SEA and Integration of the Environment into Strategic Decision-Making

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

Volume 1

Main Report

Prepared by:

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

Babtie Allott & Lomax, UK
Jeremy Richardson

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 1 (Main Report)

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

Authors:

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

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 1 (Main Report)

List of Tables

List of Figures

Glossary

Audit
A term used variously to mean: a review or inventory, e.g. as part of an environmental management system; checking whether predictions made in EIA/SEA came about in practice; reviewing the implementation and/or effectiveness of a process or institution (as in Audit Committee or independent auditor); or in a specific case in Ireland, as a term for environmental appraisal (as in Eco-audit).

Cost Benefit Analysis (or Assessment) (CBA)
The assessment of costs and benefits of a proposal (policy, plan, programme or project), using monetary values and discounts over time.

Environmental Assessment
A generic term for all forms of environmental assessment: policy, plan, programme or project (i.e. EIA or SEA).

Environmental Appraisal
Usually used to refer to a form of environmental assessment that is derived from policy analysis and policy appraisal, and usually less scientifically based than 'traditional' EIA.

Environmental Impact Assessment (EIA)
A public process by which the likely effects of a project on the environment are identified, assessed and then taken into account by the consenting authority in the decision-making process.

Environmental Management Systems (EMS)
A generic term for specific management systems such as Eco-Management and Auditing System (EMAS) in the EU and the internationally recognised ISO 14001.

Environmental Integration
In the context of this research this refers to the inclusions of environmental considerations in policy, plan and programme decision-making in all sectors.

Integrated Environmental Assessment (IEA)
Generally a technical computer modelling-based assessment process incorporating scientific modelling with economics, e.g. for air pollution abatement strategies.

Local Agenda 21 (LA21)
A participatory community process, which came out of the Rio Earth Summit in 1992, as part of making Agenda 21 relevant at the local level. It is driven particularly by local authorities.

NGO
Non-governmental organisation (e.g. voluntary environmental organisations, charities, pressure groups).

Public Participation
The term public participation implies a process where the public and stakeholders are fully engaged in, and able to influence, the decision-making process, more than being merely consulted.

Objectives led
In the context of SEA, the term implies either that the environment is incorporated into the policy objectives, or that the assessment is guided by a set of environmental objectives, which may not be the same as those of the policy it is assessing.

Sustainability Appraisal (SA)
This is a form of strategic assessment that integrates environment, social and economic parameters, compared with SEA which deals primarily with environment.

Scoping
The process of determining the parameters, boundaries and key issues to be address by an environmental assessment.

Screening
The process of deciding whether a policy, plan, programme or project should be subject to a form of environmental assessment (SEA or EIA), i.e. whether it is likely to have significant effects on the environment.

Strategic Environmental Assessment (SEA)
A strategic form of EIA, that may be derived from EIA or from policy appraisal, but essentially intended to identify and assess the likely significant effects of a policy, plan or programme on the environment, the results of which are then taken into account in the decision-making process.

Executive Summary

Aims and Objectives

The aim of the research was to evaluate the role of Strategic Environmental Assessment (SEA) in integrating the environment into strategic decision-making. The focus was on the way in which environmental considerations are included in policy, plan and programme decision-making in all sectors (including e.g. health, transport, education, defence etc), rather than simply raising the profile of environmental policies within government and institutional agendas. In particular, a key objective was to evaluate processes, institutions, communication mechanisms and tools within the policy making process. It was not explicitly addressing the wider integration associated with sustainable development, i.e. integration of environment, social and economic factors. However, sustainable development mechanisms are often driven by the need to integrate the *environment* into decision-making processes, and so there is an important link between the two types of integration. Particularly pertinent to this research has been the political agreement on 16 March 2001 of the forthcoming SEA Directive. The outcomes of this research are likely to inform implementation strategies for the Directive over the next three years.

The report is structured in three main parts: the Main Report (Volume 1), the Country Reports (Volume 2) and the Case Study Reports (Volume 3). The research consisted of a review of relevant literature, and of SEA and integration practice in all EU countries, as well as some non-EU countries and international financing institutions. This was followed by detailed analysis of 20 case studies, from which key success factors and recommendations were drawn. Three key models of processes, institutions and communication mechanisms utilised for environmental integration are identified (with examples) below:

Constitutional/Legislative Model
- Specific legal provisions for environmental protection and integration in a country's constitution
- 'Consolidated' Legislation (use of generic or framework cross-sectoral legislation)
- Legislation that imposes duties on public bodies

Process/Strategy Model
(co-ordinated, government-led strategy for environmental integration)
- Greening Government
- Sustainable Development Strategies
- Local Agenda 21
- Land Use Planning

Ad hoc Institutional Model
(may exist outside of a centrally co-ordinated strategy)
- Audit Committees/Independent Auditor
- Environmental Protection Agencies and Authorities
- National Commissions/Councils on Sustainable Development
- Round Tables

In reality a mixture of these elements can be found in each country studied. From the literature review and surveys carried out, a list of possible 'tools' for achieving varying degrees of integration of the environment at the policy level were identified:-

- SEA
- Strategic Environmental Analysis (SEAN)
- E-test
- Environmental Appraisal/'Audit'
- Sustainability Appraisal/Assessment
- Integrated Environmental Assessment
- Economic Tools/Instruments
- Green Accounting
- Environmental Management Systems
- Objectives, Targets and Indicators
- Environmental Monitoring and Reporting
- Public Participation, Education and Awareness Raising
- Matrices/Appraisal Tables

The tools being used tend to be those that are process/institution oriented, rather than overly technical or technological. This is not surprising, given that strategic decision-making and agenda setting is being carried out by politicians and stakeholders, rather than solely by experts. This relationship between processes and methodologies has been fundamental to this study. The fact that many of the tools being used to integrate the environment are

process/institution based emphasises the need to establish clear and effective processes rather than complex methodologies which may not, or cannot, be used in the absence of a suitable process. Process-based tools are practical for use in a fluid and politicised decision-making process, and offer the opportunity for some, if not full, integration where a method-based tool is more likely to be left on the shelf or poorly applied. Process-based tools also lend themselves more to public involvement; complex methodologies dependent upon experts do not, and can generate distrust amongst the wider community. Some methodologies may require technical input, such as measurable indicators (e.g. those for air or water quality), but in this case there is nothing inherently complex about their use.

The role of SEA and other tools in achieving integration is highly variable. At the most strategic policy levels the use of *ad hoc* institutions and processes for achieving integration appears to be more popular, at the moment, than formal procedures or tools such as SEA. SEA may be part of the bigger process, perhaps operating under the policy framework created by the institutions and processes. Politically, there have been concerns about applying SEA at the policy level for fear of constraining political choice. In some countries, forms of SEA, e.g. SEA of Bills in Scandinavian countries, have been developed, which create a framework within which subsequent SEAs and EIAs can take place ('tiering approach', see Recommendation 6). In others, more sceptical of imposing rigorous SEA on a fluid policy process, wider policy appraisal models can be seen to be favoured, including the development of sustainability appraisal (e.g. in the UK).

Case studies

Twenty detailed case studies – from EU and Non-EU countries and from one international financing institution - reflecting a range of SEA and integration mechanisms and geographical spread, were selected and are listed below: -

Austria: Local Agenda 21 Graz (2000).
Austria: SEA of Land Use Plan of Municipality of Weiz (Styria) (1999).
Canada: Framework for SEA of Trade Negotiations (1999).
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 (2000).
Ireland: Marine & Coastal Areas and Adjacent Seas (1999) – part of North Atlantic assessment under OSPAR Convention.
Ireland: Eco-Audits (Appraisals) of: Pilot Eco-audit of National Development Plan 2000 – 2006 (2000).
Netherlands: National Environmental Policy Plan 3 (1998).
New Zealand: Canterbury Regional Council – Local Environmental Management Strategies and Stakeholders (2000).
Portugal: National Council for the Environment and Sustainable Development (1999).
Slovak Republic: Land-Use Plan Bratislava (2000).
Spain: Regional Development Plan 2000-2006 (Objective 1) (2000).
Spain: Castilla y Leon: SEA for Wind Power Regional Plan (1999).
Sweden: Drinking Water Supply for the Stockholm Region (1997).
UK: Greening Government: Environmental Audit Committee and Green Ministers (2000).
UK: Yorkshire Forward Sustainability Appraisal (1999).
UK: Strategic Defence Review (2000).
World Bank: Country Assistance Strategies and The Environment Programme.

These enabled the identification of four broad models of SEA that embrace environmental integration and SEA's role within it (see Figure 1 below):-

- **EIA-inspired SEA:** originating from ecological and/or resource management disciplines, and includes a base line assessment of preferred option or alternative locations. There is more emphasis on technical methodologies and a necessity to undergo a systematic assessment procedure. This form of SEA is generally used at the programme level and often is an incremental development from EIA.

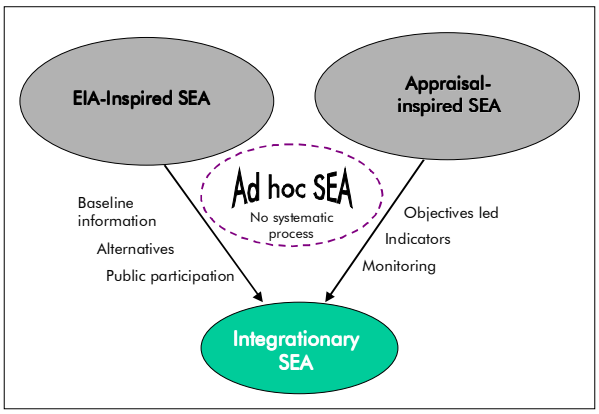
- **Policy analysis/appraisal-inspired SEA:** originating from political science. Impacts of a preferred option are appraised against objectives, there is no baseline survey, and often little or no direct public participation. This model is often seen within regional and

spatial land use planning, and sustainability appraisal.

- **Integrationary SEA:** focuses on an objectives led process, and is a combination of the first two models. Impacts are appraised against a combination of an environmental baseline survey and objectives. The process begins early in the development of the policy and investigates alternative means of achieving those objectives. Public participation is normally an important component of the process. This form of SEA is often found where there is a strong national environmental legislation and policy framework.

- **Ad hoc mechanisms of environmental integration:** a collection of independent institutions and processes such as roundtables, audit committees and state of the environment reports. These tools often fulfil similar roles found within elements of an SEA. However, there is no systematic process providing discrete hooks into the developing policy.

Figure 1: The Relationship between Different Forms of SEA



This classification focuses on the origins of the SEA types that exist today. The research has, consequently, suggested that SEA can be seen to originate from two main disciplines: natural resource management and political science. The research also indicates that in terms of integration it is a hybrid of both these schools that forms the optimum SEA process. Figure 1 demonstrates diagrammatically the relationship between the four SEA types discussed previously, showing how EIA-inspired SEA and Policy/Plan Appraisal SEA combine to form Integrationary SEA. Ad hoc SEA exists separately, but within this model, as elements of both EIA-inspired and Appraisal-SEA help inform the institutions and processes seen within it.

From the overall analysis the following themes relating to SEA's role in environmental integration were identified:

- **Advocacy:** SEA can act as an advocate for the environment within policy and plan making.
- **Awareness Raising:** SEA also plays a more subtle environmental awareness-raising role.
- **Co-ordination and Communication:** Tiered SEA creates essential links between the different levels in the policy and planning hierarchy, and similarly within different institutions and processes.
- **Guidance and Training:** SEA can be the catalyst to guidance and training.
- **Information:** SEA allows more informed decisions to be made regarding trade-offs between environmental, economic and social factors.
- **Accountability:** SEA creates an auditable trail, which helps increase transparency and accountability.
- **Catalyst for Further Mainstreaming Initiatives:** SEA can act as a catalyst for further institutional and organisational changes.
- **Education and Social Learning:** SEA facilitates decision-makers, practitioners and stakeholders in learning from the process and each other.
- **Selection of the Most Sustainable Option:** consideration of alternatives allows the earlier integration of environment consideration within policy making.
- **Monitoring and Quality Control:** SEA provides the baseline information and prediction of impacts necessary to undertake monitoring and ensure effective quality control.

From these themes the following key success factors were identified:-

Key Success Factors

- SEA needs to be a transparent process that allows environmental considerations to be highlighted.
- Successful SEA assesses the impacts of alternative options rather than option alternatives.

- Widespread involvement of stakeholders, policy makers and the wider public is crucial for successful SEA.
- SEA needs to be a systematic process involving different institutions in a common reporting framework
- The most successful SEA generally occurs where there is a legal obligation to require it.
- Successful SEA involves wide use and dissemination of baseline and assessment information.
- An independent body that can review or audit the assessment process and content is needed to provide sufficient incentive to carry out SEA and accountability.
- Successful SEAs have been the start rather than the end of a process of integration, and may be a catalyst for developing further guidance and training.
- Successful SEA is an active, participatory and educational process for all parties, in that stakeholders are able to influence the decision-maker, and the decision-maker is able to raise awareness of the strategic dimensions of the policy, plan or programme.
- Successful SEA is a continuing and iterative process in which the decision-maker is constantly being updated with the consequences of the implementation of the policy.
- Successful SEA depends on high quality and rigorous application of assessment methodologies, whether qualitative, quantitative or both.

Discussion and Conclusions

A discrete process designed to inform the policy-making process of the environmental consequences at key points is both desirable and feasible. SEA should begin at the outset of the policy-making process and run parallel to it throughout, covering alternative options for achieving the objectives set out in both the policy and the SEA. Integrating the environment implicitly rather than explicitly within the policy-making process may lead to trade-offs being made earlier on in a less transparent way. Although not essential, the most 'effective' SEA (in terms of immediate SEA outcomes) occurs when there is a legal obligation to undertake it. However, at the highest policy levels it is most important that the legal obligation should be prescriptive in terms of outcomes, rather than in procedure and methodology. Once the requirement for an SEA is established the next most important requirement is guidance. This guidance should advocate a flexible process that draws particularly on existing environmental integration institutions and mechanisms. The guidance should advocate the extensive use of public participation, but framed in such a way that it is a two-way process providing information to all parties, a wider education role and influencing the decision-making process. Finally, training will also increase the long-term effectiveness of the SEA.

The SEA Directive will provide a systematic process for integrating the environment into decision-making at the plan and programme level in EU Member States. This study has shown that SEA can also provide a means of integrating the environment into higher policy level decision-making, through EIA-inspired SEA or through policy appraisal-inspired SEA, or in an ideal form of 'integrationary' SEA which combines key elements of both. Some of these elements are already in existence at the policy level and could be more effectively linked and supplemented to create more systematic integrationary SEA processes. In reality, there already exists considerable experience of a wide variety of integration mechanisms that can be drawn upon. As the SEA Directive is implemented in Member States at the plan and programme level, so attention will be drawn to policy level decision-making, to ensure that the environment is effectively integrated at an early enough stage. The SEA Directive may also, therefore, act as catalyst to SEA at the policy level as well as formally requiring SEA at the plan and programme levels.

Recommendations

The recommendations below - to Member State governments, the European Commission, agencies, institutions and stakeholders - on how SEA can be best integrated into policy making, are grouped into the following six themes:

- Applying SEA at the most strategic levels of decision-making (1 to 5)
- Promoting effectiveness of integration (6 to 8)
- Public and stakeholder participation (9 to 10)
- SEA and Sustainability Appraisal (11 to 13)
- Undertaking SEA (14 to 17, and
- Guidance and training (18-20)

Recommendations

Applying SEA at the most strategic levels of decision-making

1. EIA-inspired or policy appraisal-inspired SEA, even if only partial, can provide a useful starting point for subsequent development into more extensive and integrationary SEA.

SEA is evolutionary rather than revolutionary; it takes time for a significant change in approach to be achieved. Policy SEA needs to be as systematic as possible, but needs to be flexible and dynamic, reflecting more closely the nature of strategic policy and decision-making.

2. A flexible form of SEA is needed at policy-making levels, and existing strategic processes should be examined for compatibility to the SEA process.

There may be elements of SEA already in place. Member States should examine existing processes explicitly in terms of SEA, to encourage a more co-ordinated approach to integration and other SEA elements to be developed. SEA may be revealed as less demanding and radical than first thought. For example, a State of the Environment report might equate to baseline information; a Sustainable Development Roundtable might perform the equivalent of a scoping process.

3. SEA should be promoted as a means of changing attitudes and culture within organisations and government departments.

SEA offers an opportunity to bring about a real change of attitude and culture at strategic levels within an organisation or government department, by acting as a catalyst to integrating the environment. While SEA can help bring about change, in some countries policy making has traditionally been beyond the public domain, and so a change in culture may be needed before SEA can have a further catalytic role.

4. The scope of SEA should not be unduly constrained, otherwise it will not be strictly strategic.

Options, alternatives and questions of need are a prerequisite for a *strategic* assessment. SEA should start as early as possible in the policy and decision-making process and alternatives considered appropriate to the level of decision-making.

5. Effort should be concentrated on establishing appropriate communication processes and networks, and putting in place engines for change.

SEA at the most strategic levels is about process more than methodology, more about change of culture and attitude than about immediate outcomes. At the policy level SEA becomes focused on communication and participation with stakeholders.

Promoting effectiveness of integration

6. A tiered approach to SEA should be adopted to help promote the integration of the environment into decision-making.

In the absence of tiering, communication processes become broken or interrupted, creating dissonance with other levels of decision-making. Tiering also provides a means and an incentive for auditing and monitoring.

7. Auditing, monitoring and quality control should be an integral component of any SEA process.

Since the policy process is often cyclical, feedback from the SEA to and throughout the policy process is essential if integration is to be made effective (e.g. through the use of indicators). The consequences of strategic decisions can have long term implications at all subsequent lower levels of decision making. In addition, parallel scientific evaluation of the SEA can support the development of best practice models and methodologies. Resources will need to be allocated for these purposes, and some form of independent body is recommended (e.g. an audit committee).

8. Effectiveness of integration should be measured in the long term, rather than simply by short-term output and outcome performance measures.

Untangling effectiveness is difficult, as there are invariably a multitude of factors associated with the implementation of policy decisions. The full benefits of an SEA process may only be recognised some time after a culture change has been initiated.

Public and stakeholder participation

9. Good SEA needs transparent and participatory processes and decisions.

The development and application of appropriate methods of engaging stakeholders and the public at strategic levels can be difficult, but nonetheless essential. Particular effort is required to identify the 'affected public'. NGOs may be able to act as a proxy for the wider public, but it should not be assumed they can in all cases. It may be necessary to establish an organised and/or qualified public for the purpose. Reference should be made to the Aarhus Convention for minimum requirements. Transparency requires decisions to be explained, e.g. as to how the SEA informed the decision.

10. Stakeholders and the public should be encouraged to think as strategically as possible, to help avoid the 'hijacking' of the SEA by more parochial views.

Many stakeholders may be more interested in the detail of implementation on the ground (i.e. subsequent lower level decision-making, in the form of projects and site-specific details). This can force the SEA process to attempt to address solutions rather than problems and at a level of detail that is inappropriate for a truly strategic consideration of options.

SEA and Sustainability Appraisal

11. SEA and sustainability appraisal should be seen as complementary and not substitutes for each other.

Care is needed to ensure the environment is not diminished in decision-making as a consequence of taking a more integrated approach through sustainability appraisal (SA). SEA and SA have different objectives and should be conducted together or their processes integrated to ensure the environment does not lose its explicit recognition in decision-making. Trade-offs should be transparent and the responsibility of the decision-making process, rather than the tool being used.

12. SEA can strengthen wider sustainability appraisal where it brings baseline information together with objectives led assessment.

SEA can help ground a wider sustainability appraisal in the real world through the evaluation against baseline data as well as more abstract objectives. SEA offers an opportunity to ensure that the environment is integrated into strategic decision-making *explicitly*.

13. The reasons for including certain socio-economic impacts, and to what extent, within SEA should be made explicit.

It may be appropriate to include in SEA those socio-economic impacts that are associated with or are a consequence of environmental impacts and which otherwise may not feature in decision-making (e.g. noise is a direct environmental impact, but its effects on house prices might be regarded as a secondary, socio-economic effect). This is important to help foster a better understanding and definition of the boundaries between SEA and sustainability appraisal.

Undertaking SEA

14. There should be a named, senior individual responsible for the co-ordination and delivery of any SEA and also a named individual responsible for the communication of any SEA process.

It is important to provide the necessary leadership and strategic perspective on the whole process. Communication may be focused on another individual, but a single contact point is essential. An open and transparent process can help create new networks and enable effective communication between parties and individuals. The use of the Internet and web pages should become standard practice for disseminating information relating to the SEA.

15. Emphasis needs to be placed on 'building the right team' of experts in any SEA or wider appraisal.

This becomes especially important the wider the appraisal. Having, for example, social, economic, health impact, and public participation professionals in a team, as well as environmental experts, becomes particularly important in sustainability appraisal. Encouraging interdisciplinary working can be a challenge in itself.

16. Greater effort is needed to improve the quality of baseline information against which policies and options can be assessed.

This can be achieved, for example, through the development of indicators and the production of State of the Environment reports at all levels - national, regional and local, and through developing improved consistency in data collection and GIS systems. Lack of data consistency can be particularly problematic in the case of transboundary impacts, at whatever level. GIS can aid strategic thinking and so help avoid the diversion of the SEA to less strategic levels.

17. Lessons should be learned from the implementation of the SEA Directive at plan and programme level for wider application to policies.

The fact that the SEA Directive does not yet apply to policies should not be a reason for not applying SEA to more strategic policy making levels. The application of SEA at plan and programme level as a result of the SEA Directive is likely to expose policies to greater scrutiny, just as EIA has exposed decisions made at plan and programme level. Legislation at the EU level is likely to be desirable in the future to encourage a more systematic approach to SEA of policies.

Guidance and training

18. Guidance and training is essential to take forward SEA.

It cannot be assumed that personnel will have the capacity or capabilities to do so otherwise. It is also an important component of wider awareness raising and communication strategies. This is likely to require the commitment of new resources, in staff and financial terms.

19. Mechanisms need to be developed within government departments and organisations to foster and retain 'institutional memory'.

Institutional memory on environmental integration and SEA is hampered by the frequent change of personnel typical of government institutions. Guidance and training is essential in this respect, through induction and ongoing programmes, so as not to rely unduly on the special competencies of individuals.

20. Guidance should be developed by the European Commission for carrying out SEA at the most strategic policy levels.

Guidance similar to that developed for plan SEA in advance of the SEA Directive is needed. The evidence suggests that where guidance exists, along with the political will to use it, it can be effective in promoting the integration of the environment into the most strategic decision-making.

Chapter 1

Introduction

1.1 Structure of the Report

This is the Final Report for European Commission contract No. B4-3040/99/136634/MAR/B4, "Strategic Environmental Assessment and Integration of the Environment into Strategic Decision-Making. It has been prepared by **Imperial College Consultants Ltd (ICON)**[1] in collaboration with: -

- **CESAM, University of Aarhus, Denmark**
- **Babtie Allott & Lomax, UK**
- **Wissenschaftsladen Graz/Austrian Institute for the Development of Environmental Assessment (ANIDEA) Austria**
- **ECA, Spain**

The aim of the study was to identify and describe the decision making context and key factors for effective implementation of SEA as an instrument for integrating the environment into strategic decision making.

The primary objectives of the study were to:
- identify and describe the main models of institutions, organisational structure and mechanisms of communication;
- identify tools and methodologies for integrating the environment into strategic decision making and their relationship to SEA;
- identify key success factors and make recommendations for the effective implementation of SEA and for integrating the environment into decision-making.

The work was carried out during 2000 over a 12-month period. The Final Report represents a compilation of results from two Interim Reports (1 & 2) reporting the work of the following tasks from the Terms of Reference (see Appendix 1): -

Task 1
- Overview of institutions, organisations and communication processes involved in the integration of the environment into strategic decision-making (European and other models).

1 Specifically, the Environmental Policy and Management Group (EPMG) of the TH Huxley School of Environment, Earth Sciences and Engineering, Imperial College of Science, Technology and Medicine, University of London.

Task 2

- Overview of methodologies and tools for integration and analysis of their inter-relation with SEA (European and other models).

Task 3

Case studies (European and international) undertaken of: -

- The application of SEA within different institutional and organisational models and with different communication processes, and how SEA has contributed to the integration of the environment in strategic decision making; and
- The application of SEA together with other methods and tools for integration and the environment, whether there were overlaps or whether the different tools and methods were used in complementary ways.

Task 4

- Based on the outcome of the previous tasks, key success factors and practical recommendations were identified on how to integrate SEA into the decision-making processes and move towards environmental integration.

The research has involved a large number of inter-dependent activities, and although the tasks above appear linear in sequence, in practice there was considerable iteration between the different tasks. Information has been gathered through extensive literature reviews and through surveys and interviews with relevant contacts in government departments and other institutions. Throughout the research there have been regular reviews of the work by an independent review panel, consisting of Sally Russell (Consultant, UK), William Kennedy (European Bank for Reconstruction and Development, EBRD, UK), Paul Hamblin (Council for the Protection of Rural England, CPRE, UK) and Ulf Kjellerup (University of Roskilde, Denmark). This was in addition to the work of the European Commission's Steering Committee, which included two meetings in Brussels.

The report is structured in three volumes: -
Volume 1 - Main Report
Volume 2 - Country Reports
Volume 3 - Case Study Reports.

This volume (Volume 1) is the Main Report. After this introduction, the next chapter (Chapter 2) provides a literature-based background to the research, and the study approach and research methodology is described. This covers the way in which the country reviews (Tasks 1 and 2) and case studies (Task 3) were carried out, including the case study selection criteria. Chapter 3 considers the processes, institutions and tools used in integrating the environment into strategic decision making. This includes elements from the literature and from the country reviews (reported in full in Volume 2). Chapter 4 provides the core analysis and discussion of the first two tasks, and Chapter 5 the analysis and discussion of the 20 case studies undertaken (analysed in detail in Volume 3). Chapter 6 provides conclusions from this analysis and identifies the key success factors for integrating

the environment into strategic decision-making, and in particular the role that SEA can play. This leads to the final list of recommendations to the European Commission, governments, agencies, institutions and stakeholders on how SEA can be best integrated into policy making.

Volume 2 consists of reviews and analysis of the current status of SEA and processes, institutions and tools for integration of the environment into strategic decision-making for all EU member states and for a number of non-EU countries and financial institutions.

Volume 3 comprises the detailed case study reports and analyses for each of the 20 case studies of SEA and/or integration undertaken in EU and non-EU countries and institutions.

It is important to emphasise that this research has been concerned with strategic decision-making. While reference is made to environmental impact assessment (EIA) at the project level, it is primarily in the context of its relationship to higher decision-making levels and lessons learned from EIA that might be applicable at other decision levels. When terms such as "highest decision level" or "most strategic decision-making" are used these are referring to policy making and policy level decision making. Particularly pertinent to this research has been the political agreement on 16 March 2001 of the forthcoming SEA Directive for plans and programmes. The research was conducted during the negotiations of the draft SEA Directive. Consequently it was neither appropriate nor possible to evaluate the status of SEA in the countries or case studies analysed against the changing requirements of the then draft SEA Directive. The outcomes of this research, although focused particularly towards policy level decision-making, are nevertheless likely to inform implementation strategies for the Directive over the next three years.

Chapter 2

Background and Approach

2.1 Background to the Project

The partners carrying out this research very much welcomed its commissioning, not least because it begins to address the deficit of work on SEA and the policy process, while building upon the large body of work already undertaken by the Commission[2] on SEA methodologies and best practice. A solid understanding of the institutions, their organisational structures and mechanisms of communication is vital to raise awareness of the optimum opportunity within the policy making process for the effective implementation of SEA. It is also essential if the forthcoming SEA Directive is to be implemented effectively within strategic decision-making in the Member States.

Integrating the environment into strategic decision-making is an essential pre-requisite for moving towards sustainable development. Furthermore, it moves beyond the traditional idea of environmental policy being a separate and discrete area of policy. The World Commission of the Environment and Development Report 'Our Common Future,' (1987:313) stated that:

> "The ability to choose policy paths that are sustainable requires that the ecological dimensions of policy be considered at the same time as the economic, trade, energy, agricultural, industrial and other dimensions on the same agendas and in the same national and international institutions"

Blowers (1993) states that it is easy to dismiss the concept of sustainable development as too vague to be useful. However, despite the debate over its definition, sustainable development has become a fundamental aim of public policy. The debate over its definition is part of the wider problem of applying the concept on the ground. The major difficulties include the large degree of uncertainty over impacts, the often contradictory nature of competing interests and objectives of any specific action, and the lack of knowledge regarding the sensitivity of the baseline environment (van Latesteijen and Scoonenboom, 1996). Nevertheless, it is generally widely accepted that the concept of integrating the environment into policy making (as outlined in Article 130r of the Single European Act (1987)) is a key principle of moving towards sustainable development (Wilkinson, 1998). This was highlighted by the commitment by the Heads of Government Cardiff Summit in June 1998 to the integration of the environment into all EU policies (CEC, 1998). The Cardiff Summit set off a wider process of developing strategies for environmental

2 See for example the Manual of SEA of Transport Infrastructure Plans (CEC, 1999a), SEA and the Transport Sector (CEC, 2000), and SEA of Transport Corridors (CEC, 2001a); Lee and Hughes (1996), Kleinschmidt and Wagner (1998).

integration for the various formations of the Council of Ministers. This was followed up by the Vienna Summit in December 1998, the 'Best Practices' workshop held in Bonn in 1999 (CEC, 1999b), and the meetings of the European Council in Cologne in June 1999 and Helsinki in 2000. There is, however, still some way to go to completing this process, and the forthcoming Göteborg Summit in June 2001 should perhaps be seen as a milestone in this process and not its conclusion, as requested at Helsinki (Fergusson et al, 2001). The various sectoral 'Cardiff Process' strategies could also be mirrored in the Member States as a means of further developing a harmonised reporting mechanism across the EU and opportunities for trans-national learning (Kraemer, 2001).

SEA is an important tool for integrating the environment into decision-making (Sadler and Verheem, 1996) and as such offers a promising approach to helping to achieve the goal of sustainable development (Partidario, 1996). This recognition of the importance of SEA is confirmed by the call for its implementation at both the international and European levels[3]. Furthermore, SEA seeks to inform the decision-maker of the degree of uncertainty over impacts, as well as the level of consistency in objectives and the sensitivity of the baseline. It also provides a process in which a wider group of people can be involved in decision-making.

However, SEA has not yet been widely accepted. Brown and Therivel (2000), state that there are considerable difficulties in moving from a useful concept to widespread and enduring practice. They suggest that SEA must be seen as an overarching concept and as a family of tools. In addition the emphasis should be placed on the SEA process and not on the product (the report). They conclude that practitioners will need a thorough understanding of how policy is formulated in order to be able to implement SEA effectively.

The reasons for the slow uptake of SEA are complex and numerous, but include:

- Confusion over its definition, and role;
- The way it has been implemented historically and the failure to develop decision-making processes within which it can occur;
- Concern that SEA is inappropriate in countries with less formal means of decision-making;
- The perception of additional associated costs in time and money;
- Inertia to change within institutions, organisations and sectors to its adoption;
- The perception that there remains a lack of methodologies that can predict impacts with some certainty.

There are several definitions of SEA stemming from the many ideas over its role and purpose. It is probable that the reasons behind this confusion over its role are because of its potential as a stepping stone to sustainable development. IEEP (1994) classified SEA into four categories:

3 International and European levels including Agenda 21, the Biodiversity Convention, the Fifth Environmental Action Programme, the Habitats Directive and the Structural Funds, and the forthcoming SEA Directive.

- The *sustainability model*; a full environmental objectives-led SEA of different options based upon the assessment of options against environmental objectives (see, for example, Sheate, 1992);
- The *classical model*; not environmental objectives-led, but a more traditional form of assessment akin to EIA, where the assessment is linked to existing decision-making, e.g. the point at which a plan is approved or adopted;
- *Cost benefit analysis (CBA) model*; not a proper form of SEA, but CBA techniques may be used to take greater account of environmental factors as part of traditional policy appraisal (see, for example, DoE, 1991);
- *Incremental model*; involves the application of project level EIA in a broader context. For example, an SEA of an entire road corridor rather than relying on several individual EIAs where physical infrastructure improvements are planned on the ground.

As SEA's role as an assessment tool evolves the IEEP classification is becoming less valuable. The research suggests that SEA's application is expanding as its value as a catalyst for integrating the environment into the policy making process at a much earlier stage is being realised. In addition, the development of a "Sustainability Assessment" tool risks confusing the "sustainability approach" to SEA outlined above with actual sustainability assessment.

Verheem and Tonk (2000) recognise there are several approaches to SEA that have been developed recently that differ in openness, scope, intensity and duration. They suggest that differences originate from the specific context in which they are used, and that although design for purpose helps effectiveness, the sheer variety of approaches can be confusing and impede the take up of SEA.

Other classifications of SEA include the description of the range of forms of SEA currently observed (e.g. Partidario, 1999), such as Strategic EA, Policy Impact Assessment, Regional EA, Sectoral EA, Environmental Overview, and Programmatic EA, although as with any classification systems, there are inevitable overlaps.

The definition of SEA used by this study combines the essential parts of two well-known definitions of SEA (Therivel et al 1992; Sadler and Verheem, 1996):

> SEA is a systematic, decision aiding procedure for evaluating the likely significant environmental effects of options throughout the policy plan or programme development process, beginning at the earliest opportunity, including a written report and the involvement of the public throughout the process.

The role of SEA is dictated by how and where it fits into the decision-making process. SEA can fulfil two broad roles. Firstly, it can appraise the performance of polices, plans or programmes (PPP) that have already been created; or secondly, one can recognise the fact that SEA is a systematic process that enables it to develop, assess, amend, implement, monitor and review a PPP. This distinction will depend upon the nature of the decision-making process and the communication between different actors related to both the PPP

process and the SEA procedure. Related to this is the idea of 'tiering' or tailoring the SEA and its methodologies to the level in the policy and planning hierarchy.

Kornov and Thissen (2000) also recognise the duality of SEA, identifying SEA as either having an advocative role, where its primary purpose is to raise the profile of the environment, or an integrative role where environment, social and economic considerations are combined in a more objective way.

This study is aimed at better understanding the complex relationships occurring at strategic decision levels where environmental integration is being attempted. While SEA has an important role to play in integration it also needs to be seen in relation to other means for improving the early consideration of the environment in policy and decision-making, including specific mechanisms that have been developed for furthering sustainable development.

At this point, it should be emphasised that the focus of this research project has been on the integration of *the environment* into strategic decision-making. By this it is meant that environmental considerations are included in all sectors of policy and decision-making, including health, transport, education, defence etc, rather than simply raising the profile of environmental policies within government and institutional agendas. Nor is the research addressing the wider integration associated with sustainable development, i.e. integration of environment, social and economic factors. However, sustainable development mechanisms are often driven by the need to integrate the environment into decision-making processes from which it had previously been absent, and so there is an important link between the two types of integration.

SEA and the policy process

The definition of policy making is "actions of Government" (Allison, 1975). Environmental Policy is defined as "public policy concerned with governing the relationships between people and the environment" (McCormick, 1991). Political decision-making in the past has tended to treat the environment as a separate and discrete area of policy making. In addition, until recently policy making has been in response to environmental damage or harm reaching unacceptable levels, otherwise known as a reactive approach. The World Commission on Environment and Development (WCED, 1987) report, Our Common Future, pointed to the use of terms like reforestation and rehabilitation, which have been prevalent within post war policy making.

In the late 1960s a new wave of concern regarding the environment led to "significant changes in environmental discourse, institutions and policies" (Owens and Rayner, 1999). This has resulted in a movement away from the piecemeal and ad hoc approach to environmental policy making, to a more proactive cross sectoral approach where environmental considerations are integrated into all policy areas. This change in direction in policy making can be categorised under the broad term of 'Ecological Modernisation' (Hajer, 1995). Weale (in Owen & Rayner, 1999) states that this was not a simple

configuration of institutions, but a reorganisation in the policy process of exploration and development. Ecological modernisation was a response to a realisation that the environment is complex and interlinked; that environmental stresses and patterns of development are interlinked; and that environmental and economic factors are linked to social and political cause and effect processes (WCED, 1987). Solutions should be sought within existing systems, and do not necessarily require complete re-structuring of institutions, as proposed by more radical environmentalists.

A UK Government report on Cross Cutting Issues in Public Policy (DETR, 2000) identified two stages of policy development in the UK.

- Input driven system based around professional knowledge sets and a loose relationship between centre and locality (what Hajer (1995) calls scientific based policy making); and
- Tighter central control with a focus on efficiency and throughput. However, the emphasis is still on evidence based policy making.

The report then identifies a new paradigm that focuses on outcomes and effectiveness within policy making. This third stage of development in the policy process reflects the ecological modernisation approach. Scientific based policy making is limited in the fact that scientific proof is dependent upon observing measurable effects. This can only allow a reactive approach to policy making. Whereas, policy making based on outcomes and effectiveness, with its cross sectoral sustainability targets and indicators, is compatible with a proactive approach to environmental policy making, which tends to reject the idea of environmental considerations in policy as a discrete specialised area rather than integrated in all policy making.

The Dutch approach to environmental policy making contrasts with the UK's past insistence on scientific proof. Traditionally Dutch policy making was a rule and permit approach. Crises such as the acid rain debate underlined the limitations to this and the need for a more integrated approach. In the Netherlands the ecological modernisation approach was more readily accepted than in the UK. However, Hajer (1995) points to a gap between the discourse and the effectiveness of the policy approach. The discourse centred on the catastrophic consequences of acid rain whereas the approach was a less radical tweaking of the current prevailing regulatory system.

Clearly, policy making in Europe is reacting to the increasing realisation of the scale of environment and development linkages. Traditional piecemeal and reactive approaches that place the environment in a box have been found inadequate. The precautionary principle (i.e. taking action even without absolute scientific proof) has taken centre stage. Examples such as the acid rain debate and now global warming have highlighted a need for a different more proactive, preventive and integrated approach. The ecological modernisation paradigm is a reflection of this. This study on the role of SEA in the integration of the environment into public policy making is part of this changing approach to policy making.

The literature review has shown that strategies for integration may take a variety of forms along an integration continuum (Wilkinson, 1998). Wilkinson identifies three forms of environmental integration strategy:

- *'top-down integration'*: binding frameworks constraining the actions of sectoral departments, often led by a strong environment ministry reviewing and regulating the environmental performance of other departments;

- *'bottom-up integration'*: where integration occurs independently within sectoral departments through a gradual process and where the environment ministry can only persuade or influence;

- *'intermediate steps'*: where sectoral departments face increasing constraint as they are required to apply 'integrative mechanisms' such as SEA or environmental auditing and reporting.

Wilkinson suggests that top-down represents 'strong' integration, whereas bottom-up, being incremental and piecemeal, represents a 'soft' form of integration. However, although apparently binding frameworks may be in place, in practice it is often difficult to regard these as resulting in strong integration. The potential is there, but strong integration requires effective implementation, and sufficient political will to make it happen. Conversely, a very pro-active individual sectoral department may be able to achieve stronger forms of integration than had there been a top-down framework in place. Consequently, it has not been felt that this top-down/bottom-up classification to integration is necessarily very helpful in this study, not least because the extremes of the spectrum are relatively rare. In reality, most governments are following the 'intermediate steps' route, which may at times also be reactive to external influences (e.g. the EU, international agreements). Also, the term 'bottom-up' can be confusing as it is often used in the context of something being influenced from the 'grass-roots' or stakeholders.

From the literature review of the developing policy agenda it is clear that theoretically SEA has a role to play in taking forward the ecological modernisation agenda. It is able to take detailed information from different aspects of the environment and bring it together in an accessible form for the decision-maker. How effectively SEA can do this will depend on a number of factors, for example, the policy context, such as whether there is multiple or single actor decision-making (Kornov and Thissen, 2000), and the nature of SEA. Noble (2000) argues that there is often a fundamental misunderstanding of the term 'strategic' and that in fact many forms of so-called SEA are not strategic at all. He suggests that objectives setting and the nature of the alternatives used are critical. For example, a truly strategic consideration of alternatives requires the assessment of *alternative options*, i.e. alternatives for meeting the objectives set, such as alternative modes of transport. This is in contrast to a consideration of *option alternatives*, e.g. alternative locations or routes that might occur in an EIA of a road scheme where the option of a road has already been decided.

One of the key benefits of SEA is that it can provide a framework within which more strategic participation of the public and stakeholders can take place. Indeed, enhancing public participation is a goal of the EU and can be seen in plans to ratify the Aarhus Convention. Partnership, participation and the involvement of civil society can be seen as the basis for a sustainable political culture (European Consultative Forum on the Environment and Sustainable Development, 2000). The stages of SEA provide excellent opportunities for the inclusion of participation, in order to better inform options (scoping) and the assessment of options.

2.2 Study Approach and Research Methodology

The research was undertaken by a consortium of partners, specifically:-

Imperial College Consultants Ltd, comprising the following members of the Environmental Policy and Management Group (EPMG) of the TH Huxley School of Environment, Earth Sciences and Engineering, Imperial College of Science, Technology and Medicine, University of London:-

- William Sheate (Senior Lecturer in EIA; Project Manager)
- Suzan Dagg (Research Associate in EIA),
  with additional assistance from Kelli O'Donnell and Géraldine Hure.

Babtie Allott & Lomax, UK

- Dr Jeremy Richardson (Environmental Consultant, now at Scott Wilson Consultants)
  and Peta Wolmarans (Senior Environmental Consultant)

CESAM, University of Aarhus, Denmark

- Dr Ulla Steen (Assistant Professor, now Environmental Lawyer at Niras Consulting Engineers and Planners)

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

- Ralph Aschemann (Consultant, and Director ANIDEA)

ECA, Spain

- Dr Juan Palerm (Consultant)

Responsibility for country reports and case studies was divided evenly amongst the partners. Fortnightly, on-line Internet discussion meetings, using the Netscape AOL Messenger private chat room software facilitated collaboration between the partners. This proved invaluable for effective and timely project management, continuous contact and feedback between partners, and regular monitoring of progress. There was also a three-day meeting with project partners and the review group in October 2000.

Tasks 1 and 2 Methodology

A wide range of literature sources for individual countries and international financing institutions was consulted. This included documents and official publications from government bodies, NGOs, academic literature, and internet sources. Interviews were conducted in person, face to face, or by telephone or email. In order to maintain a level of consistency in the questions asked and the analysis undertaken, simple evaluative criteria were developed and agreed amongst the partners. The integration criteria were based upon an initial review of literature on environmental integration. Key sources included the Greening Government Initiative in the UK, and the Conclusions of the German Presidency of the EC Council of Ministers on the international workshop on "Best Practice for Integration of Environmental Protection Requirements into Other Policies (Bonn, 25 & 26 May 1999). The criteria are shown respectively for integration and SEA in Box 2.1 below. These were used as a basis for devising questions to be answered in the research for each country. These then provided the basis for two analysis tables: I) Degree of Integration observed in each country/institution, and 2) Extent of SEA in each country/institution.

Box 2.1 Evaluative Criteria

Integration of The Environment

Defined as Strong / Fair / Weak integration

The following list is used to determine whether environmental integration, in a particular country, is strong, fair or weak. Strong integration should include all or most of the following points. Strong and effective integration requires clear evidence of effective implementation, not just the establishment of strong processes or institutions:-

- Political leadership (Questions: government responsibilities at highest level? Do key individuals hold environmental remits/have responsibilities? Is there a clear strategy for Sustainable Development?)
- Co-ordination (Question: committees responsible for co-ordinating different mechanisms for integration?)
- Communication/Reporting (Question: clear lines between bodies involved?)
- Guidance/Training (Question: availability of guidance on the mechanisms of integration?)
- Awareness Raising (Question: is information on integration easily available?)
- Targets/Objectives/Indicators (Question: clearly defined?)
- Monitoring/Auditing/Quality Control (Question: procedures in place?)

Definition of SEA

Full SEA (which includes <u>all</u> of the following):

- Scoping, including identification of alternative options.
- Production of environmental statement/report which includes the following – identification, analysis and assessment of likely significant effects on the environment.
- Participation and consultation, throughout the process – to include relevant authorities, the public and NGOs and Member States concerned. A minimum requirement is that documents are open for public examination.
- Taking into consideration the content of the environmental statement/report and the results of consultation during preparation and prior to the adoption of the plan/programme.
- A Non-Technical Summary that summarises the statement/report and the results of the consultation exercise.
- Monitoring.

The definition of SEA in Box 2.1 above reflects the principles contained in the working definition of SEA in section 2.1 above. Clearly there is some latitude required in determining whether full SEA is present where there is public consultation only prior to a decision or adoption, but not during scoping. Ideally there should be public participation throughout the process, but for the purposes of this research, where public involvement was present prior to the decision, SEA could be considered as meeting the criteria for 'full SEA' while recognising that this did not mean that SEA was necessarily 'effective'. This requires a fuller understanding of its actual implementation on the ground (the subject of the subsequent case studies). This also reflects the requirements of the forthcoming SEA Directive for plans and programmes (CEU, 2000, 2001), and the proposal for a Directive providing for public participation in plans and programmes (COM (2000) 839 final, CEC, 2001b).

Table 3.1 in Chapter 3 below provides an analysis of the countries studied regarding the degree of their integration of the environment into strategic decision-making. In this table a commentary box provides a critique on the areas where integration is strong or weak. Table 3.2 provides an analysis on the extent of SEA in each country, and looks at the degree of penetration of SEA into the decision-making process.

These evaluative criteria were then further developed in light of the results of the country reports and applied in the case study research, to explore more fully the inter-relationships between the integration context and any SEA or relevant components of SEA in more detail.

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 Appendix 2). This list was presented to the Steering Committee for further discussions, along with justifications for the proposed short list of 20 case studies, in accordance with Task 3 (see Table 2.1 and Appendix 3 below). The criteria for selecting the short list of case studies are 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 2.1 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 countries.

Table 2.1: Short 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				World Trade Organisation Negotiations – Canadian SEA.		
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.			Strategic Defence Review (2000).	Yorkshire Forward Sustainability Appraisal.	
World Bank	Country Assistance Strategies And The Environment Programme.					

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 email 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 Volume 3 for details of interviewees).

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 above, 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 two sets of criteria are reproduced below in Tables 2.2 and 2.3.

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 tables, diagrams and figures to be included on a case by case basis.

Table 2.2 Integration Criteria

Criteria	Evaluation
Political Leadership	Political leadership – government responsibilities at highest level? Do key individuals hold environmental remits/have responsibilities? Is there a clear strategy for Sustainable Development? (state level of commitment)
Institutional commitment	Institutional commitment – do institutions with an integration remit exist (yes/no examples)
Co-ordination	Co-ordination – committees responsible for co-ordinating different mechanisms for integration – vertical and horizontal (e.g. European and national, and health and transport)? (yes/no examples)
Communication Reporting	Communication/Reporting – clear lines between bodies involved? (Yes/no examples)
Guidance Training	Guidance/Training – availability of guidance and attendance on training courses on the mechanisms of integration? (yes/'no examples)
Awareness raising	Awareness Raising – is information on integration easily available? (yes/'no examples)
Targets/objectives/indicators	Targets/Objectives/Indicators Benchmarking– clearly defined? (yes/'no examples)
Appraisal/ Assessment	Appraisal/Assessment of emerging policies undertaken (yes/'no examples)
Instruments	Instruments of integration are in place – e.g. green taxes, public service agreements etc.
National/local sustainability	National and Local sustainability strategies (Inc LA21 in place) (yes/'no examples)
Allocation of spending	Allocation of spending includes environmental criteria (yes/'no examples)
Monitoring/ auditing	Monitoring/Auditing – Quality control procedures in place? (yes/'no examples)

Table 2.3 SEA Criteria

Criteria	Evaluation
Objectives led	Yes/No
Integration	Yes/No – Is the SEA integrated into the development, assessment, amendment and delivery of the policy or plan.
Alternatives /options	Yes/No/ only do-nothing (give examples)
Visioning	Yes/No examples
Environmental Statement	Yes/No - comment on availability to public. Is it used to assess the significance of impacts?
Methodologies	Technical/non technical - give examples
Participation	Early late/Non existent and who (examples of techniques used) (take into account tiering i.e. participation within a policy will be different to one at a programme level
Timescales	In years
Sustainability impacts	Yes/No examples
Significance	Yes/No - comment
Non Technical Summary	Yes/No - comment
Monitoring	Yes/No - comment

Chapter 3

Analysis of Countries and Institutions

3.1 Introduction

This chapter provides a summary of the analysis of the extent of SEA in each of the countries studied including all European Union (EU) Member States and some examples from Non-EU countries and leading international financing institutions (25 in total). It also includes an analysis of the degree of integration of the environment into decision-making for each of the countries and institutions studied, and the role that SEA plays in that integration. Further, more detailed analysis and referencing of key documentation can be found in Volume 2. This chapter begins with a summary of integration and the role of SEA in each country and institution. It should be emphasised that these summaries identify (in overview) what exists, not how effective the processes are. The *degree* of integration of the environment into strategic decision-making is analysed according to the evaluative criteria of Table 2.2 (Chapter 2) and summarised in Table 3.1. The *extent* of SEA is analysed using the SEA criteria of Table 2.3 (Chapter 2) and summarised in Table 3.2.

3.2 Integration and the Role of SEA in the Countries Studied

Austria

Austria, as one of the smaller EU countries, is a federal country with nine provinces. At both the federal and the provincial level there are certain legislative competencies. Despite the fact that there is not yet mandatory SEA in the Austrian legislation, it can be stated that the overall extent of integration of environmental issues into decision-making is fair and partly strong and effective. Austria has a comprehensive system of environmental reporting and environmental communication (e.g. "sustainability roundtables", councils on climate change and for sustainable development, public participation procedures e.g. in spatial planning legislation). Within the institutional context there are some "key players" dealing with integration of the environment into strategic decision-making (e.g. certain federal and provincial ministries and authorities); representatives of "social partners" (e.g. from the Chambers of Commerce and Labour) and NGOs should also be mentioned here. The National Environmental Plan (1995) acts as a comprehensive framework for Austria's environmental policy; parallel to the federal level environmental programmes for provinces or municipalities (often in a Local Agenda 21 context) can be found. The differentiated and detailed environmental legislation, eco-labelling, voluntary agreements and many other tools contribute to the fact that there is a high amount of environmental awareness.

Belgium

Understanding the extent to which SEA and the environment are integrated in Belgium is quite complex due to the number of regions involved (there are four regions in total each with different levels of power). However, it could be said that the environment is integrated to a fair extent. Each region provides its own framework for environmental integration particularly with regards to EIA, environmental management, sustainable development and Local Agenda 21. Both sustainable development and Local Agenda 21 have in recent years become priority areas in each region. A number of bodies are responsible for the implementation of sustainable development at policy level while Municipal authorities work at local level implementing Local Agenda 21. There is no mandatory SEA in Belgium, although a few voluntary SEA projects have taken place mainly in preparation for the proposed SEA directive.

Denmark

The Danish Government has adopted a number of sector action programmes on sustainable development that define quantitative and qualitative objectives and list initiatives to be carried out. In the Danish Nature and Environment Policy from 1999 the results to date were evaluated on the basis of annual state of the environment data and new initiatives to be promoted were set out. There are various systems allowing the integration of environment into decision-making at different levels of government in Denmark and the degree of decentralisation is high. The Spatial Planning Department under the Ministry of the Environment co-operates with the National Association of Local Authorities and the Association of County Counties in Denmark in encouraging counties and municipalities to undertake Local Agenda 21.

Finland

The Finnish Action for Sustainable Development was elaborated in 1995. The strategy document includes measures that vary from sectoral programmes of different ministries and governmental bodies to information campaigns of NGOs. An Action Plan on Sustainable Development with short-term definitions and proposals and long term scenarios has also been prepared. Environmental impacts shall be investigated and assessed to a sufficient degree when an authority is preparing policies on taxation, payment, and subsidies and when plans and programmes related the environment, energy, transport, industry, forestry and agriculture are prepared. A new Land Use and Building Act emphasises a more open and interactive approach to planning.

France

France has a long history of environmental policy and was the first country to introduce EIA in Europe. The environment is integrated from a fair to strong extent and mainly takes place with regards to land-use planning and the environmental appraisal of programmes. EIA, environmental regulations, planning documents, zoning plans and strategic impact assessment (SIA) all contribute to environmental integration. Environmental assessment takes place at policy level for those laws deemed to have an impact on the environment. Also, proposed laws must demonstrate that they are environmental and sustainable.

Sustainable development and Local Agenda 21 are also priority areas and a sustainable development strategy exists. Since 1990 SIA has been mandatory at policy level for proposed laws, but voluntary SIA's have taken place since the 1980s. There is also evidence that SIA is being applied to plans and programmes at a regional level. A number of government departments work together with environmental bodies/agencies to carry out missions particularly with regards to increasing the consideration of the environment in decision-making.

Germany

Germany is a federal country with 16 "Laender" and as a large EU member state it has been one of the driving forces regarding environmental issues. However, it lost this leadership after the reunification in 1990. Germany has detailed, comprehensive and differentiated environmental legislation, although, as yet there is no mandatory SEA. But a mandatory requirement for plan and programme-making activities of public authorities regulates that all relevant concerns (including the environmental ones) have to be considered and weighted against each other. A large number of commissions and councils are dealing with the integration of environmental concerns into strategic decision-making, especially at local level. Moreover there is considerable experience with Local Agenda 21. For example, environmental reporting (including environmental data), the development of environmental indicators, tiered decision-making systems e.g. within spatial and landscape planning and other measures support the task to integrate environmental issues into policy making. Due to a high amount of environmental consciousness and awareness NGOs are also to be mentioned in this context because they often play a key role by strengthening environmental integration. The overall extent of that integration task can be stated as fair and partly strong and effective.

Greece

Protection of the environment is guaranteed under Article 24 of the Constitution, and the principles for environmental protection and sustainable development are specified in its Framework Law on Environmental Protection (Law 1650) of 1986. Greece's Environmental Programme for 1994-2000 was a first major effort in promoting the principles of sustainable development. The Ministry of Environment, Physical Planning and Public Works is the main competent body on environmental matters, including sustainable development co-ordination. Greece has not yet implemented any formal integration mechanisms nor any SEA legislation, although it is currently in the process of setting up a "Committee for the Co-ordination of Government Policy on Planning and Sustainable Development" and a "National Council for Planning and Sustainable Development". At local level integration mechanisms have been implemented, especially through LA 21. SEAs are required for Regional Development Plans, as required by EU structural funds regulations, although such SEAs are limited to preparing environmental profiles; another case where SEAs are carried out is for land use planning of private development schemes (rarely implemented and, when carried out, under an EIA scheme). The degree of integration in Greece is weak at the moment.

Ireland

Environmental integration started to take place within the 1990s with the introduction of EIA regulations and integrated pollution controls. Since the development of the national sustainable development strategy, sustainability has been the key issue for government policies. It is now recognised that national development plans and operational programmes are the main areas through which integration can take place effectively. The environment is now integrated to a strong extent. A number of bodies have been established to aid the integration process at national, regional and local level, for example, a Green Network of government departments. An environmental appraisal is required for development plans under EU structural fund regulations. Also, although there is no mandatory SEA in Ireland, a Eco-Audit (environmental appraisal technique) has been applied to government policies on a trial basis and also on the latest national development plan. The sustainable development strategy sets out to establish a SEA system for plans and programmes within the next three years.

Italy

The National Council for the Environment and the Committee for the Implementation of the Agenda 21 are the primary instruments through which the environment is integrated in decision-making. Recently a National Sustainable Development Plan has been prepared by the Ministry of Environment and is in the process of consultations. The National Council for the Environment is a consultative body made up of representatives of regional governments and social groups. The Committee for the Implementation of the Agenda 21 is a co-ordinating body with inter-sectoral representation. However, the communication processes (vertical and horizontal) for these bodies are not clearly defined. The development of the new General Plan for Transport was the first example of integration policy where the Ministry of Environment played an important role in seeking objectives compatible with the obligations subscribed at Kyoto relative to emissions. The new Framework Law on EIA is currently under debate in parliament and contains SEA provisions; meanwhile SEA is only undertaken for Regional Development Plans under the EC structural funds regulations and for certain plans and programmes in the Valle d'Aosta Region (regional initiative). Overall, environmental integration can be described from fair to weak.

Luxembourg

Despite continued efforts it has proved difficult to obtain detailed information on environmental integration and SEA in Luxembourg from which any substantive conclusions can be drawn. Limited references indicate that land-use planning is undertaken at the national and local level and legislation exists in relation to project level EIA, although there is no requirement to carry out SEAs. Land use planning through the development of government strategies and policies are described as a mechanism of environmental integration into decision-making.

The Netherlands

The Netherlands has a long history of environmental planning, but it was the 1980s that saw the introduction of planning strategies and environmental policy plans including EIA

regulations and strategic level EIA. The environment is integrated to a strong extent. A tiered system of planning is in place with the environment being integrated throughout. National environmental policies are the main systems for integrating the environment into government policies, and in particularly laying the foundation for environmental regulations and sustainable development. All government policies are subject to a review process to assess their level of contribution to sustainable development. SEA is mandatory in the Netherlands and takes the form of an E-Test (introduced in 1995) for proposed legislation. A number of government ministries are responsible for environmental policy with a quality control system in place for the strategic assessment process. At regional level environmental integration takes place through a series of planning and environmental projects and involves a number of bodies including municipal authorities and environmental groups.

Portugal

Since 1997 the Ministry of Environment is the competent body dealing with environmental matters; it is responsible for the promotion of strategic environmental and social integration. The Directorate General for the Environment depends on the MoE and is responsible for the co-ordination and planning of initiatives in the frame of an integrated policy for the sector. No SEAs take are carried out, except for Regional Development Plans under the EC structural funds regulations, and integration occurs mainly through the National Council for the Environment and Sustainable Development (as a consultative body). Integration occurs mostly at local level, through LA21s. Overall, the degree of integration in Portugal is weak.

Spain

Spain has a pseudo-federal structure with 17 Autonomous Communities that have wide competencies in environmental policy development and implementation. At national level integration is very limited, mainly through a consultative body (which has been widely criticised, boycotted by NGOs and largely inefficient). The other mechanism is the informal Network of Environmental Authorities, with inter-sectoral representation and that has played a role mainly in establishing SEA guidance for the Regional Development Plans, falling under the EC structural funds regulations. At regional level, consultative bodies (i.e. regional Environmental Assessment Councils) also exist, and three regions have passed SEA legislation (Castilla y León, Castilla-La Mancha and the Basque Country). At local level many municipalities have established LA 21s. The degree of integration can be classified as fair in general terms.

Sweden

The Government has formulated National Environmental Quality Goals for development in Sweden within various areas and sectors. National Boards are responsible for formulation and implementation of action programmes for achieving the goals. The overall legislative framework for implementation of goals and action programmes is the Environmental Code from 1999. The Code, which is a result of a major review of environmental legislation, brings many specific laws together in one code. The Swedish Government has for a long

time put sustainable development very high on the political agenda and adopted a National Agenda 21. The Environmental Protection Agency supports Local Agenda 21 activities and local governments employ Local Agenda 21 co-ordinators.

United Kingdom

The UK has set up a strategy, namely "Greening Government", with the specific aim of the integration of environmental considerations into Government activities. As part of the strategy a form of SEA was introduced known as Policy Appraisal and the Environment (PAE). Other mechanisms within Greening Government have included setting up cross departmental bodies at the highest level, identifying individuals with responsibilities for Greening Government and setting up institutions and strategies with an environmental or sustainable development remit, including LA 21 in local authorities. However despite the fact that the institutions and mechanisms of "Greening Government" have been running for almost a decade it has not been as effective as it could have been. Moreover PAE has been the least used mechanism. SEA type processes have been introduced within regional planning (sustainability appraisal), local planning (environmental appraisal), water resources planning (SEA) and multi-modal transport planning (NATA, GOMMS & SEA). Generally SEA has been introduced through a mechanism of disseminating best practice guidance rather than specific regulations. Furthermore, land use planning SEA has tended to be non-technical where as the sectoral SEAs, such as multi-modal studies, have depended on large transportation computer models.

Non-EU Countries and Institutions

Australia

There are two levels of decision-making in Australia - Commonwealth or State level. The first main form of environmental integration is through the EIA programme. This deals mainly with project level EIA, but the national sustainable development strategy has encouraged movement towards the implementation of policy level strategic environmental assessment. The principles of sustainable development are built into the decision-making process of the Commonwealth government. At present environmental integration can be considered fair to strong. There is no mandatory SEA in Australia, but has been applied on an interjurisdictional and sectoral basis. There are nine bodies responsible for environmental decision-making.

Canada

Canada has a strong level of environmental integration and also a well-established SEA programme. Environmental assessment regulations were updated in 1992 and resulted in the creation of the Canadian environmental assessment agency responsible for administering and promoting environmental assessment policies and practices of the federal government. A comprehensive system of environmental integration takes place through the use of SEA, of which the most recent regulation was passed in 1999. SEA is mandatory for use by all federal departments and agencies in relation to government policy, programme, plan and regulatory proposals. The formulation of national

environmental policies is the responsibility of the Canadian environmental Ministry and all federal departments must prepare sustainable development plans for their operations.

Latvia

The Cabinet of Ministers accepted a National Environmental Policy Plan in 1995. In 1996 the first National Programme for EU integration was adopted and in 1997 the EC Commission accepted Latvia's National Programme for Adoption of the Aquis Communitaire. The approximation of the 70 environmental directives implies that new Latvian legislation has to be implemented within a legal system and framework that have been adopted at different times. There exist few remains from the pre-Soviet period and legislation adopted as a necessary step to market economy was adopted in the beginning of the 1990's. This latter legislation has to be renewed or amended in accordance with EC environmental legislation and principles. These activities include massive institutional and organisational changes – and lots of communication channels have to be established e.g. in the field of monitoring.

New Zealand

Environmental integration takes place to a strong extent. The Resource Management Act (RMA) 1991 forms the basis for all resource management and environmental protection laws in New Zealand and is the main form of environmental integration. The main principle behind the RMA is sustainable management. Resulting from the RMA is the government's Environmental 2010 Strategy that outlines the government's environmental goals. The government sets national environmental standards, determines national environmental policy and monitors the implementation of the RMA, whereas regional governments provide local statements of environmental policy and set the general framework for natural resources. At a national level proposed government activities which will affect the environment must consider the environmental goals in their annual budget planning process. Under the RMA EIAs are required for all regional and district policies, plans and programmes.

Norway

The Norwegian approach to integration of environment into decision-making is at central/state level to strengthen the central governments role concerning monitoring and general policy formulation. The policy objectives are made operational through a sustainable development indicators programme, which includes institutional and organisational changes and straightening. The general trend over the past decades has been to decentralise the responsibility for planning, administration and delivery of services. National environmental objectives are communicated to local authorities through formal channels but it is also facilitated through counselling and more informal networks.

Slovak Republic

The Slovak Republic is a country in transition and an EU member candidate with a centralised legislative and administrative system. Despite its progressive EIA Act (covering not only projects, but also certain plans and programmes as well as policies and legal

binding directions) there are only a few SEA experiences. Also, the extent to which the environment is integrated into strategic decision-making can be assessed as more or less weak and partly fair. Currently, the preparation of a legislative framework and policy making process regarding environmental issues is further continued in effort to approximate them to EU standards. "National Environmental Action Programmes" are being worked out at regional level to complement the "Strategy, Principles and Priorities of the State Governmental Environmental Policy". The key actor at national level is the Ministry of the Environment, supported by 38 district environmental offices, the Slovak Environment Inspection, the Slovak Environment Agency and other institutions and commissions. Regarding EIA/SEA and integration of the environment into strategic decision-making there are two research centres to mention, both located at universities in the capital Bratislava, and some ecological oriented NGOs.

USA

Environmental integration into government decision-making processes is well developed in the United States with moves towards more strategic approaches. Overall, the degree of integration can be described as strong in terms of having in place the appropriate processes and institutions, although its effectiveness is more open to question where there is lack of political will to promote it (e.g. in climate change). Environmental considerations are integrated at both Federal and State government levels. The National Environmental Policy Act 1969 (NEPA) resulted in the creation of the Executive Office of the Council on Environmental Quality (CEQ). Under NEPA Legislation all Federal actions that are likely to have significant affects on the quality of the human environment are required to include a detailed statement assessing the environmental impacts of such legislation or action. Administering NEPA legislation is the responsibility of federal agencies, who must comply with CEQ regulations. The Environmental Protection Agency and CEQ monitor actions undertaken by the federal government and the environmental assessment process. The majority of States have their own environmental assessment programmes in place.

Canadian International Development Agency (CIDA)

CIDA funded projects are subject to Canada's environmental assessment regulations under the Canadian Environmental Assessment Act. Furthermore, a recent cabinet directive now requires all Federal Government departments to undertake SEA where there are likely to be significant impacts. Accordingly, CIDA has developed its own screening criteria for SEA. CIDA has its own environmental policy stating that environmental considerations must be integrated into decision-making. Consequently, all CIDA activities are screened to ensure they include environmental considerations. In order to implement the environmental policy CIDA has set up a specialist branch (policy branch) to co-ordinate environmental integration and identified individuals in other departments responsible for carrying the policy forward. Considerable emphasis is placed on training CIDA staff in environmental assessment and also capacity building in the countries they work in.

European Bank for Reconstruction and Development (EBRD)

The EBRD, uniquely amongst multilateral lending institutions, has an environmental mandate written into its founding agreement. Consequently, EBRD has set up an environmental policy. This high level commitment to the environment is seen through the Environmental Advisory Council (ENVAC), which advises the EBRD's board on environmental issues, and CEE Bank Watch (an NGO committee that monitors the banks activities), which is invited to the AGM every year. Furthermore, country or sector strategies include environmental sections. There is a strong track record at EBRD within project level EIA, although SEA's are only carried out "as and when the need arises". This is probably a function of the fact that EBRD concentrates on public/private finance of projects rather than policies, plans and strategies like the World Bank.

World Bank

The World Bank Operational Directive 4.01 has made SEA a requirement on regional and sectoral PPPs. Furthermore, it has produced detailed guidance on how to undertake SEA through its Environmental Assessment Source Book, as well as setting up knowledge nodes on EA within different Departments in the Bank. As a result, the Bank has developed a significant body of SEA experience. However, the nature of the Bank's SEAs have until now been post hoc assessment exercises in mitigation, and are part of a past policy phase within the Bank of minimising harm to the environment. The Bank is now trying to initiate a phase of mainstreaming the environment into policy making. Accordingly, it is beginning to integrate environmental considerations at an earlier stage in the Banks activities.

3.3 Degree of Integration and Extent of SEA

Table 3.1 and 3.2 below provide a summary and analysis of the degree of integration and the extent of SEA respectively in each country and institution studied. Further analysis is provided in Chapter 4 in the overall discussion of processes, institutions and tools.

Table 3.1 Degree of Integration in countries studied

Country	Degree of Integration Commentary
Austria	The Austrian National Environment Plan (NEP, 1995) contains clearly defined objectives and proposes more than 300 measures to achieve them. Although the NEP is an engaged and comprehensive approach with the intention to serve as co-ordinated strategy for environmental integration, its real impact on policy-making is much less than expected and it plays only a minor part in the process of integration of the environment into strategic decision-making. In a number of laws environmental provisions are integrated. Moreover, the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the provincial ministries for environment deal with the task of integrating the environment in strategic decision-making. At the provincial level there are comprehensive environmental programmes with a high degree of integration, using environmental quality targets and corresponding indicators. But only a few provide for monitoring or auditing issues (e.g. LA 21 Graz, Climate Alliance for a lot of cities and municipalities). Sustainability roundtables and other communication tools as well as awareness raising methods are in place, but there is a weakness concerning guidance and training both for SEA and integration of the environment.
Belgium	Belgium has three regions each with its own framework for integration, for example the regional governments of Flanders and Wallonia have adopted regional laws as frameworks for integration. Also, each region has several bodies responsible for the environment. The overall law relating to sustainable development (SD) was adopted in 1997 (law on co-ordination of federal policy on sustainable development) at the Federal level. Under this law organisation and co-ordination of federal policy on SD takes place. There are also requirements for annual reporting on LA21 issues. Development of SD indicators is on going, but at present environmental indicators are only required for regional environmental reports. At federal level an interdepartmental Commission for SD is responsible for formulating the Federal Plan and promoting SD. There is inter-regional co-ordination amongst environment Ministers for development of SD indicators and some awareness raising takes place involving institutions and federations through workshops, seminars and news broadcasts. Training occurs only at the federal level and for civil servants. There are no provisions for monitoring or auditing.

Denmark	The Danish government has adopted a number of sector action programmes on sustainable development that define qualitative and quantitative objectives as well as listing the initiatives to be carried out. In 1999 the Minister for Environment and Energy presented the 'Danish Nature and Environment Policy' for the Parliament which includes a large number of specific objectives. This is presented every four years. Various systems allow the integration of the environment into decision making at different regulatory levels. For example, the Danish environmental legislation lays down organisational and procedural rules that ensure communication between different authorities and stakeholders. After elections the Minister for Environment and Energy has to report to Parliament on national land use planning and State of Environment Reports are elaborated. Training is part of the Agenda 21 work. There are funding opportunities for NGOs in the field of dissemination and information. Targets, objectives and indicators are specified in sector policies. Environmental indicators are being developed as parts of SEA systems within the fields of national and regional land use planning. The National Protection Board of Appeal and Environmental Protection Board of Appeal play a major role in monitoring of implementation and interpretation of environmental framework laws. The main environmental framework laws have sustainable development as a stated objective in the preamble of the laws. The degree of decentralisation is high and counties and municipalities are encouraged to prepare Local 21's. The National Spatial Planning Department has elaborated a Best Practice Guide. Over a period of 30 years strong traditions for public participation in regional and municipal planning have developed.
Finland	In 1995 Finland elaborated the Finnish Action for Sustainable Development. An action plan on Sustainable Development has also been prepared. The action plan addresses four key areas for which indicators for monitoring purposes are under development. This takes place continuously. The National Commission on Sustainable Development that has 55 members has drawn up recommendations for preparation of sectoral programmes. The Commission also co-ordinates the Action for Sustainable Development and provides recommendations on the preparation of sectoral programmes on sustainable development. Environmental impacts shall be investigated and assessed in preparation of policies as well assessment plans and programmes related to environment, energy, transport, industry, forestry and agriculture. Former central administrative boards have been changed to research and development institutions that have influence on development and progress in various sector areas. There are guidelines for use in all administrative preparation of PPPs and there is an Agenda 21 guidebook. Each year the Ministry of Finance issues a regulation requiring the investigation of environmental effects of state budget and proposed action plans. The Land Use and Building Act of January 2000 emphasises a more open and interactive approach to planning and local authorities are given more power in decision making. The Association of Finnish Local Authorities has promoted the implementation of objectives of Agenda 21 and increased awareness and responsibility for sustainable development in municipalities, organising training courses etc.

France	The main body responsible for environmental integration is the Ministry of Environment (MoE). One of the first instances of integration occurred in 1976 when the law relating to the Protection of Nature enabled the MoE to integrate environmental policy into socio-economic planning. There are also several other bodies with responsibility towards promotion and implementation of Agenda 21 with some working directly with the MoE to help increase inclusion of environmental considerations in development programmes and decision-makers. However, the extent of co-ordination amongst the various bodies is unclear and there is no evidence of guidance or training being provided. Environmental integration occurs through a number of different laws (mainly related to EIA) and a sustainable development strategy exists with LA21 being implemented. There is a requirement during the development of urban zoning plans for the provision of 'state of environment' reports. The MoE works with agencies to help increase awareness amongst decision-makers and in providing databases of up-to-data environmental information. There are no provisions for monitoring or auditing.
Germany	A federal government's proposal for a national sustainable development (SD) strategy and a national climate protection programme (comprehensive framework with clear objectives and measures to reach these) exist, both support the integration of the environment on different decision-making levels and serve as co-ordinated strategies. Key actors for integrating the environment into strategic decision-making are both the Federal Ministry of Environment, Nature Protection and Nuclear Safety and the environmental ministries of the "Laender". Environmental quality goals are in place e.g. in many cities, often connected with LA 21 plans. Various environmental concerns are integrated in numerous laws; moreover there is a proposal for a homogeneous National Environmental Code with the intention to summarise, adjust and harmonise the environmental legislation. Different reporting (e.g. certain Enquete Commissions for the Parliament), co-ordination (e.g. regular conferences of all environmental ministers of the "Laender") and awareness raising measures exist and are able to support the integration of the environment. However, since the reunification (1990) a general trend can be observed which weakens the former high priority of environmental concerns.
Greece	Greece is yet to establish formal and reliable integration mechanisms. Initial and positive steps for integration have been planned, such as the creation of the Committee for the Co-ordination of Government Policy on Planning and Sustainable Development, and a National Council for Planning and Sustainable Development. However, they are yet to be established and work would then be needed in enhancing the institutions and available documentation in order to make them most efficient. At present there are no established committees responsible for co-ordinating integration mechanisms. Communication and reporting is very weak and responsibilities are not clear, and there is no formal guidance or training. There is very little awareness raising with information on integration being very scarce and not easily obtainable. Integration targets, objectives and indicators are clearly defined, although there are no formal procedures for monitoring and auditing of integration mechanisms. SEAs only take place in three cases in Greece: (1) land use plans of private development schemes, (2) environmental profiles for the structural development plans and (3) environmental assessment of regional plans that feed into the structural planning process.

Ireland	The Irish Government recognises that sustainable development (SD) is the key to environmental integration and in 1997 developed a National Sustainable Development Strategy which provides a framework for all plans and programmes relating to SD. There are many examples of efforts being made to provide effective integration of the environment e.g. green network of government departments and a national sustainable development partnership. However, there is little evidence of guidance or training. An Environmental Action Programme was established to assist in formulation of targets and objectives and an Environment Partnership Fund was set up to promote environmental awareness at local levels. This fund was later increased to include regional and national networks. Public access to information is readily available through a government public access centre. New government proposals include environmental co-ordinating committees, monitoring committees, the use of environmental indicators and integration and appraisal of environment in national development plans and associated operational programmes.
Italy	Integration is limited to the role of a consultative body (the National Council for the Environment) and Agenda 21 (Committee for the Implementation of Agenda 21). There are no committees for the co-ordination of different integration mechanisms and there are no clear lines of communication or reporting between the bodies defined. There is no formal guidance or training on integration mechanisms and information on integration is not readily available. Integration targets, objectives and indicators are not clearly defined, although these have been defined for specific cases such as the General Plan for Transport. Also, procedures for monitoring and auditing integration mechanisms have not been defined. Although a new Framework Law on EIA is to include provisions for SEA, currently the only opportunities for strategic assessment are in the case of development of Regional Development Plans pursuant to Structural Funds and for certain plans and programmes in the Valle d'Aosta Region.
Luxembourg	Insufficient information available to make an assessment of the degree of integration.
Netherlands	National Environmental Policy Plans (NEPPs) are largely responsible for environmental integration into government policies resulting in policy changes, sustainable development strategy, environmental regulations, and identification of targets and strategies. There are four government Ministries responsible for environmental policy with the Ministry of Housing, Spatial Planning and Environment being the lead body and who is also responsible for co-ordination. The Netherlands has a tiered system of planning and there is a requirement that the environment be incorporated into each level. A number of projects involving environmental groups, industry, municipal and provincial authorities occur at regional level with the aim of integrating land-use and the environment into regional policy. Other measures include sectoral ministry plans, target group initiatives and target group management instruments. As a quality control measure the government has subsidised a Commission on EIA for the provision of advice to local authorities and the assessment of the adequacy of environmental information.

Portugal	Integration in Portugal is mainly done through the National Council for Environment and Sustainable Development, which is a consultative body. However, the main responsibility for sustainable development lies with the Ministry of Environment, who is also responsible for co-ordination of integration mechanisms, although no clear mechanisms exist. The strategy for sustainable development is detailed in the National Environmental Policy Plan. The National Council for Environment and Sustainable Development has proved to be effective in promoting changes to plans and programmes, although its effectiveness has also proved to be subject to the goodwill of decision-makers and the political climate at the time decisions are taken. Clearer mechanisms are yet to be established where decision-makers have a clearer responsibility to pursue integration. At present there are no clear lines of communication or reporting between the bodies defined, formal guidance or training on integration does not exist and information is not readily available. Integration targets, objectives and indicators are not defined and there are no monitoring and auditing procedures for integration mechanisms in place.
Spain	Integration occurs mainly through consultative bodies at national and regional levels. At national level, the Ministry of Environment is responsible for developing national environmental plans and strategies. However, it is the regional level that is of primary importance for integration in Spain. SEA only takes place at national level through the Regional Development Plan (as required by the EC) for Objective 1 regions, and in those regions where SEA legislation has been passed (Castilla y León, Castilla-La Mancha and the Basque Country). Otherwise, integration only takes place through consultative bodies (at national and regional level) and through the (unofficial) efforts of the National Network of Environmental Authorities. As there are no committees responsible for co-ordination of integration mechanisms this Network plays a key inter-sectorial integration role. Lines of communication and reporting between bodies are unclear and if any communication takes place is occurs at regional level, especially where regional SEA provisions have been passed. The above mentioned Network is also the only body to issue guidance on integration which is based on the existing EC guidance for SEA of Regional Development Plans. A little information is also made available on the Internet. Targets and objectives are not clearly defined although indicators have been developed at national level by the Network of Environmental Authorities, and others at local level (especially linked to LA21). There are no formal monitoring and auditing procedures in place.
Sweden	National Environmental Quality Goals for development in Sweden are elaborated within various areas and sectors and have been adopted by Parliament. National Boards are responsible for formulation and implementation of action programmes for achieving the goals. The overall legislative framework for implementation of goals and action programmes is the Environmental Code from 1999. The guiding principles on implementation of the Environment Code are applicable to all sectors. The government has established National Agenda 21. At the local level Agenda 21 co-ordinators arrange e.g. seminars, courses, practical counselling and this is where training takes place. Statistics Sweden is responsible for the work on indicators for sustainable development and the Environmental Protection Agency is commissioned to present a comprehensive annual report on environmental policy work in Sweden with reference to a hundred or more national objectives adopted by Parliament. Monitoring/auditing is under development, but the Environmental Protection Agency is responsible for environmental monitoring activities.

United Kingdom	"Greening Government" is a 10-year-old government strategy, with a specific remit to integrate environmental considerations into Government decision making. A cabinet level committee on the environment (ENV) as well as the presence of a Green Minister (GM) appointed in each Government department are responsible for providing leadership and co-ordination to the strategy. A Sustainable Development Unit (SDU) has been set up to provide civil servant support and co-ordination to GMs and ENV. The GMs are responsible for producing yearly departmental reports and the GM committee publishes an annual report to ENV and the Environmental Audit Committee (EAC). The SDU has published guidance on the role of green ministers and on undertaking SEAs of government policy. The civil service college is now running a course on sustainable development. The Government has undertaken a national campaign targeted at the general public to raise environmental awareness called "Going for Green". GMs are responsible for awareness raising in their departments. A sustainable Development Commission has been set up to provide a platform for key stakeholders (Business and NGOs) to engage with the Government and comment on government policy. The Government has published a set of 15 headline indicators as part of its national sustainable development strategy, which are to be monitored annually. Policies are also encouraged to include targets and indicators, although most do not. The EAC has been set up to audit national policy; and four statutory environmental agencies are responsible for monitoring pollution, biodiversity, national heritage and the landscape change on the ground. Despite this impressive strategy greening government has not been particularly successful at mainstreaming the environment. Although the institutions exist, the leadership has been lacking. It is believed that the advent of the EAC and the sustainable development targets are helping to improve the effectiveness of the strategy.
Non-EU Countries	
Australia	A federation of self-governing states and mainland territories with an overall National Strategy for Ecological Sustainable Development (NSESD) that promotes co-operative decision-making between government, industry and community groups. Sustainable Development principles are central to decision-making process. Also, a well-developed EIA programme exists with executive and administrative entities in place to administer the assessment process. An objective of NSESD is a more strategic approach to EIA and one of its main objectives emphasises clarity of application and process and community access. Co-ordination amongst state and territory levels is through an Intergovernmental Agreement. The provisions of guidance and training are not evident, as is the case with monitoring and auditing. There is also little evidence of specific targets, objectives or the use of indicators.

Canada	National environmental policy is formulated by Environment Canada, the Canadian Environment Ministry, which is also responsible for co-ordinating the development of federal policies and the actions of other departments who are required to produce sustainable development plans of their actions. Through the Green Plan of 1990 the government strove to better co-ordinate the environmental aspects of its various department. A significant action towards this goal was the amendment of the Canadian Auditor General Act that resulted in the creation of the Commissioner of the Environment and Sustainable Development. The Commissioner monitors federal governments' environmental performance. All federal departments are required to prepare sustainable development strategy and action plans. There is no evidence of any form of guidance or training and attempts to raise awareness of environmental integration.
Latvia	The Cabinet of Ministers accepted a National Environmental Policy Plan in 1995. In 1996 the first National Programme for EU integration was adopted and in 1997 the EC Commission accepted Latvia's National Programme for Adoption of the Aquis Communitaire. New environmental legislation was adopted as well as establishment of institutions and mechanisms. In the period of transition a large number of bilateral or EU funded projects were carried out with no systematic co-ordination. The Environmental Consulting and Monitoring Centre is responsible for the elaboration of an annual report on the state of the environment. There is a massive need for further capacity building and institutional strengthening. Importance of awareness raising, guidance and training has to be realised in coming years. For example, guidance on implementation of the environment into decision-making is often part of the set up of e.g. European aided projects, approximation projects often include elements of training and NGOs were started to develop by the end of the 1980s. Targets, objectives and indicators are included in the National Environmental Policy plan. In September 2000 an Environmental Protection Agency was established and is responsible for environmental monitoring.
New Zealand	The Resource Management Act (RMA) forms the basis for all resource management and environmental protection laws. Sustainable management is basis on which RMA was formed. Resulting Environment 2010 Strategy outlines broad environmental goals that include the building of an information base and the involvement of people in decision making. Implementation of RMA is monitored by central government. The central government is also responsible for setting national environmental standards and determining national environmental policy. The Ministry of Environment (MoE) advises government on environmental policy and co-ordinates different bodies including NGOs and the public, to achieve environmental management. The MoE also has a reporting function that gives it the authority to review policies of other departments. Also, environmental policy goals and indicators are used by MoE and regional authorities. There is little information on awareness raising.

Norway	The Norwegian approach to integration of environment into decision making is at central/state level to strengthen the central governments role concerning monitoring and general policy formulation. Since 1996 there has been a National Sustainable Development Policy (NSDP) and the Norwegian Constitution sets out the right for humans (present as well as future generations) to live in an environmentally sound milieu. The different sectors are made responsible for achieving environmental policy goals through demands for management by objectives and cost-effectiveness. Co-ordination of NSDP is carried out by the National Committee for Sustainable Development. With regards to reporting there is an annual White Paper on environmental policy and state of the environment. Target groups for sectoral plans are the public sector itself, including local governments, business, industry and consumers. Local governments are governed by the setting of policy objectives and follow up monitoring. Also, at local level administrations of planning and environmental issues are associated with the activities aiming the implementation of Local Agenda 21. Mechanisms for NGO participation in programmes for sustainable development were developed in the late 1980s. Awareness raising takes place on an ad hoc basis through e.g. training of local politician and citizens, and a programme that ties environmental education to development of Agenda 21. There is a sustainable development indicator programme that includes the administrative and practical set up for monitoring and evaluation of various policy areas. This is being developed in a continuous basis.
Slovak Republic	Beside the national level (Document "Strategy, Principles and Priorities of the State Governmental Environmental Policy") there are preparations for working out Environmental Action Programmes at the regional level. At present, a co-ordinated strategy with a specific remit for environmental integration is missing. Currently, co-ordination, reporting/communication and awareness raising issues are more or less weak. Although more than one hundred generally obligatory regulations are in force within the responsibility of the Slovak Ministry of the Environment (responsible for a big number of environmental issues as well as for certain landscape plans and land-use plans), the overall level of integration of the environment into strategic decision-making might be judged as poor (e.g. none LA 21 plans) or as fair taking into account the frame conditions of a country in transition. The demanding Slovak EIA Act covers the strategic level, but there is a gap between the engaged approach and the planning practice. Several SEA guidelines have been developed, but are not in official use yet. It is to be expected, that the Slovak Republic as an EU accession country will strengthen its measures towards the integration of the environment into strategic decision-making and policy-making.
USA	There is a well-developed system in place for integrating environmental concerns into governmental decision-making processes. The National Environmental Policy Act of 1969 resulted in the creation of the Executive Office of the Council on Environmental Quality (CEQ). The CEQ in conjunction with the Environmental Protection Agency monitor actions undertaken by the federal government and the environmental assessment process. Co-ordination takes place among federal agencies with some developing joint strategies to address particular issues. However, there is room for improvement in the co-ordination of the various federal and state actors towards the achievement of true strategic assessment. The Government Performance and Results Act requires strategic plans for all agencies containing longer range goals and objectives, as well as performance indicators for all government programmes.

International Financing Institutions	
CIDA	CIDA's environmental policy states that the environment must be integrated into all its activities. The Minister for International Co-operation provides the leadership to environmental integration. Environmental specialists also exist in all branches of CIDA. The Policy Branch provides support to the minister and the specialists and has overall responsibility for implementing environmental integration. The Policy Branch is responsible for awareness raising and providing guidance and training. At present they are producing a guidance manual on sustainable development. An environmental network has been set up within CIDA consisting of 40 project officers this network aids communication of problems, issues and solutions within CIDA. CIDA is committed to what they call results based management and as such objectives, targets and indicators are integrated into the policy making process. CIDA is sustainability audited along with other Government Department. Training, guidance and co-ordination are the main mechanisms of Integration.
EBRD	The EBRD, uniquely amongst multilateral lending institutions has an environmental mandate written into its founding agreement. Consequently, EBRD has set up an environmental policy. This high level commitment to the environment is seen through the ENVAC council which advises the EBRD's board on environmental issues, and CEE bank watch which is invited to the AGM every year and provides a high level auditing function (but not a detailed audit of operations). The environmental appraisal unit and a designated liaison person in each of the Banks 26 offices undertake co-ordination on environmental issues. The Bank produces an annual report, which includes environmental performance each year, which is monitored by CEE Bank Watch. All projects the bank lends to are screened for potential environmental impacts and an EIA or an SEA is then carried out according to the Banks guidelines. (SEAs are rare as the Bank mainly funds projects rather than plans and programmes. All staff are trained on EBRDs environmental procedures Furthermore, country or sector strategies include environmental sections. The Bank relies on creating high level responsibility for the environment, staff training, published guidelines, environmental appraisal, and using NGOs and experts to review their work as key integration mechanisms.
World Bank	The Bank has created a central environment department to co-ordinate and develop environmental policy. The Bank has also passed an operational Directive outlining the need for SEA. Environmental Divisions have also been introduced to all of the four regional technical divisions. Guidance in the form of the Environmental Assessment Source Book has been published and a EA knowledge nodes have been set up to disseminate best practice within the Bank and a dedicated internal web site has also been launched. 20 Experts in Environmental Assessment have also been identified. The Bank is entering a new policy phase where it is attempting to integrate the environment into strategic decision-making. The Country Assistant Strategies and the Environment, where they aim to consider the environment when setting out the Banks lending strategy for a country, are good examples of this.

Table 3.2: Extent of SEA in countries studied

Country	Commentary on SEA
Austria	***SEA not a legal requirement***. Progress towards environmental integration at strategic level. Examples include the right of the environmental Ombudsman in the province of Styria to comment on all laws that are likely to have environmental effects and to propose alternatives.
Belgium	***SEA not a legal requirement***. Main progress towards SEA being carried out in region of Flanders: Current research project into "Best Available Practice" approach to SEA; proposals to introduce environmental assessment of plans and programmes into present EIA Decree; on-going voluntary SEA of transport plan. In the past voluntary SEAs have also been conducted in the Wallonia region.
Denmark	***SEA a legal requirement*** for: Bills and government proposals. Ministerial guidelines on SEA in place since 1995. No public participation in assessment procedure although chance to participate in preparation of Bill during customary consultation process under Danish legislation. State Budget proposals are assessed for environmental impacts in selected areas. Voluntary SEA of National Land Use Plan carried out. Also research and voluntary SEA of County and Municipal plans.
Finland	***SEA a legal requirement*** for: State action plans and economic strategies; policies on taxation, payment and subsidies; plans and programmes relating to environment, energy, transport, industry, forestry and agriculture; Committee reports – here assessment of environment, social, administrative and economic impacts is required; Government proposals. Guidelines in place since 1999.
France	***SEA a legal requirement*** at policy level for proposed laws and also at regional levels for Master and Zoning plans. Voluntary SEAs have taken place since 1980s in areas of land use planning. SEA methodology recently developed for transport infrastructure and applied to plans and programmes at regional level.
Germany	***SEA not a legal requirement***. Spatial and sectoral planning procedures have made provision towards SEA particularly with regards to landscape planning and zoning/building planning.
Greece	***SEA not a legal requirement***. SEA applied on voluntary basis, although in very limited form, in the areas of land-use planning, development plans and regional plans. There is a requirement to undertake environmental assessments of regional development plans with regards to EU Structural Fund regulations. Documents from these environmental assessments are not publicly available.
Ireland	***SEA not a legal requirement***. National development plans require an environmental assessment as a result of requirements under EU Structural Fund regulations. Recent government proposals for Eco-Auditing (environmental appraisal) of policies. Pilot Eco-Audits commenced June 1999. Under the Sustainable Development: A Strategy for Ireland a proposal exists for the development of a SEA system within three years
Italy	***SEA not a legal requirement***. A new framework Law on EIA, currently under debate, makes provision for SEA. Environmental assessments are carried out under requirements of EU Structural Fund regulations for regional development plans and for certain plans and programmes in the Valle d'Aosta Region. Guidelines on environmental assessment in relation to structural funds are available from the Ministry of Environment.

Luxembourg	***SEA not a legal requirement***. Insufficient information available to make a full assessment of the status of SEA.
Netherlands	***SEA a legal requirement***. E-Tests (environmental tests) applied to existing and proposed legislation, policy plans and regulations. Current assessments underway include an inventory of policy areas at national level and an E-Test of the 5th national spatial plan. Strategic level EIA applied to decision relating to site selection and strategic planning. Voluntary SEA methodology for application at most strategic levels developed in 1995 (SEAN).
Portugal	***SEA not a legal requirement***. Regional development plans require an environmental assessment under EU structural fund regulations.
Spain	***SEA a legal requirement*** at regional level in the communities of Castilla-La Mancha, Castilla y León and the Basque Country. Other regions include certain PPPs within the list of activities that require EIA. Environmental assessments occur during the preparation of regional development plans under EU Structural Fund regulations.
Sweden	***SEA a legal requirement***. EIAs included in Government Bills and other proposals of comprehensive decision-making. Progress underway to include EIAs at early stage of political process under the Planning and Building Act. Research project also taking place on SEA case studies.
United Kingdom	***SEA not a legal requirement***. However, environmental appraisals of development plans are required under an administrative procedure with government guidance and are being extended to the regional planning level. Guidance on environmental appraisal of polices has also been published but few examples of its use exist to date, although there is growing pressure to use it more often. Forms of SEA are also carried out on water resources strategies and multi-modal studies. Detailed guidance on SEA of multi-modal transport studies is soon to be published by the Government.
Non-EU Countries	
Australia	***SEA not a legal requirement***. The National Strategy for Ecological Sustainable Development (NSESD) includes a strategic approach to EIA and has been applied on an inter-jurisdictional and sectoral basis. For example, the NSESD has been applied at national level for strategies relating to forests, waste management and biodiversity.
Canada	***SEA a legal requirement***. Ministers at federal level are required to conduct a SEA on proposed policies, plans and programmes. Departments and other agencies are encouraged to do the same. Public concern or review of potential environmental consequences may initiate a SEA. SEA guidelines exist.
Latvia	***SEA a legal requirement*** for Territorial planning. The Law on Environmental Impact Assessment (in 1998 it replaced the Law on State Ecological Expertise) 1999 includes territorial planning under the definition of proposed activities that are subject to assessment of environmental impacts. This part of the EIA requirements has not yet been enforced. The law on EIA exempts plans of strategy, action plans, projects of national importance and development programmes from environmental assessment. However, it states that such plans must include a section providing information on impacts on the environment of the project in question.

New Zealand	***SEA a legal requirement***. The Resource Management Act (RMA) requires EIA for all regional and district policies, plans and programmes. At a national level executives from all government departments should consider environmental goals in annual budget planning processes. Ministry of Environment can review policies of other departments that have potential for significant environmental impact.
Norway	***SEA a legal requirement***. Since 1995 an environmental assessment is required for all new legislation and policy decisions. The administrative, economic and environmental effects must be assessed. Voluntary SEAs occur at regional and local levels within a number of counties. A project on the application of EIA principles in land-use planning has been undertaken in a number of municipalities. Also, EIA principles are being applied to sectoral programmes.
Slovak Republic	***SEA a legal requirement***. Article 35 of the EIA Act covers, to a certain degree, the strategic level. Under this section of the Act environmental assessment is required for substantial development policies, territorial planning documentation and any proposed general legal binding directions. It should be noted that no generally binding legal directive has yet been reviewed by this procedure. In practice, SEA is a weak instrument, because there is a gap between that engaged theoretical legislation piece and the planning practice.
USA	***SEA a legal requirement***. Under the National Environmental Policy Act (NEPA) there is a requirement that all legislation or major federal actions, which significantly affect the quality of the human environment, include a 'detailed statement' assessing the environmental impacts. A well-developed environmental assessment programme exists at both federal and state levels.
International financing institutions	
CIDA	***SEA a legal requirement***. A Canadian Environmental Assessment Act applies to projects outside Canada. A Canadian Government Cabinet Directive in 1999 stated that policies, plans and programmes of CIDA (and all other Government Departments) are subject to SEA if they are likely to have significant impacts. CIDA has to develop its own screening criteria.
EBRD	***SEA part of the Environmental Policy***. The EBRD policy includes a statement that SEA is to be carried out 'as an when the need arises'. There are currently no guidelines on SEA.
World Bank	***SEA required under Bank Operational Directive***. The World Bank Operational Directive OD 4.01 includes requirements for SEA. Detailed guidelines in the Environmental Assessment Source Book are available on SEA. It should be noted that the World Bank has a lot of experience in carrying out regional and sectoral environmental assessments, but that they are largely post hoc assessments.

Chapter 4

Processes, Institutions and Tools for Integrating the Environment into Strategic Decision-Making

4.1 Introduction

This chapter provides an analysis of processes, institutions and tools, and draws on the literature reviewed in Chapter 2 and the review of countries and institutions discussed in Chapter 3 and in detail in Volume 2.

Sections 4.2 to 4.5 of this Chapter provide an overview of the range of institutions, organisations and communication processes involved in securing integration of the environment into decision-making at various levels of government. A wide variety of systems are observed in the countries studied, though many have similarities. The main models for achieving integration are described below. These models are classified broadly, each reflecting some variation within them, as exhibited by different countries. For example, consolidated legislation may take a number of forms, from a single overall framework statute to a structured rationalisation of environmental legislation; the focus may be environmental or sustainable development. The remaining sections consider the range of 'tools' used within these processes for achieving integration.

Where appropriate, cross-reference is made to Volume 2 of this Final Report, to the relevant individual country report, for further detail.

4.2 Overview of Institutions, Organisations and Communication Processes

To facilitate a better understanding of the complexity of institutional, organisational and communication models available, it is important to recognise the inter-relationships between processes and institutions. Integration may be facilitated by the setting up of a policy and decision-making process and/or through setting up or by the actions of an institution. Communication processes tend to operate across processes and institutions, i.e. an institution may be the means by which communication is secured amongst stakeholders, or the establishment of a process may be required to secure communication. Communication processes can be broken down into several elements including: status, are they formal or informal; scale, between individuals or institutions; and form, passive or active. Formal processes may be a designated reporting structure, informal may include networks of interested people within an organisation (see CIDA in Volume 2). Institutions such as a sustainable development roundtable can be the actual communication process (see Country Report examples in Austria, Greece, Italy and the UK, in Volume 2). The form

of communication can range from providing notification and information to undertaking face-to-face liaison meetings.

From the literature and the country reports three key models of environmental integration are identified: Constitutional/Legislative, Process/Strategy and Ad Hoc Institutional elements. In reality a mixture of these elements can be found in each country. For example, in Greece there is a constitutional provision, little in the way of central government strategy, but some ad hoc mechanisms.

These models include the following examples:-

Constitutional/Legislative Model
- Specific legal provisions for environmental protection and integration in a country's constitution
- 'Consolidated' Legislation (use of generic or framework cross-sectoral legislation)
- Legislation that imposes duties on public bodies, e.g. to promote sustainable development or environmental integration.

Process/Strategy Model
(co-ordinated government-led strategy for environmental integration)
- Greening Government
- Sustainable Development Strategies
- Local Agenda 21
- Land Use Planning

Ad hoc Institutional Model
(may exist outside of a centrally co-ordinated strategy)
- Audit Committees/Independent Auditor
- Environmental Protection Agencies and Authorities
- National Commissions/Councils on Sustainable Development
- Round Tables

4.3 Constitutional/Legislative Model

Constitutional Provisions

Constitutional provisions on the environment can be found in a number of countries, e.g. Finland, Germany, Norway, and Greece. In such cases, the environment is often included as a basic human right - to live in a healthy environment - and may include a right to participate or influence decision-making. In Finland (see Volume 2), for example, the Constitution also assigns responsibilities for nature and its diversity, the environment and cultural heritage to all people. A constitutional provision of this sort, however, does not necessarily mean that integration or SEA exist or are implemented well (see Greece, for example, Volume 2). A constitutional provision may be relatively meaningless unless

policies are put in place to implement it. Equally, some of those countries without such a constitutional provision have relatively strong forms of integration and relatively good SEA (e.g. Netherlands, New Zealand, and UK).

There are often distinct variations between centralised and federal countries, particularly in the effectiveness of integration at the national level. For example, in Spain where regions have a great deal of autonomy, integration is often seen to be more effective at the regional level than at the national level. This can, of course, become self-fulfilling since national government may leave much to be implemented at the regional level.

Consolidated Legislation

Environmental legislation has often evolved in a piecemeal fashion over many decades or centuries. In recent years, however, particularly post-Rio Declaration (1992), we have begun to see some countries attempting to consolidate their environmental legislation into one piece of primary legislation (Act). Most notable of these has been the New Zealand Resource Management Act 1991, which prescribes a devolved and integrated model of decision-making, relying on the government level closest to the issue. National government (Ministry for the Environment) sets national standards, determines national environmental policy and monitors the implementation of the Act. Regional governments set out a general framework for the region's natural resources, while district governments make many of the decisions affecting the environment.

Germany has been considering a National Environmental Code for some years, which would bring all environmental legislation into one comprehensive, homogenous Act (see Volume 2). Sweden adopted an Environmental Code in 1999, after some years of debate. This has involved considerable re-structuring of decision-making systems and principles (see Volume 2).

However, consolidated legislation does not, in itself, necessarily promote better integration. Consolidation may often mean simply the rationalisation of disparate pieces of environmental legislation. Consolidation, where it is underpinned by a new philosophy (e.g. sustainable development, as in New Zealand) and appropriate processes, can provide the necessary impetus to bring about better integration of the environment into decision-making.

Legislation that imposes duties on public bodies

In some countries, e.g. New Zealand, UK, it is quite common for public bodies to have legal obligations imposed upon them to take into account the environment or sustainable development as part of their activities. This is a particularly common approach in the UK to environmental legislation, where Ministers and agencies can be left with quite wide discretion in considering environmental matters or sustainable development. The wording of such duties in primary legislation include examples such as:-

[A body] shall: -

- Have regard to….
- Have regard to the desirability of [e.g. conserving flora, fauna etc….]
- Further….
- Promote….
- Take into account…..

These are common terms found in legislation such as the Environmental Protection Act 1990 in the UK, and the Resource Management Act in New Zealand. While their inclusion in legislation is to be encouraged - to ensure that bodies do have a duty to, for example, further sustainable development - in practice these duties are often very difficult to enforce, because the wording gives quite a degree of discretion to the agency or Minister concerned.

4.4 Process/Strategy Model

'*Greening Government*'

'Greening Government' is a generic term used to describe a system established in the UK (also seen in Ireland and France) to integrate the environment into all decision-making levels and all parts of government. In theory, at least, it provides an ideal model (and therefore case study) for examining the relationship between SEA and other mechanisms for integrating the environment into decision-making. It includes: -

- a cabinet committee on the environment (to communicate and co-ordinate environmental initiatives)
- a Green Minister in every department
- the publication of an annual report
- a Sustainable Development Unit to co-ordinate research
- an environmental audit committee to monitor performance
- guidance on SEA ('environmental appraisal') for government policy makers.

This system requires political commitment to make it happen, even if the elements above are put in place. Both the formal mechanisms and political drive are needed to take this sort of initiative forward. Where political will is lacking, the formal mechanisms above can help push the process along, and can help act as levers which other actors, such as NGOs, can use to create sufficient pressure on Ministers to act. Levels of political commitment are hard to assess, partly because apparent commitment may be little more than rhetoric, but also because such commitment can change rapidly depending on other pressures and priorities. Commitment may be only partial if it might otherwise result in political difficulty (for example, measures to tackle traffic congestion). Any assessment of commitment, therefore, is only likely to be as good as the point at which it was sampled. Central to the greening government mechanism should be initiatives to raise awareness, across government departments and outside, of the activities of Green Ministers and other

mechanisms. Education, training and capacity building among civil servants within departments is also crucial, particularly to foster long-term 'institutional memory', which can be lacking where there is rapid rotation of personnel (see, for example, the Finnish case study below in Chapter 5 below). There may be other informal mechanisms that might support this type of initiative, for example, the encouragement of appointing new people to advisory boards and taskforces who have expertise in environmental matters (UK Government, 1990).

In the case of Greening Government in the UK, SEA, or rather a partial form of SEA (environmental appraisal), is an integral part of the Greening Government mechanism at the broad policy making level. Various forms of SEA are also in place at lower strategic levels, though implemented through policy and administrative measures rather than legislation. However, until recently, notably with the advent of a Government and Ministers committed to greening government, and the creation of an audit committee, this system failed to deliver on its expectation (see UK, Volume 2).

In France, there are efforts being made towards a 'greening government' process. For example the Ministry of Environment adopted a declaration in 1995 which enabled the Ministry to undertake 'greener' administration activities. Also, an Inter-Ministerial Committee for the Environment was established which has had particular influence with regard to the development and promotion of environmentally friendly 'products'.

A Green Network of Government Departments has recently (1999) been established in Ireland. This Network, which is chaired by the Department of Environment and Local Government, brings together ten government departments that are involved in and have responsibilities towards the National Sustainable Development Strategy and Eco-Auditing.

Sustainable Development Strategies

Most countries have put in place national strategies for meeting the requirements of the Rio Declaration at the UN Conference on Environment and Development in 1992, and the accompanying Agenda 21. This is an important 'process driven' model for securing integration. Agenda 21 set out a number of specific mechanisms, notably Local Agenda 21 (LA21). LA21 brings together members of the public at local level and allows them to become actively involved in the process towards the achievement of sustainable development and greater integration of the environment. LA21 is discussed further below. However, National Sustainable Development strategies are the normal mechanism for setting clear and verifiable goals at the national policy level. These goals may comprise broad qualitative objectives, quantifiable targets and include measurable indicators with which to judge performance (see section 4.6.7). The time scales may be short term, but the strategy is particularly important for providing a means of meeting long term ambitions in terms of environmental protection. Separate sectoral strategies or plans may be used to give added thrust in particular priority areas.

The potential drawback to current sustainable development strategies is that they do not include a specific remit for environmental integration (rather sustainable development integration of environmental, social and economic factors). Although the process can be very useful, and will help educate all those stakeholders involved, if the strategy is seen as the output and the outcome, it can be left on the shelf after completion and no longer play an active role in policy formulation. Institutions that have been created, although ideally suited to help achieve environmental integration, may then have a reduced role and will not include a responsibility for *environmental* integration. If an integration remit is included it will be sustainable development integration, and therefore economic and social issues. Environmental integration is a process that deliberately aims to raise the profile of environmental considerations within decision-making. The danger of sustainable development when implemented in the absence of a widely agreed detailed definition is that this profile may once again become swamped by economic and social considerations.

Local Agenda 21

Local Agenda 21 has become a strong driving force for integrating the environment into decision-making at local government level in many countries. This may be strongly linked to the national sustainable development strategy, where responsibility for much of the implementation of the goals in the national strategy is passed to lower tiers of government. However, many local/municipal authorities have embraced LA21 with some vigour, using it as a prime means of engaging with the public at a local level on environmental matters, and for involving the public in identifying key priorities for action. It has become a key institutional focus, and has provided both a mechanism and communication system for taking forward sustainable development, following the maxim 'think global, act local'.

Land Use Planning

Evident throughout the country reports in Volume 2 is the importance of any land use or spatial planning or zoning system in place for achieving the integration of the environment. Land use plans are about considering the impact of economic development on the environment, and provide a means of controlling that. Consequently, where SEA exists it is most often seen at the land use planning level as a means of ensuring a systematic assessment of the environmental impact of such plans. SEA is also a natural extension from EIA in these cases, providing a framework within which project level decisions will be taken. Since local government is frequently charged with responsibility for implementing much of any national sustainability strategy, local authorities will seek to use the tools already at their disposal for doing so. Any planning system is likely to play a significant role in that, but increasingly 'greening government' type mechanisms are also likely to be employed, involving the establishment of new processes and institutions at the local level.

4.5 Ad hoc Institutional Model

Audit Committee/Independent Auditor

This has been mentioned in the context of 'greening government' above, i.e. as an institutional model central to the delivery of a 'process/strategy' model. It would appear, however, to be a significant innovation. A cross-departmental body, capable of auditing government (or indeed, local government) departments on their progress towards integration, would appear to be an essential pre-requisite for successful integration of the environment at government policy and decision-making levels. The UK experience of 'Greening Government' supports this conclusion, since the process was largely ineffective for some years until a Government committed to tackling cross-cutting issues established the Parliamentary Environmental Audit Committee in 1998. A form of partial SEA (policy appraisal and the environment) had been in place since 1991 (DoE, 1991; DETR, 1998), but was largely unused and ineffective, as had been the concept of the Green Ministers. A system or mechanism, even if in place, would appear to be ineffective unless appropriate accountability is also provided. An Audit Committee with some power and influence (in this case able to call any Minister to give evidence), and that reports to Parliament (rather than to the Executive/Government) seems essential.

An alternative to a committee is an independent individual Ombudsman or auditor. Examples of this approach can be found in Austria (Environmental Ombudsman in Styria), New Zealand (Parliamentary Commissioner) and Canada (Commissioner for Environment and Sustainable Development).

National Commissions/Panels on Sustainable Development

A government-led National Commission or Panel on Sustainable Development may drive the Sustainable Development Strategy process. A national commission or panel is likely to be composed of nominees representing a wide range of stakeholders, including industry, government agencies, NGOs, academics and government departments. To be effective such a body needs to report to Parliament or the Government to ensure sufficient engagement with the political process and policy making. If primarily the Environment Ministry/Department leads the sustainability strategy, there is a risk that the issues become isolated from other departments, unless appropriate integrating mechanisms are in place.

Round Tables or National Councils

The use of Sustainable Development Round Tables or National Councils for engaging stakeholders in dialogue about sustainability strategies is common in many countries (e.g. Austria, Greece, Italy, and UK). It has become a key communication model for achieving integration. As with any participation mechanism, however, its degree of influence on the strategy process will determine its likely effectiveness. These stakeholder bodies tend to be more advisory and unless given real influence may act largely as sounding boards on

particular issues. Round Tables can also be seen as an institutional model used as a means of driving along a process model of integration (the Sustainable Development Strategy).

Environmental Protection Agencies and Authorities

The role of national environmental protection agencies (EPAs) varies greatly, as does their influence on the integration process, depending on how they are constituted. In some cases the EPA may have a central role in the integration process, e.g. through monitoring and reporting (e.g. Sweden, see Volume 2). In other cases (e.g. UK), the Environment Agency is one of many agencies (e.g. English Nature, Countryside Agency) involved in environmental protection, having a locus restricted primarily to pollution control and water-environment based functions (although it does have a duty to contribute to sustainable development in carrying out its activities). While the Environment Agency has significant reporting duties, its non-statutory Local Environmental Agency Plans (LEAPs), which attempt to integrate all aspects of the local environment, have met with only partial success, and may not be continued. Where a variety of bodies are involved, co-operation and partnership working are essential along with the establishment of extensive communication processes amongst the statutory bodies and with the voluntary (NGO) sector. Local Agenda 21 may be one mechanism, but formal Memoranda of Understanding may be required amongst statutory bodies, and voluntary fora established where necessary.

In many cases the 'environmental authorities' will be government authorities at a range of different decision-making levels, e.g. national, regional, municipal/local. Historical and cultural backgrounds clearly play a significant role in how these are involved in the integration process. The environmental authorities and the environmental protection agencies (above) hold different responsibilities depending, for example, on the relevant legislation. In New Zealand, where there is consolidated legislation that devolves responsibility according to the principle of subsidiarity, the various levels of government have prime responsibility for securing integration.

4.6 'Tools' for Integrating the Environment into Decision-Making

Whereas a classification of 'constitutional, 'process/strategy' and 'ad hoc institutional' models has been used in the first half of this chapter, the term 'tool' is used as an umbrella term in this part to cover a range of mechanisms, techniques and approaches for achieving integration. This includes a number of key methodologies that are typically used within tools, e.g. monitoring/reporting, matrices, public participation. While their use in themselves will not necessarily promote integration, they can be used and adapted successfully within an integration process. Terminology in this field can be particularly confusing; for the purposes of this chapter a more precise classification of tools and methodologies is considered unnecessary.

From the literature review and surveys carried out in the countries studied, a list of possible 'tools' for achieving varying degrees of integration of the environment has been identified. It is apparent that the tools being used tend to be those that are process/institution oriented, rather than overly technical or technological. This is not surprising, given that strategic decision-making and agenda setting is being carried out by politicians and stakeholders, rather than solely by experts. This may suggest, however, that effort being directed at unduly complex methodologies may not ultimately bear fruit. It also places the historical concern over lack of methodologies for SEA in perspective. This concern has in part probably been because the development from EIA suggested that the detailed discipline-based methodologies common in EIA (e.g. air pollution modelling, field surveys), should be required to the same degree for SEA. One consequence was a misunderstanding in some circles and for some time that SEA was EIA writ large[4].

This relationship between processes and tools is fundamental to this study. The fact that many of the tools being used to integrate the environment are process/institution based emphasises the need to establish clear and effective processes rather than complex methodologies which may not, or cannot, be used in the absence of a suitable process. Process-based tools are practical for use in a fluid and politicised decision-making process, and offer the opportunity for some, if not full, integration where a method-based tool is more likely to be left on the shelf or poorly applied. Process-based tools also lend themselves more to public involvement; complex methodologies dependent upon experts do not, and can generate distrust amongst the wider community. Some methodologies may require technical input, such as measurable indicators (such as those for air or water quality), but in this case there is nothing inherently complex about their use. They can, for instance, be discussed and understood by lay people in a Local Agenda 21 group quite easily.

'Tools'

- SEA and related approaches
  - SEA
  - Strategic environmental analysis (SEAN)
  - E-test
  - Environmental Appraisal/'Audit'
- Sustainability Appraisal/Assessment
- Integrated environmental assessment
- Economic tools/instruments
- Green Accounting

4 This was true, for example, in a UK study commissioned by the then Dept. of Transport "Estimating the Total and Cumulative Environmental Impacts of the Road Programme – A Feasibility Study" (Baughan and Chinn, 1997).

- Environmental Management Systems
- Objectives, targets and indicators
- Public participation
- Matrices/appraisal tables

4.6.1 SEA and related approaches

SEA

Full SEA (see Box 2.1, Chapter 2) is not widespread in the EU, though many countries do have partial forms of SEA. The sustainability approach to SEA (IEEP, 1994) is becoming more widespread, not least because it ties in well with the wider integration agenda of sustainable development. Objectives, targets and indicators developed under a national sustainability strategy, or at lower levels, can be used or adapted for use in SEA, where SEA is used to assess the performance of a range of options or scenarios against the objectives and targets (see for example, Sheate, 1992). Scenarios may be different sets of options or policy tools for achieving the series of objectives set. Indicators can then be used to monitor the performance of the option chosen. Multi-Criteria Analysis (MCA) or Life Cycle Assessment (LCA) may be used as part of an SEA or in identifying a best practicable environmental option (BPEO). EIA-inspired SEA is most common at programme levels where baseline information is more likely to be available. There are a number of variations of SEA observed in the EU and elsewhere, some key examples of which are discussed below. A classification of forms of SEA is discussed further in Chapters 5 and 6.

Strategic environmental analysis (SEAN)

This is a particular form of SEA developed in the Netherlands for application at the most strategic levels. In 1995 the Netherlands Development Organisation (SNV) commissioned AIDEnvironment to develop the SEAN process. Its objective is to contribute to the integration of environmental issues at the earliest stages of policy formulation, though to date has only been applied to a number of developing countries. A number of examples include the development of an integrated strategic plan at regional (provincial) level in Benin (lead by the Dutch Ministry of Foreign Affairs and the Dutch Embassy), a method of regional analysis in Ghana (lead by SNV) and the design of a sustainable development strategy in the Netherlands Antilles (island level) (lead by the Netherlands Coastal Zone Management Centre). SEAN is a participative, iterative and adaptable process. Firstly, SEAN can be applied by a number of different users from government bodies to project proponents and training/educational institutes. Its methodologies allow for the participation of the public throughout most of its five phase processes. Secondly, SEAN is a continuous process and provides a means whereby a policy plan can be altered depending of the results of an environmental monitoring system. Thirdly, while the process

and method of SEAN provide a framework for strategic analysis their contents can be changed or adjusted to suit different users and needs. Other tools and methods can also be incorporated into the process. SEAN is also adaptable in that it can be applied to different geographical locations and to different sectors (see Volume 2, Netherlands section for further details on the SEAN methodology). The SEAN process is funded by SNV and is recognised by the Directorate General of Development Co-operation (DGIS).

Environmental Test or 'E-test'

Again, this is a particular Netherlands form of SEA applied to legislation in the energy, transport, land-use, raw materials, atmosphere and water sectors (see Volume 2). The E-test is an important example of legislative environmental assessment as it combines aspects of both strategic and integrated environmental assessment (Marsden, 1999). The integration of sustainable development and the environment into national policy making is the key goal of the E-test. Marsden (1999) states that by applying the E-test policies, plans, programmes and projects are implemented by legislation that has been assessed before it is authorised. It also provides a means whereby environmental and economic impacts are assessed together.

There are three ways in which environmental information is used within the E-Test. Firstly, the Ministry who is drafting the proposed legislation prepares the environmental information and uses it to adapt the draft legislation or to mitigate any impacts. Secondly, the Minister of Environment (MoE) uses this environmental information to request more changes (if required) before the draft legislative proposal is sent to the Council of Ministers (or earlier in the interdepartmental co-ordination committee or in the usual bilateral contacts). If the information is not available or is insufficient the MoE may block the proposed legislation, because without his consent it will not be discussed in the Council. Thirdly, the Parliament may use the environmental information, which is made available to the public in the form of an Explanatory Note, to request new changes. The public can also lobby for changes to the proposal (Jaap de Boer, 2000, pers. comm).

Environmental appraisal/'audit'

This is a partial form of SEA introduced in the UK to assess the environmental impact of land use development plans in 1992. A similar approach is used in Ireland (known rather confusingly as 'Eco-audit'). It is used to appraise policies included in the local authority land-use development plan, ideally at the draft stage so that iterations can occur between the appraisal and the planning process. It involves characterising the environment, scoping the plan, and appraising the policies contained in the plan against environmental sustainability criteria and against each other for compatibility. The fifteen criteria suggested in government guidance (DoE, 1993) are categorised into three groups: Global Sustainability, Natural Resources, and Local Environmental Quality: -

Global Sustainability

1. Transport energy efficiency: trips

2. Transport energy efficiency: modes
3. Built environment : energy efficiency
4. Renewable energy potential
5. Rate of CO_2 'fixing'
6. Wildlife habitats

Natural Resources

7. Air quality
8. Water conservation and quality
9. Land and soil quality
10. Minerals conservation

Local Environmental Quality

11. Landscape and open land
12. Urban environmental 'liveability'
13. Cultural heritage
14. Public access to open space
15. Building quality

It is a relatively simple, matrix-based appraisal methodology, with the numerous policies contained in the development plan being appraised subjectively against these criteria (or variations on). A compatibility matrix is also suggested, to test whether individual policies are compatible with other policies, and if not where modifications are needed. The appraisal process, though not the compatibility analysis, is now widely applied by local authorities. In Ireland, the Eco-audits are currently being used on a pilot basis, and include the National Development Plan 2000-2006.

4.6.2 Sustainability Appraisal/Assessment

Sustainability Appraisal is an attempt in the UK to incorporate environment, social and economic dimensions into one form of appraisal, rather than having separate appraisals for each. In essence, it closely resembles environmental appraisal above, but differs in that central to the appraisal is the setting of objectives, targets and indicators. The process is as follows:-

1. The development of objectives and targets based on national policy and regional sustainable development frameworks.
2. Scoping – checking that the strategy has incorporated national policy on sustainable development.
3. Appraisal of strategic options against the objectives developed in stage 1.
4. Appraisal of policies against targets, or perhaps a single target chosen to represent each objective.
5. Recording and reporting of findings.
6. Monitoring and evaluation, using indicators.

Sustainability appraisal is being used in the UK at the regional level, specifically for regional planning guidance (which sets the framework for land-use development plans) and for Regional Economic Strategies (RESs) being produced by Regional Development Agencies. While the appraisal is objectives-led and uses targets and indicators, it does not incorporate public participation (see UK, Volume 2). Clearly this is a form of 'SEA', but incorporates social and economic dimensions as well. It also seeks to understand trade-offs, and provides a greater consideration of the sustainability agenda. There is a danger, particularly with respect to the RESs being produced, that the development agenda will obscure the environmental considerations. This form of appraisal has been developed out of environmental appraisal (above), first developed in the UK for land use (development) plans.

An example of Sustainability [Impact] Assessment is the recent (1999) European Commission study that involves the assessment of the impacts that future trade negotiations will have on sustainable development world-wide. Although an independent study by the Commission, the Assessment forms part of an initiative by both the EU and international bodies to ensure that the environmental considerations are fully taken into account in the development of trade policy (Curran, 1999), and utilises indicators and significance criteria[5].

4.6.3 Integrated (Environmental) Assessment

Integrated environmental assessment (IEA), also known as integrated assessment (IA), has many similarities to SEA, but is generally most applicable to cross-sectoral purposes, and most frequently involves trade-offs between economic and environmental functions. Its starting point is generally a scientific study into processes in the environment, their causes and possible solutions, and involves the use of an independent assessor. Nooteboom and Wieringa (1999) provide a detailed comparison of IEA and SEA, concluding that they are complementary, but relate to very different political contexts. SEA is usually applied to PPPs, while IEA is applied to cross-sectoral policy making. Computer modelling has become central to IEA, handling large quantities of data and incorporating, for example, atmospheric dispersion data with economic data for devising abatement strategies (Warren and ApSimon, 2000).

4.6.4 Economic Tools/Instruments

Other tools, particularly economic tools such as Cost Benefit Assessment or Analysis (CBA) are often used within forms of SEA. A CBA may also be carried out alongside a multi-criteria assessment within an SEA. The UK Government's guidance on policy appraisal and the environment (PAE, DoE 1991) suggested primarily a CBA approach (see UK, Volume 2). In this case the following steps in policy formulation and appraisal were suggested: -

5 Further details on the Assessment can be found on the web-site http://fs2.idpm.man.ac.uk/sia.

- Summarise the policy issue
- List the objectives
- Identify the constraints
- Specify the options
- Identify the costs and benefits
- Weigh up the costs and benefits
- Test the sensitivity of the options
- Suggest the preferred option
- Set up any monitoring necessary
- Evaluate the policy at a later stage

Other economic instruments include fiscal measures, such as taxation or pricing mechanisms, e.g. carbon tax, fuel duties, or land-fill (waste) tax, as a means of integrating environmental costs (externalities) into day to day economic considerations. So far, these have been used only to a limited extent, and need to be part of a wider package. They may present another set of options as part of a policy level SEA, e.g. as one element in a series of scenarios for transport policy (Sheate, 1992). Economic instruments have the potential to be very influential in integrating environmental considerations into decision-making, but by their nature tend to be targeted at individual factors (e.g. price differential on unleaded petrol, energy tax to encourage reduction in CO_2 emissions). They also suffer from being highly politicised and with international competitiveness implications, and therefore difficult for governments to achieve public consensus on or to implement unilaterally. Hypothecation is seen by some as a potential means of overcoming some of these political sensitivities and perceptions about 'green taxes', by making explicit what the money raised would be spent on and how the tax payer would therefore benefit.

4.6.5 Green Accounting

There is increasing interest in a 'green' alternative to Gross National Product (GNP) as a measure of economic success and for tracing monetary flows (Lintott, 1999). GNP and traditional national accounting has not reflected adequately the environmental costs related to resource use and pollution. The idea of environmental ('green') accounts is to link resource inputs and waste outputs to standard economic accounting. Green accounting attempts to do this by placing monetary values on resource use and pollution, in order to integrate them into national accounting procedures. Environmental accounts in physical units as a source of data are useful to trace environmental flows, but assigning monetary values to them is controversial. Some authors (Lintott, 1999) suggest that the use of indicators (see below) would provide a better welfare monitoring tool than green accounting.

A simple way of taking into account the environment is through budgetary assessments, such as those seen in Denmark, where selected areas are assessed each year for their environmental implications (e.g. waste and transport in 1999).

4.6.6 Environmental Management Systems

Other tools, previously used mainly by the private sector, and derived from business management disciplines, are now beginning to be seen at local authority level. These include environmental management systems, e.g. EMAS or ISO 14001, and integrated management systems (IMS), where environmental management systems are being integrated with health and safety and quality management systems. Where EMS is being implemented at local authority level, it currently tends to be department based, given the complexities of local government structures and frequently poor communication processes between those departments. This is a poorly understood area since there is little reported experience[6]. Clearly however, EMS/IMS can provide a framework within which to place the necessary sustainable development policy, implementation strategies, monitoring and evaluation, and education and training. Life Cycle Assessment of products may be an integral component of an EMS, as may 'green procurement'.

EMSs may be used to help achieve integration, acting as a driving force or reference point within companies or institutions (e.g. as in Finnish Development Co-operation study below), or they may be seen as part of the implementation of a wider integration process, awarded once integration has been achieved. Environmental auditing and reporting are essential components of this.

4.6.7 Objectives, Targets and Indicators

The use of objectives, targets and indicators is central to sustainability strategies, and provide an important means of integrating the environment into decision-making. This is because objectives, targets and indicators (e.g. performance indicators) are common place within (non-environmental) public policy (e.g. reducing hospital waiting lists or waiting times, class sizes for school children, reducing accident rates on the roads etc.). By identifying key environmental objectives, or sustainability objectives that incorporate environmental objectives, the environment can be integrated into the usual policy process without being sidelined. Such objectives may be broad, qualitative statements of intent, e.g. reduce the need to travel. Targets are generally quantitative goals, e.g. a reduction of CO_2 emissions by x% by 2010. So, reducing CO_2 emissions or reducing the need to travel can become a part of transport policy making alongside accident reductions and economic benefits. Indicators are used to measure performance against the targets and objectives, e.g. traffic levels.

Common models used for the development of indicators are the OECD's Pressure – State – Response model (OECD, 1994), the DPSIR (driving forces, pressure, state, impact, and response) model of the European Environment Agency (EEA, 1995), and the USEPA's model of Pressures - State - Responses – Effects (USEPA, 1996). Possible responses are policy measures and the setting of targets. This has also been adapted for use in

6 A PhD research project is currently underway at Imperial College investigating integrated management systems in local authorities in the UK (Lesley Richards, Environmental Policy and Management Group).

integrated environmental assessments. Targets, objectives and indicators need to be developed for the different decision-making levels at which they are to be used: national, regional and local, since national level indicators, for example, will not be relevant at local level without appropriate transposition. Key headline indicators could be backed by more detailed indicators. Targets, objectives and indicators established for sustainable development and integration purposes can readily be adapted for use in SEA, particularly for objectives-led SEA or sustainability appraisal.

4.6.8 Environmental Monitoring and Reporting

Increasingly, as a result frequently of the sustainable development process and linked to the use of indicators above, governments are providing regular environmental reports on government performance. This entails the establishment of suitable monitoring and auditing processes alongside the indicators, and the creation and maintenance of environmental databases and information systems. Databases may be held by a variety of agencies, e.g. EPAs, local authorities, government departments, and regional government. Increasingly, 'State of the Environment Reports' are being used to provide standardised and consistent baseline environmental data for different decision-making levels, e.g. national, regional, local. On its own, monitoring will not promote integration. It is however, an important prerequisite for effective assessment of potential environmental impacts.

4.6.9 Public Participation, Education and Awareness Raising

Public participation is used here as a generic term for a wide range of communication tools, but seen here as a key tool for integrating the environment into decision-making. However, it must also be recognised that public participation has a much wider value in a democratic society, distinct from the environment, sustainability and SEA, and is fundamental to ensuring policy and decision-making accountability. It only has an integration role where used within an appropriate integration process, such as SEA or Local Agenda 21.

Public participation and stakeholder involvement is an inherent component of an ideal SEA process (see Box 2.1, Chapter 2), as in EIA, and has become key to sustainable development strategies at national (through Round Tables), at regional (through regional SD committees) and at local level (through LA21 groups). Such fora provide an ideal access point for public participation on individual SEAs at different levels, and may enable access to different components of the 'public' to the normal 'consultation' of interest groups. Also LA21 groups are much more about participation (e.g. in producing indicators and strategies) than traditional consultation associated with land-use planning or EIA. As can be seen in the first half of this chapter, these fora establish significant communication routes between government, statutory bodies, NGOs and the public, and provide an obvious means of linking SEA into the wider integration process. The case study analysis explores examples of these processes in more detail.

There can, of course, be difficulties in applying public participation at the policy level, particularly when dealing with some types of policy such as fiscal policy and development planning. It may allow organisations and companies to position themselves in the market place and take advantage of future changes that might result from the policy. However, transparency is essential in such cases and efforts (and maybe resources) are needed to ensure that all stakeholders have equal access to the process, to avoid unfair advantage that might otherwise occur. It may be appropriate to establish an organised and/or qualified public for the purpose.

Linked to the capacity of the public and stakeholders to participate in decision-making, is education and awareness raising. This plays an important role in some countries (e.g. Austria, Norway) and may be focused on the provision of information to consumers, or through schools, adult education centres etc, and often linked to Local Agenda 21 processes. Eco-labelling of consumer products may facilitate this.

4.6.10 Matrices/Appraisal Tables

The use of matrices has been widespread in EIA, and has become a recognised methodology for use in SEA. Whereas in EIA matrices the characteristics of the project are assessed against the base line environmental parameters, in SEA it is more common to assess the elements of the policy, plan or programme against a set of criteria, which may include objectives and targets for environmental parameters. Indicators may be used to monitor progress. An obvious contrast is in the detail of the information required to be able to complete the matrix: in EIA considerable detail is required, whereas at the increasingly more strategic level less and less detail is needed because the actions are less and less specific. Good baseline 'state of the environment' data is still required however, in order to be able to make assessments of likely significant effects of certain actions or options being implemented. Matrices, as a methodology do not promote integration, but as with monitoring have become an invaluable element of various forms of SEA and appraisal.

4.7 Discussion of Integration and SEA

Inevitably, at strategic levels, there is a strong degree of overlap between systems and processes on the one hand, and 'tools' on the other. In many cases the tools used for achieving integration involve the setting up of systems, institutions or processes to make this happen, e.g. the setting up of a national sustainable development round table, or the involvement of the public in LA21 in setting priorities, objectives and targets.

To some extent, therefore, the distinction between tools and institutions/processes is a false one, since many of the 'tools' used are actually institutions and processes. However, it has been useful to consider the types of institutions and processes available in different countries separately, since they are influenced heavily by their historical, cultural and socio-political backgrounds. These may in turn dictate the types of practical mechanisms

available to a particular country. Certain institutional or process-driven tools seen in one country may not be easily transportable to another because they would not fit in with the prevailing structures. Neither can one dismiss the importance of political commitment (or lack of) to the success of these tools.

The relationship between SEA, other processes and tools and integration is a complex one. In the case of SEA, there are clearly a number of variations on the SEA theme, e.g. environmental appraisal, sustainability appraisal, E-test, SEAN. In many cases there are elements missing from the ideal SEA process, e.g. no public participation (E-test, IEA) or no separate report (some forms of appraisal). In the case of sustainability appraisal, the environment is not the only consideration – trade-offs between environment, social and economic parameters may be carried out from the beginning, e.g. in setting objectives.

Appraisals generally appear to be more subjective and often tend to represent forms of *ex post* analysis, i.e. they are asking the question *"Are certain objectives or targets likely to be met?"* Whereas, ideal SEA tends to require more baseline information and draws on more technical information in order to answer the question "*To what extent are objectives or targets likely to be met?"* Linked to this is the importance of significance criteria to SEA. In other words, not only is SEA about identifying the impacts, it is also fundamentally about the prediction and assessment or evaluation of those impacts (significance). This is not necessarily true for some of the variations on SEA. Sustainability appraisal generally only requires the collection of baseline information for monitoring of indicators against the appraisal objectives and targets, and not the evaluation of predicted impacts. Appraisal illustrates the trend away from the more scientific, evidence-based policy making towards the more outcomes based monitoring, reviewing and amending approach to policy making. Appraisals could be improved by greater grounding in the use of baseline information, to help move it beyond what is currently a rather 'hypothetical' approach.

The role of SEA and other tools in achieving integration is therefore highly variable. As already identified, at the policy level the use of institutions and processes for achieving integration appears to be more important, at the moment, than formal procedures or tools such as SEA. SEA may be part of the bigger process, perhaps operating under the policy framework created by the institutions and processes.

Chapter 5

Case Study Analysis and Discussion

5.1 Introduction

The Case Studies are taken from a variety of countries, regions and institutions. They cover a broad range of processes and tools used for the purposes of integrating environmental considerations into strategic decision-making, a process that is sometimes known as mainstreaming the environment. The wide spectrum of case studies reflects the need to analyse the interaction between SEA and other approaches to integration as well as the effect of the decision-making context on the implementation of SEA. Overall the case studies can be categorised into four broad models of SEA that embrace environmental integration and SEA's role within it. The classification is useful when discussing the case studies as it allows an understanding of the basic strengths and weaknesses, in integration terms, of each case study.

- **EIA inspired SEA:** this approach originates from ecological/resource management disciplines. It includes a base line assessment of a preferred option or alternative locations. There is more emphasis on technical methodologies and a necessity to undergo a systematic assessment procedure. This form of SEA is generally used at the programme level. Often this is an incremental development from EIA, and because it is more informed through baseline data (e.g. about sensitive elements of the environment) is more likely to be able to address indirect effects as well as direct. The draft SEA Directive, under negotiation during this research, promotes primarily EIA-inspired SEA, although with some reference to wider environmental objectives.

- **Policy analysis/appraisal inspired SEA:** this approach originates from the political science discipline. Impacts of a preferred option are appraised against objectives. There is no baseline survey, and often little or no direct public participation. This model is generally used within regional and spatial land use planning, and sustainability appraisal.

- **Integrationary SEA:** this is focused on an objectives led process, and is a combination of the first two models. Impacts , direct and indirect, are appraised against a combination of an environmental baseline survey and objectives. The process begins early in the development of the policy and investigates alternative means of achieving those objectives. Public participation is generally an important component of the process. This form of SEA is more likely to be found where there is a strong national environmental legislation and policy framework.

- **Ad hoc mechanisms of environmental integration:** these are mechanisms that utilise techniques such as round tables, audit committees and state of the environment reports. These tools often fulfil similar roles found within elements of an SEA. However, there is no systematic process providing discrete hooks into the developing policy.

Table 5.1 below provides a summary of the description and analysis of each case study. The table specifies whether the case study is either integration or SEA based. The detailed analysis of each case study can be found in Volume 3.

Table 5.1 Case Study Summaries

1. Austria	
Title	**SEA of Land-Use Plan, Weiz**
Type of Case Study	SEA
Summary	The case study used the proposed EU SEA Directive as from 1996, dealing with a spatial planning plan at local level. Although the SEA of the (revision) of the land-use plan Weiz started early in the planning process, it was not early enough. Informal preparations and certain decisions for drafting the land-use plan began half a year before starting the SEA. The SEA approach combined a baseline (forecast of environmental effects of three different alternatives) and objectives based (environmental quality goals) approach. The main part of the public participation process was the possibility for different stakeholders to comment on the drafted plan. For identifying the impacts both technical methodologies (e.g. measurement of air pollution) and expert's judgement methodologies have been used and beside the environmental impacts also socio-economic ones have been assessed. The SEA served as an integration tool, especially for soil and development policy, but cannot be judged as successful because the City Council decided not to choose the most environmentally friendly alternative, taking into account investor interests. The case study represents more or less the approach of a "plan appraisal SEA" with elements of a "traditional SEA". It helped to integrate the environment into the strategic decision-making, but only to a limited extent. A rating as fair seems to be realistic.

2. Austria	
Title	Local Agenda 21, Graz
Type of Case Study	Integration
Summary	The case study is a good example of a successful integration of the environment into strategic decision-making for a comprehensive set of policies at local level. An objectives based approach (23 quantitative environmental quality goals) combined with a baseline reference survey was used to assess the impacts of more than 200 policy measures and to identify the environmentally optimised alternatives. They were numerous participation possibilities for stakeholders who could comment on the LA 21. Moreover, a qualified public is responsible for monitoring LA 21 Graz. The first monitoring phase was completed in March 2000. As LA 21 Graz is seen as an ongoing process the next monitoring is planned for 2005. A suitable balance between technical methodologies, expert's judgement and communication processes ensured transparency in assessing the environmental effects of LA 21 Graz. The integration case study can be judged as successful, it strongly and effectively supports the integration of the environment into strategic decision-making. In particular the results of the monitoring (quality control) allow the decision-makers to identify the most important environmental problems. The case study can be classified as "integrationary SEA" by having the four defined types of SEA/integration. A weakness is that LA 21 Graz is focussing on environmental issues, but only to a limited extent on social and economic ones.

3. Canada	
Title	Environmental Assessment Framework for Trade Negotiations
Type of Case Study	SEA
Summary	The Environmental Assessment Framework for Trade Negotiations is in the process of being developed, and not yet implemented. The SEA process provides for an environmental assessment of negotiation positions at an early stage; the SEA is undertaken from the moment negotiations are to be defined and throughout the negotiations. Public participation would be available at different stages of the SEA (i.e. issuance of notice of intent, initial environmental assessment and final environmental assessment), although limited to giving 45 days for public review after publication in the Canada Gazette and/or posting in DFAIT's web site (public meetings may also be organised). Base line studies are not explicitly required and the assessment is expected to take place based on lines of enquiry (including the assessment of impact significance), although limited to assessing the effects on Canada's environment (and not that of other countries). An analysis of alternatives is not explicitly considered either. The balance between the use of technical methodologies and subjective judgement/strong communication-participation to identify impacts cannot be established at this stage, as the framework has not yet been implemented. Although its success at integration cannot be assessed either, parties that submitted comments on the draft framework both praised the initiative and criticised it for various reasons (including the limited opportunities for public participation). This case study fits mainly in the Integrationary SEA category. The proposed Framework has the potential to integrate the environment into strategic decision-making at a high decision-making level. However, it may need to be progressively enhanced in order to integrate greater degrees of public participation, more transparency during the assessment process and, especially, integrate the environmental impacts to other countries.

4. Denmark	
Title	SEA of Report on National Planning, 1999/2000 (Local Identity and New Challenges)
Type of Case Study	SEA
Summary	Strategic Environmental Assessment was carried out as an integrated part of Danish National Spatial Planning 1999/2000. The formal Danish requirements for strategic assessment apply to bills and other government proposals. The report on national planning is included in the latter category. Reports on national planning are elaborated after parliamentary elections. The 1999/2000 National Planning Report aimed at specifying the objectives and activities on business development, local transport policy and land use that are outlined in the Government's map of visions 2022 from 1997. The SEA process that consisted of 7 steps was initiated at the very beginning of the national planning process. On the basis of a rough frame, set by the Ministry of Environment and Energy, conflicting goals were identified and the potential environmental impacts were screened by use of a checklist. The overall nature of objectives and activities complicated the judging of significance of environmental impacts that in some cases could only be judged as positive or negative. The public was invited to present ideas and comments on the rough frame in a pre-hearing phase. Only regional and municipal authorities and organisations and a few number of individuals commented on the first proposal for national planning report that was published in newsletters and on the ministerial homepage. Data and information on the activities going on in the Danish Counties were used as baseline data for impact predictions. The impact predictions thus relied on existing knowledge and data but they were also determined by political decisions on in which direction the national planning should be governed. The environmental impacts predicted included a) impacts of each activity, b) impacts related to each area of activities and c) the total impacts of the proposed plan. The proposal for National Planning Report was presented for the public in a second hearing phase. The final draft that was adopted by Parliament by way of presentation differed from the earlier draft with regards to a number of objectives. However, the proposal in general was not changed in the final phase of planning. The SEA process carried out can be categorised as integrationary SEA. However, the effectiveness of the SEA was reduced due to lack of a systematic approach for identification of environmental impacts of broad policy concepts. More precise statements on the environmental impacts of objectives and activities also helps in the carrying out of quality control of SEA. Since 1997 a proposal for national planning shall be presented by an independent group as an alternative to the Governments proposal. Such proposals have however not had a major role in the national planning process.

5. Finland	
Title	Thematic Evaluation on Environment and Development in Finnish Development Co-operation
Type of Case Study	Integration
Summary	The Thematic Evaluation is the result of the work of a group of researchers. The study that was carried out in 1998-1999 looked into the mechanisms of translation of policy statements, formal commitments and the Decision-in-Principle to operational levels. On the one hand Finnish environmental policy objectives and the planning in administration were examined. On the other hand the implementation of programmes and projects were brought into focus. The main actors in the successive implementation process are Ministry of Foreign Affairs, the Department for International Development Co-operation, representatives for countries supported and project teams including expatriate and local consultants. The first step of operationalisation of the Decision-in-Principle, according to which environment shall be integrated in all activities, is the formulation and documentation of concrete objectives and targets. However, these 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 assessment. The lack of specific and concrete objectives makes the process of planning of programmes and project difficult and unclear. Also, lack of 'institutional memory' due to rapid rotation of ministry personnel makes planning in administration difficult. The main tools for directing of programme and project management are the Guidelines for Programme Design, Monitoring and Evaluation. These guidelines rely on logical framework design and analysis and they outline how to cope with the different steps of 'the project cycle'. At implementation levels the role of the Department for International Development co-operation is monitoring. At project level the Terms of Reference is the main mechanism for ensuring that environment is taken into consideration when carrying out the project. However, no systematic training for involved stakeholders is carried out. The establishment of an Evaluation unit has contributed to significant improvement of using project-tracking records for feed back. Only little public participation takes place in the just described decision making processes related to the operationalisation and implementation of Finnish Development Co-operation. However at project level elements of public participation are included.

6. France	
Title	SEA and Multi-Modal Infrastructures: the Case of the North Corridor
Type of Case Study	SEA
Summary	The development of the SEA methodology for the North Corridor is a result of a requirement by the European Council and the European Parliament for the development of SEA methodologies (Article 8 of guidelines on development of Trans-European Transport Networks). The results contributed to the production of a manual on SEA of Transport Infrastructure Plans by the European Commission. The traditional SEA was carried out as a purely illustrative assessment based on potential plans to create new infrastructure developments for this particular corridor. It should be noted that before the SEA was carried out TENs had already been decided and therefore the SEA was occurring late in the process. Despite being a comprehensive assessment with the identification of four different infrastructure scenarios, the use of existing data as well as the use of five databases for the collection of baseline information and the extensive use of Geographical Information Systems, a number of weaknesses were identified. These helped to restrict the effectiveness of the SEA methodology and the degree to which the environment was integrated into the decision-making process. There were no opportunities for public participation and there were poor mechanisms for communication between the various bodies involved. Comparing the various scenarios proved difficult, as did the gathering, comparing and analysis of information from the databases. The level of work carried out was also considered restricted through limits on time and budget. This SEA is the first of its kind to be undertaken in France. It is recognised that through various improvements such as the development of a common European spatial database and the involvement of political and environmental associations as representative of the general public that the methodology can be made more effective for future multi-modal scenarios.
7. Germany	
Title	Land-Use Plan and Integrated Landscape Plan, Erlangen
Type of Case Study	SEA (mainly, also special kind of integration)
Summary	The SEA started early during the planning process and included several possibilities for stakeholders' participation (mostly to comment on the drafted plan) both for organised and general public. To assess impact significance both base line and objectives based methods haven been used. For some parts of the plan alternatives exist, dealing either with different sites or with different means. For evaluating the environmental impacts a combination of technical methodologies, expert's judgement and communication processes was used. The SEA can only be rated as partly successful regarding to the integration of environment into strategic decision-making, because the policy-makers weighted certain socio-economic issues as more important than several suggestions made in the SEA report. The SEA has elements of both an "integrationary SEA" and a "traditional SEA", moreover it can be seen as a special type of integration (common land-use and landscape plan). Its extent to influence the decision-makers can be rated as fair. Please note that due to political changes after the local elections in 1996 some of the planning intentions of the City Council have been changed. Nevertheless the case study can be seen as a model for the SEA of similar land-use plans (e.g. it used a sophisticated methodology, there was a scientific evaluation). In terms of "tiering" it should be stated that elements of the SEA report of the land-use plan (e.g. the assessment matrix) will be used in lower decision-making tiers (building plan level).

8. Ireland	
Title	Eco-Audit (Pilot)
Type of Case Study	SEA (Environmental Appraisal)
Summary	The Eco-Audit or Environmental Appraisal is an objectives based appraisal and is the result of the government's commitment to fulfilling the objectives of the National Sustainability Development Strategy. It can be described as a plan appraisal SEA. Introduced in 1999 as a 'pilot' study the Eco-Audit was designed to be proactive in nature and to occur at the policy formation process. Ten pilot exercises were chosen including the Eco-Audit of the National Development Plan (NDP) 2000 – 2006. Procedural guidelines are available from government. The Eco-Audit procedure is a six-step process not unlike project level EIA. Subjective judgement is used to assess impacts through the use of a checklist. This checklist is based on levels of 'significance' at screening and scoping stages and it is not clearly defined as to what is 'significant' and what is not. There is no requirement for public participation although two NGO's were involved with NDP Eco-Audit. Also, there is no use of baseline data. Much discretion is given to those carrying out the Eco-Audit which may led to discrepancies including poor implementation of guidelines. Alternatives are not considered in the process. Despite these apparent weaknesses the Eco-Audit is seen as a positive step and a valuable tool towards the integration of the environment into strategic decision-making. An evaluation of the results and a workshop, after the pilot exercises are completed, should help identify areas for further development/improvement.
9. Ireland	
Title	Marine and Coastal Areas and Adjacent Seas – an Environmental Assessment.
Type of Case Study	Integration
Summary	The environmental assessment of Ireland's marine and coastal and adjacent seas is the result of the governments commitment to the 1998 Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR) and is the first of its kind in Ireland. The assessment is based on the objectives of the OSPAR Commission but involves the appraisal of baseline data. There was very little public participation although the assessment process was well organised with co-ordinating and monitoring groups within the OSPAR Commission as well as a scientific team and steering committees. However, there were concerns over insufficient dialogue between the various bodies. The assessment can be described as a scientific-based SEA, which falls into the category of 'traditional' (EIA-inspired) SEA. Not only is it seen as a support tool for decision-making, mainly as an invaluable database of information of marine environmental quality, but also as a basis by which environmental policies and associated management requirements can be reviewed. However, there are concerns that the process takes too long (1 – 2 years) and by the time the final report is produced policy changes may have occurred or new policies introduced. It is recognised that changes are required to make a more speedy and efficient assessment process.

10. Netherlands	
Title	National Environmental Policy Plan 3 (NEPP3)
Type of Case Study	Integration
Summary	NEPP3, produced in 1998, is the result of the 1989 National Environmental Policy Act, which provides a more integrated approach to policy implementation. Its goal is to integrate environmental policy into all government actions and to achieve sustainable development in the longer term. The policy plan is objectives based and has a programme of actions. The NEPP process occurs every 4 years (a requirement of the 1993 Environmental Management Act) with each being based on a number of environmental themes and reduction targets which are key to the policy development process. NEPP3 places much emphasis on participation. At national level a working group, consisting of a number of different Ministries, reported regularly to the Council of Ministers. The process also involved bodies outside the national level in provinces, local communities and environmental NGOs. It is also recognised that monitoring and information are essential pre-requisites for the development and implementation of environmental policy. An independent research foundation (RIVM) carries out a number of studies. These include studies on current environmental conditions every year, a yearly scientific report describing developments in environmental quality caused by the implementation of quality measures and a scientific report every four years describing developments in environmental quality over a period of no less than the next ten years. The NEPP3 process can be described as intregrationary SEA. The policy plan process has proved effective in achieving its objectives in the past and it is thought to contribute 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.
11. New Zealand	
Title	Canterbury Regional Council – Local Environmental Management Strategies and Stakeholders.
Type of Case Study	SEA & Integration
Summary	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. Guidance on appraisal is issued by central government The appraisal process forms an integral and inseparable part of plan development and is based on extensive public participation and transparency in the assessment of options and alternatives from the outset of plan preparation. In general, stakeholders are both willing and keen to be heard and generally confident in the system. Information is readily available (for example in the forms of issues reports, the Internet, or through direct mailing to identified stakeholders). The successive "layering" of plan appraisal (from national through to district plan assessment) as well as the requirement for the conformity of plans with those in next tier (e.g. district plans to conform to regional and national plans and regional plans to conform to national plans) promotes integration. Subjective methodologies are used to appraise significance. While the statutory provisions of the RMA are regarded as very successful in mainstreaming environmental issues, the extensive consultation and appraisal process results in a protracted time frame for plan preparation. The specific geo-political circumstances under which this approach has evolved as well as extensive time and resource costs involved may render this approach less adaptable to other countries. This is an example if integrationary SEA.

12. Portugal	
Title	National Council for the Environment and Sustainable Development (NCESD)
Type of Case Study	Integration
Summary	This case study looks at the functioning of the NCESD, through its input in two national plans: the National Economic and Social Development Plan 2000-2006 and the Strategic Hospital Wastes Plan. The assessment undertaken by the NCESD is triggered after they have been requested to issue such a declaration, which may occur at any time in the policy making process, but normally occurs once a draft has been finalised. The NCESD may consult with stakeholders, but normally this does not take place, although all of their standpoints are published and publicly available for consultation. The NCESD does not follow a prescribed assessment methodology, but rather uses an ad hoc approach through their working groups. No baseline studies were used to assess significance, nor was significance of impacts directly addressed. Alternatives were not assessed explicitly; these were proposed in general terms and reflected in the standpoint as part of the recommendations. The methodology used was purely subjective professional judgement and no technical methodologies were used. There were no stated procedures either. Integration of key actors was very limited, as they were not directly engaged in the assessment process. The policy option chosen was clearly altered by the NCESD's standpoint, but not to the degree that the NCESD would have liked to see. The functioning of the NCESD as an assessment body would correspond to an ad hoc mechanism of environmental integration. Its effectiveness is potentially large, but limited due to a lack of mandatory SEA processes (which presumably would involve other bodies in the SEA process apart from the NCESD) and the lack of formal requirements and/or guidance.
13. Slovak Republic	
Title	Land-Use Plan, Bratislava
Type of Case Study	SEA
Summary	The (still ongoing, as of begin of March 2001) SEA can be seen as first "real and full" one for the Slovak Republic. The SEA did not start early enough (approximately one year delayed compared to the beginning of the planning process) with the consequence that it couldn't influence the definition of the plan's objectives. The SEA allowed the involvement of different stakeholders in the process with their right to comment on the drafted plan. Moreover, the EIA centres of the two big Bratislava universities played a crucial role. The approach of identifying impact significance was mainly baseline based. Three alternatives have been developed, representing completely different scenarios. For assessing their environmental impacts technical methodologies (e.g. overlay technique) have been preferred. It is too early to rate the extent of how the SEA has influenced strategic decision-making, because the SEA is not finished yet and one does not know whether the most environmentally friendly alternative will be chosen. The case study does not fit into one of the four defined classes. Perhaps a description as a combination of "traditional SEA" and "plan appraisal SEA" is appropriate. It is expected that the rate of integrating the environment might be of a fair degree.

14. Spain	
Title	Objective 1 Regional Development Plan (RDP)
Type of Case Study	SEA
Summary	The SEA for the Objective 1 Regional Development Plan in reality consisted in a compilation of SEA undertaken at each of the affected Autonomous Communities. SEAs started, at each of the Autonomous Communities, after the draft Plan had been issued. Various groups and government institutions were consulted throughout the Plan development process, and opportunities to comment on the RDP were given and statutory consultees consulted; however, such consultations took place for the whole of the RDP (which included the SEA report) and not the SEA specifically. A baseline study was undertaken and used to assess the environmental impacts, although with various degrees of rigour, depending on the Autonomous Community in question. No alternatives were assessed; only one regional SEA (Murcia) considered the do-nothing alternative. Only value-judgement methodologies were used. Key actors were, in general terms, not satisfied with the SEA process, as it was deemed restrictive and participation opportunities were, allegedly, very limited. The assessment mostly reflected the potential impacts of certain policy arrangements, but did not specify means to reduce impacts or alternatives. Identification of options with potential impacts, and subsequent vague and generalistic recommendations to "mitigate impacts" and "apply the EIA process" were not uncommon. Thus, it is difficult to decide if the best environmental option was selected, as no alternatives were assessed. It is difficult to label the category to which this SEA process would correspond. The guidance issued by the Network of Environmental Authorities, and allegedly followed in the SEA process, would be closed to an integrationary SEA, but in practice the assessment was not objectives-led. The SEA process had a very limited effectiveness as an integration approach. Although the baseline studies may have been rigorous in many cases, the environmental assessments were very limited and of little impact to the policy-making process. The work undertaken for this 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.

15. Spain	
Title	Castilla y León Wind Power Plan
Type of Case Study	SEA
Summary	The SEA for the Castilla y León Wind Power Plan was an integral element of the Plan drafting process; however, the "Plan" as such actually consisted of 9 different provincial Plans. Public participation was limited to making the Plan publicly available for consultation and allowing the public to submit comments. The baseline was defined as part of the SEA and used as a basis to assess impact significance. Four alternatives were discussed; the difference between them was the definition of the areas where wind farm developments were allowed, on the basis of the degree of environmental protection assigned to such areas. Thus, they were not alternative means of meeting an objective. Technical methodologies were used to identify potential impacts, as well as to classify the areas for purposes of environmental protection. Subjective judgement was used to define the alternatives and select the final alternative. The SEA was not seen as effective by stakeholders, as the areas designated where wind farm developments were to be allowed and forbidden were not binding, and the final decision left all areas open to development on the basis of a case-by-case assessment. Other complaints were expressed, such as the inappropriate scales used, and the limited access to information. It is difficult to say whether the most environmental option was chosen, as all areas were left open to development on the basis of a case-by-case analysis. The SEA undertaken fits mainly to the *Traditional (EIA-inspired) SEA* definition. The integration achieved was very limited due to the lack of rigour in establishing a tiering system, i.e. a formal link to project-level EIA and a formal link to a more general Energy Plan. As well, it was lacking in the establishment of objectives and assessing impacts against such objectives. The SEA was focused exclusively on identifying those areas where environmental impacts of wind farms were acceptable.

16. Sweden	
Title	Drinking Water Supply for the Stockholm Region (1996)
Type of Case Study	SEA
Summary	The Stockholm Water Company and Norvatten Water Company are continuously working to improve the actual 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 first stage of the study consisted of technical and hydrological investigations, a survey of conflicting interests, a study on landscaping of facilities and an outline for SEA. The purpose of the SEA was inter alia to identify the key questions. The SEA process that was carried out as second stage of the study consisted of two levels. A system level and a local level. At 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 proposed techniques. Also a zero-plus alternative was assessed. The environmental assessment at system level mainly focused on impacts of general character and impacts correlated with the water treatment process. At the local level environmental qualities and interest conflicts that were related to the production site were identified. This identification was carried out for three typical sites. The methodologies used at system level for impact predictions include trend extrapolation and professional judgement, while the impacts at the local level were based on land use claims. The final SEA document was intended to facilitate discussions between the water companies and the municipalities involved in selection of suitable site for production. Since representatives from different interests were involved in the discussion potential conflicts could be revealed at an early stage of the investigations and SEA process. The preparation of the SEA for Stockholm's future water supply was, however, affected by a high degree of uncertainty on the SEA concept. The SEA process carried out can be categorised as traditional (EIA-inspired). It is uncertain how (sectoral) SEA has been developed at (water) company level since 1996. Drinking water quality has, however, had much attention in recent years. The integration of environmental considerations at different decision making level has been ensured through different initiatives and measures. The Governments Environmental Quality objective concerning groundwater and drinking water 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 organisation is very much concerned about the quality of drinking water. However there seem to be no coherence between the different mechanisms for integration of environment in decision making and the use of sectoral SEA.

17. United Kingdom	
Title	Greening Government
Type of Case Study	Integration
Summary	The Greening Government Initiative (GGI) intends to inform policy making from the outset. However, the Green Ministers represent a more upfront approach than the environmental audit committee which audits completed policies and appraisals. 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. The emphasis is on communication, rather than technical approaches to appraisal, within and between departments but there is no public participation. However, to maximise the effectiveness of this approach there needs to be strong leadership and commitment from individuals concerned. The Cabinet Committee for the Environment (ENV) has failed to provide the top down leadership and the Green Ministers have neglected to embrace the integration aspect of their agenda particularly promoting environmental appraisals. This lack of leadership from ENV coupled with the absence of formal targets and mandatory/legal processes requires a greater degree of commitment from individual GMs to maximise their influence. The lack of leadership is also reflected in the poor performance in terms of Environmental Appraisal (EA). The Environmental Audit Committee (EAC) has concluded there is a lack of consistency within appraisals. The Home office even stated that it has struggled to find policies to which it could apply Policy Appraisal and the Environment (PAE). Although the EAC has been instrumental in kick-starting the greening government process, it can be argued that if Green Ministers were able to do there job properly there would be no need for an EAC. Perhaps the EAC is a necessary interim measure designed to kick-start a GGI strategy. GG provides the opportunity to develop Ad Hoc SEA.

18. United Kingdom	
Title	Yorkshire Forward
Type of Case Study	SEA/sustainability appraisal
Summary	Regional Development Agencies are a government agency responsible for raising the economic profile of a region. They must also have regard for sustainable development. The sustainability appraisal of the Regional Economic strategy was retrospective in nature restricting opportunities to integrate environmental considerations. There was a large stakeholder consultation but this was restricted to invitees only. The Appraisal was carried out against objectives and a rough baseline survey was ignored in the evaluation process. Alternative policies were appraised but alternative scenarios associated with each policy were not. The techniques used in the appraisal were not technical and relied on subjective judgement. However, although it was still the environment within the Sustainability Appraisal (SA) that experienced the most negative impacts and was subject to the most trade offs the positive elements were associated with the fact that the 10 sustainability criteria of the SA have formed the basis for developing a sustainable development framework for the region. In addition, the SA is being adapted so that it can be used to appraise the sustainability of individual projects. Potential problems of focussing on sustainability as a tool for environmental integration are: the additional information over and above an SEA requires aggregation and consequent loss of detail; it requires a more discursive appraisal; the environment can tend to command less importance than other elements of sustainability within an SA. Finally, This is an example of a policy plan appraisal form of SEA.

19. United Kingdom	
Title	SEA of Strategic Defence Review
Type of Case Study	SEA
Summary	The first major SEA by a UK Government Department, this was an ex post appraisal (EIA inspired) by the Ministry of Defence (Defence Estates Agency) of the Government's 1998 Strategic Defence Review (SDR). The SEA was published in 2000. It included a number of different (vertical) levels of assessment, but was very programme focused on specific training areas and activities, to quite a large extent because it was pushed in that direction by the various stakeholders. The scope was severely constrained (only activities covered by the SDR could be addressed, and so few real alternatives could be considered). Hence the focus tended to be on identifying impacts and the consideration of mitigation measures. The SEA therefore occurred too late in the process to influence the SDR. It has, however, set in train a much bigger integration process, including the development of objectives, targets and indicators, and sustainability appraisal. Central to the SEA have been communication and stakeholder involvement, and auditing and monitoring. Part of the follow-up process includes the development of guidance and training. The SEA is freely available in hard copy, on the internet and on CD-ROM. It appears to have engendered a real sea change in attitude to the environment within the Ministry of Defence as a whole.

20. World Bank	
Title	Country Assistance Strategies and the Environment
Type of Case Study	Integration
Summary	Country Assistance Strategies and the Environment (CASE) is a framework for organising the integration of the environment into the country assistance strategy (CAS) process. CAS is the strategic document setting out the Bank's business plan for disbursing money in the client country. CASE fulfils some of the tasks of an SEA such as scoping, baseline survey and mitigation recommendations; but it does not include a discreet environmental assessment stage. 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 CASE. Overall the process is regarded as moderately successful at mainstreaming the environment. CASE is a combination of ad hoc mechanisms of integration and appraisal SEA.

5.2 Discussion

The case studies demonstrate that there is a significant degree of overlap between discrete methods of integration and the constituent elements of an SEA. The case studies illustrate the use of various processes and tools of integration including the use of *auditing committees* (UK Environmental Audit Committee), *consultative committees* (National Council for the Environment and Sustainable Development in Portugal), *creating responsibility for the environment* (UK Green Ministers), use of *State of the Environment Reports* (National Environmental Action Plans in the World Bank – CASE programme), *environmental objectives* and *indicators* in policy formulation (Netherlands National Environmental Policy Plan III and Local Agenda 21 Graz) and *participatory integrated planning processes* (Environment Canterbury in New Zealand).

Parallels can be drawn between these integration techniques and elements of an SEA. For example, The National Council for the Environment and Sustainable Development in Portugal fulfils a scoping function in helping to develop policy in Portugal. Green Ministers in the UK fulfil the advocacy, co-ordination and awareness-raising role similar to that of an SEA. In the Netherlands objectives and indicators have been used to direct the policy making process. This can be compared to the use of objectives in directing the SEA process in the Spanish structural fund case study. Finally, the environmental audit committee in the UK acts as a monitoring body, an essential element of best practice SEA.

Using the earlier classification of SEA developed in section 5.1, we can identify a range of examples of these SEA models from the case studies investigated.

- **EIA inspired SEA:**
  Case study examples include the North Corridor SEA in France which is an assessment of a transport corridor that may only have been subject to individual EIAs in the past, and was highly data dependent; the SDR SEA in the UK that relied heavily on a baseline assessment; the Swedish drinking supply SEA which again used a baseline and assessed significance of impacts. The Irish Marine SEA used a scientific approach to establish the baseline and assess significance. The wind farms SEA in Castilla y Leon is primarily EIA-inspired SEA.

- **Policy analysis/appraisal inspired SEA:**
  Case study examples include the SEA of a land use plan in Weiz Austria and the Yorkshire Forward case study in the UK. The Eco-audit in Ireland also probably fits this model, as it does not include baseline data or alternatives.

- **Integrationary SEA:**
  There are less clear examples of this model of SEA within the case studies examined here. However, the case studies reveal that despite the methodology adopted being close to the definition of integrationary SEA, poor implementation has resulted in reduced effectiveness in terms of integration. For example, The SEA Report on National

Planning in Denmark. Other examples include: the environmental assessment components of the Environment Canterbury and the Netherlands National Policy Plan examples are so integrated as to be indistinguishable from the main policy making process. Another example of a more integrated SEA is the Danish case study. However, its effectiveness was reduced due to the difficulty associated with impact identification. The Canadian trade negotiations could be another example subject to implementation. The LA21 in Graz could be integrationary, although there is no indication as to how integrated LA21 will be in mainstream policy making.

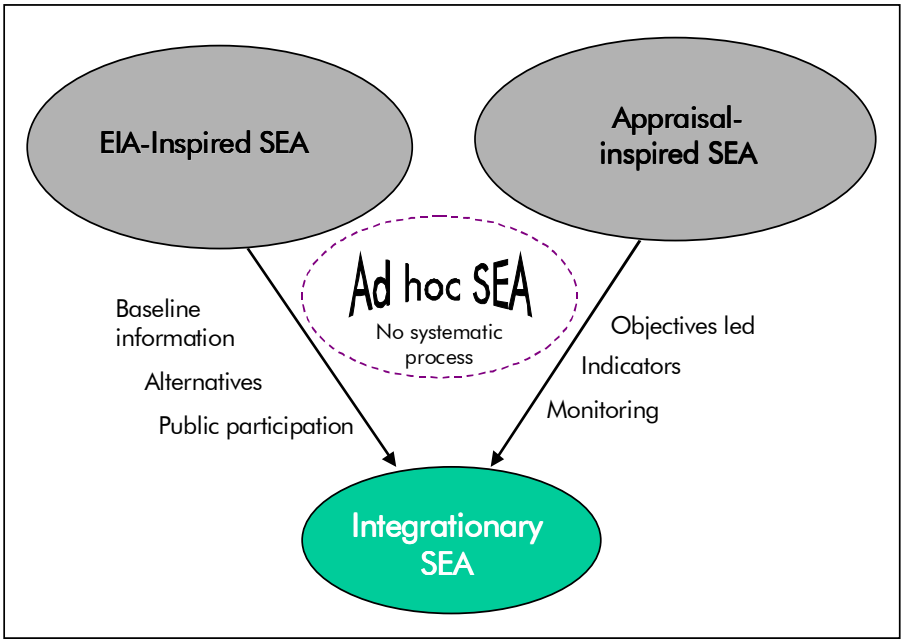
- **Ad hoc mechanisms of environmental integration:**
  Examples include The National Council on Environment and Sustainable development in Portugal and the Environmental Audit Committee and green ministers in the UK. The World Bank CASE programme includes elements of an SEA such as using state of the environment reports as a baseline survey.

Figure 5.1 below illustrates a classification of SEA arising from this research. The IEEP classification outlined in the literature review was originally developed in 1994 and reflected the numerous types of SEA present at that time. Subsequently, SEA has evolved, and the crucial elements of best practice, such as the importance of alternatives, public participation and the role of objectives, targets and indicators, have been identified and refined. This research has suggested that SEA can be seen to originate from two main disciplines: natural resource management, and political science. The research also indicates that in terms of integration it is a hybrid of both these schools that forms the optimum SEA process for environmental integration.

Figure 5.1 demonstrates diagrammatically the relationship between the four SEA types discussed above, showing how EIA-inspired SEA and Policy/Plan Appraisal SEA combine to form integrationary SEA. Ad hoc SEA exists separately, but within this model as elements of both EIA-inspired and Appraisal SEA help inform the institutions and processes seen within it. For example, a state of the environment report can be related to the baseline survey of an EIA-inspired SEA, and a sustainable development round table can help determine the SEA objectives and indicators, which are essential components of Appraisal SEA.

In reality, of course, some case studies do not fit neatly into just one model of the above classification, but contain elements of more than one. These include the land use plan in Germany, which although includes elements of integrationary SEA is more akin to EIA-inspired SEA. The Bratislava land use plan and the Finnish thematic evaluation both include elements of Appraisal and EIA-inspired SEA. With regards to the Spanish Structural Funds case study it was difficult to categorise as the guidance issued by the Network of Environmental Authorities, and allegedly followed in the SEA process, would be close to an integrationary SEA, but in practice the assessment was not objectives led.

Figure 5.1: The Relationship between Different Forms of SEA



Theoretically, integrationary SEA is the optimum form of SEA in terms of integration as it emphasises: an early start to the SEA so that is can inform the developing policy process; the assessment of significance against both objectives and the baseline; consideration of alternative means of meeting the objectives (options); and the strong emphasis on public participation. The advantage of assessing a range of options is that it allows environmental considerations to have an influence on the selection of a preferred option, since different options will have different environmental impacts.

Early public participation is critical to environmental integration in order to focus on problem solving and consensus building, and for allowing the environment to have a voice, rather than merely commenting on proposed solutions.

Appraisal forms of SEA are less effective at integration as they are often poorly informed. In theory they can be done with little or no baseline information, and therefore may not bear a great deal of resemblance to reality on the ground. They are also often carried out on a preferred option only, as in the Yorkshire Forward and Irish Eco Audit examples. However, one of the benefits of appraisals is that they can be undertaken relatively quickly and easily and may provide a stepping stone to something more substantial.

EIA-inspired SEAs are likely to be less effective at integration because generally they occur further down the policy planning hierarchy, after so many crucial decisions have already been made without any environmental consideration. Furthermore, they are likely to be more resource intensive due to the extensive baseline data required.

Ad hoc mechanisms generally lack a systematic treatment of environmental considerations within a structured process (although may be elements within such a process). It also does not allow easy iteration between different elements of SEA such as scoping informing baseline, baseline informing assessment, and assessment informing selection of preferred option(s). Consistent iteration is facilitated only by a systematic process. The case studies show that a systematic process such as SEA helps facilitate smooth communication processes both horizontally and vertically, i.e. between organisations and institutions, and between decision levels, and maximises the effectiveness of institutions. This horizontal and vertical communication is particularly important in federal countries (such as Spain) where different government levels are very independent, and there may be (as in Spain) little inter-sectoral integration.

From a methodological point of view EIA-inspired SEA is more dependent on tried and trusted EIA methods and informed by scientific surveys and quantitative data and models. Appraisal is more qualitative and since it is invariably based on expert opinion is inevitably relatively subjective. This subjectivity need not be a problem if the process is transparent and subjected to sufficient public and expert scrutiny, although unfortunately this is often lacking in many current appraisal forms of SEA. The inheritance of EIA has, in the past, perhaps acted as a constraint on developing more appropriate SEA methodologies because of the focus on technical detail. Consequently it was difficult to see beyond the detail and that SEA need not be EIA writ large. Whatever the methods used – and integrationary SEA will draw on methods from both EIA- and Appraisal-inspired SEA – they need to be well applied in a systematic and transparent process.

It is clear from the case studies that the assessment component of integration is desirable (e.g. World Bank CASE Programme), and essential for taking the integration agenda to the next level of providing something to audit (e.g. Audit Committee in UK Greening Government case study). An SEA is the most systematic way of achieving this. SEA also helps in setting and monitoring targets through its provision of baseline information; providing a framework for public participation; and thereby ensuring environmental integration is not only present in the upper decision-making levels, but actively informs the whole of the policy making process.

These categories of SEA also show that at the programme level a traditional, EIA-inspired form of SEA procedure is feasible and desirable. At the plan level a formal SEA procedure still appears to be preferred, but it tends to appraise impacts against objectives rather than a baseline survey, although this may be due to the absence of suitable data at this level. As more, appropriate data becomes available at strategic levels on a cumulative basis, and State of the Environment reports become more commonplace, so the absence of data may cease to be a limiting factor. An appraisal approach can therefore start to move towards a more integrationary SEA by utilising more available baseline information.

Interestingly, in the UK, the need to implement the SEA Directive, combined with the obligation to undertake a sustainability appraisal at the regional level, could bring about

integrationary SEA, which incorporates an objectives led process along with a baseline survey and public participation. Integrating SEA with sustainability appraisal could provide the monitoring mechanism otherwise lacking from the implementation of SEA to date, as sustainability appraisal requires indicators and targets to be set so that the performance of policies can be monitored.

The case studies also demonstrate that a best practice form of fully integrated SEA is possible for some purposes, and that it may not necessarily be too resource intensive. However, it is also the case that at the policy level a formal SEA procedure *seems* more difficult to apply as the formal processes existing at the plan level are not available at the more fluid policy level. Instead it is more common to apply informal mechanisms and place greater emphasis on communication and participation of stakeholders. In other words, more emphasis is placed on processes rather than methodologies, and changing attitudes rather than focusing on the quantification of impact significance. However, it may be that there is simply so much less experience in applying SEA to policy level decision-making that it is being developed 'on-the-hoof', in a piecemeal fashion. Hence only certain elements are apparent.

Given the findings outlined above the following questions can be posed:

What form of SEA would most effectively integrate environmental considerations into strategic decision making: -

- *a systematic and formalised SEA procedure similar to that proposed in the SEA Directive on plans and programmes?*
- *to rely on the ad hoc application of different environmental integration tools to fulfil the various elements of SEA?*
- *to integrate environmental assessment into sustainability assessment?*
- *to integrate environmental assessment into the mainstream policy process so that is indistinguishable?*

The pragmatic response to these questions is that all approaches are valid with varying degrees of effectiveness, depending on the particular circumstances and context. Since all of these approaches are already happening, is it appropriate to label some as more effective than others, when they have largely evolved in response to their environment? Perhaps an individual SEA is more accurately characterised as existing on a scale based upon the stage in the policy process at which the SEA begins, the use of baseline information, the role and nature of alternatives, and the extent of public participation. While SEA at the policy level needs to be flexible, the same is also true of policy-making processes into which it is trying to fit, so that both SEA and policy making can be complementary in promoting sustainable development.

5.3 SEA's Role in Environmental Integration

Assessing the effectiveness of environmental integration and SEAs role in it has proved extremely difficult at the strategic level. The reasons for this are two fold: firstly, it is difficult to disentangle the impact assessment stage from the policy process; secondly, the long time scales involved in the life cycle of a policy mean that the effects of the SEA will take time to be realised. What becomes clear is that SEA is feasible at the strategic level (e.g. the Canadian SEA of Trade Negotiations) and that some of the roles fulfilled by SEA are certainly desirable at the policy level. SEA obviously helps implement both the principles of sustainable development and achieve environmental integration. However, barriers remain to its full implementation: -

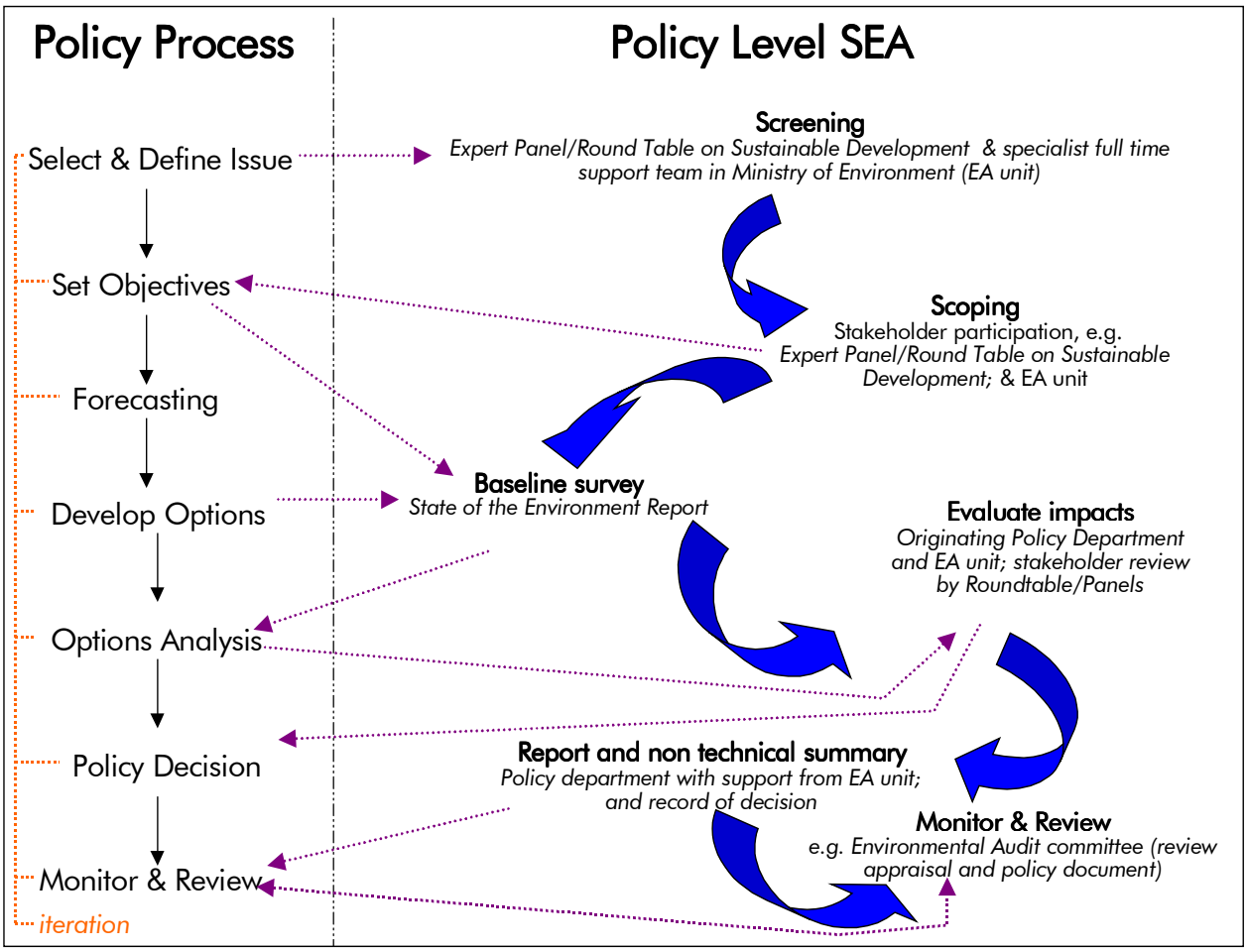
- it can be hard to predict environmental effects at the most strategic level;
- it can be difficult to set up quantifiable environmental targets and objectives;
- developing 'tiering' in practice;
- the role of SEA in wider (political) decision-making; and
- establishing effective public participation at strategic levels.

SEA, particularly in its more traditional form, can be clearly seen as a product of the more science-based policy-making paradigm prevalent in the Netherlands and the UK before the concept of ecological modernism became widely adopted. Indeed, when policy became more focused on efficiency and throughput, the role of EIA-inspired SEA became less clear as baseline data was frequently unavailable, and the benefits of the SEA are perceived as being primarily long term. The proposed classification of SEA outlined above would tend to suggest that the objectives led form of SEA, together with associated monitoring, would be more easily adapted to effectiveness and outcomes based policy making (e.g. as in the UK). Adapting SEA to the background political and policy-making context can be difficult. This is shown in the adoption of less systematic and more informal integration tools in some of the integration case studies. For example, in Spain and Ireland setting up a voluntary system of SEA and issuing guidance does not appear very effective and a legislative requirement may be necessary. In Spain, SEA only occurs in those regions where legislation for it exists. Whereas, in the UK the issuing of new easy to use guidance and the setting up of an audit committee (among other reasons) have proved quite effective in pushing SEA forward (e.g. it was seen as one of a number of driving forces behind the SEA of the SDR). When both the Integration and SEA case studies are examined together it can be seen that a form of SEA can play a significant role within environment integration. The World Bank case study illustrates that integration can occur without SEA. However, the CASE project manager indicated that the next stage of developing the CASE programme was to introduce a form of SEA, as that would be the most effective means of strengthening the CASE process.

Figure 5.2 below illustrates how elements of SEA may already exist in the form of other processes or tools. It demonstrates how these different elements can be linked together to form a more systematic SEA process. The benefits of such a systematic process would include: integrating environmental considerations throughout the policy cycle; co-ordinating

inputs, both horizontally and vertically, from different institutions, and providing a communication and reporting framework within which environmental integration can be prioritised, implemented and monitored. The advantage of linking these different ad hoc elements together to help deliver an SEA at the policy level lies in the systematic treatment of environmental considerations throughout the policy making cycle. This study has found that one of the major success factors of SEA is its ability to force decision makers to consider the environment at key stages in the policy making cycle. SEA acts as a series of hooks from the integration strategy linking to the policy making strategy ensuring that the two processes inform each other at timely intervals. Furthermore, it will also facilitate SEA best practice elements such as public participation, through the involvement of, for example, a sustainable development round table, as well as quality control, through giving an audit committee something to audit.

Figure 5.2: Scheme for Integrating Examples of Existing Processes and Tools into SEA and the Policy Process



Politically, there have been concerns about applying SEA at the policy level for fear of constraining political choice. In some countries, forms of SEA, e.g. SEA of Bills in Scandinavian countries, have been developed, which create a framework within which

subsequent SEAs and EIAs can take place. In others, more sceptical of imposing rigorous SEA on a fluid policy process, wider integration models can be seen to be favoured, including the development of sustainability appraisal (e.g. in the UK). The review has shown, however, that there is a suite of processes and tools that can be used, but that they need to be used in a more systematic and co-ordinated way to be effective.

Chapter 6

Key Success Factors, Conclusions and Recommendations.

6.1 Key Success Factors

Clearly, there is a debate as to how formalised SEA needs to be. Buckley (2000) argues that while there is much to be said for a flexible approach to grafting SEA onto existing processes this will not necessarily ensure that the environment will be effectively integrated into the decision making process. Instead he argues that a more systematic mandatory framework should be established which almost demands that sustainability considerations are meaningfully integrated throughout the process. SEA allows this more systematic examination of the environment to be undertaken. The advantage of a systematic approach is that it encourages the policy maker to consider environmental issues at key stages throughout the policy making process. However, it is important to stress that at the policy level SEA is more process orientated and less tangible than its more procedurally based cousin, EIA and programmatic EIA or possibly even plan appraisal. This point is important as there is a need to break down the psychological block to SEA, particularly among politicians and many civil servants, which is a hang over from the early days of EIA and NEPA[7]. At the policy level it may be more fruitful to consider SEA as a framework that can provide the environment with discrete hooks into the developing policy process/cycle at key stages (see Figures 5.1 and 5.2 above).

The case studies illustrate that the following aspects of SEA contribute towards its role within the environmental integration agenda: -

Advocacy
At its simplest level SEA plays an important advocacy role (Kornov and Thissen, 2000). It raises the profile of the environment and ensures that the decision-maker must at least consider the information that is provided through the environmental statement.

Awareness Raising
However, SEA also plays a more subtle awareness-raising role. It provides a mechanism within which the various actors involved in the policy process become exposed to environmental consequences.

Co-ordination and Communication
SEA represents a co-ordinating tool allowing different elements of sustainability to be identified and evaluated under a common framework, enabling more informed decisions regarding trade-offs to be made. Tiered SEA creates essential links between the different

7 US National Environmental Policy Act, 1969

levels in the policy and planning hierarchy. SEA can create institutions or a framework within which different institutions can work together.

Guidance and Training

SEA can be the catalyst to guidance and training. The UK Strategic Defence Review SEA (for example) has led to five people in the Defence Estates Agency of the Ministry of Defence being put through postgraduate environmental management courses. The Yorkshire Forward SA has led to the development of guidelines for sustainability appraisal and provided the framework for developing the region's sustainable development framework.

Information

The data provided by SEA allows more informed decisions to be made regarding trade-offs between environmental, economic and social factors. A good baseline survey allows an assessment of significance based on the current situation to be assigned to each impact. Furthermore, SEA also helps set objectives, indicators and targets. The regular use of SEA should result in investment in appropriate environmental monitoring and the creation of standard baseline database resources.

Accountability

SEA creates an auditable trail, which helps increase transparency and accountability. The SEA Directive will expose polices to greater scrutiny just as EIA has exposed decisions at plan and programme level. This will inevitably lead to pressure building up to extend EA to the policy level. SEA provides something that can be audited. Equally, auditing and monitoring is essential to ensure effective SEA. Indeed ex post assessments tend to focus on auditing and monitoring.

Catalyst for Further Mainstreaming Initiatives

SEA tends to be evolutionary rather that revolutionary in that it can act as a catalyst for further institutional and organisational changes. Often this catalyst role is extremely important at 'kicking things off', particularly in the absence of formal or legal requirements. This catalyst role can be equally effectively undertaken by an ex post assessment as a proactive SEA.

Education and Social Learning

Effective SEAs need to both educate as well as provide the framework for collecting and analysing information. The challenge is to encourage strategic-thinking stakeholders to engage in the SEA process, and to 'lift the horizon' for those least willing or able to appreciate their own interests in the wider context. It can provide an appropriate forum for active social learning by all stakeholders.

Selection of the Most Sustainable Option

SEA encourages and facilitates the consideration of alternatives, and therefore allows the earlier integration of environmental consideration within the policy making cycle, and the selection of the most environmentally sustainable option(s).

Monitoring and Quality Control

SEA provides the baseline information and prediction of impacts necessary to undertake monitoring and ensure effective quality control. Quality control should ensure that methodologies are applied appropriately and rigorously.

These themes are partly derived from the national and case study findings. Care is therefore needed in extrapolating these to more generic applications, since the examples from Member States and other countries and institutions invariably reflect their own history, planning approaches, culture, and legal systems. Nevertheless, a wide range of examples were carefully selected and studied (countries and case studies) and so a suite of key success factors can be identified, from which recommendations have been developed. These success factors are drawn as broadly as possible and from more than single examples.

Key Success Factors: -

- SEA needs to be a transparent process that allows environmental considerations to be highlighted.
- Successful SEA assesses the impacts of alternative options rather than option alternatives.
- Widespread involvement of stakeholders, policy makers and the wider public is crucial for successful SEA.
- SEA needs to be a systematic process involving different institutions in a common reporting framework.
- The most successful SEA generally occurs where there is a legal obligation to require it.
- Successful SEA involves wide use and dissemination of baseline and assessment information.
- An independent body that can review or audit the assessment process and content is needed to provide sufficient incentive to carry out SEA and accountability.
- Successful SEAs have been the start rather than the end of a process of integration, and may be a catalyst for developing further guidance and training.

- Successful SEA is an active, participatory and social learning process for all parties, in that stakeholders are able to influence the decision-maker, and the decision-maker is able to raise awareness of the strategic dimensions of the policy, plan or programme. All can learn from the process and from each other.

- Successful SEA is a continuing and iterative process in which the decision-maker is constantly being updated with the consequences of the implementation of the policy.

- Successful SEA depends on high quality and rigorous application of assessment methodologies, whether qualitative, quantitative or both.

6.2 Conclusions

In conclusion, a discrete process designed to inform the policy making process of the environmental consequences at key points is both desirable and feasible. SEA should begin at the outset of the policy making process and run parallel to it throughout, covering alternative options for achieving the objectives set out in both the policy and the SEA. Integrating the environment only implicitly rather than explicitly within the policy making process may lead to trade-offs being made earlier on in a less transparent way. Although not essential, the most 'effective' SEA (in terms of immediate SEA outcomes) occurs when there is a legal obligation to undertake it. The Austrian SEA in Weiz, for example, demonstrates how useful the SEA Directive was, even though in draft form, as it provided a rationale for that particular SEA. However, at the highest policy levels it is most important that the legal obligation should be prescriptive in terms of outcomes, rather than in detailed procedure and methodology. It would, though, be desirable to indicate minimum procedural stages in the legislation (e.g. scoping, analysis of alternatives, public participation) for which detailed procedures could then be suggested in guidance.

The forthcoming SEA Directive will provide a systematic process for integrating the environment into decision-making at the plan and programme level in EU Member States. This study has shown that SEA can also provide a means of integrating the environment into higher policy level decision-making, through EIA-inspired SEA or through policy appraisal-inspired SEA, or in an ideal form of 'integrationary' SEA which combines key elements of both. While Appraisal-led SEA is generally easier to introduce at the policy level, EIA-inspired SEA provides more rigour in terms of assessment of significance of potential impacts against baseline information. The combination of the two – integrationary SEA - brings together the benefits of both in a complementary process. Some of the individual elements of SEA are already in existence at the policy level and could be more effectively linked and supplemented to create more systematic integrationary SEA processes. In reality, there already exists considerable experience of a wide variety of integration mechanisms that can be drawn upon.

Once the requirement and processes for SEA are established the next most important requirement is guidance. This guidance should advocate a flexible process that draws

particularly on existing environmental integration institutions and mechanisms. The guidance should advocate the extensive use of public participation, but framed in such a way that it is a two-way process providing information to all parties, a wider education and social learning role, and influencing the decision-making process. Finally, training will also increase the long-term effectiveness of SEA, and help retain institutional memory and expertise.

As the SEA Directive is implemented in Member States at the plan and programme level, so attention will be drawn to policy level decision-making, to ensure that the environment is effectively integrated at an early enough stage. The SEA Directive may also, therefore, act as catalyst to SEA at the policy level as well as formally requiring SEA at the plan and programme levels.

6.3 Recommendations

Introduction

The following recommendations - to the European Commission, Member State Governments, agencies, institutions and stakeholders - on how SEA can be best integrated into policy making, are drawn from the literature, analysis, discussions and conclusions above, and from discussions with interviewees and consultees during the country reviews and the case study research. In making these recommendations there has been an attempt to try to avoid the self-evident recommendations that are inherent to good SEA (e.g. the importance of scoping) and that invariably have been made previously elsewhere. The recommendations particularly focus on the key issues emerging from the generic and the case study research. They are grouped into the following themes:

- Applying SEA at the most strategic levels of decision-making
- Promoting effectiveness of integration
- Public and stakeholder participation
- SEA and Sustainability Appraisal
- Undertaking SEA
- Guidance and Training

Applying SEA at the most strategic levels of decision-making

1. EIA-inspired or policy appraisal-inspired SEA, even if only partial, can provide a useful starting point for subsequent development into more extensive and integrationary SEA.

SEA is evolutionary rather than revolutionary; it takes time for a significant change in approach to be achieved. Policy SEA needs to be as systematic as possible, but needs to be flexible and dynamic, reflecting more closely the nature of strategic policy and decision-making.

2. A flexible form of SEA is needed at policy-making levels, and existing strategic processes should be examined for compatibility to the SEA process.

There may be elements of SEA already in place. Member States should examine existing processes explicitly in terms of SEA, to encourage a more co-ordinated approach to integration and other SEA elements to be developed. SEA may be revealed as less demanding and radical than first thought. For example, a State of the Environment report might equate to baseline information; a Sustainable Development Roundtable might perform the equivalent of a scoping process.

3. SEA should be promoted as a means of changing attitudes and culture within organisations and government departments.

SEA offers an opportunity to bring about a real change of attitude and culture at strategic levels within an organisation or government department, by acting as a catalyst to integrating the environment. While SEA can help bring about change, in some countries policy making has traditionally been beyond the public domain, and so a change in culture may be needed before SEA can have a further catalytic role.

4. The scope of SEA should not be unduly constrained, otherwise it will not be strictly strategic.

Options, alternatives and questions of need are a prerequisite for a *strategic* assessment. SEA should start as early as possible in the policy and decision-making process and alternatives considered appropriate to the level of decision-making.

5. Effort should be concentrated on establishing appropriate communication processes and networks, and putting in place engines for change.

SEA at the most strategic levels is about process more than methodology, more about change of culture and attitude than about immediate outcomes. At the policy level SEA becomes focused on communication and participation with stakeholders.

Promoting effectiveness of integration

6. A tiered approach to SEA should be adopted to help promote the integration of the environment into decision-making.

In the absence of tiering, communication processes become broken or interrupted, creating dissonance with other levels of decision-making. Tiering also provides a means and an incentive for auditing and monitoring.

7. Auditing, monitoring and quality control should be an integral component of any SEA process.

Since the policy process is often cyclical, feedback from the SEA to and throughout the policy process is essential if integration is to be made effective (e.g. through the use of indicators). The consequences of strategic decisions can have long term implications at all subsequent lower levels of decision making. In addition, parallel

scientific evaluation of the SEA can support the development of best practice models and methodologies. Resources will need to be allocated for these purposes, and some form of independent body is recommended (e.g. an audit committee).

8. Effectiveness of integration should be measured in the long term, rather than simply by short-term output and outcome performance measures.

Untangling effectiveness is difficult, as there are invariably a multitude of factors associated with the implementation of policy decisions. The full benefits of an SEA process may only be recognised some time after a culture change has been initiated.

Public and stakeholder participation

9. Good SEA needs transparent and participatory processes and decisions.

The development and application of appropriate methods of engaging stakeholders and the public at strategic levels can be difficult, but nonetheless essential. Particular effort is required to identify the 'affected public'. NGOs may be able to act as a proxy for the wider public, but it should not be assumed they can in all cases. It may be necessary to establish an organised and/or qualified public for the purpose. Reference should be made to the Aarhus Convention for minimum requirements. Transparency requires decisions to be explained, e.g. as to how the SEA informed the decision.

10. Stakeholders and the public should be encouraged to think as strategically as possible, to help avoid the 'hijacking' of the SEA by more parochial views.

Many stakeholders may be more interested in the detail of implementation on the ground (i.e. subsequent lower level decision-making, in the form of projects and site-specific details). This can force the SEA process to attempt to address solutions rather than problems and at a level of detail that is inappropriate for a truly strategic consideration of options.

SEA and Sustainability Appraisal

11. SEA and sustainability appraisal should be seen as complementary and not substitutes for each other.

Care is needed to ensure the environment is not diminished in decision-making as a consequence of taking a more integrated approach through sustainability appraisal (SA). SEA and SA have different objectives and should be conducted together or their processes integrated to ensure the environment does not lose its explicit recognition in decision-making. Trade-offs should be transparent and the responsibility of the decision-making process, rather than the tool being used.

12. SEA can strengthen wider sustainability appraisal where it brings baseline information together with objectives led assessment.

SEA can help ground a wider sustainability appraisal in the real world through the evaluation against baseline data as well as more abstract objectives. SEA offers an opportunity to ensure that the environment is integrated into strategic decision-making *explicitly*.

13. The reasons for including certain socio-economic impacts, and to what extent, within SEA should be made explicit.

It may be appropriate to include in SEA those socio-economic impacts that are associated with or are a consequence of environmental impacts and which otherwise may not feature in decision-making (e.g. noise is a direct environmental impact, but its effects on house prices might be regarded as a secondary, socio-economic effect). This is important to help foster a better understanding and definition of the boundaries between SEA and sustainability appraisal.

Undertaking SEA

14. There should be a named, senior individual responsible for the co-ordination and delivery of any SEA and also a named individual responsible for the communication of any SEA process.

It is important to provide the necessary leadership and strategic perspective on the whole process. Communication may be focused on another individual, but a single contact point is essential. An open and transparent process can help create new networks and enable effective communication between parties and individuals. The use of the Internet and web pages should become standard practice for disseminating information relating to the SEA.

15. Emphasis needs to be placed on 'building the right team' of experts in any SEA or wider appraisal.

This becomes especially important the wider the appraisal. Having, for example, social, economic, health impact, and public participation professionals in a team, as well as environmental experts, becomes particularly important in sustainability appraisal. Encouraging interdisciplinary working can be a challenge in itself.

16. Greater effort is needed to improve the quality of baseline information against which policies and options can be assessed.

This can be achieved, for example, through the development of indicators and the production of State of the Environment reports at all levels - national, regional and local, and through developing improved consistency in data collection and GIS systems. Lack of data consistency can be particularly problematic in the case of transboundary impacts, at whatever level. GIS can aid strategic thinking and so help avoid the diversion of the SEA to less strategic levels.

17. Lessons should be learned from the implementation of the SEA Directive at plan and programme level for wider application to policies.

The fact that the SEA Directive does not yet apply to policies should not be a reason for not applying SEA to more strategic policy making levels. The application of SEA at plan and programme level as a result of the SEA Directive is likely to expose policies to greater scrutiny, just as EIA has exposed decisions made at plan and programme level. Legislation at the EU level is likely to be desirable in the future to encourage a more systematic approach to SEA of policies.

Guidance and training

18. Guidance and training is essential to take forward SEA.

It cannot be assumed that personnel will have the capacity or capabilities to do so otherwise. It is also an important component of wider awareness raising and communication strategies. This is likely to require the commitment of new resources, in staff and financial terms.

19. Mechanisms need to be developed within government departments and organisations to foster and retain 'institutional memory'.

Institutional memory on environmental integration and SEA is hampered by the frequent change of personnel typical of government institutions. Guidance and training is essential in this respect, through induction and ongoing programmes, so as not to rely unduly on the special competencies of individuals.

20. Guidance should be developed by the European Commission for carrying out SEA at the most strategic policy levels.

Guidance similar to that developed for plan SEA in advance of the SEA Directive is needed. The evidence suggests that where guidance exists, along with the political will to use it, it can be effective in promoting the integration of the environment into the most strategic decision-making.

Bibliography

Allison, L. (1975) Environmental Planning: A Political and Philosophical Analysis. George Allen & Unwin Ltd.

Baughan, C J and Chinn, L (1997), Estimating the Total and Cumulative Environmental Impacts of the Road Programme – A Feasibility Study (Special Report HPP1, TRL for the Dept. of Transport).

Blowers, A (1993), The Time for Change, in Blowers, A (ed) *Planning for a Sustainable Environment*: *A Report by the Town and Country Planning Association*, Earthscan, London.

Brown, A L and Therivel, R (2000) Principles to guide the development of strategic environmental assessment methodology*, Impact Assessment and Project Appraisal* Vol. 18 (3), pp183-189.

Buckley, R (2000) Strategic environmental assessment of policies and plans: legislation and implementation, *Impact Assessment and Project Appraisal* Vol.18(3), pp 209-215.

Commission of the European Communities (1998), Partnership for Integration – A Strategy for integrating the Environment into European Union Policies, COM (98) 333.

Commission of the European Communities (1999a)*, Manual of SEA of Transport Infrastructure Plans*, DDG Energy and Transport.

Commission of the European Communities (1999b), Conclusions of the German Presidency of the EC Council of Ministers on the International Workshop on "Best Practices for Integration of Environmental Protection Requirements into Other Policies", Bonn, 25&26 May 1999.

Commission of the European Communities (2000)*, SEA in the Transport Sector: An overview of legislation and practice in EU Member States*, ERM/DG Environment.

Commission of the European Communities (2001a), *SEA of Transport Corridors: Lessons learned comparing the methods of five Member States*, ERM/DG Environment.

Commission of the European Communities (2001b), Proposal for a Directive of the European Parliament and of the Council providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending Council Directives 85/337/EEC and 96/61/EC, COM (2000) 839 final.

Council of the European Union, (2000) Common Position adopted by the Council with a view to the adoption of a Directive of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment, adopted 20 March 2000.

Council of the European Union, (2001), Political Agreement reached on Directive of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment, at European Commission EA Homepage
URL: http://europa.eu.int/comm/environment/eia/

Curran, J (1999), Sustainability Impact Assessment of Proposed WTO New Round of Multilateral Trade Negotiations, *EIA Newsletter* 18, Manchester EIA Centre, Manchester.

Department of the Environment (1991), Policy Appraisal and the Environment, HMSO, London.

Department of the Enivronment (1993), Environmental Appraisal of Development Plans: A Good Practice Guide, HMSO: London.

Department of the Environment, Transport and the Regions (DETR) (1998), Policy Appraisal and the Environment, accessed at http://www.environment.detr.gov.uk/appraisal/index.htm, published 8 April 1998.

Department of the Environment, Transport and the Regions (DETR) (2000), *Cross Cutting Issues in Public Participation*. A Report Prepared for the DETR by Birmingham University. Online at [http://www.local-regions.detr.gov.uk/cross/ccpps/]

European Consultative Forum on the Environment and Sustainable Development, 2000, Sustainable Governance: Institutional and Procedural aspects of sustainability, European Commission.

European Environment Agency (1995), *Europe's Environment: The Dobris Assessment*, Copenhagen.

Fergusson M, Coffey, C, Wilkinson, D, Baldock, D, Farmer, A, Kraemer, R A and Mazurek, A-G (2001), *The Effectiveness of EU Council Integration Strategies and Options for Carrying Forward the 'Cardiff' Process*, IEEP/Ecologic, March 2001

Hajer, M. (1995), *The Politics of Environmental Discourse*, Oxford, Oxford University Press.

Institute for European Environmental Policy (1994), SEA: Implications for the English Countryside, Report for the Countryside Commission, IEEP, London.

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

Kleinschmidt, V and Wagner, D (eds.) (1998) *SEA in Europe*, Fourth European Workshop on EIA, Kluwer, London.

Kornov, L and Thissen W A H (2000), Rationality in Decision- and Policy-Making: Implications for Strategic Environmental Assessment, *Impact Assessment and Project Appraisal* Vol. 18 (3) pp191-200.

Kraemer, R A (2001), *Results of the "Cardiff-Processes" – Assessing the State of Development and Charting the Way Ahead*, Report to the German Federal Environmental Agency and the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety, Research Report No. 299 19 120 (UFOPLAN), Ecologic/IEEP.

van Latesteijen, H. and Scoonenboom, J. (eds.) (1996) *Policy Scenarios for Sustainable Development:. Environmental Policy in an International Context 3*. Arnold, London.

Lee, L and Hughes, J (1996) *Strategic Environmental Assessment Legislation and Procedures in the Community*. CEC, DGXI;

Lintott, J (1999), Environmental Accounting and Welfare*, Journal of Environmental Assessment Policy and Management*, Vol 1 (2), pp177-194.

Marsden, S. (1999). Legislative EA in the Netherlands: The E-Test as a Strategic and Integrative Instrument. *European Environment*, Vol. 9, pages 90-100.

McCormick, J (1991) British Politics and the Environment, Earthscan, London.

Noble, B (2000), Strategic Environmental Assessment: What Is It and What Makes It Strategic? *Journal of Environmental Assessment Policy and Management*, Vol. 2 (2), 203-224.

Nooteboom, S and Wieringa, K (1999), Comparing SEA and IEA*, Journal of Environmental Assessment Policy and Management*, Vol. 1 (4), 441-457

OECD (1994), Core set of indicators for environmental performance reviews, Environment Monograph No 83, Paris.

Owens, S & Rayner, T (1999), When Knowledge Matters: The Role and Influence of the Royal Commission on Environmental Pollution*, Journal of Environmental Policy & Planning,* Vol. 1: 7-24.

Partidario, M. R. (1996) Strategic Environmental Assessment: Key Issues Emerging from Recent Practice. *Environmental Impact Assessment Review*, **16**, 31-55.

Partidario, M R (1999), Strategic Environmental Assessment – Principles and Potential, in Petts, J (ed) *Handbook of Environmental Impact Assessment* (Vol.1), pp 60-73, Blackwell Science

Sadler, B. and Verheem, R. (1996) *Strategic Environmental Assessment: Status, Challenges and Future Directions*. Ministry of Housing, Spatial Planning and the Environment of the Netherlands.

Sheate, W R (1992), Strategic Environmental Assessment in the Transport Sector, *Project Appraisal*, Vol .7 (3), 170-174.

Therivel, R., Wilson, E., Thompson, S., Heaney, D. and Pritchard, D. (1992) *Strategic Environmental Assessment*. Earthscan, London.

UK Government (1990), *This Common Inheritance*, Environment White Paper, HMSO, London

US EPA (1996) *EPA's Comparative Risk Projects – Environmental Indicators: A Powerful Planning Tool*.

Verheem, R A A and Tonk, J A M N (2000), Strategic Environmental Assessment: One Concept, Multiple Forms, *Impact Assessment and Project Appraisal* Vol. 18 (3) pp 177-182.

Warren, R F and ApSimon, H M (2000), Application of Limiting Marginal Abatement Costs in Optimised Strategies to Reduce Acidification and Eutrophication in Europe: Illustrations Using the Abatement Strategies Assessment Model (ASAM), *Journal of Environmental Assessment Policy and Management*, Vol 2 (1), pp119-166.

Wilkinson, D (1998), Steps Towards Integrating the Environment into Other EU Policy Sectors, in O'Riordan, T and Voisey, H (eds.) (1998), *The Transition to Sustainability: The Politics of Agenda 21 in Europe*, Earthscan, London.

World Commission on Environment and Development (1987), *Our Common Future*.

Appendix 1

Terms of Reference

EUROPEAN COMMISSION
DIRECTORATE-GENERAL XI
ENVIRONMENT, NUCLEAR SAFETY AND CIVIL PROTECTION
Directorate B - Integration policy and instruments
XI.B.4 – Structural policy, environmental impact assessment, LIFE environment

SEA and Integration of the environment into strategic decision-making

1. INTRODUCTION

The main objective of SEA is to provide for a high level of protection of the environment with a view to promoting sustainable development. Numerous reports (cf. The Fifth EC Environmental Action Programme) have established that sustainable development can only be achieved through integration of environmental considerations in all major policy areas.

Now SEA is increasingly recognised as one of the key tools for achieving the goals of integration (cf. *inter alia* SEA workshop report, Semmering, Austria – 1998, Conclusions of the International Workshop on "Best practices for integration of Environmental Protection Requirements into Other Policies", Bonn – 1999).

For this potential to materialise, SEA has to become a well-established practise within the strategic decision-making processes (at the policy, planning and programming level) starting at the earliest stages. But the decision-making context itself determines to a large extent the effectiveness of SEA. The present study investigates the interrelations between these factors and the effectiveness of SEA.

2. OBJECTIVE OF THE STUDY

This study aims to identify the decision-making context and key factors for effective implementation of SEA as an instrument for integrating the environment into strategic decision-making and in particular

- to identify and describe the main models of institutional and organisational structures for strategic decision-making and of communication and co-operation processes at inter-institutional and interdepartmental level and between the administrative level and external parties/partners; to analyse how these models and processes influence the effectiveness of SEA;
- to identify tools and methods for integration of the environment into strategic decision-making and to analyse how these stand into relation to SEA;

Rue de la Loi 200, B-1049 Bruxelles/Wetstraat 200, B-1049 Brussel - Belgium - Office:
Telephone: direct line (+32-2)29....., switchboard 299.11.11. Fax: 29.....
Telex: COMEU B 21877. Telegraphic address: COMEUR Brussels.

– to identify key success factors for effective implementation of SEA and to make recommendations for establishing an effective decision-making framework for the integration of the environment in which SEA can play its role in an effective way.

3. TASKS OF THE CONTRACTOR

- Task 1: Detailed overview of relevant institutional issues, societal and organisational structures and communication processes;
- Task 2: Detailed overview of methodologies and tools for integration and analysis of their interrelation with SEA;
- Task 3: Case study analysis;
- Task 4: Recommendations and key factors.

3.1. Task 1: Detailed overview of relevant institutional issues, societal and organisational structures and communication processes

A detailed and comprehensive overview shall be provided of the main types of institutions and organisational structures and of the main types of communication and co-operation processes at inter-institutional, interdepartmental level and between the administrative level and external parties/partners. Only organisational models and communication processes shall be reviewed that are relevant to the integration of the environment into strategic decision-making (at the policy, plans and programme level) and to hosting the SEA process.

Special attention shall be given to the role of the environmental authorities and their inter-relation with other sectoral authorities, to the interrelation between public and private actors in strategic decision-making, to informal communication and decision-making processes at the early stages, to the role of the public and to the influence of cultural differences both at societal level and at departmental level.

Both European models and the models practised in leading countries at international level shall be described.

The review shall include a comparative discussion of the different organisational models and communication processes identified and of the way these can influence the effectiveness of SEA and environmental integration.

3.2. Task 2: Detailed overview of methodologies and tools for integration and analysis of their interrelation with SEA

Relevant methodologies and tools in the Member States, in leading countries at the international scene and in international institutions shall be identified and described. A detailed analysis shall be carried out on how they relate to or interact with SEA and on how they contribute to the integration of the environment into decision-making.

3.3. Task 3: Case study analysis

Case studies shall be undertaken:

- of how SEA has been applied within different institutional and organisational models and with different communication processes and of how SEA has contributed to the integration of the environment in strategic decision-making and
- of how SEA has been applied together with other methods and tools for integration of the environment, whether there were overlaps or whether the different tools and methods were used in complementary ways.

3.4. Task 4: Key success factors and recommendations

Based on the outcome of the previous tasks, key success factors and practical recommendations shall be made on how to integrate SEA into decision-making processes that move forwards environmental integration.

4. METHODOLOGY

Information for the execution of these tasks shall be gathered through desk studies, literature surveys covering relevant literature within the EU and the most important literature at international level, the use of networks, direct calling, expert interviews and questionnaires. The Contractor shall organise promotional actions in order to ensure a maximum response to its questionnaires.

The content of the reviews and reports should be limited to those issues that can influence the effectiveness of SEA and the environmental integration.

For identifying the cases of the case study, the Contractor shall propose screening criteria for selecting the cases, subject to the approval of the Commission. The screening shall be applied to lists of candidate-cases of which the number shall significantly exceed the final number of cases to be studied. The number of case studies shall not be less than 20 and should come from at least eight Member States but should not necessarily be limited to experience from the Member States. The selected cases shall be proposed by the Contractor to the Commission and shall be subject to the approval of the Commission.

5. REPORTS TO BE SUBMITTED

Stage 1. First interim report which includes:

- outcome of Tasks 1 and 2 and of the preparatory stages of Task 3
- Progress report, including conclusions arising from the current stage of study, and any recommendations which may affect the subsequent stages.

Stage 2. Second interim report which includes:

- outcome of Tasks 3, update of the reports of Task 1 and 2 taking into account the outcome of Task3, and outcome of Task 4

Stage 3: Final report, which includes in separate volumes the final versions of the reports of previous stages.

Minutes of meetings with the steering group

All reports submitted by the Contractor shall be written in English, sent in paper format to all the members of the steering committee and sent in electronic format to the Commission. All reports are subject to acceptance by the Commission. In addition, five copies of the final report shall be made available to the Commission in paper version and shall be in a format suitable for publishing on the Environmental Assessment homepage of the Commission.

6. STEERING COMMITTEE

A steering committee will be established with representatives of the Commission and up to five representatives of the Member states. The steering committee shall meet two times: at the outcome of respectively the stages 1 and 2. The Contractor shall ensure that the members of the steering committee receive the relevant discussion documents (e.g. interim reports) at the latest 10 working days before the steering committee meeting takes place.

The Contractor shall send the minutes of the steering committee meeting to all the participants at the latest 5 working days after the steering committee meeting.

The travel and accommodation expenses of the "Member State" representatives of the steering committee shall be handled and paid by the Contractor at the latest two months after each meeting of the steering committee that has taken place, on the basis of the tariffs applicable at the Commission.

7. TERMINOLOGY

SEA: Strategic Environmental Assessment

Amended Proposal for SEA Directive: Amended Proposal for a Council Directive on the assessment of the effects of certain plans and programmes on the environment COM (99) 73.

Appendix 2
Long-list of Potential 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		• Regional Programme of Tennengau (region of Province of Salzburg) • SEA of Danube Corridor	• Land Use Plan of Municipality of Weiz (Styria) • Energy Plan Graz • Waste Management Plan of Vienna
Denmark				• SEA of Bills: On Private Urban renewal (1996) On Laws on Tenancy (1996) On the Protection of Coastal Zones (1996) • National Environmental Action Plans: • National Land Use Plan Action Plan • Sectoral Plan on CO_2 emissions reduction in the transport sector.	• County Plan (regional) for Northern Jutland (1993, 1997, 1999) • Interreg II project – County Plan for Viborg	• Aalborg Kommune 1995 – SEA of municipal planning, budgeting and administrative decisions. • Hilleroed Kommune (Municipal Plan 2000-2001) – public participation emphasis
Finland	• Thematic evaluation on environment and development in the Finnish Development Co-operation, Min. for Foreign Affairs, 1998			• Waste Management Planning (national) • Post-factum analysis of energy saving programme • Post-factum analysis of Gene technology Act	• SEA of Nordic Triangle – transport infrastructure for the southern coast • Waste Management Planning (regional)	• Helsinki Metropolitan Area Transport System (1998)

France				• Electricity transmission lines, national and regional environmental plans (1995)	• SEA of Multi-modal Corridors, North Corridor (Le Havre, north of Paris, Nancy and Brussels) 1999 • SEA of Rhone Corridor	• Municipal land use plan (POS) of Rennes • Special Zones for Quarries in the Yvelines
Germany				• Feasibiltiy study of SEA of Federal Transport Infrastructure plan (1995)	• SEA application to regional development planning in North-Rhine Westfalia (1999)	• Voluntary SEAs for Erlangen and nine other cities. Erlangen full SEA with comprehensive documentation.
Greece			• Local Agenda 21 initiatives in Amaroussion, Halandri, Plaka and Lavrion			• Achelous River Diversion (closest to an SEA in Greece)

Ireland				• National Development Plan 1994-1999 (under Structural Funds Regulation) • Marine and Coastal Areas and Adjacent Seas (1999) – part of North Atlantic assessment under OSPAR Convention • Department of Transport Initiative • Eco-Audits (Appraisals) of:- • Pilot Eco-audit of National Development Plan 2000-2006 (Department of Finance) • Review of Programme of Works on Royal Canal • Schools in Offaly and Laois, one using sustainability principles and the 'eco-school'. • Rural Development Plan • Rationalisation and modernisation of the Beef Processing Industry • Renewable Energy target.	• Strategic Planning Guidelines the Greater Dublin Area (1999) – 12-year strategic for planning framework for Development Plans	
Italy					• Regional Development Plans	• Municipal Land Use Management Plan of Arvier (1997) • Municipal Plans and works in Bologna
Netherlands	• National Environmental Policy Plan 3 (1998)			• Waste management Programme 1995-2005 • National Policy Plan • Policy Plan Drinking Water Supply • Structure Scheme Electricity Supply (1997)		• Third Provincial Waste Management Plan Gelderland • Site Selection Residential Area Zaanstad

Portugal	• Sustainable Development Council		• Local 'green municipalities e.g.Oeiras, Maia, Sintra	• Hazardous Waste Management Plan • Portuguese NationaL Development Plan 1994-1999		
Spain					• Rural Development Plan for La Rioja (Structural Funds SEA) • Castilla y Leon: Director Plan for Infrastructures and Plan for Development of Roads subject to recent SEA procedures • Hydrological and Irrigation Plans in Castilla y Leon (1999)	
Sweden	• Environmental Objectives and Indicators in Spatial Planning and SEA (on-going)			• Transport ('Dennis') Agreement (Urban transport) (1997) • Swedish case studies in Nordic Council study on EIA and its application for policies, plans and programmes.	• Drinking Water Supply for the Stockholm Region • Regional SEA on the Mineral Sector • Regional Planning in the Stockholm Region (1999)	• Land Use – Korsta-Petersvik Municipal Land Use Plan (1997) • Energy – Alingas energy plan (1997)
United Kingdom	• Greening Government Initiative			• Strategic Defence Review SEA (published July 2000)	• Thames Water Resources Strategy (voluntary, private sector) • Yorkshire Forward Sustainability Appraisal • South East Regional Planning Conference Sustainability Appraisal	• Warrington Local Transport Plan Strategic Sustainability Appraisal (transport and land use) • Thames Isle of Dogs Embayment SEA

Australia				• National Forest Policy Statement • National Strategy for the Conservation of Australia's Biological Diversity • National Greenhouse Response Strategy • Commonwealth Coastal Policy • National Waste Minimisation and Recycling Strategy • National Landcare Programme		
Canada	• Agriculture and Agri-Food: Canada's Strategy for Environmentally Sustainable Agriculture			• Canadian SEA of Trade Negotiations		
Latvia				• Rural Development Plan of the EC Support for Agriculture and Rural Development in Latvia		
New Zealand	• (New Zealand Coastal Policy Statement)		• Canterbury Regional Council – local environmental management strategies and stakeholders.		• Auckland Regional Growth Strategy/Forum – land transport SEA	• Porirua City Council – strategic plan review
Norway	• Extent of Environmental considerations integrated into public statements, accounts and proposals (1997)		• Norwegian EPA and 4 municipalities study into use of EA in land use planning for integration of environment into decision-making (1998)	• National Road and Road Traffic Plan	• Kyststamvegen – road from Trondheim to Kristiansand (programme level)	• SEA in county planning process, e.g. Hedmark, Norland counties

Slovak Republic				Partial SEAs of: • Conception of water management policy 1994 • Actualisation of Energy Supply Policy 1995-2010 • Energy Policy to 2005 • Policy of the territorial development 1994 • Policy of the spatial development 1995	• Drinking Water Policy of East-Slovakian Region	• SEA of Kezmarok town (on-going)
USA	• US Global Change Research Centre and Committee on Environmental Natural Resources Research – interagency co-ordination, and to federal and state actors. • Transboundary Environmental Assessment, Ozone Transport Assessment Group (1999) – inter-state/agency co-operation			• Watershed and River System Management Programme (US Dept of the Interior)	• New England Biological Assessment of Wetlands Work Group	
CIDA						• SEA of land use, Victoria falls, Zimbabwe

World Bank		• CASE Programme studies on:- Zambia, Dominican Republic, Azerbaijan		• Bali Urban Infrastructure Programme • Ethiopia Road Sector Development Programme	• Jubba Valley Development Anaytical Studies - Somalia	

Appendix 3

Short Listed 20 Case Studies - Justifications

***Austria*: Local Agenda 21 Graz**

This case study deals with the local level and examines the "Local Agenda 21" (LA 21) plan of Austria's second biggest city, which won as the first city in Europe the "European Sustainable City Award" in 1996. The LA 21 plan as a part of the development plan of the City of Graz contains a lot, but not all SEA elements. The plan was completed in 1995 (adoption by City Council in July) and was evaluated for the first time in April 2000 (nearly 'brand-new' and ongoing integration process).

***Austria*: Land Use Plan of Municipality of Weiz (Styria)**

Austria with its federal system represents one of the smaller EU countries with high environmental standards. The selected case study examines the integration of SEA into the local spatial planning system of Styria and was undertaken as a full SEA (following the proposed EU SEA Directive from 1996) on a voluntary base. The SEA was completed in 1999 and is as yet - beside a second ongoing SEA trial run regarding land-use at the regional level - unique for Austria. Beside the no action alternative two planning alternatives for 25 key areas have been assessed concerning environmental, economic and social impacts.

***Canada*: Canadian SEA. of Trade Negotiations**

The SEA currently being undertaken for the World Trade Organisation negotiations is a good example of SEA at policy level. It involves a number of different institutions and organisations and covers a range of communication processes. (Commenced November 1999).

***Denmark*: SEA Process - Development and Adoption of National Land Use Plan**

The National Land Use Plans that the Minister of the Environment has to submit after elections set out the strategies and priorities to be followed by the regional and local authorities. SEA of a National Land Use Plan has been carried out on voluntary basis as a part of an EC project (Case Studies on Strategic Environmental Assessment, EC Commission 1997). Since then the SEA process has been further elaborated for the purpose of meeting SEA-Directive requirements. The case study that is focused towards the National Land Use Plan 1999 describes and assesses this strengthened SEA Process.

***Finland*: Thematic Evaluation on Environment and Development in the Finnish Development Co-Operation**

This comprehensive research project that was completed in 1999 covers the whole policy area of the Finnish Development Co-Operation. The various studies carried out allow for stuying of relationships between SEA and integration of environment in decision making in a wider sense. (January 1999).

***France*: SEA of Multi-modal Corridors, North Corridor (Le Havre, north of Paris, Nancy and Brussels).**

This case study will provide an example of how a new SEA methodology, developed for all transport infrastructure, has been applied at regional level. Also, it will show how the SEA methodology has been applied together with other methods and tools such as indicators, for the integration of the environment. Originally developed as a SEA for major road links, for the preparation of the French National Road Master Plan, the new method was developed further to make it applicable to all transport infrastructures including multi-modal scenarios. In so doing, different types of

infrastructure, for example, road and rail, were combined at the highest level i.e. major corridor development, and involved cross-border dimensions. (February 1999).

Germany: Zoning Plan Erlangen

Germany is one of the leading EU countries and has a federal legislative and administrative system. The selected case study deals with the local level and examines the integration of a full SEA into spatial planning on a voluntary base. Despite the fact that the case study was a main part of an EU/German Environment Ministry research study (1995) which was already done for a number of land-use based SEAs, it is still worth analysing. The zoning plan is combined with a landscape plan, so we have an example of SEA and integration. Due to the former study mentioned above good documentation is given. Currently (August 2000), the planning authority is dealing with the comments made during the public participation. The zoning plan (and the integrated landscape plan) will probably be adopted in November 2000. That means, it is an actual example and the process of the years 1995 – 2000 was not covered in the study mentioned above.

Ireland: Marine and Coastal Areas and Adjacent Seas (1999) – part of the North Atlantic assessment under OSPAR Convention.

Under the 1992 OSPAR Convention an overall environmental assessment on the Protection of the Marine Environment of the North-East Atlantic is being prepared (a resulting Quality Status Report on the NE Atlantic is to be published in 2000). This case study is the Irish contribution to this assessment. Results from the environmental assessment provide a basis from which marine environmental policies and associated management requirements can be reviewed. As stated in the report these marine environmental assessments 'are an integral part of national, regional, global programmes for protecting marine and coastal areas'. (Started 1997 and completed March 1999).

Ireland: Pilot Eco-Audit of the National Development Plan 2000 – 2006.

This case study provides an example of an environmental assessment technique that takes place at national level. The Eco-Audit (a government environmental priority), otherwise known as an environmental appraisal, has just been introduced (1999) as a pilot scheme for the appraisal of policies and more recently the appraisal of the National Development Plan. The Eco-Audit is promoted by sustainability. This case study provides an insight into the extent to which SEA tools have contributed to the integration of the environment at a strategic level. (Started June 1999 and due to be completed April 2000).

Netherlands: National Environmental Policy Plan 3.

National Environmental Policy Plans (NEPPs) have, since 1989, been the main methods by which the environment has been integrated into government initiatives. NEPPs have changed traditional environmental plans, which placed emphasis on environmental protection, to ones where sustainable development is the main objective. The third national environmental policy plan forms part of the green planning process and continues the goals of the first NEPP with emphasis on emission reductions. This case study provides an example of how policy plans contribute to the decision making process and the extent to which they integrate the environment. (Completed in 1998).

New Zealand: Canterbury Regional Council – local environmental strategies and stakeholders.

This provides an example of environmental integration at the local level. It involves the development of environmental management strategies and shows how the environment can be integrated through a planning process that includes a number of different communication processes. On-going process in 2000.

Portugal: National Sustainable Development Committee

The role of the National Sustainable Development Committee in Portugal exemplifies an integration mechanism at national level in a country that has no SEA procedures. The mechanism is triggered by the competent authorities, when they decide to consult the Committee on a specific issue, which may be a policy, plan or programme. The Committee seems to be influential and has strong representation from the third sector. (The Committee has been working since 1997. Examples include the National Social and Economic Development Plan and the National Strategic Plan for Hospital Wastes (1998 – 1999).

Slovakia: Land-Use Plan Bratislava

Currently, the land-use plan of Slovak capital Bratislava is being conducted. The legal base for the SEA of that land-use plan is Article 35 of the Slovak EIA Act. The EIA Centre at the Faculty of Architecture of the Slovak Technical University is involved in the SEA process and expects that the SEA should be finished a the end of October 2000.

Spain: Objective 1 Regional Development Plan

This Regional Development Plan SEA is a compilation of SEAs undertaken by each of the affected Autonomous Communities, and required under the EU Structural Fund Regulations.

Spain: Regional SEA procedure in Castilla y León

Castilla y León is one of three regions in Spain with SEA legislation in place. A recent example of the application of this legislation is the SEA for the **Wind Power Regional Plan**. This is one of the few case studies of the application of an SEA mechanism at regional level in Spain. It is a recent project and comparisons can be made to other Spanish SEA procedures, such as the SEAs undertaken for the assessment of Regional Development Plans. The SEA is under the competence of the regional environmental authority. (1998 – 1999)

Sweden: Drinking Water Supply for the Stockholm Region

This voluntary SEA process of the drinking water supply for the Stockholm Region, that has been reported in a Nordic Study (TemaNord 1998:567), opens up for further studies on 1) the role of SEA in planning and decision making 2) actors and institutions involved in SEA and 3) the scope and structure of SEA. (Primo 1997).

United Kingdom: Greening Government

The Greening Government case study will investigate a central government strategy aimed at integrating environmental considerations into government operations and policy making. At the outset a form of SEA (Policy Appraisal and the Environment) was developed as one of the central tools of Greening Government. However, it has rarely been used and a recent report on Greening Government by the Parliamentary Environmental Audit Committee stated that it was the least used mechanism. This Case Study will look at two other mechanisms of integration within greening government, the environmental audit committee and green ministers, and assess their effectiveness compared to SEA. (From 1991-ongoing and constantly being adapted. Will use the Strategic Defence Review case study to complement this study).

United Kingdom: Yorkshire Forward Sustainability Appraisal

'United Kingdom: Sustainability Appraisal of draft Regional Planning Guidance and the Regional Economic Strategy for Yorkshire and Humberside'. This is an example of a joint sustainability appraisal of regional planning guidance and regional economic strategy. It reflects the objectives of

closer integration of spatial and economic planning at the regional level with the common aim of promoting sustainable development. A sustainability appraisal is seen as central to ensuring that both strategies are sustainable. This case study will investigate the interaction between sustainability and environmental integration and compare and contrast the roles of sustainability appraisal and SEA. (October 1999).

United Kingdom: Strategic Defence Review SEA 2000

In the UK the Ministry of Defence has an Estate of 240,000 hectares over 3,100 separate sites, many of which have designations such as sites of special scientific interest. When the Government published their Strategic Defence Review in 1998 the Council for National Parks and others lobbied for an assessment to be undertaken of the potential environmental impacts during the implementation of the Review. As a result the Government has carried out a Strategic Environmental Appraisal. This case study will provide an example of how ex post SEA has been applied at national Level with the involvement of different institutions and communication processes. It is seen as an example of the wider Greening Government Strategy (Completed July 2000).

World Bank: Country Assistance Strategy and the Environment

This Case study aims to draw upon the expertise in environmental integration and SEA outside the EU. The World Bank has a great deal of experience in undertaking SEAs and has recently begun to integrate environmental considerations into strategic decision making. Experience from multilateral lending institutions such as the World Bank should be instructive to the Commission and individual governments in the EU as it will provide another perspective not tied to individual countries. The Country Assistance Strategy is the first assessment process the Bank undertakes prior to making investment decisions in a country. Consequently, it is very strategic in outlook. On-going process 1999-2000.

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