taking place every 5-7 years a constant flow of thematic documents would make information more easily digestible. It is also thought that integration internationally and between inter-agency activities would be improved if OSPAR and the European Union had similar ways of summarising information which is gathered (Boelens, 2000, pers. comm). Clearly an assessment such as this is an invaluable support tool for decision-making, but changes are needed for a more speedy and efficient environmental assessment process.

Chapter 11

Netherlands - National Environmental Policy Plan 3 (NEPP3)

11.1 Introduction

The Netherlands is a small, densely populated country with limited natural resources and a lot of industrial and agricultural based activities. The country has a long history of land-use planning (see Volume 2) and resource management systems. Following the 1960s a series of environmental policies were developed to deal with an increasing number of environmental problems and responsibility towards the environment was divided between several different Ministries. Environmental policies were being dealt with on an individual basis. As a result little consideration was given to the inter-relationship between the various environmental issues. The consequence was an ineffective regulatory system. However, during the 1980s the Dutch Government worked with industrial bodies and environmental groups to develop the policy process. At the same time the general public was strongly in favour of a new form of environmental protection (Resource Renewal Institute, 1999). Rather than tackle environmental problems individually the government changed its focus to a more theme-based approach and environmental problems were categorised nationally, regionally and locally (van de Loo, 1999).

The 1989 National Environmental Policy Act (NEPP) changed the way policy was implemented in the Netherlands from environmental issues being dealt with under general laws, to a more integrated approach. Since then Dutch environmental policy has been guided by NEPP and a number of themes and target groups (see section 11.2) have provided a framework for successive environmental legislation (Resource Renewal Institute, undated). The environmental policy plan, or 'green plan', involves a series of objectives and a programme of actions. Each plan focuses on the longer-term and ultimately aims to achieve sustainable development while at the same time increasing the level of the environmental policy being integrated into all government actions. The NEPP has been described as dynamic instead of static. In other words, instead of recommending that specific technologies be used for particular applications, the NEPP relies on measuring output instead of monitoring inputs (Scruggs, 1993). This report focuses on the National Environmental Policy Plan process and in particular the third NEPP and its contribution to environmental integration.

11.2 Description and Evaluation of Decision-Making Context

The National Environmental Policy Plan was developed co-operatively by a number of different government bodies. Figure 11.1 provides an outline of the different Ministries involved and the general decision-making structure. The legal framework within which

NEPP3 was developed is the Environmental Management Act 1993 (Chapter 4). Section 4.3 of this Act requires a NEPP to be developed every four years.

There are seven main strands through which environmental policy is shaped: improving the efficiency within which the environment is needed; making considered use of science and technology; focusing on quality of overall living environment; increasing integration, customisation and flexibility; internalising environmental costs in prices; enforcing improvement; stepping up international activities (Ministry of Housing, Spatial Planning and the Environment, undated). All environmental concerns, especially those related to environmental pollution, were incorporated into the first National Environmental Policy Plan in 1989. These concerns were divided into nine different areas known as environmental themes (see Figure 11.2). The themes are key to the policy development process. NEPP1 set out a 25-year goal to achieving sustainable development and in so doing each of the 'themes' was set a number of emission reduction targets. Targets range from local to global level. Responsibility for reaching these targets is placed with target groups which represent the key polluters within Dutch society (Netherlands Embassy, undated) (see Figure 11.3).

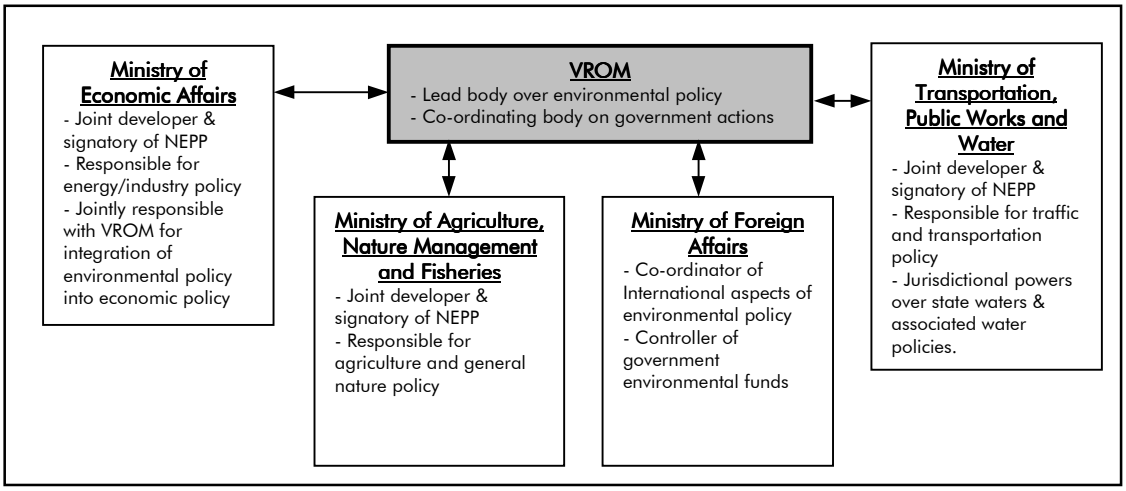

Figure 11.1 Decision-Making Structure and Responsibilities

Environmental Themes		
1. Climate change	**4.** Dispersion of toxic and hazardous substances	**7.** Local nuisance
2. Acidification	**5.** Land contamination	**8.** Water depletion
3. Eutrophication	**6.** Waste disposal	**9.** Resource dissipation

Figure 11.2 Areas of Environmental Concern ("themes") [Source: Netherlands Embassy (undated)]

NEPP Target Groups			
Agriculture	Traffic and transport	Industry and refineries	Energy companies
Construction industry	Consumers and retail trade	Waste processing companies	Actors in the water cycle

Figure 11.3 Target Groups [Source: Netherlands Embassy (undated)]

The second NEPP, which focused on the effective implementation of the strategies within NEPP1, was developed in 1993. A number of steps were introduced including the requirement of large companies to produce yearly environmental reports (Zoeteman, 1998). Also, the need to account for political, economic, social and environmental changes over time was recognised by the Dutch Government and the Environmental Management Act of March 1993 was introduced requiring the development of four-yearly environmental plans at national and provincial level (Netherlands Embassy, undated). Towards the end of the planning period 1993-1998 a number of environmental surveys found that apart from carbon dioxide emissions environmental impacts had been reduced, while at the same time the Netherlands was enjoying economic expansion (a process known in the Netherlands as "absolute decoupling" (Resource Renewal Institute, 1999)). With regards to achieving environmental objectives the Netherlands was seen to be on target (van der Loo, 1999). However, some objectives hindered by economic growth still needed to be met (Ministry of Housing, Spatial Development and the Environment, undated). In 1998 the Dutch Government decided that further environmental policies were needed and the third NEPP was produced. NEPP3 includes the objectives from NEPP1 and NEPP2. It is the aim of the Dutch government that this particular plan should lay the basis for a sustainable 21st Century (van der Loo, 1999). Also, in this plan greater emphasis is being placed on the participation of not only industry, but of the whole community.

Table 11.1 Environmental Integration Background

Political Leadership	Yes. The lead government body on environmental policy development is the Ministry of Housing, Spatial Planning and the Environment (VROM).
Institutional Commitment	The Ministries are committed to developing and carrying out the objectives of NEPP through the National Environmental Policy Act 1989.
Co-ordination	VROM is the co-ordinating body for environmental policy development.
Communication Reporting	Yes. The working group outlined in Figure 11.1 reported frequently to the Council of Ministers through the Ministry of Environment (Jaap de Boer, 2000, pers. comm).
Guidance Training	No information available.
Awareness Raising	Finalised NEPP announced in Government Gazette.
Targets/Objectives/ Indicators	The NEPP process is based on a series of objectives. The National Institute for Health and Environment (RIVM) provides indicators.
Appraisal/ Assessment	To date no SEA or environmental appraisal has been carried out on new versions of the NEPP (Verheem, 2000, pers. comm).

Instruments	Green taxing system - energy taxes and also tax incentives.
National/Local Sustainability	Public authorities are responsible for enhancing well being and living standards as laid out in Article 21 of the Constitution. Sustainable development is the main objective of environmental policy.
Allocation of Spending	The Dutch Government has put forward 2.6 billion guilders to finance measures in NEPP3 for the budget period 1998 to 2010 (Ministry of Housing, Spatial Planning and the Environment, Undated). This is in addition to 250 million guilders put aside each year for environmental improvements. The overall costs involved in developing the NEPP3 are not known (Jaap de Boer, 2000, pers. comm).
Monitoring/Auditing	An independent research foundation RIVM carries out studies on current environmental conditions and standards on a yearly basis. Section 4.2 of the Environmental Management Act requires RIVM to produce a scientific report once every four years describing developments in environmental quality over a period of no less than the next ten years. RIVM also has to produce a yearly scientific report describing developments in environmental quality caused by the implementation of policy measures (Environmental Management Act, 1993).

11.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

As mentioned in section 11.2 the Ministry, VROM, took the lead role in decision-making regarding NEPP3. VROM was part of a common working group made up of a number of different Ministries as outlined in Figure 11.1. This group reported, on a frequent basis, to the Council of Ministers through the Minister of Environment.

Participation in the NEPP3 process not only involves the working group but also bodies outside the national level in provinces, local communities and waterboards. Interest groups (as outlined in Figure 11.4), such as businesses and environmental NGOs were also asked to participate. Following the completion of the NEPP the Parliament discussed the Plan. It is thought that this may be seen as public representation (Jaap de Boer, 2000, pers. comm).

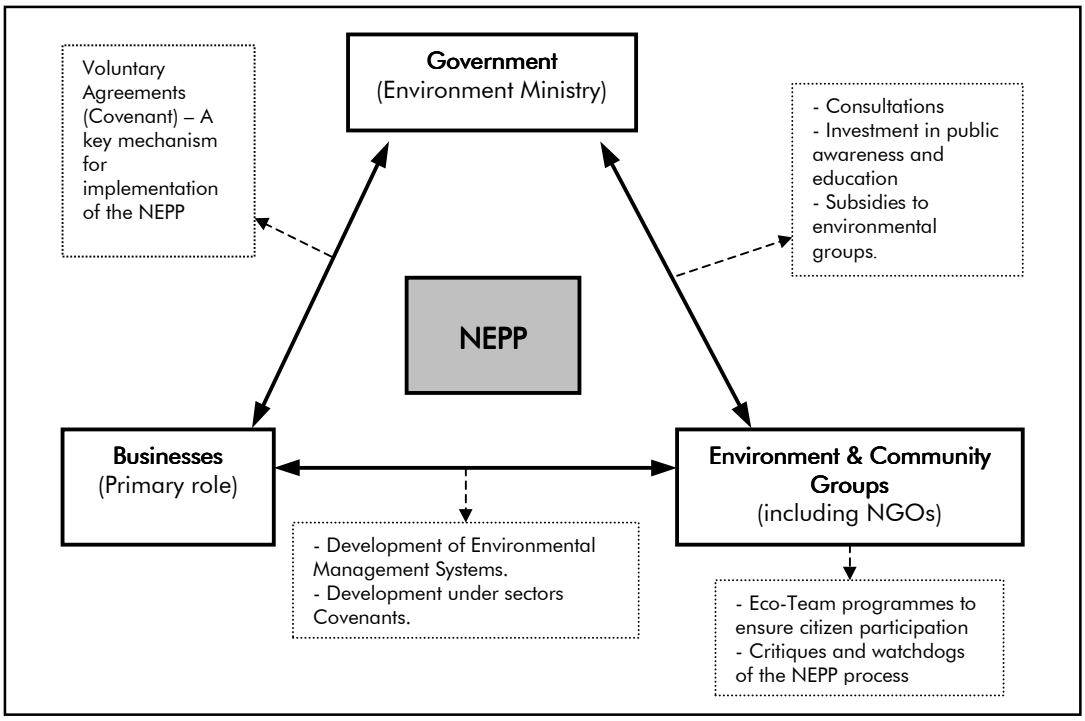

Figure 11.4 Bodies Participating in the NEPP3 Process.

Further scope for participation is laid out in section 4.4 of the Environmental Management Act. Here it states that during the preparation of the environmental policy plan "government bodies, institutions and organisations which in their opinion are most concerned with the subjects to be addressed", should be involved. Provincial Executives should also be involved (Environmental Management Act, 1993).

Mechanisms of communication

Meetings held between working group and Council of Ministers. Also, see Figures 11.4 and 11.5.

11.4 Description of Integration Procedure

Figure 11.5 provides a summary of the NEPP process as laid out under the Environmental Management Act. The resulting third NEPP was divided into four distinctive areas with emphasis on emission reduction. Firstly, it tackles the issues of environmental policy dealing with the reasons why such a policy exists, evaluating the result of the previous ten years and identifying seven key strands of environmental policy. Secondly, the plan looks at each of the different bodies involved in the policy process including the general public and various public authorities. Thirdly, the issue of international environmental policy is discussed in detail looking in particular at the relationship between the environment and the economy. Finally, the rationale and main policy elements are examined. Here, the main "themes"

(see section 11.2) are discussed in detail and the developments that are to take place during the plan period (1999 – 2002) are outlined.

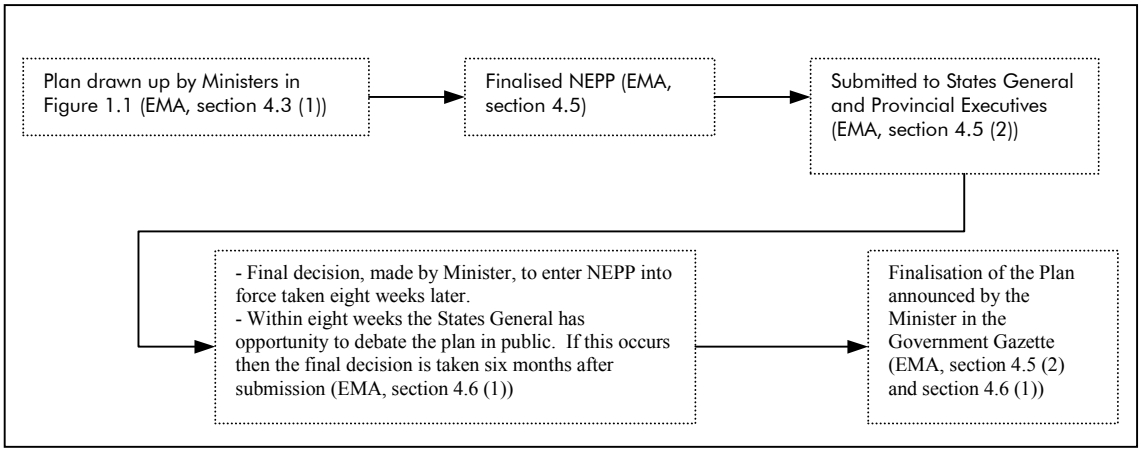

Figure 11.5 NEPP Process [Source: Environmental Management Act (1993)]

Table 11.2 Environmental Integration Components

Objectives Led	The NEPP process is objectives led.
Integration	The main aim of NEPP is to integrate environmental policy into all government actions.
Alternative/Options	No. Alternatives to the goals that are set are not considered at present (Verheem, 2000, pers. comm).
Visioning	n/a
Environmental Statement	NEPP3 is documented in one main report. This is only available in Dutch.
Methodologies	No information available of specific methodologies.
Participation	Provinces, local communities and waterboards participated. Also, interest groups such as businesses and environmental NGOs were asked to participate.
Time-Scales	NEPPs are required to be produced every four years. No information available on how long it takes for the actual plan to be developed.
Sustainability Impacts	No information available.
Significance	No information available.
Non-Technical Summary	A 57-page summary of NEPP3 is available in several languages including English, Spanish and French.
Monitoring	NEPP3 acknowledges the need for monitoring and recognises that information is an essential factor in decision-making on both the design and implementation of environmental policy. It also states that authorities have a duty to gather a picture of environmental quality, performance and progress made at national level (Ministry of Housing, Spatial Planning and the Environment et al, 1998).

11.5 Summary and Commentary on Effectiveness of Integration

While the national environmental programme for the Netherlands specifies plans for concrete actions in the short term the NEPP is a national environmental policy with longer-term aims and goals. It is a national framework for integration in that it sets the overall goals that should be taken into account by sectoral policies. NEPP3 and its predecessors can be described as strong integration tools, which set the environmental policies and objectives on a national basis.

It is the opinion of those involved in NEPP3 that the Plan allows "checks" to be made on new sectoral policies to see if they are in line with environmental goals or that they have helped to inform the development of those goals. Various targets for different sectors may also be set (Jaap de Boer, 2000, Pers. Comm). Results from previous NEPPs have shown that overall the policy plan process has been effective in achieving its objectives. This is evident through "absolute decoupling". It is also said to contribute to a large extent to the effectiveness of SEA through the setting of standards and goals against which the predicted impacts of alternative plans and policies can be measured. An IAIA (International Association for Impact Assessment) study on SEA effectiveness showed that a clear national environmental policy plan as an essential precondition to SEA (Verheem, 2000, pers. comm). It should be noted that section 4.6 subsection 3 of the Environmental Management Act allows for discretion as to how the NEPP is taken into account by government bodies. It states that "the protection of the environment *may or must* be taken into consideration" (Environmental Management Act, 1993).

Chapter 12

New Zealand - Environment Cantebury

12.1 Introduction

New Zealand is a parliamentary democracy operating under the 'Westminster' system. While New Zealand has no written constitution *per se*, an important document recognising the rights of individuals and groups is the Treaty of Waitangi. The Treaty is the "founding" document of the nation of New Zealand. It was signed in 1840 by representatives of the British Crown and Maori chiefs and recognises the rights of the indigenous Maori population.

The economy of New Zealand is highly resource-dependant with the majority of income derived from primary products and tourism relating to the natural environment. Resource protection is thus of national importance and environmental protection measures have been in place for some time. Historically, natural and physical resources in New Zealand were governed by more than 50 different pieces of legislation, many of which were conflicting, overlapping or inconsistent in their purpose. The Resource Management Act (RMA), introduced in 1991, resulted from a process of resource management and local government law reform which emphasised better environmental outcomes, greater recognition of communities and more transparent and accountable decision making (Cantebury RPS, 1998:4). The RMA gave effect to New Zealand's obligations and responsibilities under international treaties and agreements (such as those emerging from the Stockholm Conference and the Rio Earth Summit). The Treaty of Waitangi also had a major influence on the development of the RMA, in respect of the rights of governorship and the relationship of the Maori with natural and physical resources (Cantebury RPS, 1998:5).

The RMA radically altered systems of environmental management in New Zealand, creating a comprehensive, integrated framework for the sustainable management of the country's resources. Under Section 5 of the RMA, the explicit purpose of the Act is to promote the sustainable management of natural and physical resources. This is "the single and authoritative source for all decisions under the Act" (Gow, 1995). Uniquely, instead of relying on land-use control prescribing what activities should or should not be allowed, the RMA requires the government to promulgate standards for environmental quality that must be met regardless of the use the land is put to, the RMA thus placing the emphasis on the effect a proposed activity may have on the environment.

The RMA constituted significant legislative and institutional consolidation and rationalisation, by replacing 59 resource and planning statutes (including legislation relating to town planning and water and soil management) and redefining national and

regional government responsibilities specifically in terms of sustainable resource management. (Significantly the decision was taken to establish regional councils based on catchment boundaries, so as to clearly assign them principal responsibility for water, pollution, soil and coastal management.) Furthermore, the resource management process was streamlined by the RMA which reduced 800 units of government to 76 (Gow, 1995).

The RMA assumes that local communities are the best judges of their own environmental problems and how to go about dealing with them, with decision-making relative to resource management devolved to the local/regional level and a strong commitment to community involvement in decision-making. The RMA promotes a culture of community involvement by specifically requiring authorities to seek the views of the Iwi (the indigenous Maori people) residents and businesses when developing resource management plans. Appraisal of plans and policies is a requirement under Section 32 of the RMA, which charges the Minister of Environment, regional authorities and district councils with a duty to evaluate their objectives, policies and methods as well as to consider alternatives. The benefits and costs of all of the above as well as alternatives have to be examined and decisions made relative to their necessity, effectiveness and efficiency in achieving the purpose of the Act before plans are adopted (Ministry of the Environment, 2000a:3). Section 88 of the RMA requires that an environment assessment accompanies all applications for development known as resource consents.

12.2 Description and Evaluation of Decision-Making Context

The RMA provides a framework integrating national, local, and regional institutions and systems dealing with resources, so that the environment can be managed as a whole. The Ministry for the Environment (MfE) provides national guidance and standards for environmental management, for example through the Environment 2010 Strategy[13] (which is a comprehensive statement of national level environmental priorities and strategies), as well as monitoring the implementation of the RMA. The Strategy is objectives-led and sets out the central government's vision, principles and goals for the environment to the year 2010. The *Strategy* introduces a number of principles to integrate environmental issues into the economy, including recognition that the environmental costs of production and consumption should be charged to users who benefit from them. Furthermore that public infrastructure services should be priced according to market principles so as to better reflect their true environmental costs.

Practical implementation of the RMA and decision-making in respect of environmental management occurs at the local level by directly elected councils such as Environment Cantebury. (Cantebury Regional Council's recent name change to "Environment Cantebury" is indicative of the degree of environmental integration in decision-making at the regional level.) Under the RMA, Regional Councils are responsible for the preparation

[13] Other central government strategies and guidance includes: the Sustainable Land Management Strategy (SLM); the New Zealand Coastal Policy Statement (NZCPS); the National Biodiversity Strategy, the State of the Environment Report (SER) and the National Environmental Indicators Programme.

of Regional Policy Statements (RPS). Consistency of objectives is ensured by the RMA requirement for regional plans to be consistent with national policy and guidance.

The Cantebury Regional Policy Statement (1998) sets out an overview of natural and physical resource management issues and priorities, identifying the environmental risks in the area and setting out Environment Cantebury's response. Within the framework of the RPS, Environment Cantebury is developing a series of regional plans and management strategies dealing with specific resource management issues, including those for river basins, air quality energy, etc[14]. District Councils are required to prepare district plans, which include rules, regulating, prohibiting or allowing specific activities.

The first national report on the state of the environment was released in 1997, providing an overview of the state of the natural environment and the pressures on it. It highlighted the need for improved environmental information on national trends. The environmental performance indicators programme is presently being developed (due for completion in 2002)[15] to assist in monitoring changes in the environment as a result of the implementation of the RMA.

Table 12.1 Environmental Integration Background

Political Leadership	Resource management is the statutory responsibility of three central government agencies – the Ministry for the Environment, the Department of Conservation, and the Parliamentary Commissioner for the Environment. The executives of all government departments are asked to consider environmental goals in their annual budget planning process. Though an elected Council, EC has statutory responsibility for day-to-day environmental management under the EMA.
Institutional Commitment	Yes. MfE sets environmental standards and national policy under the RMA. Statutory requirement for MfE to report to government on the State of the Environment and way in which environmental laws and policies are working. Minister for Environment has statutory duty to monitor effects and implementation of the RMA. Commissioner for the Environment reviews and provides advice on agencies and processes of environmental management.
Co-ordination	Yes. MfE reports to the international community on how NZ is meeting its commitments. Vertical co-ordination - requirement of RMA (hierarchy of compliant plans). Also achieved through MfE consultation with local government in preparation of policy and guidance. MfE advises on and monitors the environmental implications of other government department policies. Horizontal integration at regional level through RPS.
Communication Reporting	Yes. EC activities subject to scrutiny through Annual Plan and budgetary process. Each year, EC is required to prepare, and after public consultation, adopt an Annual Plan, detailing the work to be undertaken, costs, sources of funding, and setting out the objectives in each area. EC

[14] For example, the "Opihi River Regional Plan"; and in draft, the "Cantebury Hazardous Waste Strategy (Draft)" "Draft Natural Resources Management Plan, Part A: Air (Christchurch, 1998)"; as well as the following proposed plans: "Proposed Land and Vegetation Management Regional Plan" "Proposed Waimakiriri River Regional Plan"; "Proposed Regional Coastal Management Plan".

[15] Thus far only the indicators for solid waste, hazardous waste and contaminated sites are confirmed. Proposed indicators include energy, transport, terrestrial and freshwater biodiversity; marine environment; ozone and climate change.

	also required to report to MfA annually as part of the Annual Survey of Local Authorities & input into MfE State of the Environment Report (produced every 5 years).
Guidance Training	Yes. At the national level, as part of improving practice and performance of the RMA, the MfE has developed a programme of seminars, training, booklets and other initiatives, for local councils and local *iwi*. Also "Quality Plans Project" – gives authorities opportunity to share experiences and advice on good practice in policy development. MfE has produced a handbook on s.32 reporting.
Awareness Raising	Yes. Environmental education recognised in Environment 2010 Strategy. Strategic approach set out in the "National Strategy for Environmental Education". General awareness levels high owing to prescriptions in the RMA and liability regime – improved through significant amounts of consultation on particular issues. Info readily available through MfE Publications, Environment Canterbury Publications and via the WWW.
Targets/Objectives/ Indicators	Yes. Clearly defined through the National Environmental Indicators Programme and reported at the regional level – in the Annual Plan & MfE Annual Survey of Local Authorities.
Appraisal/ Assessment	Yes. Requirement of RMA to consider anticipated environmental results in preparation of policy statements and plans & for resource consent applications to be accompanied by EIA.
Instruments	Yes. Few economic incentives used to promote environmental goals. However, Environment 2010 Strategy promotes building environmental costs into its infrastructure services. Resource Management Charges (when applying for RMA consent to development), and penalties for contravention of RMA which can amount to fines of up to NZ$200,000 and imprisonment of up to two years.
National/Local Sustainability	Yes. RMA structured so that sustainable development is further refined through Regional Policy Statements, Regional Plans & District Plans, incorporating National Policies & Standards. *Environment 2010 Strategy* sets out the national level priorities. Cantebury RPS sets out policies for sustainable development at the regional level, District Plans at district level.
Allocation of Spending	Yes. The national budget includes a Green Package (announced in 1996) which represents the first attempt to prioritise actions to implement the Environment 2010 Strategy and included NZ$110M in additional funding over 3 years to address aspects of the priority areas in the Strategy. MfE budget for this year = NZ$ 22M to identify environmental problems and find solutions. Sustainable Development Fund set (approx. NZ$ 5.5M p.a.) provides practical support for projects. EC Annual Plan outlines an expenditure of $50M for 2000.
Monitoring/ Auditing	Yes. Required under RMA (Section 35). Environmental Performance Indicators still being developed by MfE. Indicators, monitoring methodology & anticipated environmental results included in regional plans based on MfE's Indicators. Results will feed into MfE's State of the Environment Report (updated every 5 years). EC monitors effectiveness of plans through annual performance measures, reported in the Annual Plan. RMA monitored through MfE's Annual Survey of Local Authorities.

12.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

Power is devolved to the regional level through the RMA. Environment Cantebury consists of an elected body of 14 councillors (accountable to their electoral base) who are represented on 20 standing committees (for example: regional planning and regional land transport). Councillors are ultimately responsible for decision-making at the regional level and decisions relative to resource management are taken with full representation of all 14 councillors. The Resource Management Act provides for strong community involvement in establishing regional policy and objectives within their area as well as in determining applications for resource consents. Typically the first stage of plan preparation is consultation with the community, central and local government, and other parties. Maori groups are particularly involved in decision-making and Maori representatives are attached to local councils. Sections 6(e), 7(a) and 8 of the RMA have been further clarified by the Parliamentary Commissioner for the Environment as: "... a strong signal to decision-makers that *Tangata Whenua*[16] have a special status and are not to be considered as just another interest group." (Regional Policy Statement, 1998: 6).

Mechanisms of communication

Overlapping Councillor membership of the respective standing committees as well as the range of issues considered in the Regional Policy Statement (which considers all aspects under the remit of the Regional Council) ensures a level of horizontal communication and integration in decision-making at the regional level. In addition, through membership and monthly meetings of Local Government New Zealand (a body representing regional and district councils), both horizontal and vertical communication is ensured between councils. Furthermore, within the Council itself, the "second tier management group" holds monthly meetings of second tier management from different sections of the Council to discuss issues of mutual concern.

During plan preparation, Environment Cantebury is required to consult the Minister for the Environment; and any other central government ministers as to who may be affected as well as district authorities and the *Tangata Whenua* of the area through the *iwi* authorities and tribal *runanga*. Through successive programmes of consultation, the Council has developed a database of interest groups and stakeholders who are regularly consulted when issues affecting them arise. Environment Cantebury also has a close relationship with *Tangata Whenua* in the region that has been developed jointly with the *runanga*[17] of the Canterbury region. Processes for participation are designed to be user-friendly. For example, when policy that affects Maori interests is being considered, approaches

[16] ***Tangata Whenua*** - people of the land, the people who hold the customary authority in an area, according to tribal custom (Regional Policy Statement, 1998: 307).
[17] ***Runanga*** - local representative Maori groups. The Maori equivalent of local government (Regional Policy Statement, 1998: 305).

appropriate to Maori are used for consultation such as *hui* (meetings) which address the issues the public and Maori *iwi* consider important.

The New Zealand Court of Appeal recently found that essential elements of consultation should include: sufficient information; sufficient time for participation; and genuine consideration of inputs. *Tangata Whenua* and Environment Cantebury have agreed on a process of consultation that seeks to reflect these principles. There are three distinct stages in the policy-making process during which communities are able to directly participate:

- Initial consultation by local authorities in preparation of policy statements and plans.
- Submissions to local authorities following public notification of plans and resource consents.
- At any time issues arise which are of importance or concern and therefore warrant a change in plans.

12.4 Description of Integration Procedure

Environmental Appraisal of plans and strategies is a requirement under Section 32 of the RMA, which charges the Regional Authority with a duty to consider alternatives and to assess benefits and costs of policies in achieving sustainable resource management, before the plan is adopted (Figure 12.1). This requirement is binding on the Minister of the Environment in respect of the national policy statement; the Minister of Conservation, in relation to coastal policy statements and coastal plans; regional authorities in respect of regional policy statements and plans, and district authorities in respect of district plans. The appraisal process is underpinned by the RMA and is virtually inseparable from policy and plan development in New Zealand. Furthermore, the process is integrated with other levels of decision-making as these plans set the framework for decision-making relative to resource consents.

TO HAVE REGARD TO:	• Extent to which regulation is required (if at all) to achieve the purposes of the RMA/ objectives of a plan. • Other mechanisms, apart form regulation for achieving the purposes of the RMA/ objectives of a plan. • Reasons for and against the method proposed & alternatives.
TO CARRY OUT AN EVALUATION OF:	• Benefits and costs of options and alternatives.
TO SATISFY ITSELF:	• That proposal is necessary to achieve purposes of RMA. • That proposal is appropriate i.t.o effectiveness and efficiency.

Figure 12.1 Statutory Duties Under Section 32 RMA [source: Ministry for the Environment, 2000:9]

The identification of resource management issues is a critical starting point in the process of plan preparation and appraisal (Ministry for the Environment, 2000a:17). Following the identification of issues, plan objectives are proposed. The objectives are tested in terms of

their benefits and costs as well as those associated with alternative objectives. Following public consultation, testing and the establishment of preferred options, a similar appraisal and consultation exercise is carried out as part of policy development. It is incumbent on the authority not only to consider alternative objectives/policies, but also alternative methods or mechanisms (other than statutory plans/regulations).

Appraisal includes monetary and non-monetary considerations, Cost Benefit Analysis and consideration of the effectiveness of policies in achieving RMA sustainability objectives. Where the environmental benefits of a particular option outweigh the costs, an efficiency study is carried out, comparing the extent to which objectives (or purposes of the RMA) are met against how much is forgone as a result of using a particular option. Those involved admit that this appraisal process is largely subjective, but that public participation and scrutiny plays a key role in the assessment of policy options from the outset in plan preparation. At this stage appraisal consists of establishing the desired outcomes and assessing the options for bringing these outcomes about (a form of backcasting). Reporting is a requirement of the RMA and it is considered critical by Environment Cantebury that the decision-making process is transparent and that information is publicly accessible. Appraisal results are generally clearly presented in the form of checklists or decision-making matrices, containing scores (for example out of 10) or rankings – such as high, medium and low.

Monitoring of the effectiveness of plans and policies occurs throughout the lifetime of the plan. Community groups have been closely involved in environmental monitoring. For example, water quality monitoring is carried out by 3 community groups in Cantebury. This has a triple purpose 1) it provides the community with a promotional tool in terms of the safety of their bathing water and puts pressure on discharges that breach standards 2) it provides Environment Cantebury with far more detailed data than they are able to collect themselves; and 3) it ties in with plan policies regarding improving water quality. Monitoring information is fed into the Ministry of the Environment that undertakes State of the Environment reporting every 5 years.

Table 12.2 Environmental Assessment Components

Objectives Led	Yes. Following the identification of relevant environmental issues – objectives are identified associated with particular issues. Plan policies are appraised in terms of their ability to satisfy these objectives
Integration	Yes. Section 32 appraisal is carried out from the outset of plan development and informs the content of the plan. The appraisal is an integral part of plan development.
Alternatives /Options	Yes. Alternative methodologies, objectives and policies are considered and appraised from the outset.
Backcasting (Visioning)	Yes. Policy options for the achievement of the stated desired outcome/ objective (following stakeholder consultation) are assessed.
Environmental Statement	Yes. Referred to as a Section 32 report (after s.32 of the RMA). RMA requires that the authorities prepare a record of actions taken, and that the record be publicly available. Formal adoption of this report occurs at the same time as

	the formal adoption of the plan.
Methodologies	Non-technical. Generally subjective assessments. Monetary and non-monetary assessment and cost benefit analysis. The results are generally presented in the form of checklists or decision-making matrices. Critical issue is that these are accessible and understood by the public.
Participation	Yes. Appraisal closely bound to participation. Participation occurs from the outset in the selection of preferred policy options (for example, through the distribution of issue papers prior to plan preparation).
Timescales	Process is on going throughout all stages of plan preparation, including identification of issues, objectives, policies etc. Supplementary s.32 reports may be prepared once plan provisions have been finalised, explaining reasons for any changes. Timescale of appraisal and consultation significantly increases timescale for plan preparation.
Sustainability Impacts	Yes. Part of compliance with RMA and national policy
Significance	Yes. Statutory requirement closely tied to the emergence of preferred policies and plan development. Formally adopted along with the Plan.
Non Technical Summary	Yes. Based on a decision of the courts, all Section 32 reports are required to include a non-technical summary that is publicly available.
Monitoring	Yes. Section 32 provides the basis for monitoring. Assessment effectiveness of the plan provisions provides the information required for setting anticipated results/targets. Cantebury's monitoring the State of the Environment is reported in the Annual Plan and feeds into the MfE Performance Indicators Programme.

12.5 Summary and Commentary on Effectiveness of Integration

Issues related to the organisation of assessment

Assessment is a statutory requirement under the RMA. The Ministry for Environment has recently published new guidance on s.32 to the RMA. Analysis shows that environmental assessment of emerging policies and plans is inseparably linked to the processes of community involvement in plan preparation and to the resource management regime itself, as well as providing the basis for future monitoring by setting anticipated environmental results.

Issues related to goals of assessment/definition of scope

The scope is both thorough and comprehensive, with assessment occurring at a variety of levels (national, regional and district plans) as well as across all aspects of the plan (for example, objectives and policy options as well as methods and mechanisms). This process has been particularly effective in meeting the needs of stakeholders more effectively and improving public acceptability of plan provisions. However, practitioners have raised issues relating to the extensive length of time this process requires. (For example, since the enactment of the RMA in 1991, with the exception of the Regional Policy statement and one management plan, all other regional plans which provide the regulatory power to implement regional policies in Cantebury remain at the level of proposed or draft plans).

Issues related to processes for specification of alternatives

Specification of a range of alternatives occurs at an early stage in plan development/the s. 32 process. The result is that all alternatives are appraised simultaneously (with significant public input) before a preferred option is put forward.

Integration process viewed from key-persons perspective

Although much of the implementation work is still in progress, key personnel within Environment Cantebury believe that the RMA will ultimately result in a more efficient and sustainable system of resource management. Community involvement has increased public commitment and awareness. Nevertheless, high time and resource costs were repeatedly stressed as a disadvantage.

Integration outcomes

Under s.32, appraisal is an integral (and inseparable) part of plan preparation. Best practice is actively promoted through regular meetings, workshops sharing information between local authorities and regular training programmes. While processes are well developed, the environmental outcomes have yet to be measured.

The statutory requirements brought about by the RMA have effected particularly high levels of environmental integration in decision-making and a process of full plan/policy appraisal which is closely related to the development, assessment and delivery of plans. Beginning at the outset of plan preparation, the appraisal process is based on extensive public participation, clear and open reporting and transparent decision-making. In general, stakeholders are both willing and keen to be heard and generally confident in the system. Processes for participation are designed to be user-friendly and mechanisms of communication have been specifically adapted to suit local circumstances and requirements. Information is readily available (for example in the forms of issue reports, the Internet, or through direct mailing to identified stakeholders). The successive "layering" (tiering) of plan appraisal (from national through to district plan assessment) as well as the requirement for the conformity of plans with those in the next tier (for example, district plans to conform to regional and national plans and regional plans to conform to national plans) promotes integration.

Given that much of the implementation associated with the RMA is still in progress, it will be some time before the effectiveness of integration and the appraisal process will be quantifiable. This protracted time scale is in itself a result of the public consultation and the extensive appraisal requirements of the RMA. This tends to result in a considerable degree of uncertainty for business and investors. Moreover, the financial costs of plan preparation are high, with the most costly stage of regional plans and policy statement production occurring up to and including the notification phase (during which appraisal and extensive public consultation occurs). Nevertheless, the RMA has resulted in environmental integration to the extent that this is the single-most important issue in decision-making at

the regional level in Cantebury. Furthermore, the s.32 process has done much to enhance the role of communities in decision-making and has raised public awareness of environmental issues considerably. Perhaps, the potential for success of this form of "statutory integration" in New Zealand is attributable to:

- High level of economic dependence on natural resources and the resultant awareness and acceptance of the need for the high priority awarded to the environment in decision-making;
- The island geography (reducing cross-boundary differences/conflicts in resource management legislation and policy);
- Low population (permitting effective levels of public participation);
- Streamlined communication (for example, Cantebury Region has only 2 newspapers);
- History of devolution and democratic processes at the local level; and
- Political will and fiscal ability to support this level of integration.

Chapter 13

Portugal - National Council for the Environment and Sustainable Development

13.1 Introduction

Portugal has had a poor record of integrating the environment into strategic decision-making. A major driving force for such integration is the requirement to undertake a strategic environmental assessment for regional plans and programmes submitted pursuant to structural funds (the whole of Portugal is covered by objective 1). A first attempt at integrating environmental concerns was through an environmental assessment of the National Development Plan 1994-1999, undertaken according to the EC "Vede-Mecum for use in providing environmental information relating to Plans financed through the Structural Funds". This first attempt at SEA did not achieve a satisfactory degree of integration (European Commission, 1997). The government is currently working on the creation of an SEA mechanism to be applicable to the Regional Development Plans pursuant to structural funds; three different SEA methodologies will be created: (1) agro-environmental sector, (2) land-use planning and environmental policy, and (3) environment.

The only other opportunity for an environmental assessment of plans and programmes is through the Guidelines for SEA which have been promoted by the Ministry of Environment and Land Use Planning (MoE hereafter) and the Directorate General for Regional Development (part of the Ministry of Planning). Several municipalities through the National Association of Municipalities have adopted these guidelines, after the inclusion of SEA provisions within the new EIA legislation (Decree-Law 69/2000) were rejected due to the strong commercial and industrial lobbies.

The National Council for the Environment and Sustainable Development was created (through Decree-Law 221/97, of 20 August) as an independent advisory body on sustainable development. In 1999, Decree-Law 474-A/99 (8 November) created a new MoE, based on the concept of sustainable development. The organic law for the Ministry of Environment and Land-Use Planning (approved by Decree-Law 120/2000) reiterates the role of the National Council for the Environment and Sustainable Development. The Council offers one of the few opportunities for the integration of environmental considerations in the decision-making processes on policies, plans and programmes in Portugal. Although its standpoints are not binding, they have shown to have an influence in decision-making processes.

This case study looks at the functioning of the National Council for the Environment and Sustainable Development (the Council, hereafter), through the role it played as an advisory body in the decision-making process for the definition of the National Economic and Social

Development Plan 2000-2006 (NESDP, a framework document for the development of the Regional Development Plan to be submitted to the EC) and the Strategic Hospital Wastes Plan (SHWP). The case study includes a trans-sectoral national Plan (i.e. the NESDP) and a sectoral strategic Plan (i.e. the SHWP).

13.2 Description and Assessment of Decision-Making Context

The Council was created through Decree-Law 221/97 as a "consultative organism that must provide the participation of various social, cultural and economic forces within the emission of stand-points on environmental policy" (Art. 1.2). It is defined as a consultative body for the MoE (together with the National Water Council), through Decree-Law 120/2000, which defines the MoE's organic structure. Although the mandate of the Council is clear as a consultative body, its role within the decision-making process on PPPs remains elusive, as there is no obligation for authorities to consult it (the only exceptions being the decision-making on the National Environmental Policy Plan and the National Strategy for Nature Conservation). The Council's activities are not formally integrated within the decision-making structure for PPPs, although in practice the Council would be consulted on most major plans and programmes.

The Council may act either on its own initiative or responding to a request, giving a standpoint on issues related to the environment and sustainable development for the following: (1) environmental policy, (2) strategic plans and programmes, (3) conventions or other juridical instruments subscribed to by Portugal, and (4) the implementation of Community policy, especially in the framework of the community of Portuguese-speaking countries[18]. The Council has decided internally to take a pro-active rather than a reactive approach in their activities, mainly due to the large number of stand-points requested from them. As a result they select only those requests that they consider relevant, and prepare other standpoints even if not requested, if they consider them necessary[19].

Table 13.1 Environmental Integration Background

Political Leadership	It is a remit of the MoE to "create the conditions which allow the promotion of a sustainable development with respect to the environment…". The National Environmental Policy Plan was drafted under the principles of sustainable development; but there is no clearly defined strategy. There are no clear individual responsibilities.
Institutional Commitment	Yes. Sustainable development is a key issue for the MoE.
Co-ordination	No formal co-ordination mechanisms for integration exist.
Communication Reporting	No clear lines for communication exist, except vertical communication of decisions through the Official Gazette.
Guidance Training	None exist.
Awareness Raising	No.

[18] As defined in Art. 2.1 of Decree-Law 221/97.
[19] Such was the case on GMOs, where they proposed to the Council of Ministers to take a strong position on the issue.

Targets/Objectives/ Indicators	Targets and objectives have been defined in the National Environmental Policy Plan for different sectors, but no assessment indicators have been developed.
Appraisal/ Assessment	No. Only standpoints issued by the NESDC.
Instruments	
National/Local Sustainability	Yes. Local Agendas 21 has been implemented in several municipalities; one of the best examples are in Oeiras (outskirts of Lisbon) and Maia (outskirts of Porto).
Allocation of Spending	The Council is financed through public funds.
Monitoring/ Auditing	No monitoring or auditing.

13.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The decision-making body varies according to the sector to which the plan or programme belongs; the Council's role is limited to issuing a non-binding standpoint. In the case of the NESDP, the proponent and decision-maker was the Ministry of Development and Territorial Administration (Regional Development Secretary of State). In the case of the SHWP, the proponent was the MoE.

The Council comprises a wide range of actors; it is composed of the following members and works through permanent or ad hoc working groups (See Figure 13.1 below).

No. of Members	Sector
1	President, designated by the Council of Ministers
5-8	Designated by the Council of Ministers (one by the MoE)
1	Designated by the Regional Governments of Azores and of Madeira
3	Designated by the environmental protection organisations
2	Designated by the National Association of the Portuguese Municipalities
2	Designated by the industrial organisations
2	Designated by the commercial organisations
2	Designated by the organisations of farmers
2	Designated by the environmental socio-professional organisations
2	Designated by the trade unions
2	Designated by the Council of Rectors
3	Co-opted by the NCESD amongst renowned personalities in the environment

Figure 13.1 Actors Within the Council

Mechanisms of communication

The communication mechanisms between the proponent, the decision-maker and the Council are not clearly defined. The Council may be consulted during any phase of the drafting process, although this tends to occur on the basis of final versions; in the case of the NESDP and the NHWP the Council was consulted on the basis of final drafts. The Council's standpoints are always made publicly available and published in the Official Gazette at the same time that they are communicated to the proponent.

13.4 Description of Integration Procedure

The Council meets bi-annually and extraordinarily if so decided by the President or by two-thirds of its members. It works through working groups, some permanent and some *ad hoc*; as well, it may ask for opinions from independent experts. Decisions are taken by majority vote. The standpoints taken by the Council are deliberated and no guidance documents are employed, such as sustainability indicators or guidelines.

In the decision-making process of the NESDP, the Council was asked for a stand-point on the first draft at the beginning of 1998. It took a very critical position on it, as it did not offer an integrated approach to the country's development strategy, but rather one based on individual sectors. Also, it claimed that the NESDP's underlying principles did not address the concept of sustainable development. The second draft already introduced an integration approach to development and made reference to the principles of sustainable development. The Council welcomed those amendments in their second stand-point and made suggestions for further improvements such as the linkage of the proposed actions with sustainability indicators.

The NESDP's third version, however, proved to be a step back as far as the Council was concerned. The name of the Plan was changed to Regional Development Plan and the text was changed to reflect a focus on the regions, ending up again with a sectoralist approach. The Council's third stand-point expressed their concern that the benefits gained in the second draft were lost in the third. At the time, however, the electoral process was on its way and few of the Council's suggestions were integrated. The new government accelerated the approval process and recovered the old name (NESDP), although the policy integration principle was never re-taken. In this case the Council initially proved to have a role in promoting the principles of sustainability within the definition of the NESDP. However, other political driving forces proved to have more weight than the Council's non-binding opinion.

In the decision-making process concerning the SHWP, the Council's standpoint was requested by the MoE. The Council created a working group to review the Plan and consulted a series of groups[20]. The second version of the SHWP integrated almost of all the Council's suggestions and was then open to national debate during a six-month period. The Council's second report (March 1999) integrated the public opinion expressed during

[20] These included the Wastes Institute, the Directorate General for Health, QUERCUS (a national environmental NGO), the Service for the Common Use of Hospitals and AmbiMed-Athisa.

the public debate and drew attention to a series of recommendations, mostly of a strategic nature[21]; these were also almost entirely taken into account in the final SHWP.

Table 13.2 Environmental Assessment Components

Objectives Led	No. There is no formal integration during drafting of the Plan; the Council's standpoint is sought on the basis of a final draft.
Integration	No. Limited to a standpoint on a final draft.
Alternatives/Options	No. The Council usually proposes alternatives, but these are not examined formally within the assessment framework.
Backcasting (visioning)	No.
Environmental Statement	The Council issues its standpoint, which is made publicly available (published and many through internet). No formal structure to it, but usually quite comprehensive and explanatory, although no formal methodological assessment is included.
Methodologies	Non technical. Informal assessment methodologies through working groups. Process-driven mainly.
Participation	Informally during the Council's assessment (consultation of relevant groups in an *ad hoc* manner); in this case after a draft PPP has been issued. Formal consultations mandatory (but not within the Council's functions) after draft has been issued.
Timescales	Variable (depends on the PPP). For the NESDP 6 years.
Sustainability Impacts	No formal methodologies used to assess sustainability impacts.
Significance	No formal methodologies used to assess significance of impacts.
Non Technical Summary	No.
Monitoring	No.

13.5 Summary and Commentary on Effectiveness of Integration

Although the Council has shown to be influential in promoting the integration of sustainable development principles in plans and programmes (as it was shown with the SHWP), its effectiveness is very limited. In the first place, there is no obligation to submit plans and programmes to the Council and the standpoints issued are non binding. Also, there are no clear environmental assessment procedures nor guidelines or indicators; assessments are made on the basis of working groups' deliberations and consultations.

The Executive Secretary of the Council considers the Council's role as important in making an independent assessment of plans and programmes, especially enhanced by the large representation of public interest groups (Leitão, 2000, pers. comm). However, he recognises its limitations within the limited formal mechanisms existing in the Portuguese

[21] The included, for example: (1) implement a permanent inventory of hazardous wastes, (2) integrate the Plan with those of the Autonomous Regions of Madeira and Azores, (3) integrate wastes from animal health and research, (4) integrate certain measures on radioactive hospital wastes, (5) link the Plan with the National Waste Management Plan, (6) undertake more detailed studies on programmes relative to economic-financial issues, issues of awareness raising and professional training of health professionals, as well as the criteria which ought to control the potential locations of the necessary incinerators and (7) clarify the conditions to make use of the existing chemical treatment systems and clarify the number of incinerators needed.

system and would have liked to have seen the inclusion of an SEA procedure in the recent EIA legislation. Similar opinions are shared by members of environmental NGOs and government authorities.

The role of the National Council for the Environment and Sustainable Development is the only existing attempt at integrating the environment in the decision-making process on plans and programmes. Other attempts at implementing a more formal and rigorous assessment, such as the inclusion of SEA provisions within the latest EIA legislation, have not resulted in any success due to strong lobbies against them.

In spite of the valuable assessments offered by the Council in their standpoints, these are not framed within a formal assessment process (for example, no guidance or sustainability indicators are employed). At the moment the Council is working on developing sustainability indicators, which will enhance their assessments.

The system presently lacks clear horizontal and vertical communication mechanisms and clear remits for inter-sectoral integration for environmental integration. The MoE has a nominal responsibility for sustainable development, but there are no mechanisms to involve sectoral authorities in the decision-making processes. With regards to timing, the Council is usually consulted after a draft version of the PPP has been produced, eliminating the possibility for an environmental assessment that may help define its contents and guiding principles.

The methodologies for SEA currently being prepared to undertake the SEAs for the Regional Development Plans pursuant to structural funds may prove to be a first step in a clearer integration, especially if they integrate the role of the Council as an advisory body on sustainable development matters.

Chapter 14

Slovak Republic - SEA of Land-Use Plan Bratislava

14.1 Introduction

For the approach of this study it was important not only to analyse case studies within the European Union, but also outside of it. Of particular interest is an example of one of the EU candidate member states. The following case study, of the Slovak Republic, represents a country in transition as well as a country with a history of a centralized administration system (which is in a process of fundamental change since the historic events of 1989). It deals with the SEA - according to the Slovak EIA Act - of the land-use plan (sometimes also called "territorial plan") of the Slovak capital Bratislava. Its area is part of one of the new established eight regions of the country. Bratislava is the biggest and most important city of the Slovak Republic, located in the Far West of the country and close to the Austrian capital Vienna (distance by train only 45 minutes). With its approximately 470,000 inhabitants Bratislava was the second most densely populated city (after Prague) within former Czechoslovakia. Its total area (367.56 km^2) is subdivided into seventeen administration districts. In Bratislava one can find nearly any kind of land-use pattern, for example, housing areas, areas for industry and trade, recreation areas, areas for traffic and transport infrastructure and so on.

The planning tradition and system of the Slovak Republic was and is very close to that of countries like Germany and Austria and different from the Anglo-Saxon approach, that means inter alia, it is based on a comprehensive, holistic and tiered plan approach, dealing with sharp and exact boundaries for the plots of land considered (Elling, 2000).

Both the SEA process and the plan development itself are ongoing, the drafted plan and the SEA report will be finished in January 2001. It is expected that after a public participation phase of four weeks in February/March 2001 the plan will enter into force at the end of 2001. The environmental assessment of the land-use plan is estimated as the first "real full" SEA in Slovakia[22].

An historical detail worth noting is that the land-use plan Bratislava, which is under preparation now, is called the tenth land-use plan, on the basis of counting since the 18th century.

[22] Opinions from Dr. Ingrid Belcakova and Prof. Dr.Finka, personal communication. Both of them provided valuable information for compiling this case study.

14.2 Description and Evaluation of Decision-Making Context

In the Slovak Republic the Ministry of Environment plays a key role for integrating the environment into strategic decision-making (see Volume 2). As a framework for all spatial planning issues the Ministry of Environment issued a "National Spatial Development Conception of Slovakia"[23]. It outlines the framework conditions for that conception under new conditions, describes the development of basic trends, elucidates a conception of a "superior settlement scheme" and of an "outline of environment and land-use" and deals with sectoral policies (agricultural, forestry, water management and industrial policy, development policy of selected social infrastructure facilities, recreation and tourism development policy, transport policy, policy of power industry development, telecommunication and postal network policy, and waste management policy) and their spatial impact.

The Slovak Ministry of Environment is the competent authority for both EIA issues (according to the Act on Environmental Impact Assessment) and certain spatial planning issues (according to the Act on Building Code and Territorial Planning). The tiered Slovak spatial planning system can be subdivided into five levels (See Figure 14.1).

Planning Level	Remarks
National	Territorial Development Policy of the Slovak Republic
Regional	Eight regions exist
Local	Land-use plans for municipalities
Below the local level	Zoning plans
Project level	Specific site

Figure 14.1 Tiered Slovak Spatial Planning System

Part IV ("Assessment of proposals of development policies and legislation") of the Slovak EIA Act[24] forms the legal framework for the SEA. § 35 of that Act regulates inter alia (see Volume 2):

"A proposal for (…) land use plan of a great territorial region and residential settlements of selected places, especially the centres of a region (…) must contain an assessment from the point of view on its presumed impacts on the environment and if necessary also a proposal for measures to eliminate or reduce the adverse impacts. (…)"

This means the analysed case study is a mandatory SEA. For SEA purposes three guidelines have been developed, but none of them is yet officially adopted. The new land-use plan Bratislava will replace its predecessor from the 1970s (last revision of that plan took place

[23] First draft of that conception was published in December 1994. In 1999 the English version of the "Slovakia Spatial Development Perspective – Abridged" was published (Ministry of the Environment of the Slovak Republic, Bratislava, 1999).
[24] Act No. 127/1994 Z.z. (means with its amendments) of the National Council of the Slovak Republic on Environmental Impact Assessment, official English translation in "Capacity 21, Programme Capacity 21 for the Slovak Republic", Bratislava, Ministry of Environment, 1999.

in 1993). Its plan horizon is calculated as 30 years, a remarkably long period compared with that of land-use plans of other countries.

Table 14.1 Environmental Integration Background

Political Leadership	The competent authority is the City Council of Bratislava. This means all elected members of the Council. Currently, there is no Local Agenda 21, but the development strategy deals with some of its claims.
Institutional Commitment	No institution with integration remit.
Co-ordination	Different actors share the co-ordination task: The two EIA centres of the two big Bratislava universities are responsible for the SEA. The city planning authority is responsible for the land-use plan. Both processes are integrated with each other.
Communication Reporting	The city planning authority and the EIA centres (undertaking the SEA) have to report to the Ministry of Environment. For further communication flows see the corresponding section
Guidance Training	No. However, three (informal) guidelines on SEA have been published.
Awareness Raising	No special measures.
Targets/Objectives/ Indicators	Clear objectives exist for both the plan and for the SEA - mostly qualitative ones.
Appraisal/ Assessment	An appraisal of the essential sectoral policies has been undertaken. For applied techniques see the section 14.3.
National/Local Sustainability	A "National Environmental Action Program" (NEAP) exists (see Volume 2). There are also regional NEAP approaches, but at local level there is no sustainability strategy yet. Also, a Sustainability Strategy for Slovakia is in its development process, co-ordinated by the Slovak REC branch.
Allocation of Spending	Special budget for the SEA. Used staff time cannot be calculated yet because it is an ongoing process.
Monitoring/ Auditing	No special measures. In principle, the Slovak Environment Agency is responsible for general monitoring issues, "The Concept of the Integrated Environment Information System" exists as a legal base (see Volume 2).

14.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The process of setting up the plan can be briefly described as follows:

1. Defining objectives and strategies of the whole plan, parallel involvement of stakeholders.
2. Analysis of step 1 again with involvement of stakeholders and production of some required documents.
3. Development of plan alternatives, again with involvement of stakeholders, parallel start of the SEA process (considering all alternatives), public participation.
4. Drafting the land-use plan, taking into account step 3, again with involvement of stakeholders.

5. Final decision, plan will enter into force.

The Slovak Ministry of Environment, the City Council of the City of Bratislava, and the public are the main actors of the decision-making process. The City Council is the competent authority and has to approve the land-use plan, taking into account the SEA and the results of the public participation. The administration of the City of Bratislava ("Magistrat") has commissioned the EIA centre at the Slovak University of Technology and the EIA centre[25] of the Comenius University to undertake the SEA, supporting both with its city planning authority. The Ministry is competent for the formal final approval of the land-use plan and has to be involved regarding SEA issues, based on § 35(2) of the Slovak EIA Act:

"The person drawing up the proposal is obliged to discuss the proposal (...) in advance with the Ministry of Environment from the point of view of the presumed impacts and proposed measures."

The same "person" is according to § 35(3) also "... obliged, to inform the public about the preparation of the policy in an appropriate manner at least two months before it is discussed under the paragraph 2."

For the land-use plan itself a public hearing related to step 3 (see list above) has taken place in the beginning of December 2000. The SEA report is expected to be finished at the beginning of March 2001. It will be forwarded to the Ministry of Environment to get its written standpoint. This is one part of the public participation related to step 4 mentioned above. Moreover the general public can comment on the drafted plan and the SEA report. Both will be accessible for one month. Experts will be present for the citizens to answer their questions. After that the administration of the City of Bratislava (as the competent authority) will start to work on the final version of the land-use plan, taking into account both the results and recommendations of the SEA report and the written comments from the stakeholders (Ministry of the Environment, other authorities, citizen and so on). After completing the final land-use plan - its approval is expected for the end of 2001 - it will enter into force after the formal agreement of the Ministry of Environment.

A special interest of the administration of the City is to examine the impact interactions and the cumulative impacts of the three alternatives of the land-use plan. The drafted plan, its alternatives and the final plan will be accessible in digital format (scales 1:10,000 and 1:25,000).

Mechanisms of communication

There are different mechanisms of both vertical and horizontal communication. The commissioned EIA centres (undertaking the SEA as mentioned above in 14.3) have to co-ordinate their tasks with the city planning authority, the City Council and with the Ministry of

[25] Both located in Bratislava, two additional Slovak EIA centres are in Nitra and in Kosice.

Environment. Also, they are involved in the co-ordination process of linking the SEA with the process of setting up the land-use plan. Furthermore there are different tasks to inform the public, to examine their comments on the SEA report and the draft plan and take them into account. For drafting the plan and conducting the final plan a lot of interdepartmental discussions and meetings (different authorities concerned within the administration of the City of Bratislava) are also necessary and have to be adjusted with the tasks of the EIA centres.

14.4 Description of SEA

SEA schedule

The kick-off for setting up the new land-use plan Bratislava took place in 1999 with a couple of preparation meetings. The SEA started in August 2000 and is structured into the following tasks:

1. Comprehensive assessment of environmental quality (containing evaluation of the present state of ecological stability and ecological diversity, evaluation of present state of quality of hygienic and safety characteristics of environmental elements, evaluation of present quality for subjective and individual needs, evaluation of cultural and symbolical quality of urban environment, and evaluation of changes in the above mentioned evaluations. The latter one will become a basis for the identification of positive and negative impacts of individual policies of the plan as well as for cumulative impacts and impact interactions).
2. Based on that examination of the status quo and the baseline conditions there is a selection of sustainable development criteria and indicators for the environmental assessment. Those criteria and indicators aim to describe both the global effects and the effects on local environmental quality, as well. (Examples: Efficient use of non-renewable resources, maintain biodiversity, ensure socio-economic requirements, and so on).
3. Steps 1 and 2 form the basis for the scoping process (selecting the indicators, taking into account three developed alternatives: Three scenarios are the starting point for developing those ones. For example, different assumptions of the population development, transport needs (modal split), different housing patterns and so on have been made).
4. The SEA "itself": The individual policies of all three alternatives of the land-use plan will be examined, analysed and assessed concerning their impacts on "broader" policies, settlement inhabitants, natural environment, landscape and "specific impacts".
5. Based on the SEA results the most environmentally friendly plan alternative will be investigated, suggestions for mitigation measures will be made, especially for hierarchically lower levels of land-use planning and relating to EIA for projects.

For all five steps the EIA centres produce(d) maps, tables (matrices) and written reports. At the time of writing this case study step 1 had been completed, step 2 has been nearly completed, steps 3 to 5 were intended to be completed at the end of January 2001.

Illustrating examples of applied methodologies

The analysis of direct environmental effects (see step 4 in the list above) will be done by a special overlay technique: First there is the draft land-use plan. A transparent map, presenting the status quo of the environmental conditions, will be put on that, the next layer is again a transparent map with the expected environmental effects, indicating conflict zones. With this method one is able to see all maps at the same time.

Some examples for the legend of the resulting map are:

- Positive/negative impacts on landscape vegetation
- Positive/negative impacts on settlement inhabitants
- Potential conflict areas stemming from new development functions
- Cumulative impacts
- Impact interactions

The interpretation of that forms the basis for a table and leads finally to a written report. For the table, the approach of the SEA of Hertfordshire County Council's Structure Plan (Thérivel and Partidario, 1996) was adapted. Its basic scheme is presented in a matrix (Figure 14.2), produced for every policy of the land-use plan.

Policy x; Achievement of Sustainability Aims	Altern. 1	Altern. 2	Altern. 3	Commentary	Compatibility with Other Policies

Figure 14.2 Table Adapted for Analysis of Direct Environmental Effects

Because the SEA is an ongoing process (as of March 2001), no conclusions can be drawn whether and how the SEA has influenced the decision-making of the land-use plan. In all probability the SEA of the three land-use plan alternatives will be considered and are an important input for the planners and politicians.

Table 14.2 Environmental Assessment Components

Objectives Led	Yes. Both for the plan and the SEA there are clearly defined objectives - mostly qualitative ones. The appraisal is mainly baseline based.
Integration	The SEA can be seen as a real integration tool. It helps to develop, assess, amend and deliver the land-use plan to a certain degree.
Alternatives /Options	Yes. Three alternatives with the starting point "status quo state" have been developed. They can be seen as three scenarios for the development of the City of Bratislava within the next three decades.
Backcasting (Visioning)	The applied scenario technique (see above) is such a tool.
Environmental Statement	Yes. It was due to be completed in January 2001. Contents: Identification, analysis and assessment of the effects of the three alternatives on the environment. The ES is a separate report.
Methodologies	For example, scenario and overlay techniques.
Participation	Yes. For the general public and for other stakeholders.
Timescales	The horizon of the land-use plan is 30 years.
Sustainability Impacts	Yes. Mainly related to environmental effects.
Significance	Yes. For methodologies see the text.
Non Technical Summary	Yes. It is planned.
Monitoring	No special measures.

14.5 Summary and Commentary on Effectiveness of SEA

As mentioned in the former section one is looking at an ongoing SEA (as of March 2001). However, it is already noticeable that an integration approach has been chosen: The processes of setting up the land-use plan and undertaking the SEA are integrated with each other. Parallel and additional structures do not exist. That is mirrored in the communication structure, see section 14.3. A final rating on the degree of integration cannot be provided at this stage, but will probably be of a fair degree. The involvement of both Bratislava EIA centres by commissioning them to undertake the SEA is to be emphasised.

At the time of writing (as of March 2001) it is too early to draw conclusions on the analysed case study. However, some commentary on the effectiveness of the SEA can be given. Due to its late start compared to the beginning of the planning process (approximately one-year difference), the SEA could not influence the definition of the objectives of the land-use plan. That is a real limitation and indicates the partly ex-post character of the SEA. Nevertheless, the assessment of the three plan alternatives is a proactive approach and can contribute towards reaching an improvement of the environmental conditions of Bratislava, especially regarding its soil policy. The comparison of different development scenarios to each other from an ecological perspective should help to develop, assess and amend the plan. It is important to state that the SEA introduction did not extend the planning process. A positive argument related to investors, because it is well known that they do not like delays. The SEA itself can be rated as full SEA, only the monitoring step is missing. Within the Slovak

Republic the SEA is assessed as the first "real full" SEA. The plan's time horizon of 30 years underlines its importance and the need for a well performed assessment procedure. Like the preliminary appraisal of the integration the (expected) effectiveness of the SEA might be of a fair degree.

Chapter 15

Spain - Regional Development Plan 2000-2006 (Objective 1)

15.1 Introduction

Spain has a pseudo-federal structure, which in terms of environmental regulation gives much power to its 17 Autonomous Communities (AC). At national level Spain has not passed any SEA legislation, unlike some of the ACs (for example, Castilla-La Mancha, Castilla y León and the Basque Country)[26]. However, the new EC regulations for structural funds[27] oblige Member States to present a strategic environmental evaluation as part of the ex–ante evaluation of the Regional Development Plans.

Regional Development Plans (RDPs) for objective 1 regions (i.e. 12 ACs representing 76% of the Spanish territory and 58.5% of its population) define medium-term strategies to promote the development and structural adjustment of these regions. The RDP defines the priority needs to attain the established objectives, including the planned action priorities, their specific goals and the related indicative financial resources. On the basis of the RDP a Community Support Framework is developed, from which Operational Programmes are derived.

Apart from the SEA, which forms part of the ex-ante evaluation, this case study also has an integration component. The Spanish Network of Environmental Authorities (Red de Autoridades Ambientales, RAA) played an important role in promoting inter-regional and inter-sectorial co-operation, as well as in integrating environmental and sustainability criteria in the preparation of the RDP.

Although the RDP must be prepared by the Ministry of Economy and Finance at national level, in reality it was developed on the basis of individual RDPs developed for each of the 12 concerned ACs. Thus, each of the regions had to undertake an SEA for their own RDP. As a result the degree of integration and effectiveness achieved depended on the input of each of the regional authorities.

15.2 Description and Evaluation of Decision-Making Context

Due to the power granted to the ACs in Spain over environmental decision-making, most of the opportunities for integration or the undertaking of SEAs occur at regional level, with the exception of national-level plans and programmes. Advisory bodies have been set up at national and regional level in the form of Environmental Assessment Councils (CAMA).

[26] Other ACs, like Andalucia, submit certain plans and programmes to the EIA procedure.
[27] Council Regulation No. 1260/1999 (21 June).

However, these have not played an important role due to the non-binding status of their standpoints, their low level of credibility and subsequent boycott by environmental NGOs (at the national level).

With regard to the RDPs, the RAA plays an important role in integration. The RAA was set up to promote sustainable development through the integration of environment in the development and implementation of plans and programmes financed by structural and cohesion funds (however, the RAA is not a body with an official remit in this respect). It undertakes its role through the co-ordination of the different regional and sectoral authorities and plays an important role in bringing in the environment component throughout all stages of the RDP drafting process. The RAA is also responsible for undertaking the SEA for the RDP.

Council Regulation 1260/1999 states (Art. 16.1) that RDPs must take account of the guidance referred to in its Art. 10.3, i.e. the Guidelines for programmes in the period 2000-06 (1999). These guidelines state that "environmental considerations, and in particular compliance with community environmental and nature protection legislation, must be incorporated into the definition and implementation of measures supported by the Structural Funds and the Cohesion Fund", and is reflected in the guidance offered for the different sectors covered by the RDP[28].

The RAA developed Guidelines for the undertaking of the SEAs of RDPs, based on the EC's Handbook on Environmental Assessment of Regional Development Plans and Programmes of Structural Funds (1998) as well as the EC's guidance mentioned above. As a result, with regard to the plans and programmes pursuant to structural funds, there is an objectives-led approach in which the environmental component is part of the planning objectives, as set in the corresponding EC regulations.

Table 15.1 Environmental Integration Background

Political Leadership	Political responsibilities on the environment mainly lie with the Minister for the Environment. No clear strategy for sustainable development.
Institutional Commitment	The RAA acts as integrating body but only with regards to EC funded plans and programmes.
Co-ordination	RAA responsible for inter-sectoral and inter-regional integration but only for EC funded plans and programmes.
Communication Reporting	No clear lines defined.
Guidance Training	Guidance on SEA for RDPs was developed by the RAA. No clear training strategies defined.
Awareness Raising	No information on integration is easily available, except the RAA sectoral reports, which are available through the MoE's web page.
Targets/Objectives/ Indicators	Only for EC funded plans and programmes, as these are taken from the EC regulations for structural funds. Indicators have been developed

[28] These include: transport, energy, infrastructures, SME development, tourism and rural development.

	by the RAA and by some regional environmental authorities (e.g. Community of Madrid).
Appraisal/ Assessment	No appraisal/assessment of policies. Only plans and programmes pursuant to EC funding as well as plans and programmes in regions with SEA legislation in place (i.e. Castilla y León, Castilla-La Mancha and Basque Country).
Instruments	
National/Local Sustainability	LA 21s have been implemented in various municipalities. An LA 21 has been implemented at regional level (province of Soria), being one of the few existing in Europe.
Allocation of Spending	The role of the RAA was ongoing throughout the RDP drafting process. The SEAs were undertaken at each AC and mainly by the competent environmental authorities (except in Andalucia where consultants were hired).
Monitoring/ Auditing	No monitoring currently exists, although this is expected to be undertaken for the EC funded plans and programmes as required by the EC regulations, through mid-term and ex-post evaluations.

15.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The development of the RDP was the responsibility of the former Ministry of Economy and Finance, co-ordinated by the Secretary of State for Budget and Expenses with a wide co-operation of the 12 relevant Autonomous Communities. In practice the RDP for the objective 1 regions was formed mainly by the plans developed in each of the 12 relevant regions[29].

The RAA was responsible for the integration of the environmental component in the RDP, especially with regards to the co-ordination of regional authorities (environmental and other sectors) and the different relevant sectoral authorities[30]. However, it was the regional environmental authorities that took the responsibility of preparing their corresponding environmental studies and assessments and which were later compiled in the final RDP.

The Economic and Social Council (CES) acted as an official consultee and the European Commission was the final decision-maker. Other groups were consulted, but mainly during the development of the individual plans for each AC.

Mechanisms of communication

Horizontal and vertical communication mechanisms took place throughout the drafting of the RDP. A first multi-lateral meeting took place in June 1998 to define the RDP's underlying criteria, structure and content. Also, a deadline was set for the Ministry of Economy and Finance to receive input from the ACs and the Ministerial Departments. From

[29] These are: (1) Andalucía, (2) Asturias, (3) Canary Islands, (4) Cantabria, (5) Castilla-La Mancha, (6) Castilla y León, (7) Ceuta, (8) Extremadura, (9) Galicia, (10) Melilla, (11) Murcia, and (12) Valencia.
[30] Ministries of Economy and Finance; Agriculture, Food and Fisheries; Work and Social Affairs; and Industry and Energy.

October 1998 until January 1999 various multi-lateral meetings took place to define the priority objectives, strategies and working lines of common interest as well as the criteria to allocate costs and so on. A first draft was produced in July 1999.

As mentioned above, the RDP was formed mainly by the regional plans sent by each AC. The environmental integration was done through the RAA (bringing together the representation of the regional environmental authorities and sectoral authorities). The first draft was submitted to the Council of Ministers on 23 July 1999 and to the ACs for revision. A second draft was prepared afterwards and submitted to review on 9 September 1999. The Economic and Social Council (CES) was one of the official consultees, although they were given only 10 days to present their standpoint.

Although the environment was integrated during the drafting process through the input of the RAA, there were no formal consultations or public input during the preparation of the RDP's Strategic Environmental Assessment. The SEA's review was undertaken together with the whole RDP's review.

15.4 Description of SEA Procedure

This case study has an integration and an SEA component. The integration component, as explained above, is undertaken by the RAA as the co-ordinating body. The SEA component corresponds to the strategic assessment required under EC Regulation 1260/1999. Due to the broad level at which the RDP is developed, the SEA can identify potential impacts, but cannot really get down to determining their significance.

The RDP however, feeds into a Community Support Framework from which Operational Programmes are defined. These operational programmes also require SEA in themselves, and the specific projects derived from the operational programmes may be subject to the EIA legislation. A (potentially effective) tiering approach is thus defined.

In undertaking the SEA, all regions made use of the Guidelines developed by the RAA (Red de Autoridades Ambientales, 1999), which are based on the EC's Handbook on SEA under structural funds. These guidelines suggest a 5-step procedure: (1) definition of the baseline situation, (2) establishment of objectives and priorities, (3) development of alternatives, (4) environmental impact assessment and (5) establishment of a monitoring and evaluation system.

The impact identification suggested in the RAA's handbook is based on matrices, being the methodology which was used by all regions in the assessment of their own RDPs. In these matrices proposed actions are contrasted to 5 environmental categories in order to identify potential impacts: (1) relationship to land use, physical development and transport infrastructures; (2) relationship to environmental management; (3) relationship to environmental capacity building; (4) relationship to natural or cultural heritage; and (5) potential environmental cost-benefit of the action. The impact evaluation is also undertaken

according to the matrix suggested by the RAA's handbook, contrasting the proposed actions to a series of environmental parameters[31].

Table 15.2 Environmental Assessment Component

Objectives Led	Yes. Environmental and sustainability criteria were integrated since the definition of the objectives for the RDP.
Integration	Yes. The environment was integrated during the drafting process through the RAA. The SEAs at regional level produced recommendations for subsequent programmes but did not amend, in any case, the RDP.
Alternatives/Options	No alternatives were assessed. Only one of the regional SEA's (Murcia) considered the do-nothing alternative.
Backcasting (Visioning)	No.
Environmental Statement	Regional SEAs were integrated within the RDP. These stated the methodologies used, the objectives, and the selected indicators. However, did not assess alternatives nor explain how public input took place.
Methodologies	Non-technical methodologies were employed. The RDP is a framework document from which more specific plans and programmes will derive; only general assessments identifying impacts through the use of matrices and making subsequent recommendations were employed. Even these were not very objectively assessed.
Participation	Little or no participation took place during the SEA preparation. The SEA was reviewed as an integral element of the whole RDP and submitted to official consultees, sectoral authorities, and regional authorities.
Timescales	The whole RDP took approximately 15 months to complete, but previously each region had been preparing their corresponding RDP.
Sustainability Impacts	No.
Significance	No. Impacts were mainly only identified and significance not well defined.
Non Technical Summary	No.
Monitoring	Monitoring indicators were defined.

15.5 Summary and Commentary on Effectiveness of SEA

The role of the RAA has proved useful in integrating environmental aspects since the beginning of the drafting of the RDP, through facilitating an inter-sectoral and inter-regional integration. This has been reflected at least in the establishment of environmental and sustainability criteria within the RDP's defined objectives. However, it could well be argued that the driving force behind this integration is Regulation 1260/1999. Contrasting with this effort to establish horizontal communication mechanisms, vertical communication

[31] These are: (1) reduction in the use of non-renewable resources; (2) use of natural resources within its capacity of regeneration; (3) use and management of wastes and hazardous materials; (4) maintenance and enhancement of natural resources: habitats, species and biodiversity; (5) maintenance and enhancement of natural resources: soil; (6) maintenance and enhancement of natural resources: water; (7) maintenance and enhancement of the local environment; (8) atmospheric protection; (9) environmental education and capacity building; and (10) promotion of public participation in decision-making.

mechanisms have not been clearly established and could mainly be said to be absent (including effective public participation during the SEA review).

The SEA was mandatory as part of the RDP's ex-ante evaluation. It was undertaken at a regional level (the SEA presented in the RDP was a compendium of the assessments undertaken in each region), missing the "wider picture". Due to the RDP's wide scope, the recommendations made in the SEA were stated in very general terms and no analysis of alternatives was undertaken. Thus, the effectiveness of the broad decision-making system cannot be clearly assessed until after the operational programmes are defined and it becomes clear whether the RDP's SEA had an impact.

However, even these simple impact identifications and recommendations were not rigorously carried out. For example in Andalucía the only recommendations were "meeting the current environmental legislation" and "developing mitigation measures"; in Asturias, no potential environmental impacts are expected from tourism developments; in Valencia the methodology was not described, matrices were not used and the only assessment is a statement by the RAA's regional representatives stating their conformity accompanied by few and vague recommendations.

There is a general feeling that advances have been made in the integration of environmental and sustainability criteria within the RDPs in Spain, with respect to the previous RDP. As well, there is an awareness that little other legal opportunities exist in Spain for integration. In spite of the efforts, the interviews held gave an overall impression of a lack of will in undertaking more critical and objective environmental assessments and the communication mechanisms (especially vertical). Another common criticism was the regional focus of the RDP (as well as its SEA) – the final document was mainly a compendium of each region's contributions - and the short time frames given to review its draft (for example, the CES was given 10 days to review the approx, 3,500-page document!).

The EC regulations for structural funds (1260/1999) have acted as an important driving force for the integration of the environment in strategic decision-making. It provides the only formal mechanisms under which an environmental assessment of plans and programmes is undertaken at national level in Spain and establishes environmental and sustainability criteria. However, the strong regional orientation of decision-making in Spain has resulted in the RDP's SEA being but a compendium of Regional SEAs. This approach may claim to achieve a more detailed assessment, but at the same time results in losing part of its "strategic" status (i.e. an integrated assessment of the "whole picture" at national level is never undertaken and thus it becomes difficult to visualise cumulative impacts).

In order for this SEA mechanism to be more effective, a more rigorous review is needed, such as a participatory SEA-report review. As well, more rigorous SEAs need to be promoted, for example, introducing a mandatory analysis of alternatives, specified depth of assessment and production of a non-technical summary. In any case, the degree of effectiveness will become clearer through an analysis of the Communitary Action

Framework, their operational programmes and the EIAs for the individual projects, i.e. an analysis of the full tiering process.

The work undertaken for the SEA, however, has identified the key issues that need to be addressed in order to carry out an effective SEA in the context of the Structural Funds.

Chapter 16

Spain - SEA of the Wind Power Plan for Castilla y León

16.1 Introduction

This case study explores the implementation of an SEA procedure at regional level in the Autonomous Community of Castilla y León, one of the few regions that has legislation on SEA. Spain has a pseudo-federal structure which, in terms of environmental regulation, gives much power to its 17 Autonomous Communities (AC). Within these regions there are provincial and local (i.e. municipal) authorities which also have decision-making powers over various environmental issues. This makes Spain a very de-centralised country.

Castilla y León is one of the few (together with Castilla-La Mancha and the Basque Country) ACs that has passed SEA legislation (not even the central government has considered SEA legislation). At national level the only opportunity for the undertaking of SEAs occurs if the plan or programme is to be financed by European Union structural funds or cohesion funds; in this case, a SEA is required by Council Regulation 1260/1999.

Castilla y León's geographical characteristics allow good wind conditions for the generation of wind power. Around 1994 the first applications for wind farms were made; the good geographical characteristics of the regions, plus the good image of wind power, the existence of subsidies for renewable energy developments and the absence of legislation regulating wind farms, led to a proliferation of applications in this sector (over the past two years, applications have been submitted for more than 15,000 MW). Environmental NGOs started to express their concern over the proliferation of wind farm development applications, the visual impacts of wind farms and their establishment in ecologically-sensitive areas. Two years later the administration recognised the problem and decided to create a Wind Power Plan for the region (2000-2004), which would be subject to a SEA, as required by the then current EIA legislation (Law 8/1994, amended by Law 5/1998 and regulated by Decree 209/1995).

Due to the degree of concern over the proliferation of wind farms, a cautionary Decree (Decree 107/1998 of 4 June) was passed in 1998, paralysing the permitting procedures for wind farms for 9 months. This period was later extended (through Decree 50/1999 of 11 March) 4 months for the provinces of Burgos, Salamanca and Soria (the three regions with the highest eolic potential) and 8 months for the rest of the 9 provinces.

The Sustainable Development Strategy for Castilla y León: Agenda 21, priorities 2000/2006 was approved in 1999. Within this strategy, renewable energy sources are to be promoted, although it is made explicit that certain sources, such as micro-hydro and

wind power, are to be carefully assessed for their environmental impacts. This reflected the increased opposition to wind farms, which created an atmosphere of controversy throughout the whole SEA process for this case study.

The development of the Wind Power Plan was the responsibility of the Regional Energy Organisation (Ente Regional de Energía, EREN). EREN was created by Law 7/1996 in order to develop and integrate all policies approved and instrumented in the different energetic areas by provincial authorities. The development of the Plan was subcontracted to a group of two consulting firms (Americana de Proyectos, S.A. and Ingeniería y Ciencia Ambiental, S.L.). The Regional Wind Power Plan was formed by 9 provincial plans developed for each of Castilla y Leon's nine provinces[32].

16.2 Description and Evaluation of Decision-Making Context

This case study looks at a regional level Plan (which in reality are 9 province-level plans). However, it does not feed into a wider decision-making context (i.e. national level).

SEA in Castilla y León was first regulated by Law 8/1994 of Environmental Impact Assessment and Environmental Audits (as amended by Law 6/1996 and Law 5/1998). These three Laws have recently been unified in a single text, Legislative-Decree 1/2000 (18 May) by which the unified text of the Law on Environmental Impact Assessment and Environmental Authorities of Castilla y León is approved. This Law is regulated by Decree 209/1995 (5 October). No guidelines have been issued on how to undertake a SEA.

The purpose of developing a Wind Power Plan is to have an environmentally-sensitive development of wind farms in the region, often set up in ecologically-sensitive areas. The motivations of the Plan were thus already of an environmental nature, and the SEA was undertaken throughout the development of the Plan.

The EREN was responsible for developing the Plan, which was subcontracted to a group of two consulting firms. The SEA was carried out as a main part of this contract, which amounts to approximately 207,000 euros. The competent environmental authority is the Environment and Land-Use Planning Council of Castilla y León, which gives a (non-binding) standpoint to be taken into account by the final (sectoral) decision-maker.

According to the SEA legislation, the developer may consult the competent environmental authority on the scope of the SEA. After producing the Impact Statement (IS), the developer must make it available for public consultation during 30 working days. After this period of time, the IS and the results of the public consultations (including the evaluation of the comments received and the changes made to the Plan as a result of such comments) are submitted to the competent environmental authority. The competent environmental authority then gives its (non-binding) standpoint to the sectoral authority.

[32] These are: Avila, Burgos, León, Palencia, Salamanca, Segovia, Soria, Valladolid and Zamora.

Table 16.1 Environmental Integration Background

Political Leadership	There are no clear political responsibilities at high levels on environment and sustainability issues.
Institutional Commitment	There are no institutions with an integration remit.
Co-ordination	No co-ordination mechanisms exist at regional level. The Network of Environmental Authorities serves as a co-ordinating body (horizontal and vertical) but only for plans and programmes which fall under structural funds regulations.
Communication Reporting	For the SEA process, vertical communication and reporting lines are established between the proponent, the competent environmental authority, the final decision-maker and the general public. This is specified for specific stages of the SEA process (e.g. public review, submission of impact statement, standpoint of competent environmental authority).
Guidance Training	No guidance or training on integration or SEA is provided.
Awareness Raising	Information on integration is not easily available.
Targets/Objectives/ Indicators	Integration objectives are established in the region's Agenda 21 (Sustainable Development Strategy for Castilla y León). It sets priorities for: (a) sectoral integration, (b) agricultural sector, (c) energy sector, (d) transport sector, (e) industrial sector, (f) tourism sector, and environment-specific priorities.
Appraisal/ Assessment	Appraisal and assessment of plans and programmes takes place according to the SEA legislation; none takes place at policy level.
Instruments	
National/Local Sustainability	LA 21s are being implemented. Actually, Soria (one of Castilla y León's provinces) has been the first region in the world to implement an LA21 at regional level[33].
Allocation of Resources	The SEA was done by private consultants. Total budget for the development of the Plan, for which the SEA was a major component, approximately 207,000 euros.
Monitoring/ Auditing	No monitoring/auditing of the process is undertaken.

16.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The main actors that took part in the decision-making process are: EREN as the developer, Castilla y León's Environment Council as competent environmental authority and third parties that presented their comments during the public consultations.

The parties that sent their comments during the public consultation period included potential wind farm developers (for example, Iberdrola, MADE Energías Renovables, Corporación Eólica CESA, Sociedad Energías Eólicas Europeas) who were mainly

[33] 104 out of 183 municipalities in the Province of Soria have agreed to implement an LA21 (El País, Nº 1494, 5 June 2000).

concerned about any restrictions they might have to the establishment of future wind farms. Several local environmental NGOs participated, as well as some local authorities.

Mechanisms of communication

30 or 45 working days were allowed for the public review of the IS (30 days in the case of 3 of the Provincial Plans and 45 days for the other 6). This timing was found too short by NGOs due to the length of the document and to the fact that a non-technical summary was not submitted (although one was legally required). Moreover, the notification was made only through the Official Gazette of Castilla y León, due to which many interested parties did not find out that the public consultation period was already open. Further shortcomings prevented an effective consultation process, such as the limited availability of the Plan (the SEA corresponded to Volume III of the Plan), only available for consultation in the developer's offices[34]. Also, as the Plan was divided into 9 provincial plans, anyone wishing to review the integral document had to visit local authorities in the capital cities for each of the 9 provinces.

The parties interested in wind farm development made observations on the methods used to estimate the eolic potential (saying that it was underestimated) and suggested that the Plan imposes excessive limitations to wind farm development. On the other hand, environmental groups mainly pointed out the following issues (this list is not exhaustive):

- the scale used was inappropriate (1: 200,000), not allowing an adequate delimitation of ecologically-sensitive sites,
- not all ecologically-sensitive areas were identified,
- no detailed studies were made of bird migratory routes,
- no consideration of natural areas bordering other ACs.

Comments were not presented in all provinces. Figure 16.1 shows the incidence of comments presented.

[34] NGOs complained that copies of the ISs were not made available.

Province	Max. Energy Potential	Energy Potential to be Developed	Comments From Developers	Comments From NGOs / Labor Unions	Comments from Local Authorities, Political Parties and Others
Soria	1175 MW	910 MW	7	6	3
Salamanca	260 MW	60 MW	6	13	1
Palencia	125 MW	20 MW	2	0	0
Segovia	165 MW	145 MW	6	1	1
Ávila	400 MW	370 MW	2	0	0
Zamora	310 MW	130 MW	2	0	6
Burgos	1275 MW	695 MW	6	1	0
León	700 MW	520 MW	2	2	1
Valladolid	160 MW	130 MW	2	0	0

Figure 16.1 Incidences of Comments

Besides this opportunity for public consultation, no other vertical communication mechanisms with the public were established. Horizontal communication mechanisms were limited to the formal reporting between the developer (i.e. the EREN), the competent environmental authority and the sectoral authority.

16.4 Description of SEA Procedure

The Wind Power Plan was potentially a useful planning process, which was promoted in order to have wind power infrastructure development with minimum environmental impacts. In this sense, the Plan had to define the maximum wind power potential that could be developed in each province and establish the areas where developments would not be allowed. Each individual application for wind farms would then be subject to the EIA (project-level) process.

The SEA helped identify shortcomings in the Plan and led to changes to its initial version (although not as substantial as some stakeholders would have liked). It can be said this was an objectives led process, but this occurred only because the development of the Plan was motivated by a concern to assess the environmental impacts of future wind farm developments, and not because it was otherwise required. Presumably, plans and programmes in other sectors may not necessarily establish environmental objectives from their inception phase.

The Plan has a direct link to the decision-making process at project level, as wind farms would still be required to comply with the EIA process (depending on their energy capacity). In this sense the decision on the SEA establishes part of the scope to which project-level EIAs for wind farm developments should be subjected.

The potential environmental impacts for each of the provinces were identified and assessed making use of both quantitative and qualitative methods. For example, risk areas (i.e. risk of negatively modifying the terrain's geomorphological conditions) were defined based on a variation of the Carthographical Model of the US Geological Survey. The environmental sensitivity of flora and fauna was defined on the basis of each area's legal protection status and their appearance in national and international catalogues (for example, the Habitats directive), as well as an ad hoc assessment. For the assessment of the visual impact, use was made of a qualitative assessment model. Other elements were assessed similarly (for example, historical and cultural heritage, socio-economic impact).

Making use of GIS, a map was generated for each of 5 elements: (1) natural spaces, (2) visual impact, (3) vegetation and associated fauna biotopes, (4) socio-economic impacts and historical-cultural and archeological heritage, and (5) areas of geomorphological risk. Each map divides the region according to 4 levels of environmental impact (1 being negligible and 4 being extremely high). A final map shows an overall level of environmental impact; the overall assigned value for environmental sensitivity was defined by a weighing of each of the 5 elements, natural spaces and visual impacts having the most weight. Maps of eolic potential were also developed (i.e. technical feasibility), also grading the areas from 1 to 4.

Three alternatives were defined depending on the degree of the desired environmental protection and the area's eolic potential. A matrix was formed (see Figure 16.2) in which, for each area, the degree of protection was selected; this could be: FD (free development area, here shown as "4"), CD (controlled development area, here shown as "3"), LD (limited development area, here shown as "2") and UD (unfeasible development, here shown as "1"). Alternative 1 was called "conservationist" and the most benign on the environment, alternative 2 was called "sustainable" and alternative 3 "developmental" (and the least benign on the environment). The studied alternatives are shown below:

Free development areas would be subject to a simplified EIA and certain mitigation measures (such as the re-vegetation of affected areas and a monitoring plan). Controlled development areas would be subject to an ordinary EIA (in greater detail than the simplified EIA) and the wind farms would be subject to certain mitigation and monitoring measures. Limited development areas would be subject to an ordinary EIA and making the wind farms subject to somewhat more stringent mitigation and monitoring measures (for example, a minimum distance between wind farms would be proposed in order to minimise synergistic impacts). Finally, in unfeasible development areas wind farms would not be allowed, except under exceptional circumstances (NGOs have also expressed their concern about what those "exceptional circumstances" are).

Technical feasibility	Environmental Sensitivity											
	Extremely High			High			Medium			Low		
	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
Very high	1	2	3	2	3	3	3	3	4	4	4	4
High	1	1	2	2	3	3	3	3	4	4	4	4
Sufficient	1	1	2	1	2	3	2	2	4	4	4	4
Insufficient	1	1	1	1	1	1	1	1	1	1	1	1

Figure 16.2 Environmental Sensitivity

As can be seen, whereas alternative 1 would not allow wind farms to be established in areas of "extremely high" environmental sensitiveness, alternative 2 would allow them as "limited developments" if the technical feasibility is very high. Alternative 3 would allow them as "limited developments" if the technical feasibility is sufficient or high, and as "controlled developments" if the technical feasibility is very high.

Table 16.2 Environmental Assessment Components

Objectives Led	Yes, but only because the motivation to prepare the Wind Power Plan was an environmental concern. However, no indicators were used.
Integration	Yes. However, the degree of integration was not effective; it did not achieve the objectives of clearly defining the areas where wind farms would be permitted or the conditions under which these would be authorised.
Alternatives/Options	Yes. Three alternatives were analysed, varying the energy potential to be allowed and the mitigation measures and EIA scope to which individual wind farm applications would be subjected depending of the area's level of environmental sensitiveness and technical potential.
Backcasting (Visioning)	No.
Environmental Statement	Yes. Integrated as Volume III of the Plan.
Methodologies	Quantitative and Qualitative. Also, use of GIS.
Participation	Late involvement (after the production of the Plan). Only allowed for public consultation during 30 or 45 working days (depending on the province). The Plan was not easily accessible and no two-way communication took place.
Time-Scales	4 years (2000-2004).
Sustainability Impacts	No
Significance	Yes. A degree of significance for each potential impact was assigned (in a scale from 1 to 4).
Non Technical Summary	No, although it was legally required.
Monitoring	Only on the base of the monitoring which needs to be undertaken at project level, not for the Plan itself.

16.5 Summary and Commentary on Effectiveness of SEA

The application of the SEA process to the Wind Power Plan has resulted in a very limited degree of integration, as it has been expressed by most of the opposition groups (mainly environmental NGOs). Although a potentially powerful tool, it has not proved to be an effective integration mechanism. The "strategic" level of the Plan was promising as a tool to regulate and minimise the potential environmental impacts of this growing development sector. It must be remembered that the Plan was mainly limited to determining the wind power potential in different areas and their degree of environmental sensitivity; this produced a map of the areas where wind farm developments would be allowed and the maximum energy potential that would be authorised.

However, the scale used in the cartography maps did not provide the degree of detail needed to define the exclusion areas and, moreover, the decision left open the possibility to establish wind farms in areas potentially excluded from development: "the working scale used in the Plan (1:200,000) allows for certain singularities to be present…For this reason, the possibility of placing wind farms in areas with adequate technical and environmental characteristics…is not excluded. These locations, and the possible increases in wind power potential with respect to those defined in the Plan, should be adequately considered and justified…". As a result of the ambiguous decision from the competent environmental authority, wind farms are being considered in excluded areas (for example, at least three in the province of Burgos (Cuesta Romero, 2000). Also, the Plan has not been approved by the sectoral authority (the decision by the competent environmental authority is not binding) and meanwhile, development applications for wind farms are being considered.

The definition of the scope for the SEA as well as the opportunities for public participation have also been deficient, as participation took place late in the process (after drafting the IS), and the notification mechanisms were poor (only through the Official Gazette). The IS did analyse three alternatives (the difference being in the energy potential allowed for development), although one was criticised for being obviously environmentally unfeasible and the wording was criticised for being rhetorical and misleading (the alternatives were called: conservationist, sustainable, and developmental).

In favour of the SEA process it must be said that it did allow a degree of environmental integration, although not as efficient and binding as opposition groups would have liked to see. Maximum energy potentials were established for each area (which can be, however, increased if justified), and an initial scope was defined for the EIAs of wind farms, linking the SEA with the EIA process. In general terms, key stakeholders were not satisfied with the outcome of the SEA process, for the reasons that have been stated above.

Although it provides a link with project-level decision-making and is theoretically also linked to the region's Sustainable Development Strategy, its application has made manifest many procedural deficiencies. Such deficiencies include the lack of early public participation, the lack of adequate notification mechanisms, and the lack of rigour with which the assessment was carried out. Mainly, it did not meet its main objectives of assessing the potential

environmental impacts of alternatives for the development of wind farms in the region in order to regulate wind farm development so as to ensure an acceptable degree of environmental protection. Also, it did not address wind power development at the regional level, as different plans were developed for each of the 9 provinces in Castilla y León. The "strategic" level of such approach was thus diminished. The Plan does not have a formal link to other decision-making levels, such as the project-level; thus, there is no obligation to follow the recommendations made in the Plan.

An appropriate framework for SEA has been put in place in Castilla y León, taking an initiative that only 3 regions in Spain have taken. However, in order for it to become most effective, its identified deficiencies need to be recognised and solved.

Chapter 17

Sweden - Drinking Water Supply for the Stockholm Region

17.1 Introduction

The Stockholm Water Company and Norrvatten Water Company are responsible for drinking water supply in the greater part of the Stockholm Region. For the production, both water companies use fresh water from Lake Mäleren, which is purified at three different production stations. The purification process consists of chemical precipitation (by means of aluminium-sulphate and active silicon-acid), filtration and disinfection. This process involves the production of sludge, which is emitted into Lake Mäleren. Many years of production have led to large sludge banks near the production stations.

The Stockholm Water Company and Norwatten Water Company are continuously working to improve the drinking water quality. As a part of this work, a study was initiated in 1995 in order to examine the possibilities for artificial groundwater formation. The purpose of the study was to investigate whether it would be possible to improve drinking water quality by changing the production technique from precipitation into artificial groundwater formation. This would reduce the use of chemicals and make drinking water production more sustainable according to the principles of Agenda 21. The intention was to locate infiltration basins on the esker in relevant municipalities.

The first stage of the study consisted of technical and hydrological investigations, a survey of conflicting interests, a study on the landscaping of facilities and an outline for a SEA (Stockholm Water Company and Norrvatten Water Company 1996). In the second stage SEA was carried out. The purpose of the SEA was inter alia to identify the key questions.

The water companies are owned by the municipalities, which they supply with drinking water. However, they have their own board responsible for future investments. Therefore, the companies initiative can be considered as a part of their long term planning of a drinking water production strategy. As such the study was first of all an internal report which provided a basis for decisions on future production techniques. However, since the water companies need a municipal approval for each project they initiate, the SEA could form the basis for discussion between the water companies and municipalities regarding location of production sites.

The case study below has been elaborated on the basis of a desk review and assessment of the study 'SEA of Drinking Water Supply of the Stockholm Region' that has been reported in 'EIA and its application for policies, plans and programmes in Sweden, Finland, Iceland and Norway (Balfors, et al, 1998). The recent case study, therefore, relies on the findings

and analysis of the Nordic Researchers and it briefly reviews the development of the drinking water quality policy since the SEA was carried out in 1996.

17.2 Description and Evaluation of Decision-Making Context

In Sweden experiences with SEA are mainly related to spatial planning. SEA is applied in many municipalities although the quality of the reports varies (Balfors, et al, 1998). Different research projects have been initiated within the framework of a major research project 'Environmental objectives and indicators in spatial planning and strategic environmental assessment (SAMS). One of SAMS case study areas is bio-diversity in national urban parks. Also, the regional planning in the Stockholm area has been subject to SEA (Bernergaard, 1999). Within sectorial planning SEA is still in an early stage of development.

In contrast to the (municipal) comprehensive planning process, which is regulated in the Planning and Building Act, the sectoral planning process is lacking a formal basis. Sectoral authorities thus have a great degree of freedom in designing a planning procedure and in many cases the process is an ad hoc solution created for a particular purpose. As a consequence, the planning procedure for sectoral PPPs varies significantly regarding focus, organisation and structure. This variety has implications for the SEA with regard to the role and scope of the SEA and the actors involved in the preparation process (TemaNord, 1998).

The companies involved in drinking water supply are viewed partly as private companies, partly as private/public authorities. The municipalities own the water companies, which imply that the companies have to carry out their planning activities in the context of the environmental and water sector policies. The development and the conduct of SEA relating to planning of Drinking Water Supply in the Stockholm area case took place in 1996. Since then the political and legal frameworks for integration of environmental considerations into decision-making have changed a lot, also at company level (see Volume 2) which includes a description of the 1999 Environmental Code and its implementation). There are, however still no formal requirements for environmental assessment at policy, plan and programme levels.

Table 17.1 Environmental Integration Background

Political Leadership	Management group (members from Environmental Protection Agency, Norvatten and Stockholms Vatten) and Steering Committee (including for example, water company representatives, local and regional authorities and gravel production representative).
Institutional Commitment	The water companies are private/public institutions that have to carry out their functions in accordance with the official policies. They are, however, not obliged to carry out SEA as part of their strategic planning.
Co-ordination	A close dialogue between water companies and municipalities is needed when deciding on which sites should be used for water extraction.

Communication Reporting	There are no mandatory requirements for publication of the planning strategies that were adopted by the water companies.
Guidance Training	No information available.
Awareness Raising	Different parties with potential conflicting interest were invited to participate in the investigation and SEA process. However, no citizens/NGOs got involved.
Targets/Objectives/ Indicators	Investigation of possibilities for improvement of water quality by change of production technique from precipitation into artificial groundwater formation. System level – indicators – energy consumption, use of chemicals, handling of chemicals, transport, drinking water quality, handling of sludge, risk for accidents and sabotage, impairment of infiltration basins. Local level – conflicting interest related to the production site.
Appraisal/Assessment	Responsibilities within water sector management are divided between different institutions. The indicators outlined above show that different policy areas were touched upon when setting the frame for environmental assessment.
Instruments	Charges for water supply – consumers. Eco audit – Audit scheme development – companies. Environmental Quality Objectives – authorities.
National/Local Sustainability	The drinking water supply case was studied in 1996. Since then Swedish policy and legal frameworks have changed radically. The Environmental quality objectives that were adopted by the government in 1998 states the ways in which the environmental policy should be conducted to achieve the overall objectives of sustainable development.
Allocation of Spending	No information.
Monitoring/Auditing	Water quality has been subject for a contest on selection of the most tastiest tap water in Sweden in 1997 (Municipalities/National Department for Food Administration completed 1997).

17.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

During the first stage of the study a project organisation was established consisting of a Management Group and a Steering Group. The Management Group included representatives from both water companies and a representative from the Environmental Protection Agency. In the Steering Group the municipalities were represented, as well as both water companies, the Regional Planning Office, the County Council and the major gravel production representatives.

For the second stage, while the SEA was being conducted, a Project Group was formed with representatives from municipalities and both water companies. The SEA was carried out by VBB Viak Consultancies in co-operation with the Division of Land and Water Resources at the Royal Institute of Technology in Stockholm.

Mechanisms of communication

Continuous discussion between actors provided a solid basis for co-operation in the investigation and SEA processes. Representatives from different interests were involved in discussions making it possible to reveal potential conflicts at an early stage of the process. The water companies have to follow the official policies and administrative principles when carrying out their obligations and duties. They also have to co-ordinate with relevant municipalities when initiating new water production projects. However, to a certain extent, they function as private companies, for example, in the area of investment policy.

17.4 Description of SEA Procedure

The SEA consisted of two levels - a system level and a local level. On the system level a comparison was made of different drinking water production techniques. The environmental impacts of continued precipitation according to today's technique (zero-alternative) were compared with the impacts of the proposed techniques. The environmental impacts of an improved production according to the precipitation technique (zero-plus-alternative) were also assessed. The zero-alternative focused on a technology level, which was considered to be reasonable within the time perspective for the proposed development.

The environmental assessment carried out at system level mainly focused on impacts of general character and impacts correlated with the water treatment process. The following environmental aspects were considered: energy consumption, use of chemicals, handling of chemicals, transports, drinking water quality, handling of sludge, risk for accidents and sabotage as well as impairment of infiltration basins.

At the local level environmental qualities and interest conflicts, which were related to the production site were identified. This identification was carried out for three different typical sites, which were selected in the study area. The environmental impacts, which were assessed on the local level, related to land-use, cultural heritage, landscape, recreation nature gravel production, agriculture and forestry. The SEA concluded with an overview of the total impact, divided in strategic and non-strategic environmental aspects. Furthermore a number of key questions of strategic importance for the selection of drinking water production technique were presented.

In the outline for the SEA, which was presented in the report of the first stage of the study, alternatives for production technique and location were discussed. In the discussion on production techniques, the exploitation of natural groundwater as well as variants on artificial groundwater formation (deep infiltration and induced infiltration) were considered. The outline for the SEA emphasised the relationship between alternatives and total production capacity. In the report of the first stage forecasts were used to develop scenarios for production capacity. In the SEA the environmental impacts of artificial groundwater formation at three typical sites were assessed. These sites represented the three main

landscape types in the study area. The selected sites were not necessarily representing the most suitable locations for artificial groundwater formation.

In the first stage of the study the possible application of SEA was discussed as well as guidelines for the subsequent planning process. The second stage focused on the development of an appropriate methodology for the performance of the SEA. Trend-extrapolation and professional judgements were used in the prediction of the impacts at the system level, while the impacts at the local level were based on land-use claims.

Table 17.2 Environmental Assessment Components

Objectives Led	The SEA that was carried out together with technical and hydrological investigations and a survey of conflicting interests. The purpose of the SEA was, for example, to identify questions.
Integration	The first stage of the study consisted of technical and hydrological investigations, a survey of conflicting interests, a study on the landscaping of facilities and an outline *for a SEA* (Stockholm Water Company and Norrvatten Water Company, 1996). In the second stage SEA was carried out. The purpose of the SEA was inter alia to identify the key questions.
Alternatives /Options	Zero alternative - The environmental impacts of continued precipitation according to today's technique were compared with the impacts of the proposed techniques. Zero-plus - alternative - The environmental impacts of an improved production according to the precipitation technique were also assessed. Alternative sites were compared.
Backcasting (Visioning)	The expected role of the SEA was that it should serve as a basis for decisions on future production techniques.
Environmental Statement	Yes. Overview of total impacts divided in strategic and non-strategic environmental aspects. Key questions of importance regarding selection of production technique were raised.
Methodologies	Trend-extrapolation and professional judgements were used in prediction of impacts at the system level. At local level the impact predictions were based on land use claims.
Participation	No public participation.
Timescales	No information.
Sustainability Impacts	Reduction in use of chemicals makes water production more sustainable in accordance with the principles of Agenda 21.
Significance	The framework for SEA developed in first phase was not clear making determination of key impacts and risk assessment difficult.
Non Technical Summary	No information.
Monitoring	The SEA was meant to provide a basis for decisions on future production technique. Furthermore the final SEA document facilitated discussions between the water companies and municipalities regarding selection of suitable site for project development.

17.5 Summary and Commentary on Effectiveness of SEA

Issues related to the organisation of assessment

The role of the SEA related to the planning of drinking water supply for the Stockholm area was to form a basis for the water companies' decisions on future production techniques. Also, the final SEA document was intended to facilitate discussions between the water companies and the municipalities involved in selection of suitable site for production. Continuous discussion between stakeholders provided a solid basis for the co-operation. Since representatives from different interests were involved in the discussion potential conflicts could be revealed at an early stage of the investigation and SEA process. As part of the discussion the lack of know-how was identified as well as the need for more detailed studies.

Issues related to goals of assessment/definition of scope

The preparation of the SEA for Stockholm's future water supply was affected by a high degree of uncertainty on the SEA concept. Therefore, great efforts were required during the first stages of the study to explain and develop the concept, which was reflected in the outline of the SEA. A clearer structure from the initial stages of the process would have contributed to the quality of the SEA and to a more effective working process. In the second stage a clearer framework for the SEA was developed (Balfors, et al, 1998).

The discussion on the structure of the SEA and the methods that could be applied relied to a high degree on experiences from EIA at the project level. The great reliance on project EIA hampered the development of new methodologies for SEA. The final result provides, however, valuable insights on the use of SEA in sectorial planning (Balfors, et al, 1998).

SEA outcomes

It is uncertain how SEA has been developed at (water) company level since 1996. Drinking water quality has, however, had much attention in recent years. Environmental considerations are taken into account at different stages of the decision and production processes related to groundwater quality, purification, chemical precipitation filtration and disinfection. At national policy level one of the Governments Environmental Quality Objective concerns high quality groundwater and ensurement of safe and sustainable supply of drinking water. This quality objective has been trickled down in sub-targets that have been specified by Geological Survey of Sweden. A number of municipalities inform the public on issues related to the supply and quality of drinking water via their homepages. Also, the well borer (driller) organisation is very much concerned about the quality of drinking water as well as a research programme on Sustainable Urban Water Management having been initiated (MISTRA – Foundation for Strategic Environmental Research). However, no systematic use of SEA seems to have been developed at any decision-making level.

Chapter 18

United Kingdom - Greening Government

18.1 Introduction

The UK is a parliamentary democracy with the Monarch as the Head of State. The powers of the Monarch are largely symbolic. Recent moves to devolve certain political and policy making responsibilities to the constituent countries of Wales, Scotland and Northern Ireland will potentially have a significant effect on the development of environmental legislation in the UK. There is a potential in the future to increase the diversity in approaches to environmental integration in the UK. Already both the Welsh and Scottish parliaments have set up their own Greening Government initiatives (Reid, 2000, pers. comm).

No general legal duty to integrate environmental concerns into decision-making exists, although there are some individual agencies and sections of the public service that are an exception (Ross, 2000). Environmental integration has tended to be a "policy based approach" (Ross, 2000) preferring to develop strategies such as the Greening Government Initiative, rather than adopting more formal or legally binding approaches.

The reasons behind this approach are two fold. Firstly within planning policy, SEA is currently being driven by the European Union (through the EIA and SEA directives). A legally binding obligation derived from a European Directive has traditionally been seen as inflexible and unable to meet the needs of a fluid policy making process in the UK. Secondly, implementation of UK planning policy tends to reject enacting specific regulations and favour the issuing of government planning guidance to local planning authorities. This is generally followed by issuing best practice advice based upon early efforts at fulfilling the original government guidance. The development of Environmental Appraisal of Development Plans closely follows this model.

The preferred system of evaluating potential environmental impacts is environmental appraisal. Environmental appraisal is derived from policy appraisal techniques rather than from the more science-based approaches associated with EIA. Environmental appraisal is based on subjective evaluation using checklists and matrices. Whereas, EIA-inspired SEA emphasises the use of more quantitative methodologies to evaluate the objective significance of impacts.

18.2 Description and Evaluation of Decision-Making Context

The Greening Government Initiative (GGI) recognises that the protection of the environment cannot be the sole responsibility of just one government department, all departments must promote policies to sustain the environment (Ross, 2000). The UK country report outlines

the integration mechanisms used within the GGI in more detail (see Volume 2). Within the GGI there are three mechanisms that are of particular interest. They are the Environmental Audit Committee, the Green Ministers, and Policy Appraisal and the Environment. A more detailed investigation of these three mechanisms allows the comparison of an SEA mechanism with other integration mechanisms to be carried out and underlines the interdependence of all three in achieving effective integration.

The Environmental Audit Committee (EAC) is made up of 16 members of parliament. Its remit is set out in the Standing order No. 152A and empowers the committee to consider:

"to what extent policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against targets set for them by ministers; and report to the house (House of Commons, undated)".

Importantly, in terms of environmental integration, the Committee, unlike other parliamentary select committees, is cross departmental and can audit any department's performance including policies that are not directly targeted at the environment. The power of the committee lies in its ability to call any Minister from any department to give evidence. When the committee was first envisaged in the Labour Party Manifesto "In Trust for Tomorrow" (1994) it was to be linked to the National Audit Office (NAO) which would carry out environmental audits. Subsequently, when the Labour Party came to power in 1997 the EAC was set up without the support of the NAO. The NAO has the resources to undertake its own investigative research. Furthermore, the EAC does not have the power and access of the Public Accounts Committee (to which the NAO reports). The EAC relies almost entirely on Whitehall for information, and a small secretariat of five staff.

Green Ministers (GM) were one of the first mechanisms of integration set up under the GGI. Each department in the Government has a GM who are the champions of sustainable development and environmental integration in their own departments. The work of GMs can be split into two main areas: environmental integration; and greening operations. The specific objectives are to:

- Promote the integration of sustainable development across government and the wider public sector,
- Encourage the use of environmental appraisals as part of policy making, and
- Continue to improve the environmental performance of departments in managing their buildings and facilities.

The objectives include a clear remit to promote sustainable development although this tends to focus on the more environmental aspects of sustainable development (DETR, 2000a). The GMs also have a strong mandate to promote the environmental appraisal of policies. The Secretary of State for the Environment Transport and the Regions in the forward to the first annual report of the Green Ministers (1998/99) stated that in the past

the focus of GM activity had been on greening operations, whereas now there is greater emphasis on ensuring that the environment is considered in their policy making process.

Table 18.1 Environmental Integration Background

Political Leadership	Yes & No. The EAC was set up by the Deputy Prime Minister and includes the Minister for Environment as a member. It does not carry the same weight as the Public Accounts Committee. The standard of GMs varies from different departments and is often related to seniority and can be delegated to those not involved in policy making, although GMs were given a formal role in the spending review. The EAC promotes EA as it gives them something to audit. Green Ministers are responsible for promoting EA, although the lack of EAs suggests that they have not yet provided the required leadership within their departments.
Institutional Commitment	Yes & No. Both the EAC and the GM committee are institutions with environmental integration remits. However, only the GM committee is supported by the Sustainable Development Unit (SDU). Support includes agenda setting, writing papers and determining the work programme, producing the GM annual report. The EAC has less institutional support as it has been set up separately from the NAO. It does not have the resources or power to carry out its own investigations. The SDU provides support for EA across different departments, though lacks the cross departmental targets of its counterpart the Social Exclusion Unit.
Co-ordination	Yes & No. There is horizontal coordination. The SDU coordinates the Governments' response across different departments to the EAC annual reports. There is less direct vertical integration. However, information from the European Union and the regional Government Offices may be taken into account. GMs are responsible for promoting EAs in departments
Communication Reporting	Yes. The GM Committee submits an annual report to the Cabinet Committee on the Environment, the EAC and environmental NGOs. The report includes progress on EA and a list of examples. The EAC principally reports to the House of Commons and makes its reports publicly available. EAs can either be integrated into the general policy document or constitute a separate document. The EAC would prefer a separate auditable document.
Guidance Training	Yes. The SDU publishes guidance on EA for different departments and the Civil Service College is running a course on sustainability. The first set of guidance on EA was regarded as too technical and was not used. The new guidance focuses on matters of process and fills in the gaps of the last one.
Awareness Raising	Yes. GM's are charged with raising awareness in their departments regarding sustainable development.
Targets/Objectives/ Indicators	No. Although the Comprehensive spending review targets have been linked to the sustainable development indicators. All policies are evaluated against the overall aim of sustainable development and polices such as the transport white paper are objectives led. However, the performance of green ministers is not monitored against targets. The EAC has called for annual reports on environmental impacts arising from a departments' policies against the targets set out in the national sustainable development strategy. On a general level the Government has published 15 headline indicators of sustainable development which will be used to monitor the performance of polices indirectly.

Appraisal/ Assessment	Yes. Guidance states that EAs must be carried out on all policies. However, only some policies are appraised and the standard of appraisals varies, with some departments claiming that the appraisals are integrated into the policy document.
Instruments	Yes. The Comprehensive spending review has attempted to link the financial targets to the targets in the sustainable development strategy. The fuel duty escalator has been abandoned.
National/Local Sustainability	Yes. The Commitment was that all local authorities had a LA21 strategy in place by the year 2000. The updated national sustainable development strategy was published in 1999.
Allocation of Spending	Both Green Ministers and the EAC are not resource intensive. The EAC includes 5 permanent full time staff. The SDU fulfils several tasks as well as supporting green ministers.
Monitoring/ Auditing	Yes. The EAC performs a combined monitoring and auditing function of processes and mechanisms rather than pure audit of individual polices or decisions. Instead it audits annual events such as the green ministers report and the budget. There is some debate over whether a decision can be audited.

18.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

Early on in its development the EAC adopted a very broad interpretation of its terms of reference. The Committee has developed a strategic role in auditing government sustainable development and environment commitments and how these are reflected in activities such as the budget. Consequently, the committee has adopted a rolling programme of inquiries into the greening of the tax system or the GGI (Ross, 2000).

The committee has not adopted a more literal interpretation of its brief, which would have involved the examination of individual department's policies and programmes. Although the EAC admits that it would be useful to carry out these more detailed activities, to some extent the fact they haven't reflects the fact that they do not have the research and investigation resources of the Public Accounts Committee, which is linked to the NAO. Reid (2000, pers. comm) suggests it is difficult to audit something when you do not know it exists. Ross (2000) speculates that they have also concentrated on auditing processes and mechanisms rather than individual policy decisions as it would result in a great deal of directed criticism at individuals and departments, which would possibly alienate the whole GGI.

Two of the early issues for the committee to resolve were:

- There was very little infrastructure in place to audit; there were no examples of environmental appraisals. Many Government Departments (other than the DETR) felt that their policies had little or no environmental consequences. Subsequently, some departments claimed that the appraisals were integrated into the policy document.

- The EAC has had to define a role for itself that has complemented other select committees such as the Science and Technology Committee and the Environment Select Committee, as well as other environmental bodies such as the Royal Commission on Environmental Pollution.

Consequently, the EAC concentrated its early activities on a number of areas that would set up processes for them to audit, for example:-

- Recommended that Green Ministers produce an annual Report (EAC, 1998)
- Critical of the lack of Environmental Appraisals (EAC, 1999)
- Advocated separate Environmental Appraisals
- Auditing the annual spending review

It has also adopted the role of monitoring progress on the sustainable development strategy through the annual reports, and greening operations through the annual departmental reports. In the absence of verifiable targets the EAC can really only check that the processes are in place and that the language is correct.

The advent of the Labour Government and the creation of the EAC and SDU helped reinvigorate the GM Committee (GMC) and provide greater clarity to its role. The GMC's now meets three times a year to discuss cross cutting issues. Often they take one or two examples of policies and associated environmental appraisals to facilitate discussion on matters of best practice. The GMC formal power is limited, as they do not have the power to set policy or make decisions (EAC, 1999). However, there is value in the communication and discussion of best practice amongst the committee members, and the fact that there is a body with the responsibility of calling departments to account and publishing information on departmental performance. The EAC has recommended their role can be strengthened by setting a comprehensive set of targets which should be reported on specifically in the annual reports.

The Green Ministers Committee has welcomed the work of the EAC and stated in the introduction to its first report:

"The original idea of a published report came from the EAC …like so many of the recommendations from the EAC, it seems to offer a positive and practical way to take forward our work on greening government."

Likewise the EAC has recognised that the Green Ministers Committee has started to make a difference to the GGI.

Mechanisms of communication

The EAC reports to Parliament. The primary mechanism for this is through a written report regarding the findings of the audit of a chosen topic. As of October 2000 the EAC has published six reports. Figure 19.1 lists all the reports completed so far.

- First Report: EU Policy and the Environment: An agenda for the Helsinki Summit.
- Second Report: World Trade and Sustainable Development: An agenda for the Seattle summit.
- Third Report: Comprehensive Spending Review: Government response and follow up.
- Fourth Report: Pre-Budget Report 1999: Pesticides, Aggregates and Climate Change Levy.
- Fifth Report: The Greening Government Initiative: First Annual Report from the Green Ministers Committee.
- Sixth Report: Budget 2000 and the Environment.

Figure 18.1 EAC Reports Submitted to Date

The reports are available through the HMSO bookshop priced between £7-18, and are available to all on the Internet. Apart from Parliament The EAC identifies NGOs as a key audience for its reports. The EAC has adopted a slightly crusading role and this is reflected in the fact that they take very strategic topics that involve the central activities of Government such as the budget, EU policy positions, and World Trade Negotiations. This crusading role helps to raise their profile in the media as the EAC is dependent upon them to raise the profile of their investigations, and is an essential part of their communication strategy.

The EAC does not have the resources to undertake its own investigation. Consequently, it depends upon a close co-operation with a number of bodies, including: The Royal Commission on Environmental Pollution; The Sustainable Development Commission, and other Quasi Autonomous Non-Governmental Organisation (QUANGOs), as well as other select committees such as the Environment Select-Committee, the Science and Technology Committee, and the Agriculture Committee. The EAC has had informal discussions with its devolved parliamentary equivalents in Scotland, Northern Ireland and Wales. It does not have any formal communication with regional and local government.

Green Ministers publish an annual report on the progress of the GGI. This report has two main audiences: the EAC and the Cabinet Committee on the Environment (ENV). The Report is also available to the public. The Greening Government Initiative has its own web-site where all reports of the Green Ministers are available. There is no obligation to publish the environmental appraisals of polices although a list of the ones carried out so far was included in the First Annual Report 1998/99.

The means of vertical communication between the GMC and ENV (the relevant DETR policy division) is not very transparent and the horizontal communication processes within departments is ad hoc, given that the mechanisms of communication GMs use within their respective departments varies accordingly. The horizontal communication between GMs is well provided for with three meetings of the Committee each year.

The First Annual Report (the only one published to date) lacks auditable targets and does not give enough information on environmental appraisals. The use of the internet does afford a certain degree of public scrutiny to the activities of both the GMC and the EAC.

The SDU has criticised the EAC for not undertaking detailed audits of individual policies as this is where potentially the most power to influence the process lies. However, The EAC feels that without the resources of the NAO the EAC cannot undertake the type of investigation necessary for a detailed audit of individual policies. The EAC has attempted to deal with the resource issue by forming close informal relationships with other bodies (see above). However, there may also be an element of disinterest in the detail in favour of strategic concepts arising from the members of the EAC.

18.4 Description of Integration Procedure

Guidance on environmental appraisal was published by the Department of the Environment in 1991. The guide relied heavily on cost benefit assessment methodologies and was derived from standard policy analysis techniques employed by the UK Treasury. Major criticisms included:

- Overly reliant on complex cost benefit methodologies.
- No public participation.
- Reliance on monetary valuation leads to an over-emphasis on financial benefits.
- No provision for monitoring the success of the policy (Richardson, 1999).

The government was criticised for not using PAE and in 1994 they published "Environmental Appraisal in Government Departments". In this report several case studies of environmental appraisal were outlined. However, the case studies were either economic appraisals or large EIAs (Richardson, 1999). A report by KPMG in 1997 found that PAE had rarely been used. The main reason being that PAE was found to be confusing, with many practitioners unable to use it. A more systematic approach to appraisal was recommended. The government responded in four main ways:

- Publishing a six page guide on policy appraisal and the environment which replaced the original (DETR, 1998).
- The "gap" report identifying the gaps in technical guidance in environmental appraisal. The report suggested the use of multi-criteria analysis and Contingent Valuation techniques to meet the methodological shortfall. The Government is soon to publish a guide on multi-criteria analysis.
- The publication of a checklist that all papers going to cabinet committees must adhere too. The guide states that all significant costs and benefits to the environment should be listed and the views of the SDU sought.
- Both the White Paper on Modernising Government and the Sustainable Development Strategy made a commitment to replace the Regulatory Impact Assessment with guidance on Integrated Assessment. DETR is part of a Cabinet Committee-led working group on Integrated Assessment. Work to date has included the production of checklists acting as signposts to existing guidance. The checklist is currently being piloted.

The new PAE outlines rough screening criteria, which include both direct, indirect and cumulative impacts. The guide states that an appraisal is needed if the likely impacts are predicted to be "significant". It is recommended that appraisal should be carried out

alongside the developing policy. Where a green paper is first published this should be the first opportunity to begin the appraisal.

1. Summarise the policy issue
2. List the objectives
3. Specify the range of options (do nothing baseline)
4. Identify and list all impacts
5. Identify the significance of impacts (in relation to the other costs and benefits)
6. Consider how far you can quantify costs and benefits (quantification will depend upon size of impact and resources)
7. Value costs and benefits (use expert opinion)
8. State preferred option
9. Monitor

Figure 18.2 Policy Appraisal and the Environment

Table 18.2 Environmental Assessment Components

Objectives Led	Yes (Cabinet Office Check list advocates the use of objectives, as does PAE).
Integration	No (Guidance suggests that the appraisal should be carried out "alongside" the developing policy. However, the emphasis is on the appraisal of the preferred option and evidence suggests this is all that occurs).
Alternatives /Options	Guidance calls for the specification of a range of options: in reality only the preferred option is appraised.
Backcasting (Visioning)	No.
Environmental Statement	No.
Methodologies	MCA and Contingent Valuation. Emphasis on quantification and monetary valuation where possible.
Participation	Participation is late on and involves using expert advice on quantifying and assigning monetary value of the impacts. Appraisals do not have to be separate documents and are rarely published.
Timescales	Mention of the long timescales involved in environmental impacts is made.
Sustainability Impacts	Other guidance covers other areas of sustainable development. The new integrated appraisal seeks to amalgamate this.
Significance	Yes through quantification and monetary valuation.
Non-Technical Summary	No.
Monitoring	Yes

18.5 Summary and Commentary on Effectiveness of Integration

Issues related to the organisation of assessment

The EAC and Green Ministers have been applied as part of a comprehensive greening government strategy. The analysis above has emphasised how the two institutions have had different roles to play in the environmental appraisal process. Green Ministers have an Advocacy role within their respective departments. The EAC monitors and audits the appraisals.

Issues related to goals of assessment/definition of scope

The Green Ministers have been slow to promote environmental appraisal with only a few examples prior to the publication of new guidance. It was thought to be too difficult to undertake. Now there is a need to build upon the growing number of EAs so that all polices are subject to some form of appraisal. The EAC has shown particular interest in appraisal due to the lack of auditable infrastructure. So far they have concentrated on making sure that the structures and mechanisms for appraisal are in place rather than the auditing of individual examples. The fact that Appraisal is a parallel separate process can lead to it being used at the end of the policy development process on only the preferred option.

Issues related to processes for specification of alternative tools

The Interaction between the Green Ministers, the EAC and Appraisal has shown how the efficient working of all three elements is essential for advancing SEA. The auditing and advocacy roles complement but do not overlap with appraisal. Before the EAC was set up and the role of Green Ministers strengthened there was little evidence of appraisal.

Integration process viewed from key-persons perspective

The SDU felt that by concentrating on specific appraisals the EAC would be more effective. The EAC felt that if they had the power and resources of the NAO they would be able to undertake a more specific auditing role.

Integration outcomes

The EAC has helped ensure that the Green Ministers are aware of their appraisal responsibilities and that they are informing their respective departments. Green Ministers are only beginning to provide the leadership within their department necessary to promote environmental appraisal.

Individually the EAC and the Green Ministers are beginning to have an effect on the GGI. Both of them are directly involved in environmental appraisal; Green Ministers because one of their objectives is to promote environmental appraisal, and the EAC as it will provide something for them to audit. However, by working together within the GGI they can have a

greater impact and the fact that the GMC now submits an annual report to the EAC has helped them both to define and strengthen their respective roles.

Ross (2000) argues that the words "Audit, Scrutinise and Report" in the EAC remit show that the committee is meant to call the Government to account. With this in mind Ross concludes that the EAC has succeeded in meeting most of the objectives set out in its remit as it has been successful in "scrutinising overall government policy and expenditure". However, it has only partially met its objective to audit departmental policies and appraisals.

The GMs have only recently begun to fulfil their remit effectively. The EAC has stated that the production of environmental appraisals (a core objective of GMs) is "still at an early stage" although examples of good practice are now emerging. The EAC has concluded that although its formal powers are limited the GMs could potentially have a profound effect on the GGI. The EAC has recommended that GMs should set personal targets and that the SDU should monitor the progress of EAs of major policies.

The form of the GGI reflects the prevailing mode of policy formulation in the UK that of informal, voluntary, flexible processes coupled with government guidance. However, to maximise the effectiveness of this approach there needs to be strong leadership and commitment from individuals concerned. ENV has yet to provide the top down leadership and the Green Ministers have still to embrace the integration aspect of their agenda, particularly promoting environmental appraisals. This, coupled with the absence of formal targets and mandatory/legal processes, requires a greater degree of commitment from individual GMs to maximise their influence. However, the EAC has concluded there is a lack of consistency within appraisals and some departments have even argued that the bodies that take their polices forward are the ones that should do the appraisal. In addition, some departments have argued that their policies do not impact on the environment. The Home Office stated that it has struggled to find policies to which it could apply PAE.

CPRE argue that there is a need to audit decisions not just the process (Hamblin, 2000, pers. comm). If the EAC persists in rolling reports covering strategic issues of process the GGI may stagnate, as there is a danger that the EAC and the Government will continue to differ in opinion. The EAC needs to adopt new approaches and new subjects to audit if it is to maintain its and the publics' interest. CPRE suggest that they need to call the Secretary of State of a department rather than a more junior member to give evidence and the EAC itself realises it must start detailed auditing of individual policies. The fact it has not fulfilled this part of its remit to date may reflect the lack of power and resources of the committee.

Through auditing specific policies the reasoning behind the decision can be revealed. This requires an appraisal of different policy options from which a preferred option is chosen. However, there is some confusion over whether a decision can be audited or not. The EAC believe it is possible to appraise and audit the decision-making process. Whereas the SDU feel that it is too difficult as the process is too fluid and that it risks compromising its

flexibility. CPRE argue it is this aspect that needs strengthening. Green Ministers need to makes sure an appraisal has an influence on the final decision, i.e the best practicable environmental option is adopted and that the EAC is then able to audit the policy decision and the appraisal document to check that the process was properly undertaken. In some respects, if Green Ministers were able to do their job effectively there would be no need for an EAC. Perhaps the EAC is a necessary interim measure designed to kick-start the GGI strategy.

Chapter 19

United Kingdom - Yorkshire Forward

19.1 Introduction

The UK regional agenda has gained in significance over the last three years. Prior to 1998 regional planning was the responsibility of a representative body of employees of the constituent local authorities. This body was responsible for producing Regional Planning Guidance (RPG) although no statutory provision for spatial planning at this level existed. There was no obligation to carry out an SEA of RPG and there was no statutory responsibility for important spatial planning issues such as transport. Most of the responsibility for spatial planning lay with the County Councils; they co-ordinated the District Councils and in addition, were the statutory local highway authorities. They also made up the majority of the representatives of the Regional Planning Body.

However, it was clear that spatial considerations were having a profound effect on the environmental performance of other sectors of policy making especially when one looked beyond the boundaries of a specific local authority area. For example, transport was a major aspect of spatial planning that was seen to be causing far reaching environmental consequences. A more strategic approach to land-use planning was necessary in order to better co-ordinate planning and sustainability objectives. The region became the obvious level at which land-use and sectoral policy making could still be meaningfully integrated whilst at the same time provide the opportunity to consider the more strategic impacts.

The recent changes at the regional level have been designed to increase its importance in setting the spatial planning agenda of England. These changes included:

- The creation of Regional Development Agencies (RDAs).
- The creation of Regional Chambers.
- The provision of guidance for undertaking a sustainability appraisal of regional planning guidance.

Yorkshire Forward is the Regional Development Agency for Yorkshire and Humberside. The RDA is responsible for producing the regional economic strategy (RES) for the region, which in turn must be sustainability appraised. This case study examines the sustainability appraisal of the RES produced by Yorkshire Forward and shows how it has been used in furthering the region's wider sustainability objectives.

19.2 Description and Evaluation of Decision-Making Context

The regional development agencies were created under the 1998 RDA Act. RDAs are responsible for developing the Regional Economic Strategy for their region. The strategy is designed to encourage economic growth and improve competitiveness within the region. The Act also clearly places a statutory duty on RDAs to contribute to sustainable development. The government published guidance on the production of the RES where it stated that an appraisal must be carried out on:

- The contribution of the strategy to sustainable development.
- How the strategy will protect the environment and make prudent use of natural resources.
- The strategy's role in integration of economic, social and environmental objectives.

Two other regional bodies, which have an important influence on the regional economic strategy, are the Regional Chamber and the Regional Planning Body. The Regional Chamber is a body of key regional stakeholders including county and district councillors, local authority officers NGOs, RDA representatives and business representatives. The Chamber has a specific duty to advise and be consulted by the RDA. They are also responsible for co-ordinating the development of the Regional Sustainable Development Frameworks. These frameworks are the overarching guidance for the region within which the RES and the RPG must be set. However, in Yorkshire and Humberside as with all the other English regions the RES and RPG have been prepared in advance of the frameworks (Smith & Sheate, 2001).

Regional planning guidance is prepared by the regional planning body, which in the case of Yorkshire and Humberside is called the Regional Assembly, but is issued by the regional Government Office (The Central Government representative in each region). RPG sets the spatial planning strategy for the region and provides the guidance within which local development plans can be developed. RPG is designed to ensure that all the development structure plans in a region are working towards the same rather than conflicting goals.

Both the RPG and RES are statutory documents. The equivalent environmental document is the Regional Biodiversty Strategy. In contrast to the first two documents this has no statutory status (Smith, 2000, pers. comm). Even though PPG 11 states that, "The regional planning body will need to form an overview of the environmental constraints and opportunities for the improvement of the region", there is no statutory equivalent strategy targeted specifically at the environment which compares to the role RPG and RES play in planning and economics. As a consequence the environment is not afforded the same influence at the regional level as are economics and planning.

Table 19.1 Environmental Integration Background

Political Leadership	Yes. The chief executive and the main board of the RDA supported the Sustainability appraisal. The key promoter of the SA within the RDA was the Director of the Strategy and Policy.
Institutional Commitment	Yes. The RDA has a specific duty to promote sustainable development and the Regional Assembly is comprised of local authority representatives with various environmental duties. A specific steering committee was set up to co-ordinate the SA and the RDA does include an environmental division.
Co-ordination	Yes. There was strong horizontal co-operation between the regional assembly and regional development agency as they jointly developed the sustainability appraisal of both RPG and the RES. The actual sustainability appraisal was undertaken by consultants and co-ordinated by the steering committee.
Communication Reporting	Yes. A draft strategy was produced and given to the Sustainability Commission of the Regional Chamber for evaluation. The Sustainability Commission was responsible for developing the 10 sustainability objectives of the appraisal. A communication strategy was developed including the preparation of press releases.
Guidance Training	Yes but largely *ad hoc*. Guidance on sustainability appraisal of RPG was used as the basis of the SA. The RDA has produced a good practice guide and training programme on Sustainable Development in the region. The SA co-ordinator discussed the sustainability implications of the draft RES on an *ad hoc* basis with all the departments in the RDA.
Awareness Raising	Yes. A regional sustainable development education strategy has been developed to raise awareness.
Targets/Objectives/ Indicators	No. 15 sustainability objectives and indicators have been developed as part of the regional sustainable development framework. The 10 sustainability criteria of the SA were the basis for these objectives and indicators. The intention is to develop targets where possible, for example CO_2. A futures team has been set up to predict trends.
Appraisal/ Assessment	Yes. (see Figure 19.3).
Instruments	No.
National/Local Sustainability	No: The 10 sustainability criteria used in the SA did not match the 15 headline indicators of sustainable development. However, this is largely because they were not available during the development of the RES and SA. There was some co-ordination with national and local sustainability. The regional Government Office had some input to the process and the LA21 Network was consulted. The RES and the associated SA will be adapted to appraise the sustainability of individual projects.
Allocation of Spending	N/A
Monitoring/ Auditing	The intention is to monitor against targets.

19.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The sustainability appraisal was developed jointly by the Regional Assembly and the RDA. The regional structure of the main actors within Yorkshire and Humberside are shown in Figure 19.1.

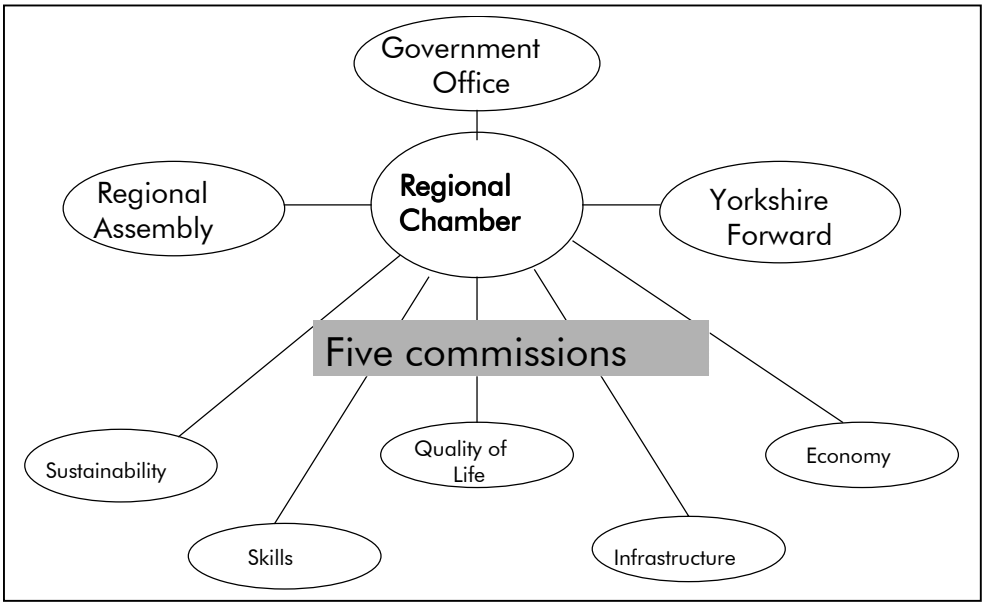

Figure 19.1 Regional Structure of Main Actors within Yorkshire and Humberside.

Forum for the Future - an environmental NGO - approached Yorkshire and Humberside with a proposal to undertake a sustainability appraisal of the Regional Economic Strategy and to combine it with the SA of RPG. Forum for the Future undertook an important "persuading" role ensuring that the different teams within the RDA contributed to the SA. A Sustainability Appraisal steering group was set up which included the RDA representative, an Environment Agency employee seconded to the RDA, a Regional Assembly representative and other statutory consultees. The steering group employed consultants to actually undertake the SA. The Government Office was involved in the SA process but did not take the initiative. There was no formal public participation as it was felt by the RDA that it was too strategic to involve the general public. Forum for the Future were the only NGO directly involved in the steering committee. However, RSPB and Friends of the Earth were members of the Sustainability Commission and had the opportunity to comment on the process.

Mechanisms of communication

A steering committee was set up to co-ordinate the development and completion of the SA. Once the SA was complete the SA steering committee was disbanded. Actors within the SA process were engaged on an *ad hoc* basis when the RDA co-ordinator decided they should

be involved. A draft RES and SA were produced and sent to the sustainability commission and economic commission of the Regional Chamber for comment. Changes were recommended and the amended full RES and SA were issued.

19.4 Description of SEA Procedure

A common methodology was used in the appraisal of both the RPG and the RES. Terms of Reference for the SA were developed by the RDA and the Regional Assembly based upon the guidance from the Department of the Environment Transport and the Regions on "Sustainability Appraisal of Regional Planning Guidance" (DETR, 2000b). The methodology was further refined by the consultants employed to undertake the work. Figure 19.2 outlines the Yorkshire Forward method and Figure 19.3 outlines the methodology advocated by the DETR's guidance on sustainability appraisal.

1. Setting Appraisal Objectives
2. Characterising the region
3. Scoping the RES and RPG
4. Appraisal of RES and RPG policies

Figure 19.2 Sustainability Appraisal Methodology Employed by Yorkshire Forward.

1. Develop Objectives & Targets
2. Scoping
3. Appraisal of Strategic options
4. Recording and reporting of findings
5. Monitoring and evaluating

Figure 19.3 Methodology outlined by Government Guidance on Sustainability Appraisal.

A brief analysis of the two procedures shows that the Yorkshire Forward procedure adopted the objectives led approach. However, Yorkshire Forward did not consider alternatives as advocated in the guidance. The Yorkshire Forward methodology characterised the environment, whereas, the Guidance only talks about the usefulness of a baseline survey and advocates its use even though it is not strictly part of the appraisal process. Finally, Yorkshire Forward did not set up a monitoring programme as part of the SA. However, they do intend to monitor the performance of the RES in the future.

Table 19.2 Environmental Assessment Components

Objectives Led	Yes. 10 objectives were identified (see Figure 19.4) by the Sustainability Commission which were slightly amended by the consultants to reduce ambiguity and reflect national policy and broader social criteria. The objectives are regional in scope and are reference points against which the RES can be examined. 5 of the objectives were environmental in nature, but they remained very broad (Smith & Sheate, 2001).
Integration	No. Scoping was ex-post and involved checking various objectives/policies of the RES against the various sustainability appraisal objectives. The appraisal was only carried out on the draft strategy and the fully amended strategy.

Alternatives /Options	No: Despite guidance calling for the appraisal of strategic options the SA did not do this.
Backcasting (Visioning)	No.
Environmental Statement	Yes. A baseline characterisation of the region was completed. It involved understanding the essential environmental, economic and social character of the region. It shows where the key thrust of the RES polices should lie. However, the baseline was not explicitly used to appraise the policies of the RES.
Methodologies	Subjective judgement used as basis for commentary on individual policies. Cumulative impact not identified.
Participation	No. There is no direct public participation. However, an environmental NGO was instrumental in the steering committee and other NGOs and statutory consultees were consulted on the draft SA and the development of the criteria.
Time-Scales	No. Although there was a general assumption that the impacts of the RES were to be assessed over future generations. Climate Change was included.
Sustainability Impacts	Yes. The appraisal criteria were sustainability led. The environment is treated in very broad terms.
Significance	Yes scored subjectively not against the baseline survey.
Non Technical Summary	No separate non-technical summary. Although there is a summary to the main statement.
Monitoring	No not yet, although targets and indicators are planned

1. To achieve a highly skilled diverse and flexible workforce
2. Make urban areas more attractive places to live and work
3. Conserve and enhance rural communities
4. To achieve greater social equity
5. Reduce growth in the length and number of motorised journeys, encourage alternative means of travel which have less environmental impact, and hence reduce reliance on the private car
6. Reduce pollution within the region to levels that are compatible with health and within the capacity of the biosphere
7. To make full and effective use of land within existing urban areas and reduce the consumption on underdeveloped land
8. Protect and enhance natural resources and landscapes for present and future generations
9. Reduce energy consumption and encourage the use of renewable sources of energy
10. To provide opportunities for sustainable regeneration, investment, economic growth and employment.

Figure 19.4 Sustainability Appraisal Objectives

19.5 Summary and Commentary on Effectiveness of SEA

It is clear that the SA has played an important integratory role in one crucial aspect. It has provided the focus for co-operation between the RPG and RES. This has allowed sustainability considerations to be incorporated into both strategies through eliminating potential areas of conflict as well as amending objectives to incorporate more sustainable principles. However, the organisation, structure and goals of the SA are such that its

potential to act as an environmental integration mechanism has not been realised. These are outlined below.

Issues related to the organisation of assessment

The Sustainability appraisal has been employed largely as a checking role. It allows certain proposals to be rejected or improved upon in terms of sustainable development. It was not used to help form and develop the policies. The organisational aspects of the appraisal were such that it was unable to fulfil a more integratory role for the following reasons:-

- Sustainability Appraisal differs from SEA in that it is less formal and relies more on subjective judgement. In the absence of independent review this can lead to a significant variation in the ability of the appraisal to meet SEA and integration best practice criteria.
- The formal appraisal was begun after the draft strategy had been developed.
- The appraisal was undertaken by independent consultants. This emphasised the separation of the forming of the strategy and the appraisal. It also led to a narrow base upon which to form subjective judgements regarding the appraisal of the six strategy objectives.

Issues related to goals of assessment/definition of scope

The Appraisal does not seek to develop, assess, amend and deliver the RES. Instead it focuses on appraisal and mitigation. The appraisal of the draft led to 49 changes in the final RES. These changes are clearly listed. It is estimated by one of the SA co-ordinators that 75% of the changes suggested by the SA steering group in light of the SA were accepted. However, the changes focus on re-wording and changing the emphasis on certain paragraphs rather than rejecting poorly performing objectives or including new more sustainable objectives. Two new deliverables are added, one of which referred to the environment. Specific aspects of the appraisal process reduced its ability to integrate environmental concerns:-

- Although the appraisal was objectives led it has failed to date to transfer these into targets and indicators.
- The scoping was undertaken after the strategy and appraisal objectives had been set rather than using public participation to set the agenda and scope of the appraisal.
- The appraisal did not look at alternatives instead it appraised the draft preferred options which then led to a degree of mitigation.
- The difficulty in prediction of impact significance was reflected in the discursive nature of the appraisal (Smith & Sheate, 2001).
- The baseline survey was not used to assess impact significance.

SEA process viewed from key-persons perspective

Newby (2000, pers. comm), who played a key role in the SA, believed that it was a good process, well managed and the drafts were of good quality. Criticisms focused on the

difficulty of quantification and the lack of focus on the appraisal outcomes of the strategy. Although, due to the retrospective nature of the appraisal, opportunities to integrate environmental considerations into the RES were not maximised, two factors demonstrate that the SA has influenced environmental integration into the regional policy and planning arena beyond the RES. In the first instance, the 10 sustainability criteria of the SA have been used as the basis to develop 15 sustainability criteria to underpin the forthcoming regional sustainability framework. Secondly the SA is being adapted so that it can be used to appraise the sustainability of individual projects.

Finally, this case study suggests that four factors unique to sustainability appraisals may compromise their ability to fulfil an effective environmental integration role:-

- The broad criteria of the sustainability appraisal result in the amalgamation of different areas of the environment that may remain separate in an SEA (see objectives 6 and 8 in Figure 19.4).

- Sustainability is more difficult to measure than a disaggregated environmental impact and requires a more discursive appraisal.

- The environment can tend to command less importance than other elements of sustainability within an SA. This is reflected in the organisation of the Regional Chamber which includes 5 commissions including 2 social and 2 economic elements but only one environmental (see Figure 19.1). Furthermore, the majority of the amendments advocated by the SA focused on economic rather than environmental aspects of the strategy.

- Finally, it was acknowledged (Newby, 2000, pers. comm) that it was still the environment within the SA that experienced the most negative impacts and was subject to the most trade-offs.

Chapter 20

United Kingdom - Strategic Environmental Appraisal of Strategic Defence Review (SDR)

20.1 Introduction

The Ministry of Defence (MoD) published the Strategic Defence Review in July 1998, setting out a programme of change aimed at modernising Defence. The Ministry of Defence had come under some pressure to carry out a strategic environmental assessment on its wider policies and programmes from stakeholders and non-governmental organisations (NGOs) during recent development proposals, notably those at Otterburn, Northumberland, which had been subject to a long public inquiry. The SDR White Paper contained a commitment to examine, where appropriate, the environmental effects of plans and proposals arising from the Review. The aim of the 'appraisal' was to take a snapshot of the plans for implementing the SDR to identify where environmental issues need to be taken into account in the decision-making process (MoD, 2000a). This was the largest and most-wide ranging SEA carried out by the UK Government, even though guidance on policy appraisal had been in place since 1991. The appraisal for this study was modelled on the most recent of this guidance (DoE, 1991; revised by DETR, 1998).

The MoD owns and administers 240,000 hectares (about 1% of the UK area). The built defence estate provides accommodation for 100,000 Service personnel, and the Rural Estate includes almost 200 Sites of Special Scientific Interest (SSSIs). Since intensive land use has been largely excluded from training areas, they represent an important conservation resource. Many of the extensive military training areas are located in National Parks and pre-date the National Park designations (for example, Otterburn Training Area in the Northumberland National Park, and Dartmoor training areas in the Dartmoor National Park). Military training, conservation and public enjoyment of the countryside co-exist, though sometimes uneasily and not without occasional controversy. The end of the Cold War and the return to the UK of troops and equipment previously based in Germany precipitated a re-appraisal of training needs and commitments. This resulted in new proposals for rationalisation and intensification of some training. This was already happening prior to the election of a Labour Government in 1997.

20.2 Description and Evaluation of Decision-Making Context

The Ministry of Defence is generally exempt from normal development (Town and Country) planning requirements, although mirrors the process through submitting non-statutory Notices of Proposed Development (NOPDs) under Circular 18/84 (Department of Environment Circular). A Public Inquiry held in 1997 regarding a Notice of Proposed Development for additional training at the Otterburn Military Training Area in the

Northumberland National Park had proved very controversial (decision still awaited) and NGOs (e.g. Council for National Parks) had complained that an SEA should have been carried out on the original Options for Change policy which had brought about the proposals at Otterburn. Subsequent to the NOPD the Strategic Defence Review was carried out by the new Labour Government, published in July 1998. The key focus of the 1998 Strategic Defence Review (SDR) was (MoD, 2000a):-

- Modernising the Forces, for example, the creation of various joint forces between the Army, Navy and Air Force, and procurement of new equipment;
- Making the World A Safer Place, for example, making British troops available for United Nations peacekeeping operations;
- Caring for Our People, for example, improving training and welfare of forces, improving diversity and equal opportunities;
- Making Every Pound Count for Defence, for example, improvements to procurement and logistics, and estate rationalisation;
- Respecting the Environment, e.g. production of a Defence Estate Strategy, an SEA of the SDR and the compilation of a Site and Monument Database of archaeological sites on the defence estate.

The SEA of the SDR was carried out on the outcome of the SDR (and in parallel to the Defence Estate Strategy, published in June 2000), specifically looking at the impact of the implementation of the SDR. This was therefore an ex post appraisal, rather than an objectives-led parallel assessment. Decisions that were not part of the SDR (i.e. pre-dated it) did not therefore fall within the scope of the SEA, for example, Otterburn.

The SEA was carried out by three sets of consultants (Land Use Consultants, RPS Consultants, and Entec UK Ltd), each having responsibility for different components of the SEA. Advice and guidance was sought and provided from other Government departments, statutory bodies (agencies) and some NGOs. Stakeholder involvement is shown Figure 1 below. The terms of reference for the SEA were (MoD, 2000a):-

- The studies should focus on the potential environmental effects of changes introduced by the SDR.
- The studies should include social and economic as well as physical and biological factors (in reality, only some social and economic factors were able to be addressed).
- The appraisal should concentrate on the conditions as they existed in the autumn 1999, which therefore meant that the SEA was a "snap shot" in time.

Table 20.1 shows the environmental integration context of the MoD within which the SEA has taken place. The UK country report (see Volume 2) provides the wider UK context. The key driving forces behind the SEA were primarily the desire to respond to the criticism received by the MoD (and Army in particular) about their approach to new training proposals, particularly at the Otterburn public inquiry, and in order to allay fears of stakeholders (including statutory bodies) over the impact of future development and intensification of the wider Training Estate. The impetus for the SEA was therefore a

combination of events coming together: the SDR being written, the DETR's Policy Appraisal and the Environment guidance being updated (in March 1998), the parliamentary Environmental Audit Committee (EAC) being established, and the reaction to recent events. The role of the EAC appears to have helped to provide a wake-up call to the MoD to address environmental issues more thoroughly. The SEA process has now set in train a deeper change in culture within the MoD, with added commitment to more sustainable development in future (see below).

Table 20.1 Environmental Integration Background

Political Leadership	MoD, Ministerial support (launched by Green Minister, Dr Lewis Moonie MP, Parliamentary Under Secretary of State for Defence). Environmental protection a stated component of strategic policy making (the SDR). Defence Estates Agency (lead agency - key personnel: David Saul, Emma Dolman).
Institutional Commitment	Mainly Defence Estate Agency which has responsibility for managing and advising Services on the whole MoD estate (built and rural).
Co-ordination	Specific working groups established for the SEA, but some liaison committees at local level and nationally with stakeholders, continuing under the Estates Strategy.
Communication Reporting	Very complex structure of MoD and Services results in very fragmented and unclear communication lines between large number of departments, divisions and agencies. This presented a major challenge for the SEA.
Guidance Training	Not yet – SEA is now giving rise to guidance and training on sustainability and environmental integration.
Awareness Raising	Some publication of strategies and local management plans.
Targets/Objectives/ Indicators	SEA has been the starting point for moving on to sustainability appraisal and the use of objectives, targets and indicators. The delivery of the SEA has now been integrated into the Rural Estate Strategy where objectives, targets and indicators are already under development.
Appraisal/ Assessment	The MoD's recent Environmental Policy Statement (MoD, 2000b) committed the MoD to the environmental appraisal of all new or revised policies and programmes, and EIA for all new projects and training activities. The SEA has reinforced this commitment by establishing the necessary processes. The Estates Strategy (June 2000) also commits the MoD to introduce SEA procedures by 2001.
Instruments	EIA is used regularly at project level, though some developments are incremental and not subject to EIA. Integrated Land Management Plans (ILMPs) are used at the local level for the management of individual training areas.
National/local Sustainability	Local integrated land management plans; sustainability now beginning to be addressed and encouraged by DE.
Allocation of Spending	The aim is that the environment will now be integrated into all decision-making, e.g. on sales of land, the assessment of different training options.
Monitoring/ Auditing	Monitoring/Auditing as part of local management plans, and an integral component of the SEA.

20.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

Figure 20.1 below indicates the key organisations involved. Figure 20.2 shows the component assessments that made up the whole SEA, and the consultants responsible.

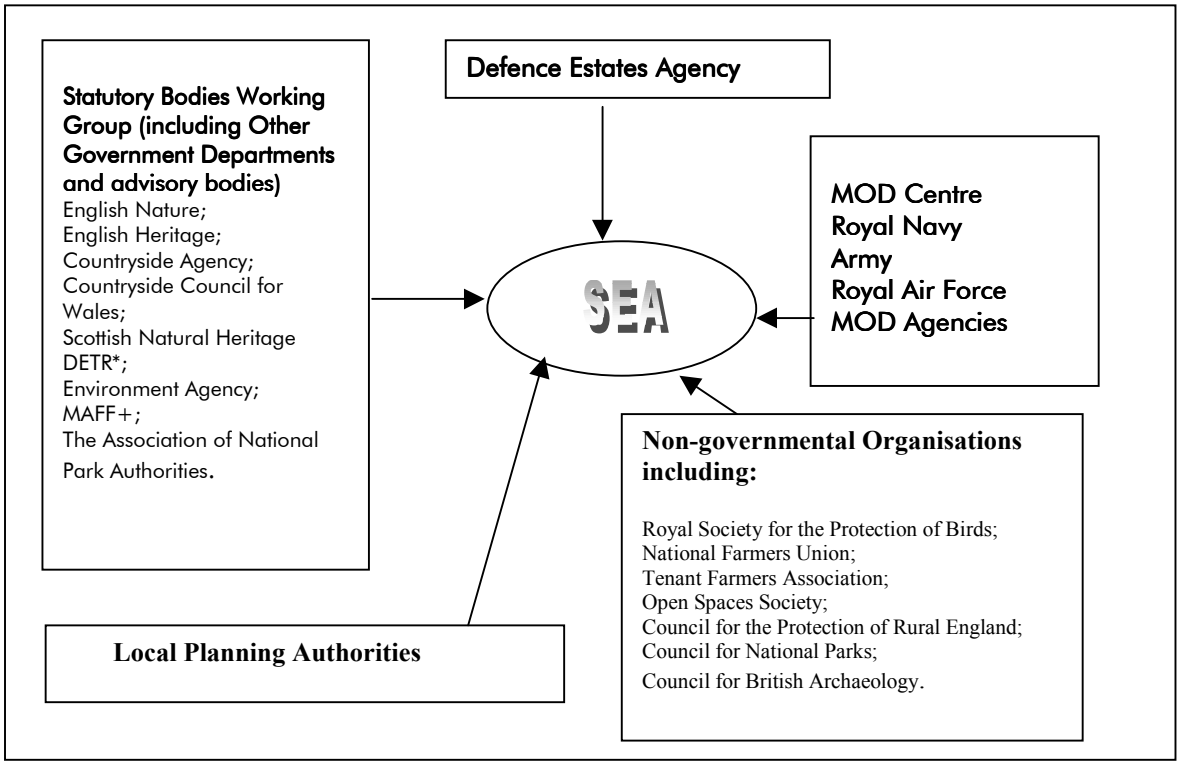

Figure 20.1 Stakeholders Directly Involved in the SEA Process (after MoD, 2000a)
* Department of the Environment, Transport and the Regions
+ Ministry of Agriculture, Fisheries and Food.

Mechanisms of communication

The SEA process involved a number of Government departments and statutory agencies (horizontal communication) through the Statutory Bodies Working Group. There was also an NGO Contact Group, originally established to provide liaison on the development of the MoD's Rural Estate Strategy, but as the SEA began to overlap, briefings were provided to this group about the SEA (CNP, Defence Estates, pers. comm.). This was focused on providing information, rather than full consultation, although some NGOs, such as the RSPB, were involved in some more detailed discussions and advice. However, the existence of such a group did enable some two-way exchange of ideas and information, informally.

20.4 Description of SEA Procedure

Figure 20.2 shows the key stages of the SEA and which consultants were responsible. Table 20.2 shows the key characteristics of the SEA. The SEA involved essentially a qualitative screening methodology, becoming progressively more detailed. Assessment criteria were used for first, second and third levels of screening. On the basis of the criteria and thresholds, subsequent levels of screening and scrutiny were required for the various parameters, i.e. if a threshold was exceeded at 2nd level, this triggered further examination at the 3rd level. The full findings were reported in the following documents:-

- SEA Main Report (overarching SEA)
- SEA Review of All SDR activities (all 454 impacts)
- Higher Level Environmental Assessment (HLEA) of the UK Army Training Estate
- Higher Level Environmental Assessment (HLEA) of the UK Army Built Estate.

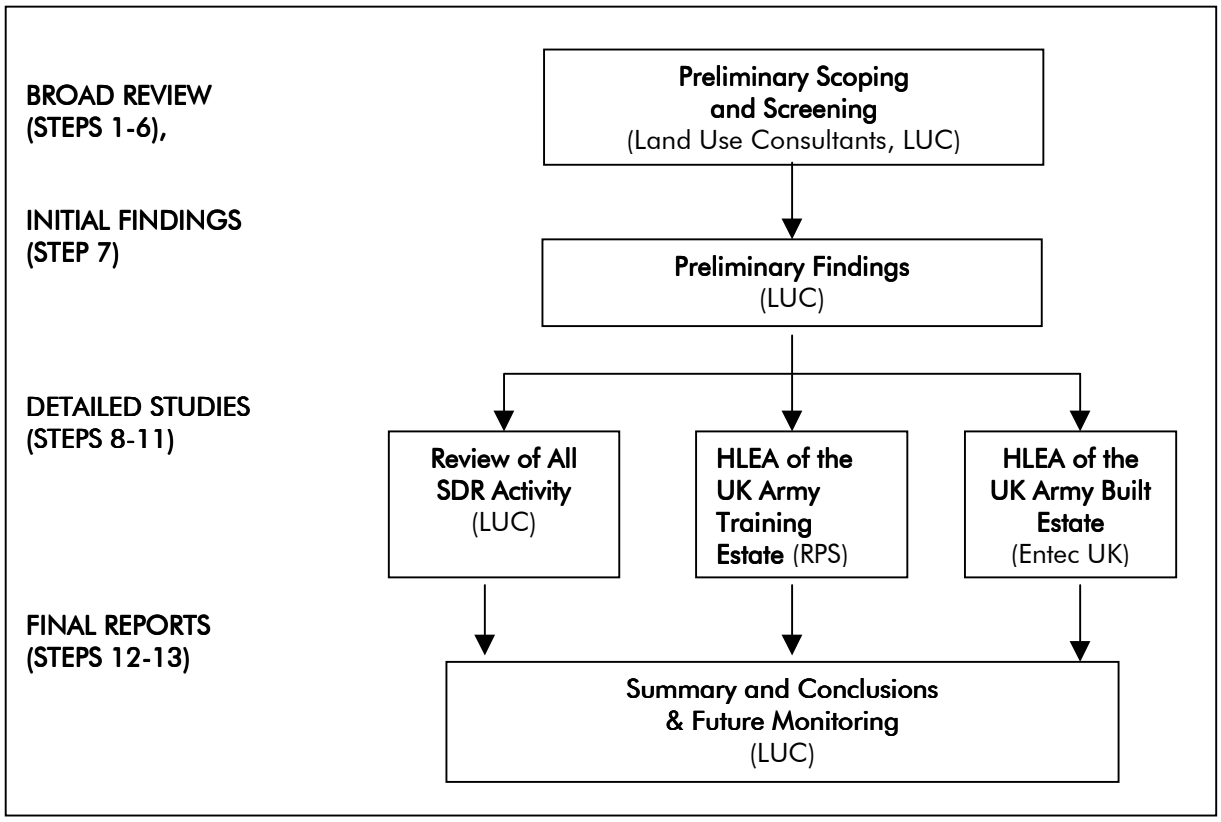

Figure 20.2 Stages of the SEA/HLEA Process (adapted from MoD, 2000a)

The Higher Level Environmental Assessments, ironically, relate to lower level decision-making and as such became more project focused and site specific, utilising project EIA methodologies, and perhaps more accurately defined as programmatic EIAs. The following changes were identified as likely to impact on the Defence Estate (MoD, 2000c):-

- Change in size and deployment of the Armed Services, especially increased mechanisation
- Restructuring of UK Army brigades
- Introduction of Formation Readiness Cycle
- New training requirements and management systems
- Introduction of Apache Attack helicopter and the new Joint Helicopter Command.

In particular, the Built Estate HLEA examined: increases in the number of military personnel in the UK; Changes in the number and nature of vehicles; Requirements for buildings to accommodate personnel and their equipment; and requirements for transport of personnel and their equipment (and non-military traffic generated as a result). The Training Estate HLEA considered issues such as the return of troops from Germany, the operational training cycle, impacts of individual, collective and 'backdoor' training (low level locally arranged training), Apache helicopter and other equipment.

The SEA is seen as being integrated with lower levels of decision-making, particularly EIA of project proposals, where voluntary EIAs are carried out under a non-statutory process for major schemes, where they would otherwise be subject to EIA if not formally exempt by virtue of being a defence project. Major intensification involving substantial or extensive building works, e.g. roads, barracks, gun spurs etc are normally subject to EIA. However, much intensification is piecemeal and incremental.

The methodology evolved as a pragmatic response to the driving forces, to a large extent the direction driven by the demands and interests of the stakeholders. Consequently, the SEA was not necessarily taken in a planned or ideal direction. At this stage the SEA was not well integrated into the policy/decision-making process, as it was an ex post appraisal, but was intended as an initial step to integrating the environment into subsequent plans. The SEA does bring about some mitigation (within its terms of reference) and creates a monitoring mechanism. However, due to the terms of reference it does not ultimately amend the SDR.

Table 20.2 Environmental Assessment Components

Objectives Led	No.
Integration	Only weak at this stage - ultimately sets the scene for better integration of the environment into future programmes. The SEA has created a process and major cultural change in the MoD.
Alternatives /Options	Ex post, focused on implementation of SDR and mitigation of its impact. Terms of reference highly constrained; not able to address anything pre-SDR (e.g. Otterburn, which was also under public inquiry).
Visioning	No.
Environmental Statement	Yes - available to public, summary printed report and main SEA and programme level assessments available free of charge on CD-ROM and on the internet.
Methodologies	Pragmatic and qualitative, using typically EIA project level

	methodologies. Broad-brush appraisal against criteria for the most strategic elements. GIS capabilities need further development, and better base line data.
Participation	Involvement of Government agencies in an advisory capacity during the SEA process. Selected NGOs kept informed through NGO contact group, from January 1999, particularly on the rural estate; some two-way discussions. Annual statutory body and NGO consultation group chaired by a Minister and Chief Executive of the Defence Estates Agency, on the SEA and the Estate Strategy. Wider public consultation seen as occurring primarily at subsequent project proposal level (EIA). SEA seen as engendering a much more transparent process.
Time-Scales	2 years from publication of SDR to publication of SEA, but ongoing follow up process and longer-term sustainability and integration processes being created.
Sustainability Impacts	Only limited social and economic, but now moving on to sustainability appraisal, although identified as one of the objectives of the SEA.
Significance	Yes – criteria and thresholds used to assess significance at three levels of screening. Out of 454 elements of the SDR, 114 seen as potentially significant.
Non Technical Summary	Yes - widely available as printed report, on CD-ROM and internet
Monitoring	Yes - monitoring proposals included as ex post appraisal of SDR seen as first step to incorporating SEA at an earlier stage for subsequent defence policies and plans. Important for mitigation measures. Four key follow-up projects: 1) Review of SEA and how it can be improved in future; 2) Auditing of key impacts (150, including the initial 114 of the 454 total impacts) after 1 year to see how changed; 3) Production of Interim Guidance notes on environmental components, e.g. waste, energy use, to be circulated to all people involved in SDR; 4) SEA Handbook, MoD focused and MoD-wide, making links to procurement and environmental auditing.

20.5 Summary and Commentary on Effectiveness of SEA

Remarkably, there appears to be consensus amongst DE, statutory bodies and NGOs that the SEA process has been effective in that it has brought about a real culture change in the MoD, a government department historically traditional and resistant to transparency. The nature, origins and objectives of the SEA have meant that the effectiveness of the outcomes is more difficult to assess. Some things have changed in terms of the implementation of the SDR, but it is not always easy to say whether the SEA was the cause. Again, there is real consensus that the SEA was the start of a much bigger and longer process of integration of the environment into decision-making in the MoD, that it was the catalyst for transparency and openness in discussion of issues previously kept hidden from the public domain, or not addressed at all.

CNP's view is that the sea change observed in the MoD, particularly in their attitude to NGOs and transparency, has been due to a number of factors. First, the MoD's less-than-happy experience with the Otterburn proposals; second, the Labour Government's more positive attitude to open government; and finally to the positive approach taken by the

individual civil servants involved in the Defence Estates Agency. The Green Minister, Lewis Moonie, has recently suggested annual liaison meetings with CNP, for example, as a way of taking forward the thinking exhibited in the SEA. The MoD believe the consultation had provided different insights to the SEA team, improvements in approach in concept and detail, and the development of a network of future contacts (MoD, 2000a, and Dolman, 2000, pers. comm). However, some, such as CNP, see the HLEA of the Training Estate as not being independent, as the same consultants that did the Otterburn EIA (RPS Consultants) carried it out. The Environment Agency advised on the development of tools, techniques and approaches for the SEA, contributed to the terms of reference and provided baseline information from local Environment Agency staff (Environment Agency, 2000, and Brookes, 2000, pers. comm). The DETR took great interest in the SEA process, though was not able to provide extensive practical advice, due to lack of internal expertise in practical SEA. The Environment Minister (Michael Meacher MP), though not a signatory at publication, is now expressing considerable interest. The SEA is seen by DETR as having useful lessons for other departments.

The SEA process has created and opened up new channels of communication within the MoD and the Armed Services, through the creation of new networks of contacts (although this is often frustrated by the frequent change of personnel). The primary characteristic of the SEA process was one of communication and qualitative assessment. Where it became more technical and detailed, e.g. in the Training Estate HLEA, this tended to pull the SEA more towards a programme EIA, rather than more strategic, option-based considerations (a natural distraction perhaps, given the history). The tendency of the HLEAs to concentrate on site specific and detailed local aspects was a result of the tensions pulling the SEA towards addressing the concerns of stakeholders, and the expertise of the HLEA consultants (previously used by the army) who had detailed knowledge of the EIA level of much of the Training and Built Estate. In this case the process has been probably much more important in the long term than the individual components or the methodologies used. The importance of monitoring and auditing has also been a key feature of this SEA. The change in attitude and culture would appear to be the most significant consequence of the SEA, and its catalytic role in triggering a wider integration and sustainability process. The SEA has resulted in two full-time staff being increased to nine full-time staff, including five who are half way through postgraduate environmental management qualifications. While the SEA was undoubtedly weakened in its effectiveness in integration by the late timing in relation to the SDR itself (ex post), it may prove to be much stronger in the longer term as an engine for change.

Chapter 21

World Bank - Country Assistance Strategies and the Environment Programme

21.1 Introduction

Country Assistance Strategies (CAS) are a Bank led document setting out the business case for the disbursement of lending. CAS is a "central part of the policy process that determines World Bank support to client countries". Typically each CAS details the extent of economic development in the respective country, identifies the principle concerns of that country's government and sets out the strategy for the provision of World Bank services. Usually CASs are undertaken every two or three years. However some larger recipients may develop them on an annual basis. CASs have no legal status but are a specified procedure under Bank policy (BP2.11). The procedures are laid out in the World Banks Operational Manual.

The framework within which CAS was developed and implemented has recently undergone some changes. Comprehensive development frameworks (CDF) are the new high-level strategy documents that are currently being piloted in 12 countries. The CDF are developed and owned by the client. It sets the framework for co-operation between the various donor and lending agencies that operate in a particular country. The aim is to co-ordinate the various funding initiatives and ensure they deliver the objectives laid out by the beneficiary country. Where CDF exists a CAS must be developed in its context. In effect the CAS lays out the Bank's contribution to the CDF.

Poverty Reduction Strategies (PRS) are another recent development. PRSs have been prepared for all the highly indebted poor countries (HIPC). The client country produces them, and as the name suggests, they contain a strong poverty focus. However, because PRSs are prepared by some of the poorest countries in the world they often have the weakest institutions. Consequently they require assistance in their preparation. This leaves the Bank with a delicate balancing act between providing assistance and unduly influencing the PRS process. Where PRSs exist they take the place of the CDF and in turn encourage the CAS to look at the respective client country through a "poverty lens".

Within the procedures set out for undertaking a CAS, (BP 2.11 in the Bank's operational manual), environmental considerations are only mentioned briefly:

A CAS "indicates how the Bank's objective of helping countries to reduce poverty and its sectoral objectives such as human resource development (including gender issues), environmentally sustainable development and private sector development—are incorporated into [a] strategy and reflected in a policy dialogue".

The Operational Manual gives no firm guidance on how to mainstream the environment into the CAS process. However, it is clear that "CASs represent a key point of intervention for integrating environmental concerns into Bank operations for better development outcomes" (World Bank, 2000). A report on the status of environmental integration within CAS (World, Bank, 2000) states that "Typically, the environmental component is isolated from core issues, i.e. environment is treated as a sector and not a cross-sectoral concern". Consequently, the Central Policy Economics and Pollution Environment Department of the Bank initiated the Country Assistance Strategies and the Environment Programme (CASE). The programme conducted a review of 37 CASs undertaken in 1999 and then undertook 5 "participative" case studies where they implemented a programme to mainstream the environment into the CAS development process.

21.2 Description and Evaluation of Decision-Making Context

Due to the complex organisational structure of the Bank the production of a CAS involves a variety of actors. The country director takes overall responsibility for the production of CAS and its content (including the environment). The Country Director reports to the Regional Management Team and the Bank Main Board. In some major countries the Country Director may be resident in country. More often than not they are located in Washington and have responsibility for several countries. CASs are also subject to review by the Departments' Vice President and the main board of the Bank.

In addition, the Bank develops bank-wide sector strategies e.g. transport or environment. The sectors identified in a CAS will refer to these sector strategies. Although the CASE programme was a Policy, Economics and Pollution Environment Department initiative (a central Department of the Bank) normally the regional economics teams would provide the majority of the environmental input to a CAS. This reflects the fact that CASs draw upon regional technical expertise before utilising central expertise.

The CASE team provided their own funding to undertake the case studies, which negated any financial burden to the core CAS team. However, it was found that this resulted in the core CAS team drawing upon what was effectively a free resource more than was intended. The CASE methodology concentrated on collating existing information on the environment as the tight time scales involved precluded the undertaking of independent analytical work.

Table 21.1 Environmental Integration Background

Political Leadership	No. The CAS team is led by a country economist. Environmental involvement is limited to consulting the regional environment team and outside help from the Bank's central environment department.
Institutional Commitment	Yes, some. The central environment department of the Bank is committed to mainstreaming the Environment. The Bank structure also includes regional environmental departments. The CAS process includes consultation with the client country and civil society which would include the participation of the Ministry of the Environment and environmental NGOs.

Co-ordination	No. There is no equivalent of poverty reduction strategies which seek to co-ordinate efforts on poverty reduction. However, the CDF will offer some co-ordination on environmental integration and the NEAPs prepared in the early 1990s do provide information on the environment as a discret sector.
Communication Reporting	Yes & No. The World Bank has produced a report on the state of environmental integration within CAS. Within the production of a CAS there is no formal reporting on environmental integration.
Guidance Training	Yes. The CASE pilot is being written up into a short guidance document to be distributed to country teams. A seminar is to be planned at the Bank on the findings of the CASE programme. And a training course is being developed for regional environmental and interested non-environmental staff on environmental integration into the CAS process.
Awareness Raising	Yes, some. The CASE programme has been publicised on the world wide web.
Targets/Objectives/ Indicators	No. Although the CASE programme has recommended the use of indicators as they are potentially useful and are easy to collect as relevant ones already exist. However they are rarely used at the moment.
Appraisal/ Assessment	No. There is no formal SEA of the CAS as of yet. Although the CASE programme included aspects of SEA such as the use of a base line survey to inform recommendations.
Instruments	Yes. Use of economic instruments to help protect and enhance the environment are common in CAS, especially where a significant proportion of the country's economy is dependent on natural resources (for example, tourism).
National/Local Sustainability	No. Links to Agenda 21 may be made on an ad hoc basis. No guidance as of yet.
Allocation of Spending	N/A
Monitoring/ Auditing	No.

21.3 Description of Decision-Making Bodies and Stakeholders

Actors taking part in decision-making process

The Country Director will appoint a Task Manager who is generally a country economist. A budget is assigned for analytical work and travel to that Country. CASs are designed to create ownership of the client country and as such an extensive consultation exercise is undertaken with the national government and civil society in the form of NGOs. Detailed reviews are undertaken of key sectors identified at the outset. Sectors may include energy, transport infrastructure and environment. Environmental people will be brought in to advise, but will not necessarily form the core CAS team. There is no systematic methodology for identifying the key sectors.

Mechanisms of communication

Both vertical and horizontal communication occurs, CASs must be approved by the departmental Vice President and the main board of the Bank. Both sectoral strategies and

regional strategies will be consulted when developing the CAS. The CAS is published in the form of a report.

21.4 Description of SEA Procedure

The CASE programme aim was to identify a framework for ensuring that CASs integrated environmental issues within the decision-making process. The methodology involved a series of steps to:

- Identify the environmental challenges
- Outline the underlying causes
- And highlight the economic outcomes that were likely to be impacted on by adverse environmental impacts.

The objectives of the framework were to provide structured information to country teams, government officials and other stakeholders, engaging bank staff and other non-bank stakeholders in discussions on environmental issues and drawing attention to the linkages between the environment and development. Figure 21.1 outlines the CASE methodology that was applied to 5 Case studies including Azerbaijan, Dominican Republic, Zambia, Tunisia and Pakistan.

1. Phase One: identification of key issues
   - Develop partnership between case study team and country team
   - Stocktaking of available documents on environment and economic development from the Bank, government, global organisations, NGOs and academia
   - Identify key environmental concerns, underlying causes, proposed policies and institutional constraints
   - Identify environmental indicators for case study country
2. Phase Two: Produce analytical matrix
   - Present information in an organised manner to country team
3. Phase Three: Set priorities
   - Travel to the country to discuss with Government, NGOs and Academia
   - Discuss with regional environmental development Team
   - Link information to CAS analytical matrix to proposed economic activities identified by the Bank and the Country

Figure 21.1 CASE Methodology

The key tool within CASE is the analytical matrix (Figure 21.2). It structures the information concerning different sectors of the environment in columns against environmental issues in rows. The result is a summary of issues, identification of driving forces, identification of links between environmental issues and macro, sectoral and project level actions. A section of the Azerbaijan matrix structure is reproduced below for indicative purposes only. The sectors of environment that are identified across the top vary from country to country whereas the environmental issues remain the same.

	Natural Resources Management			Pollution Control		
	Agriculture	Oil	Caspian Sea	Fresh Water	Air	Soil
Current Issues						
Driving forces -Population growth -Poverty -Inequality						
Macro policies -Impacts						
Sector policies -Impacts						
Projects/Programmes -Impacts						
Environment/resources Institutional issues						

Figure 21.2 Analytical Matrix

The methodology recognised the resource constraints involved in the production of a CAS and the baseline environmental survey was based upon existing documents. National Environmental Action Plans (NEAPS) were found to be an extremely useful starting point as were country environmental strategy papers where they exist. However, NEAPS are at least 5 years old now and were never popular with the client countries as they were an imposed condition on countries seeking loans. The time frame also precluded the use of tools such as GIS and cost benefit assessment even though the CASE team would have liked to have used them. Use was made of decision trees to help develop the analytical matrix. The analytical matrix does include projects and programmes ensuring that there is horizontal integration throughout the CASE process.

Table 21.2 Environmental Assessment Components

Objectives Led	No.
Integration	No. CASE was undertaken by a separate team as a parallel process that fed into the CAS at a later stage. The public participation does not occur until phase 3 in the CASE methodology and the *ad hoc* scoping stage is based upon secondary documentary evidence.
Alternatives /Options	No.
Backcasting (Visioning)	No.
Environmental Statement	Yes. Not used to assess the impacts but used to make recommendations.
Methodologies	Subjective: Decision Trees and Indicators.

Participation	Yes. In a scoping role.
Time-Scales	Every three years, each time looking at a five year time scale.
Sustainability Impacts	No: but the Bank would like to look at sustainability issues and consider longer term consequences on resource use. Integration is regarded as important by the Bank, but if extra resources were available then an investigation of sustainability issues would be useful.
Significance	No. There is no impact evaluation.
Non Technical Summary	Yes
Monitoring	N/A

21.5 Summary and Commentary on Effectiveness of Integration

CASE is a pilot programme which adopted a learning by doing approach. Five country case studies were undertaken and the outcomes of the programme will be used to develop guidance. The participatory research approach is common within multilateral donor organisations. One of the key findings was that environmental issues were integrated most effectively when a direct link to economic performance was made. For example, if over exploitation of natural resources eroded their tourism potential then the potential loss of revenue due to declining numbers of visitors concentrated minds. The Dominican Republic case study illustrated this. The Banks' approach to environmental integration is unsurprisingly closely linked to economic development. This is reflected in the CASE methodology (Figure 21.2) where the analytical matrix is primarily linked to the consequences on proposed economic activities rather than the consequences of proposed economic activities evaluated for their likely consequences on the environment.

The impacts on macro policies and poverty are assessed using the analytical matrix. However, environmental impacts are not dealt with explicitly in the same way. Instead the analytical matrix as a whole draws a picture of environmental consequences. The CASE methodology fulfils some of the roles of an SEA: there is a (non-formalised) scooping stage where a literature review and consultation is undertaken. A baseline survey in the form of "key issues" is undertaken and recommendations much like mitigation strategies are proposed. However, it is the formal assessment stage that is missing. Hamilton (2000, pers. comm), suggests that the methodology is "moderately successful" at integrating environmental concerns. There were examples of environmental issues that were included in the CAS that would not have been without the CASE programme. Furthermore, the CASE programme is being used to develop guidance and training for key stakeholders in the CAS process.

Indicators have been identified as a crucial tool in the development of mainstreaming the environment within CAS. The CASE methodology advocates the use of comparative indicators that would allow monitoring of environmental criteria and an evaluation of performance against other countries in the same region. The CASE methodology uses soft tools such as decision trees to organise environmental information and allow a more systematic approach to its inclusion in the CAS process.

Conclusions of the report on the CASE programme include a call for a regular programme environmental assessment, along the lines of poverty assessment or public expenditure reviews, that is tied in with the CAS cycle. This recommendation is not surprising for two reasons. Firstly, CASE operates like a partial SEA undertaking some of the associated tasks. Secondly, the World Bank has a great deal of experience of successfully implementing SEA. Indeed it is more surprising that a discreet environmental assessment stage was not included in the original CASE methodology. In addition, Hamilton (2000, pers. comm) indicated that there was a need "for a more strategic process to analyse environmental issues including environmental indicators and regular review and monitoring".

Due to resource constraints CASE uses secondary information and subjective methodologies to integrate the environment into the CAS process. The baseline survey of the environment is used directly to identify issues and constraints and inform the development of recommendations. Stakeholder consultation plays an important role in the CASE process although its significance is reduced as it occurs late in the process. Guidance and training on its use is being developed, as is a form of SEA to implement within CAS. Overall the process is regarded as moderately successful at mainstreaming the environment.

Bibliography

Balfors, B., Faith-Ell, C. and Schmidtbauer, J. (1998) 'Examples of SEA application in Sweden' in 'EIA and its application for policies, plans and programmes in Sweden, Finland, Iceland and Norway', TemaNord:568.

Bannon, M and Cassidy, A. (1999) Implementing Ireland's Strategy for Sustainable Development. Paper presented at the conference on Sustainable Development and Spatial Planning in the European Territory, Athens, 13 – 16 May 1999.

Bernergaard, K (1999) 'Strategic environmental assessment of regional planning in the Stockholm region'.

Brookes, A. (2000) Environment Agency. Personal Communication.

Boelens, R. (2000) Marine Institute. Personal Communication.

Canadian Environmental Assessment Agency (2000) Strategic Environmental Assessment, The 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, Guidelines for Implementing the Cabinet Directive, CEAA.

Cantebury Regional Council (1998) Regional Policy Statement

Casserly, N. (2000) Department of Environment and Local Government. Personal Communication.

Casserly, N. (2000) Eco-Audit of Policies Workshop. Department of Environment and Local Government.

Comhar (2000) Comments on cross-cutting issues relating to the Operational Programmes, 2000-2006.

Cuesta Romero, J. (2000) "¿Energía Eólica? Sí, pero…", *Diario de Burgos, 31 March 2000.*

Department of the Environment Circular 18/84, Crown Land and Crown Development

Department of the Environment (1999) Environment and Economy: Policy Instruments and Policy Implementation. Presentation to OECD in relation to the environmental performance review of Ireland.

Department of the Environment and Local Government (Undated) Annex A: Eco-Audit of Policies – Guidelines

Department of the Environment, Transport and the Regions (1998), Policy Appraisal and the Environment – Policy Guidance.
[On-Line] http://www.environment.detr.gov.uk/appraisal/index.htm

Department of Finance National Sustainable Development Plan 2000-2006, Chapter 13.

Department of Finance National Development Plan 2000 – 2006 Chapter 13, page 220.

DETR (2000a) Greening Government 2nd Annual Report of the Green Ministers Committee. Sustainable Development Unit, DETR, London.

DETR (2000b) Sustainability Appraisal of Regional Planning Guidance. HMSO, London.

Devuyst, D., van Wijngaarden, T. and Hens, L. (2000) Implementation of SEA in Flanders: Attitudes of key stakeholders and a user-friendly methodology. *Environmental Impact Assessment Review*, Vol. 20 (2000) 65-83.

Dolman, E. (2000) Ministry of Defence Estates Agency. Personal Communication.

Elling, B. (Undated) 'Note on Strategic environmental assessment as integrated part of the national planning process'

Elling, B. (2000): Integration of strategic environmental assessment into regional spatial planning, Impact Assessment and Project Appraisal 18(3), September 2000, here: table 1 on page 234

Environment Agency (2000), Strategic Environmental Appraisal of the Government's Strategic Defence Review, *Focus*, p 17, September 2000.

Environmental Audit Committee (1999) 6th Report Greening Government Initiatives. HMSO, London.

Environmental Audit Committee (1998) Report on the Greening Government Initiative. HMSO, London.

Environmental Management Act (1993). Section 4.6(3).

Environmental Management Act (1993). Section 4.2.

European Commission DGVII Transport (1999) Manual on SEA of Transport Infrastructure Plans. Netherlands.

European Commission (1997) The Portuguese National Development Plan 1994-1999, in European Commission Case Studies on Strategic Environmental Assessment, Final Report, Volume 2. European Commission DG XI, February 1997.

Gow, L.J.A (1995) "Implementing Sustainability: New Zealand's Experience with Its Resource Management Act" Speech by Lindsay Gow: Acting Secretary, Ministry of the Environment

Gspaltl, P. (2000) Environmental Authority Graz. Personal Communication.

Hamblin, P. (2000) Council for the Protection of Rural England. Personal Communication.

Hamilton, K. (2000) Team Leader, CASE pilot studies, World Bank. Personal Communication.

House of Commons. [Online]
WWW.parliament.uk/commons.selcom/eahome.htmEAC/

Hübler, Riehl, Winkler-Kühlken (1995): Umweltverträglichkeit in der Bauleitplanung – Praxisprobleme und Lösungsvorschläge, 2 Bände (EIA in the Urban Land-Use Planning, two volumes); im Auftrag des Umweltbundesamtes, gefördert vom Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit und der Kommission der Europäischen Gemeinschaften, GD XI, Institut für Stadtforschung und Strukturpolitik GmbH, Berlin.

Ingérop (1999) Optimisation de la méthodologie d'évaluation stratégique environnementale développée par les services du Ministère de l'Equipement, des Transports et du Logement pour les réseaux d'infrastructures multimodales. Page 8.

Jaap de Boer, J. (2000) Ministry of Housing, Spatial Planning and the Environment. Personal Communication.

Landsplan Nyt, no. 25, November 1998 – Information on report on national land spatial planning, 1999 – motivation to participation +on line information (50 contributions)

Landsplan Nyt, no. 27, April, 1999 – Proposal for report 'Local Identity and New Challenges'

Landsplan nyt, no. 30, March 2000.

Leitão, A (2000) National Council for the Environment and Sustainable Development. Personal Communication.

van der Loo, I. (1999). Environmental Policy Plan. On-line: http://www.tradeport.org/ts/countries/netherlands/mrr/mark0039.html.

Marine Institute (Undated) Chapter Six: Overall Assessment – Preface. On-line: http://www.marine.ie/qsr/chap6.html-ssi

Marine Institute (1999) Ireland's Marine and Coastal Areas and Adjacent Seas – An environmental assessment. Chapter 6 page 366.

Marine Institute (1999) Quality Status Report 1999 Ireland: Experience gained – lessons learned.

Ministry of Energy and Environment, National Spatial Planning Department (1998) Report on National Land Use Planning 1999 – synopsis – 3 July 1998.

Ministry of Energy and Environment, National Spatial Planning Department (Undated) Strategic Environmental Assessment of Report on National Land Use Planning – SEA as part of elaboration process – 29 September.

Ministry of Energy and Environment, National Spatial Planning Department 1998) Strategic Environmental Assessment – the process, 10. November 1998.

Ministry of Environment (Ministry de l'amenagement du territoire et de l'environnment) (1999) Evaluation Envrionnmentale Des Politiques – lois, politiques et propositions souvernementales. France.

Ministry for the Environment (2000) Making a Difference for the Environment: Recent Achievements and Plans for 200/2001

Ministry of the Environment (2000a) What are the Options? A Guide to Suing Section 32 of the Resource Management Act

Ministry for the Environment (1999) Annual Survey of Local Authorities 1998/99

Ministry for the Environment (1998) Learning to Care for Our Environment: A National Strategy for Environmental Education

Ministry for Foreign Affairs – Department for International Development Co-operation: Project documentation and evaluation – Blue Series 1999:1-1999:5.

Ministry of Housing, Spatial Planning and the Environment (Undated). Main Strands of Policy.
[On-line] http://www.minvrom.nl/minvrom/pagina.html?id=1&goto=1308

Ministry of Housing, Spatial Development and the Environment (Undated). NEPP3.
[On-line] http://www.minvrom.nl/minvrom/pagina.html?id=1397.

Ministry of Housing, Spatial Planning and the Environment, Ministry of Economic Affairs, Ministry of Agriculture, Nature Management and Fisheries, Ministry of Transport, Public Works and Water Management, Ministry of Finance and Ministry of Foreign Affairs (1998). National Environmental Policy Plan 3 – The Summary, Page 55.

Ministry of Defence (MoD), (2000a), Strategic Environmental Appraisal of the Strategic Defence Review – Summary Report, July 2000.

Ministry of Defence (MoD), (2000b), The Management of Safety and Environmental Protection in the Ministry of Defence – A Policy Statement by the Secretary of State for Defence (Rt. Hon. Geoffrey Hoon, MP), 7 July 2000.

Ministry of Defence (MoD), (2000c), Strategic Environmental Appraisal of the Strategic Defence Review - Main Report (and HLEA reports), July 2000 (on CD-ROM).

Netherlands Embassy (Undated). The Netherlands National Environmental Policy Plan. On-line: http://www.netherlands-embassy.org/c_envnmp.html.

Newby, L. (2000) Yorkshire and Humberside RDA. Personal Communication.

OSPAR Commission (Undated) Environmental Assessment and Monitoring Committee (ASMO).
On-line: http://www….rg/eng/html/organisation/asmo.htm

OSPAR Commission (Undated). Terms of Reference for the Environmental Assessment and Monitoring Committee (ASMO).
On-line: http://www….rg/eng/html/organisation/asmo.htm

Parliament of Ireland (1999) Seanad Debates Official Report 22-6-99. On-line: htttp://www.irlgov.ie:80/debates-99/s22jun99/sect2./htm.

Reid, F. (2000) Clerk to the Environmental Audit Committee, House of Common. Personal Communication.

Red de Autoridades Ambientales (1999) Evaluación Ambiental Estratégica de la Programación Estructural Período 2000-2006, Guía Práctica. (Strategic Environmental Assessment of the Structural Programming Period 2000-2006, Practical Guide).

Resource Renewal Institute (1999). The Netherlands – Case Study: The Netherlands National Environmental Policy Plan.
On-line: http://www.rri.org/envatlas/europe/netherlands/nl-index.html.

Resource Renewal Institute (Undated). Netherlands: Policy Implementation. On-line: http://www.rri.org/envatlas/europe/netherlands/nl-inst.html.

Resource Renewal Institute Website – Best Practice Case Studies
http://www.rri.org/envatlas/oceania/new-zealand/nz-prin.html

Richardson, J. (1999) Strategic Environmental Assessment of Trunk Roads and Programmes. PhD Thesis, Imperial College, London University.

Ross, A. (2000) Greening Government – Tales from the New Sustainability Watchdog. *Journal of Environmental Law*, Vol. 12, No 2, pp 175 – 196, Oxford University Press.

Schneider, R. (2000), city development and planning authority of the City of Erlangen. Personal Communication.

Scruggs, P. (1993) A Summary of the Dutch NEPP. On-line: http://www.rri.org/gparchive/nepp.html.

Smith, S. P. and Sheate, W. R. (2001) Sustainability Appraisal of Regional Planning Guidance and Regional Economic Strategies: An Assessment. Journal of Environmental Planning and Management (In Press).

Sustainable Urban Water Management, www.misra-research.se/program/21.

Swedish EPA, 'Environmental Quality Objective: High quality groundwater'. [On-line] http://www.internat.environ.se/documents/objective/objdoc/obj02

Swedish Municipality(Osteraker), 'Questions and answers on drinking water quality'. [On-line] http://www.osteraker.se/miljo/vatten.

Thematic Evaluation on Environment and Development in Finnish Development Co-operation – Policy Issues and General Management. Ministry of Foreign Affair, Detainment for International Development Co-operation, Helsinki, Finland, 1999.

Thematic Evaluation on Environment and Development in Finnish Development Co-operation. Sub-components: Concessional Credits; Meteorology; Multilateral Development; Evaluation of Finland's Support to the Asian Institute of Technology; Nicaragua; Nepal; Forestry

Thérivel and Partidario (1996): The Practice of Strategic Environmental Assessment, here: Chapter 10, pp. 115-129, Rumble and Thérivel: SEA of Hertfordshire County Council's Structure Plan, Earthscan London.

United Nations Commission on Sustainable Development, 5th, 6th and 7th sessions see: www.un.org/esa/agenda21/natlinfo/countr/newzea/inst.htm

United Nations (Undated) Sustainable Development – Natural Resource Aspects of Sustainable Development in Ireland.
[On-line] http://www.un.org/esa/agenda21/natlinfo/countr/ireland/natur.htm.

Verheem, R. (2000) EIA Commission. Personal Communication.

World Bank (2000) Country Assistance Strategies and the Environment. World Bank, Washington.

Yorkshire Forward (2000) Sustainability Appraisal of the Draft Regional Planning Guidance for Yorkshire and the Humber. Yorkshire Forward, Leeds.

Zagorianakos, E. (2001) A Case Study on Policy SEA: The Eco-Audit of the Irish National Development Plan 2000 – 2006. Journal of Environmental Assessment Policy and Management (In Press).

Zoeteman, K. (1998) Green planning in the Netherlands – The Government Point of View. On-line: http://rri.org/conf98/zoeteman.html.

IC Consultants Ltd
47 Prince's Gate
Exhibition Road
London SW7 2QA

Telephone 020 7594 6565
Facsimile 020 7594 6570
E-mail ICON@ic.ac.uk
Web icconsultants.co.uk