

Chapter 3

SEA EXPERIENCE IN DEVELOPED COUNTRIES

Until recently, only a relatively small number of developed countries and state jurisdictions had made formal provision for SEA of policy, plans and programmes. But this group has almost doubled in size following the recent entering into legal force of the European SEA Directive (2001/42/EC) which requires European Union (EU) member states to transpose its requirements into domestic law. Some member states are introducing SEA for the first time (e.g. Austria, Greece and Portugal). Others have extended the scope or amended the arrangements of existing SEA systems (e.g. France, The Netherlands and the United Kingdom). Earlier experience suggests that it will take some time for these new SEA processes to be fully implemented, and even longer before the quality of practice and contribution to decision-making emerge into a coherent pattern.

This chapter focuses primarily on SEA experience in countries with well-established, operational systems, which were instituted during the 1990s or earlier in the case of the USA (see Chapter 2). These SEA frameworks predate the EU SEA Directive and, in many cases, the decision to enter into its negotiation taken in 1996. As such, they illustrate the range and types of institutional arrangements and applications that are in place internationally and are generally accepted as leading examples of SEA innovation and development. Experience gained under these SEA systems has featured prominently in framing current notions of good practice. However, it also should be recognised that other jurisdictions have comparable levels of SEA experience including certain international organisations and countries in transition (their experience is reviewed in detail in chapters 4 and 5 respectively).

This review of SEA experience in developed countries is organised into four parts. It begins (section 3.2) with a comparative analysis of the different SEA frameworks and arrangements that are in force and attempts to delineate the main elements of their anatomy and approach. Next (section 3.3), these individualised processes are contrasted with the emerging framework of international legal and policy instruments, with particular reference to the requirements of the EU SEA Directive and UNECE SEA Protocol. Then (section 3.4), SEA systems and experience in selected developed countries and international organisations (in alphabetic order) are discussed. A concluding section (3.4) deals with SEA methodology and lessons of 'good practice'. Specific guidance on the use of tools and procedures for carrying out the steps and activities of the SEA process can be found in Appendix 12.

3.1 Brief overview of SEA institutional arrangements in developed countries

Prior to the introduction of the EU SEA Directive in 2001, approximately 20 countries or jurisdictions are estimated to have had operating SEA systems in place¹. Their mandate, institutional arrangements and scope of application vary, in some cases significantly. Table 3.1 summarises main characteristics of the SEA frameworks of selected countries. Of particular note are SEA systems that apply to or include coverage of policy

¹ See footnote 9, Chapter 2, for examples.

Table 3.1: SEA institutional frameworks and their scope of application in selected countries (Source: Sadler 2003b)

Country/ Organisation	Provision	Scope and relationship to decision-making	Elements of process and procedure
Australia	Environment Protection and Biodiversity Conservation Act (1999)	s 146 provides for ministerial discretion to assess effects of actions under a policy, plan or programme; s 147- 154 provide for specific application to fisheries management	SEA activated by an agreement with proponent; s 146(2) describes its content and basic procedure
Canada	Cabinet Directive 1990, (amended 1999)	Policy, plan and programme proposals submitted to Cabinet or issued under ministerial authority	Informal, two-stage procedure; guidelines encourage flexible application
Denmark	Prime Minister's Office circular (1993, amended 1995 & 1998)	Bills and other Government proposals sent to Parliament or on which Parliament must be consulted	Minimum procedure; guidelines encourage flexible application
Finland	Act on Environmental Impact Assessment Procedure (1994) Guidelines on EIA of Legislative Proposals (1998)	Policies, plans and programmes (will be amended to comply with SEA Directive) Laws, decrees and resolutions	Formal procedure consistent with Directive 2001/42/EC Minimum procedure, flexible application
The Netherlands	Environmental Impact Assessment Decree (1987, amended 1994) Cabinet Order (1995)	Listed plans and programmes (will be amended to comply with SEA Directive) Draft regulations and other policy intentions sent to Cabinet (Environmental Test)	EIA procedure applied in full under Decree; may not apply in new legislation Minimum procedure, coordinated with business and regulatory tests
New Zealand	Resource Management Act (1991, various amendments)	Except for s32, generic rather than specific provision for SEA of policy and plans	No definable procedure, other than s32, which refers to evaluation of the objectives and policies in meeting the purposes of the Act
United Kingdom	Better Policy Making: A Guide to Regulatory Impact Assessment (2003),	All substantial policies and proposals developed by central Government departments and	Sets out a standard format for undertaking

	<p>The Environmental Assessment of Plans and Programmes Regulations 2004 (for England, separate regulations exist for Scotland, Wales and Northern Ireland)</p> <p>Strategic Environmental Assessment: Guidance for Planning Authorities (2003)</p>	<p>agencies which will have an impact on the public and private sectors</p> <p>Plans and programmes as stipulated in the 'SEA Directive'</p> <p>Spatial and land use plans developed by English Local Planning Authorities (separate guidance being developed in Wales and Scotland). Guidance for applying SEA to transport plans and programmes is also being prepared</p>	<p>Regulatory Impact Assessment (RIA)</p> <p>Transposes the requirements of the SEA Directive into national law</p> <p>Advice on applying the SEA Directive and wider sustainability appraisal</p>
USA	National Environmental Policy Act (1969) and Regulations (1978)	Legislation and programmes or actions that can be grouped geographically, generically or by technology	NEPA process applies; specific guidance on preparing generic and programmatic EISs
European Community	Council Directive on the assessment of certain plans and programmes (2001/42/EC); entered into force on 21 July 2004	<p>Plans and programmes in defined sectors and areas which set a framework for consent of projects subject to [EIA]</p> <p>Directive 85/337/EEC or which require an assessment subject to [Habitat] Directive 92/43/EEC</p>	Framework law based on EIA Directive; specifies common procedure to be adopted by member states
UNECE	SEA Protocol (2003) to the Convention on EIA in a Transboundary Context (1991)	Mandatory application to plans and programmes; discretionary application to policy and legislation (Article 13)	Based on EC Directive for plans and programmes; no reference to procedure for policy or legislation

and legal acts or which differ procedurally from the regime imposed by the EU SEA Directive, eg Australia, Canada, New Zealand and the USA as well as certain European countries. Other than SEA of plans and programmes in EU member states, the systems listed in Table 3.1 are likely to continue to function in their present form.

A number of key features characterise the SEA arrangements in the countries reviewed:

(1) Provision for SEA is established through both legal and administrative means.

In each case, a mix of specific instruments is employed. Non-statutory provision for SEA has been made by separate administrative order or policy directive (e.g. Canada) or by guidelines on policy appraisal and plan evaluation (e.g. UK). Statutory provision for SEA is made through EIA-specific (e.g. Finland), general environmental (e.g. USA) or resource management laws (e.g. New Zealand). The EU SEA Directive is a framework law that establishes a minimum common procedure for certain official plans and programmes, although it is not the first Community legislation in this area. Under Article 6(3) of Directive 92/43/EEC, plans likely to significantly affect a Special Protection Area or a Special Conservation Area must be subject to 'appropriate assessment' (Feldmann *et al.* 2001) – which the SEA Directive now defines.

There is an on-going discussion about the appropriate basis for SEA systems, particularly with reference to proposed policies and legal acts. At this level, the arguments for flexibility of non-statutory arrangements are stronger than at the level of plans and programmes. In principle, executive instructions, such as those issued by the Prime Minister's Office in Denmark or the Cabinet in Canada, establish a duty to comply (but see also point 3 below). In practice, however, administrative instruments lack the powers to ensure that agencies fulfil their responsibilities or to enforce consistency in SEA application. This is especially the case with regard to advisory guidelines, such as those issued in the UK. Given that the EU SEA Directive (2001/42/EC) does not cover policy, there is no reason, *prima facie*, to expect changes to the separate SEA systems at this level now implemented by individual EU member states (e.g. Denmark, Finland, Netherlands and UK).

(2) The scope of coverage and application of SEA remains partial and limited in relation to levels and types of strategic decision-making that are likely to have a potentially significant impact on the environment

Despite the pioneering intent of the 1969 National Environmental Protection Act (NEPA) in the USA, which applies to 'all major federal actions' likely to have a significant effect on the environment, progress toward full inclusion of strategic decisions has been slow with different emphases among current SEA systems. Some countries have established SEA arrangements that apply uniformly, but not universally, to policy, plans and programmes (e.g. Canada, Finland, Hong Kong SAR). For example, in Canada, the SEA process applies to strategic proposals submitted to Cabinet or authorised by individual Ministers of State and can include draft legislation (although regulatory impact assessment also can be used also to satisfy this requirement). In Finland, Denmark and Norway, the environmental effects of draft laws, regulations and other proposals submitted to Parliament are subject to SEA in a separate process from that applied to policies or plans. A similar approach is followed in the Netherlands except that the E-test of regulations is linked to executive or Cabinet decision-making. Finally, since 1991, the UK has maintained dual processes of environmental appraisal of policy and plans at the central and local government levels.

A new regime for SEA of plans and programmes will emerge in EU member states with the transposition of the EU SEA Directive into national legislation - either by integrating the requirements into existing procedures or incorporated into new procedures (as described in Article 4.2 of the Directive). The plans and programmes for which an assessment shall be carried out are described in Articles 2(a) and the scope of application is defined in Article 3, notably by reference to plans and programmes that are prepared for listed sectors and activities and which set the framework for consent of projects subject to the EIA Directive. Further discussion of the

scope of activities that fall within SEA Directive can be found in section 3.2. For comparative purposes, the most notable point is that the basic approach corresponds to that taken in the Netherlands EIA Decree (which itself will need to undergo certain amendments to comply fully with the Directive). It may be contrasted with the more general approach taken in the NEPA Regulations which specifies the use of programmatic EIA for activities that can be grouped geographically, generically or by stage of technology.

(3) SEA is implemented through a self assessment process undertaken by the 'proponent' of the proposed policy, plan or programme

In this context, the proponent is the government agency responsible for preparing or authorizing the proposed action. Generally, this process will be carried out in accordance with existing statutory and policy obligations of the agency and in conformity with specific requirements set out in the SEA provision and supplementary regulations or guidance. However, such an alignment appears to be far from complete in the implementation of the SEA processes of many countries, with inconsistencies in compliance evident across statutory and non-statutory arrangements. Even under NEPA, which explicitly obligated federal agencies to identify deficiencies that prohibited full compliance with the purposes and provisions of the Act (s.103), application at the policy level has been circumvented and is now constrained by case law. Under the EU SEA Directive, the obligation is placed on member states to determine the detailed arrangements and accountabilities to implement the requirements and to ensure compliance with them (Article 13).

Although it provides a key means of instilling accountability among government agencies for their policies and plans, self assessment can be effective only in association with appropriate measures for quality assurance and control. These measures are based on the steps and elements built into the SEA process (see below) and on the overseeing role of specialist and administrative bodies. Typically, the responsibility for SEA administration (including process development, guidance and monitoring compliance) is vested in the Ministry of Environment or an equivalent special purpose body (e.g. Canadian Environmental Assessment Agency, US Council on Environmental Quality). Some countries have also established a provision for independent review of the quality of SEA reports at the level of individual applications and of the effectiveness of process implementation at the systems level. In the Netherlands, the EIA Commission has performed this first role for specified plans and programmes, although it appears likely to have a more limited function under pending legislation to transpose the EU SEA Directive into a national instrument. In addition, advice on the application of the Netherlands E-test (Environmental test) of draft regulations (which is separately administered) is provided by the Joint Support Centre established by the environment, economic and justice ministries. At the systems level in Canada, the Parliamentary Commissioner for the Environment and Sustainable Development has undertaken audits of the SEA performance of federal agencies (see section on Canada below).

(4) With varying degrees of modification, SEA process and procedural elements correspond to those in place in EIA systems

In broad, comparative terms, there are important differences between SEA processes and procedures applied to policy or legislation on the one hand, and to plans and programmes on the other. But, in some systems, the same legally-prescribed elements of procedure apply to all proposals, from project-specific ones to those concerning plans and programmes (e.g. NEPA, see

also Chapter 5). At the level of plans and programmes, SEA processes are usually based on EIA steps and elements, such as screening, impact identification and report preparation. For policy-level application of SEA, EIA procedures are still recognisable but often in minimum form, although not all SEA systems conform unambiguously with this model (see below).

In many ways, the EU SEA Directive establishes a new procedural benchmark for SEA of plans and programmes, not only within the European Union but also internationally. It is modelled very closely on the EIA Directive (97/11/EC) and thus mandates a transparent and open process (e.g. certain articles of the SEA Directive relate to public consultation and information on the decision). SEA is equated with the preparation of an environmental report and the information to be provided (see below) and the process is oriented to identifying and off-setting effects of implementing a plan or programme. It is open to question whether this procedural model is appropriate to meeting the basic objectives of the SEA Directive, i.e to provide for a high-level of environmental protection and to contribute to the integration of environmental considerations into plan preparation. The test will be in the way this process is transposed into national systems and implemented by member states. But the concern is that the provisions of the Directive are likely to entrench the approach to the SEA of plans and programmes at a relatively late stage in the decision-making process. We shall see.

EIA steps or elements have been amended and combined in certain SEA processes that apply to policy and legislative proposals. This is the case particularly in SEA processes that apply only at this level, as exemplified by the Danish, Dutch and Finnish systems. In the Netherlands, for example, the E-test has been re-organised into two main phases: a quick scan and, if necessary, a more detailed appraisal of proposed legislation. A similar procedure is followed in Canada for policies, plans or programmes, although the assessment phase may also include further steps. Other SEA systems have adopted a distinct appraisal regime. For example, environmental appraisal of policy in the UK incorporates Treasury Board guidance on the use of benefit-cost analysis and other economic tools, although this approach may be incorporated into a process of integrated policy appraisal. In New Zealand, SEA is generic rather than a separate or specified process under the Resource Management Act; it is threaded into policy and plan-making (e.g. preparation of regional policy statements) and becomes a more distinguishable form of policy evaluation or options appraisal under Section 32 (e.g. with regard to proposed national environmental standards). These process elements are described more fully in the national reviews in section 3.3.

(5) The preparation of a report or statement on the environmental effects of a proposal is widely acknowledged to be one of the cornerstones of the SEA process

This element was enshrined in the pioneering NEPA statute and the subsequent regulations, which describe the preparation of an environmental impact statement (EIS) as an “action-forcing device to insure the policies and goals of the Act are infused into the actions of the Federal Government” (CEQ, 1986, 10) (need ref). The parts dealing with EIS preparation include requirements related to: page limits (even for proposals of ‘unusual scope’); plain language writing; issuing draft, final and, if necessary, supplemental statements; and following a standard format including for the preparation of a programmatic EIS. At this level, agencies also are encouraged to tier any subsequent project EIS to the findings of a programmatic statement, concentrating only on issues specific to the subsequent proposal. Tiering also meets other general purpose NEPA requirements, including reducing delay and excessive paperwork.

The production of a report occupies a central position in the EU SEA Directive. It stipulates that "environmental assessment shall mean the preparation of an environmental statement" (Article 2(b)). The types of information to be included in an environmental report are described in Annex 1 of the Directive (see Box 3.5). Relevant information requirements are to be determined by taking into account "current knowledge and methods of assessment, the contents and level of detail in the plan or programme..." There also must be consultation with authorities (referred to in Article 6(3)) "when deciding on the scope and level of detail of the information to be included..." Finally, member states "shall ensure that environmental reports are of sufficient quality to meet the requirements of the Directive and shall communicate to the Commission the measures taken [in that regard]" (Article 12.2). This obligation, in principle, is a potentially stringent and important mechanism for quality assurance and control of SEA implementation, although, in practice, much depends on how the provision will be applied by member states.

In the EU SEA Directive, as in some other SEA regulations, there is no formal requirement for a separate report on environmental effects - one of the procedural 'sacred cows' of the prescriptive literature. Rather "environmental report shall mean the part of the plan or programme documentation containing the information required" (Article 2c). Similarly, the Canadian *Guidelines for Implementing the Cabinet Directive on SEA* state that "separate reporting is not required" but should be "integrated into existing mechanisms to the fullest extent possible" (CEAA, 2000). For example, the findings of the SEA should be discussed in the analysis section of the Memorandum to Cabinet (a confidential document). Under the Danish Circular, a statement on environment impacts is included in the observations on the Bills and other government proposals submitted to Parliament and subjected to SEA (Danish Ministry of Energy and Environment, 1995 **ref needed**). In the UK process for the environmental appraisal of policy, the preparation and publication of a report or statement is left to the discretion of departments (DETR 1998, 7.1).

(6) There are several different but overlapping institutional models or types of procedural approach for SEA

The various models and approaches listed in Table 3.2 are also reflected in Table 3.1. They are grouped to correspond with the generic typology of SEA types introduced in Chapter 1: formal, near equivalent and para-SEA:

(7) New international legal instruments have been established that apply partly or primarily to SEA procedure and practice

In addition to the EU SEA Directive (defined strictly, this is supra-national in its scope), two UNECE legal instruments have been adopted that bind signatory countries to a particular approach to SEA approach. They also have potential application outside the UNECE region. These comprise:

- The *Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters* (1998).

Inter alia, the Convention establishes obligations on Parties with regard to the aspects of strategic decision-making. Article 7 covers public participation with regard to plans, programmes and policies. It does not specifically require SEA but this process is widely recognised as one of the means of giving expression to its provisions (Stec and Casey-

Lefkowitz, 2000) (ref needed). Similarly, SEA also may be seen as an ‘implementing’ mechanism for Article 8, which deals with the preparation of laws and ‘normative instruments.’ Equally importantly, the provisions of Articles 7 and 8 set international standards for public participation, which apply, inter alia, to Parties with SEA processes that operate on these levels. These standards are also reflected in the SEA Protocol (Box 3.1)

Table 3.2: SEA models and approaches

Institutional model or procedural approach	Description
Formal	
EIA-based	SEA is modelled closely on, or applied under and in accordance with, the requirements of EIA legislation (e.g. USA, EU SEA Directive)
EIA-modified	SEA is carried out as a separate or parallel process to EIA, often as an administrative procedure with modified elements and characteristics (e.g. Canada, Denmark)
Near-equivalent	
Environmental appraisal	SEA is not applied formally but is covered by a near-equivalent overall process of environmental appraisal of policy or plans (e.g. in the UK, this approach is being phased, respectively, into integrated policy appraisal at the central government level and into SEA of plans and programmes at the local authority level in accordance with the EU SEA Directive)
Integrated approach	SEA-type elements are incorporated as distinctive parts of, or are threaded throughout, a larger process of policy- and plan-making (e.g. in New Zealand under the Resource Management Act, in the UK at the policy level - as described above)
Dual or two-tier systems	Examples include: <ul style="list-style-type: none"> the Dutch E-test of regulations and SEA of plans and programmes, previously as specified under the EIA Decree and now being aligned with the EU SEA Directive; Finnish EIA-based process for policies, plans and programmes and SEA of Bills and other government proposals.
Para SEA	
Other procedural models for SEA are in place or are emerging	Examples include: <ul style="list-style-type: none"> <i>Regional assessment</i>: SEA applied to regional development strategies for a particular geographic area (e.g. in Australia under the Regional Forests Policy, recently introduced in Canada under reforms to the Environmental Assessment Act); <i>Sustainability appraisal</i>: SEA elements are part of, or are related by, integrated assessment of the environmental, economic and social effects of resource policy or regional plans (e.g. assessments carried out by the former Resource Assessment Commission, Australia; and for UK regional plans).

- The *SEA Protocol to the Convention on EIA in a Transboundary Context* (2003)

This is a self-standing, international legal instrument that will be binding on Parties and promises to be influential beyond the boundaries of the UNECE region (see Box 3.1).

Box 3.1: Protocol on Strategic Environmental Assessment (SEA) to the UNECE Convention on EIA in a Transboundary Context

After a two-year process of negotiation, the Protocol on Strategic Environmental Assessment (SEA) to the UNECE Convention on EIA in a Transboundary Context was adopted formally and signed by 35 countries at the 'Environment for Europe' Ministerial Conference' in Kiev, Ukraine, on 23 May 2003. It has not yet come into legal force (it requires ratification by at least sixteen countries), but this is expected to occur soon. Moreover, there are a large number of potential Parties to the SEA Protocol, including the countries of Central Asia.

The SEA Protocol is about far more than trans-boundary impacts. It is a comprehensive legal instrument that follows the broad thrust of the SEA Directive and extends elements of this framework beyond the boundaries of the European Union. Also, the Protocol will be open to all members of the United Nations. This means that, eventually, it could have wider uptake in other regions. However, it is likely that this process will be uneven, even within the UNECE region, since Canada and the USA were not party to the negotiation process and are unlikely to ratify the Protocol.

Articles X and Y (clarify actual articles) of the Protocol set out mandatory procedures for applying SEA to plans and programmes. There is also a provision relating to non-mandatory application to policies and legal acts. However, this provision is self-standing and no implementing procedures are set out. Nevertheless, in the future, this provision could be interpreted as a 'soft law' precedent that establishes obligations on the Parties.

The Protocol also provides for the public to be informed about plans and programmes subject to SEA, to comment, to have their comments taken into account in decision-making, and be told of the reasons for final decision. These provisions build on relevant Articles the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, which applies to strategic decision-making.

Besides requiring assessment of the typical environmental effects of plans and programmes, the Protocol places a special emphasis on considering human health, going beyond existing European legislation. This reflects the involvement of the World Health Organization in the negotiations as well as the political commitments made at the 1999 London Ministerial Conference on Environment and Health.

The Protocol was drafted and finalised with the participation of a wide range of countries, including EU member states and then accession countries, other transitional countries of Central and Eastern Europe and Newly Independent States of the former Soviet Union. It is intended to provide for a high level of protection for the environment and human health. It provides for the mandatory application of SEA to plans and programmes (excluding budget and fiscal ones). In this regard, the Protocol closely follows the provisions of the EU SEA Directive, for example, with regard to screening, scoping, the information to be included in an environmental report, public participation and decision-making. Only one article specifically applies to transboundary consultations. Article 14 of the SEA Protocol extends it beyond the scope of the EU SEA, providing for discretionary application of SEA to policies and legislation. While, initially, this provision is unlikely to be implemented widely, over time it may establish 'soft law' precedents for the Parties.

3.2 SEA experience in the European Union (EU)

The EU encompasses a single market made up of a significant proportion of the developed countries, including four members of the G8 group, and is a major force internationally, in its own right. Specifically, the Union's legal and policy framework on the environment and sustainable development has Europe-wide and global dimensions, as well having direct application to member states and accession countries. The adoption of the EU SEA Directive should be seen in this larger context and in relation to other legal and policy instruments for achieving the same purpose.

In the preamble to the Directive, for example, key references are made to the 'environmental' Articles (6 and 174) of the Consolidated EU Treaty, the Fifth Environment Action Programme (Toward Sustainability) - now replaced by the Sixth Programme to 2010, and the Convention on Biological Diversity. Article 1 of the Directive sets out two broad objectives: "to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development...". Other than possibly in their order of listing, no priority is implied between these dual objectives, which typically are assumed to be complementary. However, Sheate *et al.* (2001) provide a trenchant analysis of the evolution of EU policy for environmental integration and sustainable development. They argue that there is a potential divergence of these two fundamental principles, which is manifested, *inter alia*, in the recent adoption of the SEA Directive and the EC Communication on Impact Assessment for policy making (COM (2002) 276 final). In that context, the stated objective of the SEA Directive 'to provide a high level of protection' may be interpreted as establishing a basis for strong environmental integration in accordance with Article 6 of the EU Treaty²; especially when allied with the reference in the preamble to Article 174, which, *inter alia*, provides that Community policy on the environment is to be based on the precautionary principle³. In contrast, the EC internal procedure for impact assessment arguably calls for a weaker version of environmental integration, i.e. in which the level of protection is lower (see Sheate 2003).[\(ref needed\)](#)

3.2.1 EU legal and policy frameworks

The above distinction made by Sheate (2003) is a matter of emphasis and interpretation. There is both convergence and ambivalence in the relevant EU policy documents, especially in the *Sixth Environment Action Programme 2001-2010*, and also in the *European Union Strategy for Sustainable Development* (2002). Both documents add a much-needed environmental dimension to the so-called Lisbon process of economic and social reform, which called for the EU 'to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable growth'. In both agendas, there are a number of common themes and elements, encompassing (see Box 3.2):

- Major environmental challenges to sustainable development for Europe;

² As stated in the preamble to the Directive: "Article 6 of the Treaty provides that environmental protection requirements are to be integrated into the definition of Community policies and activities, in particular with a view to promoting sustainable development".

³ As stated in the preamble to the Directive: "Article 174 of the Treaty provides that Community policy on the environment is to contribute to, *inter alia*, the preservation, protection and improvement of the quality of the environment, the protection of human health and the prudent and rational utilisation of natural resources and that it is to be based on the precautionary principle".

- Priority areas for environmental policy development and action; and
- The need for improved policy coherence and consistency to deliver on new goals and targets.

Box 3.2: The EU Environment Action Programme and Strategy for Sustainable Development

Section 1.2 of the Sixth Environment Action Programme underlines the environmental basis of sustainable development as follows:

“A prudent use of the world’s natural resources and the protection of the global eco-system are a condition for sustainable development, together with economic prosperity and a balanced social development... This Programme identifies the environmental issues that have to be addressed if sustainable development is to come about – climate change, the over-use of renewable and non-renewable natural resources, the loss of bio-diversity, and the accumulation of persistent toxic chemicals in the environment. It sets out the environmental objectives and targets that need to be met and describes how the instruments of Community environmental policy will be used to tackle these issues while pointing to the need for further action in other policy fields... This requires the integration of environmental protection requirements into other policy areas and a need for the Community to examine its current systems of governance and find ways of changing them to ensure consistency between our social, economic and environmental objectives and between the ways of meeting them”.

According to the Communication setting out the European Union Strategy for Sustainable Development (CEC 2001, p23), it “*should focus on a small number of problems which pose severe or irreversible threats to the future well being of European Society*” [original emphasis]. The issue areas encompass environmental, economic and social dimensions and comprise: global warming; loss of biodiversity and natural resource management; public health risks from anti-biotic resistant strains, hazardous chemicals and food safety; poverty and social exclusion; ageing of the population and its economic repercussions; and transport congestion, urban structure and regional imbalances. To meet these problems, the Commission proposes an EU strategy in three parts:

- 1) A set of *cross-cutting proposals and recommendations* to improve policy and make sustainable development happen. This means making sure that different policies reinforce each other
- 2) A set of *headline objectives and specific measures* at EU level to tackle the issues which pose the biggest challenges to sustainable development in Europe.
- 3) Steps to *implement the strategy* and *review its progress* [original emphases].

Source: CEC (2001, 2002)

Specifically, the EU Sustainable Development Strategy calls for “a new policy agenda” and “a new approach to policy-making” (CEC 2001, p24). This means, *inter alia*, that “careful assessment of the full effects of a policy proposal must include estimates of its economic, environmental and social impacts inside and outside the EU.” Within the EU, there is an important distinction between the application of SEA and related instruments by institutions of the Commission and by member states. In the former case, under the European Union Treaty, the EC must integrate environmental protection requirements into the definition and implementation of its own policies and activities, particularly in order to promote sustainable development (Box 3.3).

Box 3.3: Integration of the environment in European Commission policy-making

The European Commission has established a number of internal administrative processes to promote the integration of environment considerations. Horizontal measures include reporting, green house-keeping and environmental appraisal of the Commission's policy proposals (the so-called "Green Stars" system for legislative proposals that may have a significant impact on the environment). In practice, the implementation of such measures has proven difficult. In 1999, the Commission concluded that these measures were insufficient and reviewed other options for integration of the environment as its contribution to the Cardiff process on improving environmental integration (agreed at the European Council meeting in Cardiff in 1998) and the implementation of Article 6 of the Amsterdam Treaty (Cologne Report to the European Council, June 1999).

In outlining its strategic objectives for 2000-2005, the Commission noted that the degradation of the environment is taking place at an accelerating rate and that the continuation of current development patterns is unsustainable. The Commission itself is responding on a number of different fronts to integrate the environment into its major policy areas and to promote sustainable development. The 6th Environmental Action Programme (6EAP, 2001) sets out environmental objectives and targets in a 10 year perspective for EU policy and identifies the means to achieve them. Closely linked is the EU sustainable development strategy (CEC 2001), which requires the integration of social, economic and environmental considerations in policy-making. Other practical measures taken include the review of the Green Stars system and improvements to policy assessment, supported by guidance on tools and methods inspired by SEA. The Commission also launched a study to investigate in more detail how SEA and the integration of the environment into strategic decision-making are interrelated (see Sheate *et al.* 2001).

Source: adapted from Feldmann *et al.* (2001)

As part of the integration agenda outlined in the EU *Strategy for Sustainable Development*, the Communication from the Commission on Impact Assessment (COM (2002) 276 final) has laid down the procedure to be applied to its own policy proposals. While representing an important step forward, the approach has been criticised as a potentially weak form of environmental integration (Sheate, 2003; see Box 3.4).

3.2.2 New areas of application

In 1999, the European Commission commissioned the Institute for Development Policy and Management (IDPM) at the University of Manchester to undertake an independent assessment of the impact that WTO multilateral trade negotiations may have on sustainable development. The main objectives are to develop a methodology for sustainability impact assessment (SIA) and to use it to make a broad qualitative assessment of the impact upon sustainability of the WTO trade negotiations. The work (on-going) is being conducted through a number of phases (Appendix 10). Recently, the EC has adopted the SIA approach with the intention to apply it to all its policy proposals. **Maybe add another paragraph on this Manchester WTO work.**

Box 3.4 Impact assessment in EC policy-making

In its Communication on Impact Assessment (COM (2002) 276 final), the European Commission sets out an impact assessment procedure that is to be integrated into its Strategic Policy and Programme/Activity Based Management programming cycle. This procedure is organised into two stages:

Preliminary assessment, resulting in a short statement and focusing on the identification of the issue/objectives and desired outcome, main policy options available and need for further assessment;
Extended impact assessment, where necessary, including detailed analysis, consultation with interested parties and summary of the results in a report.

The Communication also includes checklists and key questions that need to be answered when conducting the assessment.

Sheate (2003) describes this procedure and observes that it seems “on the face of it to be a positive move, but focuses very much on quantification – and where possible monetary quantification - of impacts, and explicitly recognises that trade-offs will be made (COM (2002)276 final, Annex 2, page 16, para.4.2).

The Commission has established a number of principles to guide it in assessing impacts:

The economic, social and environmental impacts identified for the proposed option should be analysed and presented in a format that facilitates a better understanding of the trade-offs between competing economic, social and environmental objectives. To show the different impacts, make comparisons easier and identify trade-offs and win-win situations in a transparent way, it is desirable to quantify the impacts in physical and, where appropriate, monetary terms (in addition to a qualitative appraisal). Impacts that cannot be expressed in quantitative or monetary terms should not, however, be seen as less important as they may contain aspects that are significant for the policy decision. Nor can final results always be expressed in one single figure reflecting the net benefit or cost of the option under consideration.” (emphasis added by Sheate 2003)

There is no explicit requirement for public participation in this process; only consultation with interested parties and relevant experts as part of the extended impact assessment (not the preliminary assessment). “Therefore, there is a risk that trade-offs will be made without sufficient scrutiny and transparency. This reflects very much a weak interpretation of sustainable development and contrasts with that in the Sixth Environmental Action Plan. But it is more consistent with that of the Sustainable Development Strategy, which provides the impetus for its development” (Sheate 2003).

3.2.3 The EU SEA Directive in perspective

Under the Directive, ‘environmental assessments’ are to be carried out for a specified list of plans and programmes (see below). Policies are exempt but this is likely to be an issue in implementation of the Directive since many of these plans and programmes are not likely to be policy-neutral. In this respect, the Directive is also at odds with the EU’s external strategy for Sustainable Development (CEC 2002) which contains a priority objective to “ensure that an impact assessment is carried out for all major policy proposals, analysing their economic, social and environmental consequences in accordance with the conclusions of the Gothenburg European Council, June 2001”

By comparison to the European Commission's internal EIA assessment procedure, the EU SEA Directive provides a potentially stronger basis for ensuring that environmental protection is an integral part of certain plans and programmes that are adopted by member states including those co-financed by the European Community, although, by all accounts, this last concession was hard won and does not apply to the current phase of structural fund plans and programmes (Article 3.9).

The foundations of the Directive rest on two core pillars:

First, the Directive is reasonably encompassing in its coverage and scope of application, although there are legal question marks about the type of plans and programmes that will be subject to its requirements in different member states.

The certain plans and programmes referred to in the formal title of the Directive include those "which are subject to preparation and/or adoption by an authority at national, regional or local level"⁴ and "are likely to have significant environmental effects" (Article 3.1). The scope of application is limited in Article 3.2 to plans and programmes in "agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development of projects listed in Annexes I and II to [EIA] Directive 85/337/EEC, or which, in view of the likely effects on sites, have been determined to require an assessment pursuant to Article 6 or 7 of [Habitat] Directive 92/43/EEC." Article 3.8 defines the plans and programmes that are not subject to the Directive; it excludes proposals that address financial or budgetary and (solely) national defence and civil emergency matters.

Second, the requirements of the Directive incorporate a number of procedural 'safeguards' for appropriate implementation by member states, although, inevitably, much will depend on the discretion exercised by member states in their transposition and implementation.

In this regard, as noted earlier, a key requirement centres on the preparation of an environmental report and the specification of the detailed information to be provided in the statement. The information must include, inter alia, relevant aspects of the current state of the environment, environmental protection objectives that are relevant to the plan or programme, the likely significant effects on the environment, the measures to mitigate these and an outline of the reasons for selecting the alternatives dealt with (see Box 3.5).

Although others may see matters differently, the last requirement, which lies at the heart of the creative application of SEA, is narrowly framed and unlikely to encourage real generation and consideration of alternatives. There are minimum procedures for statutory authorities (referred to in Article 6.3) and for the public to be consulted and the member states are to make detailed arrangements for this purpose (Article 6.5). Both the information included in the environmental statement (Article 5) and the results of the views expressed by the statutory authorities and the public (Article 6) - including any transboundary consultations (Article 7) - must be taken into account during the preparation of plans and programmes and before their adoption (Article 8). A statement must be made summarising how these aspects have been taken into account - this encourages transparency. Finally, member states must "monitor the significant effects of the implementation of plans and programmes, in order, inter alia, to identify unforeseen effects at an early stage and to be able to undertake appropriate remedial measures (Article 10). Furthermore, member states are required to ensure that "environmental reports are of sufficient quality to meet the requirements of the Directive" and the Commission must report on its application and effectiveness to the European Parliament and Council (Article 12).

⁴ Article 2(a) of the EU SEA Directive defines plans and programmes to mean those:

- "which are subject to the preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and
- which are required by legislative, regulatory or administrative provisions..."

**Box 3.5: Information to be provided in an Environment Report
(as specified in Annex 1 of the EU SEA Directive)**

- (a) An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;
- (b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- (c) The environmental characteristics of areas likely to be significantly affected;
- (d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance;
- (e) The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) The likely significant effects (1) of the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- (g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
- (h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- (i) A description of the measures envisaged concerning monitoring;
- (j) A non-technical summary of the information provided under the above headings.

Source: Official Journal of the European Communities (21.7.2001, L197/36)

3.2.4 Toward implementation

The SEA Directive is widely regarded as a milestone in the evolution of the SEA field, but there will be considerable challenges associated with its implementation. Two initiatives may provide some pointers to the way forward:

First, a review by Sheate *et al.* (2001) looked at a range of assessment-type mechanisms that have been used to promote environmental integration in the EU. It placed SEA in the broader strategic context of processes, institutions, arrangements and instruments and looked at integration practice in all member states. Drawing from this review, Appendix 11 summarises key examples of strategic approaches in ten selected EU member states, and also the status of SEA at the time of finalisation of the SEA Directive in 2001. These examples illustrate the larger framework and potential for SEA integration in the EU.

Second, the theoretical and methodological basis for the SEA Directive has been examined through a major, collaborative research programme (Analytical Strategic Environmental Assessment, ANSEA), although its practical application remains in question. ANSEA was funded by the EU's Fifth Framework Research Programme and was an ambitious attempt to establish a framework for assisting the implementation of the SEA Directive (Box 3.6). It identified, *inter alia*, a number of procedural steps and a methodological basis for a decision-centred approach. An important dimension from the perspective of the previous discussion is an evaluation of the

extent to which environmental integration has been achieved. However, the influence of this project on the implementation of SEA Directive in member states remains unclear, at best, and, at worst, it is likely to be of academic rather than practical interest.

Box 3.6 : The ANSEA project

A consortium of eight institutions was established in 1999 to develop the initial ideas and concepts for ANSEA established by TAU Consultora Ambiental (Spain). It was a two year project (2000-2002), with the overall objective of providing a framework for assisting in the implementation of the European Directive on SEA (2001/42/EC) and also national directives and procedural requirements in this area. The project had three main objectives:

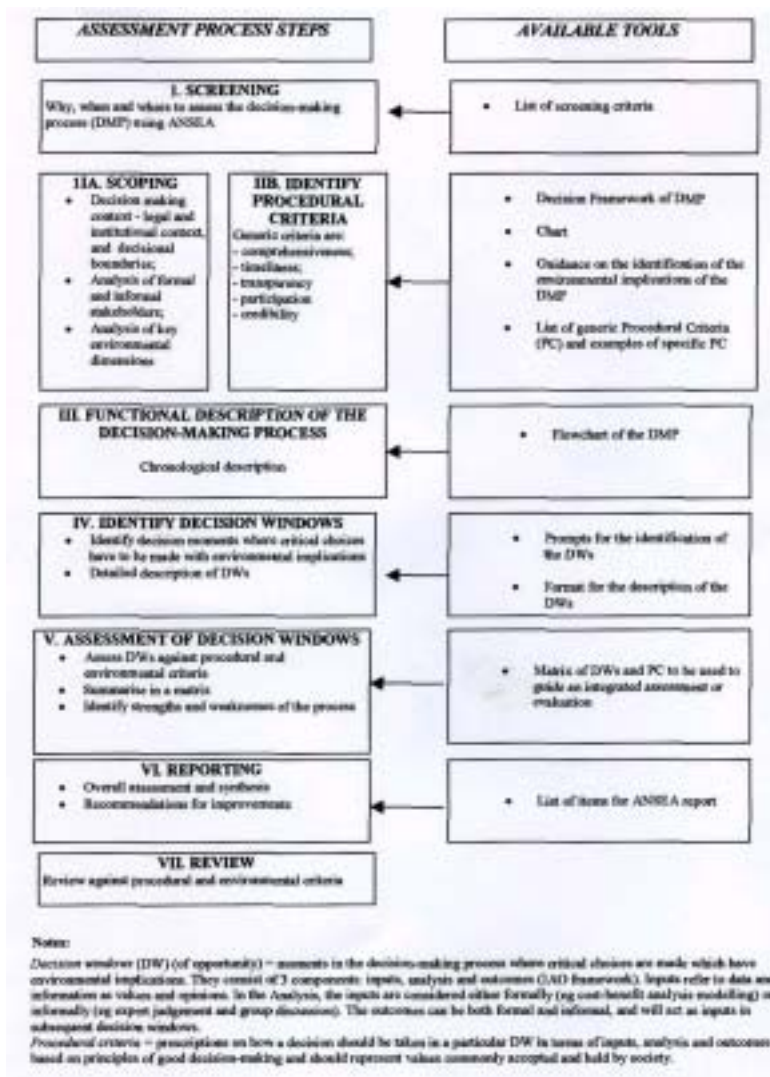
- Development of a sound theoretical basis for SEA as a discussion platform for the ANSEA;
- Validation of the approach by testing its applicability in diverse institutional and decision-making contexts across Europe – through 9 case studies from 5 countries in Europe and a review of SEA experiences in two additional countries;
- Dissemination activities to reach both the scientific audience and the main users in public administrations: books on the theoretical concepts and generic guidelines for applying the ANSEA framework; a public symposium; and a dedicated website (www.taugroup.com/ansea).

The objective of the ANSEA method is to provide a decision-centred approach to the SEA process. It seeks to provide a methodology and tools to analyse and assess the decision-making process of policies, plans and programmes (PPP) – either in an *ex-ante* or an *ex post* (assessment or audit) way, focusing on the decisions that are most critical to the environmental impact of PPP. The ANSEA method is designed to be used either as an objective and transparent approach to ensure that environmental considerations are taken into account, or as an evaluation of how far environmental integration has been achieved in decision-making processes. It is designed to be flexible for many types of application and to be undertaken either by the proponents of the PPP or by independent assessors. There is also the option for independent review and wide stakeholder participation is encouraged. The procedural steps are shown in Figure 3.1.

A final project symposium was organised in Milan in February 2002 to enable debate in integrated approaches to SEA in the light of the new EC SEA Directive. The ANSEA approach and outcomes of the project were presented to high-level representatives of European Institutions, environment ministries and agencies, and EU researchers. It is unclear what the influence of this project will be on the implementation of EC Directive in EU member states.

Sources: FEEM (2002) and materials on www.taugroup.com/ansea

Figure 3.1: Procedural steps for the ANSEA framework (FEEM 2002)



As suggested above, the real test of the SEA Directive will lie in its implementation, a point that is often overlooked in the rush to judgement on its procedural pros and cons. In the interim, we offer two broad observations:

First, the SEA Directive is not the first or only Community piece of legislation to establish obligations on member states to carry out a systematic assessment of the environmental effects of plans and programmes. Such a requirement also applies through Council Directive 79/409/EEC on the conservation of wild birds, Directive 92/43/EEC on the conservation of natural habitats and Directive 2000/60/EC establishing a framework for Community action on water policy. Where an obligation to carry out an assessment arises simultaneously from the SEA Directive and other community legislation, member states may provide for coordinated or joint procedures in order to avoid duplication (Article 11.2). To date, however, SEA experience with associated these other instruments appears to be limited and it is probably safe to say that implementation of the

SEA Directive will be more extensive and it will be the cornerstone for meeting the requirements of Community legislation. Over time, we also expect it to reshape the way plans and programmes are made in Europe and, ideally, to infuse the environment into all aspects of their preparation and implementation. However, we accept that this will be a tall order and a long term goal.

Second, it is important to remember that the SEA Directive was more than a decade in the making - from the time serious discussion began within the Commission to its coming into force in 2004 (and much longer from the initial commitment made in 1987 when the stated intention was to include policies). There was considerable debate on various drafts and five years elapsed from the release of the Draft Directive on SEA in 1997 to its finalisation in 2001. Furthermore, there was considerable opposition from various member states until the negotiation process ended. Member states had to be in compliance before 21 July 2004 and only plans and programmes that are formally initiated after that date will be subject to the requirements of the Directive. Plans and programmes commenced before then have a 24 month period for completion, after which the Directive applies retroactively "unless member states decide on a case-by-case basis that this is not feasible" (Article 13.3). In short, it is unlikely that the first batch of SEAs will be rolled out until 2005 and possibly it will be much longer before the SEA systems of the member states are fully operational.

3.3 National experience with SEA

3.3.1 *Australia*⁵

The Australia Environment Protection and Biodiversity Conservation Act (the EPBC Act, 1999) replaced a number of Federal statutes including the Environment Protection (Impact of Proposals) Act (the EPIP Act, 1974). EIA provision and procedure constitute an important part of the new Act and provide for a strengthened role for the Federal government in matters of national environmental significance such as world and national heritage places, nationally threatened plants and animals, migratory species and internationally important wetlands (see Early 2004). Part 10 of the EPBC Act provides for SEA of policies, plans and programmes, triggered by agreement with the Federal Minister for the Environment. In addition, it requires strategic assessment of all fisheries managed by the Federal government and all fisheries involved in the export industry (paragraphs 147-154).

Marsden (2002) has evaluated the provisions of paragraphs 146 and 147 against principles of international best practice in SEA, as defined by Sadler and Verheem (1996), and identifies a number of procedural shortcomings. These include the relatively restricted scope of application of the Act - it excludes matters of national environmental significance (such as forests – see below) which, arguably, should be included. In his view, paragraph 146 also leaves too much discretion to the Minister and thereby lacks much of the certainty and transparency that a legal framework should bring. With regard to paragraph 147, as applied specifically to fisheries management, Marsden (2002) finds a closer correspondence with principles of international best practice and concludes that the SEA of the Heard Island and McDonald Islands Fishery represents a positive introduction to the implementation of the requirements of paragraphs 147-154. So far, a major

⁵ With contribution from Gerard Early, Department of the Environment and Heritage, Canberra; and John Ashe (consultant).

SEA of Australia's offshore oil and gas exploration is being undertaken and some 90 strategic assessments of fisheries are complete or underway.

Under the National Forest Policy Statement (NFPS)⁶, endorsed by the federal Government and all States and Territories, there is provision for the conduct of comprehensive regional assessment (CRA), which has many of the characteristics of SEA (Ashe 2002). This process is a basis for the conclusion of regional forest agreements (RFA), which the Federal and State governments pursued from the mid-1990s as a means of resolving jurisdictional and fundamental conflicts over land use and management. CRA is undertaken through two parallel streams of assessment. One comprises an environmental and heritage assessment relating to the national estate and world heritage, indigenous heritage, endangered species, bio-diversity, old growth and wilderness values and to ecologically sustainable forest management. The other comprises economic and social assessment of resource use and development opportunities and consequences of exploiting them. To date, CRA has been applied to eleven regional forest agreements (Box 3.7).

Box 3.7: The Central Highlands RFA/CRA Process, Australia

Regional forest agreements (RFA) centre on regions in which commercial timber production is a major forest use, with boundaries determined by political and economic rather than bio-geographic criteria. This process is an attempt to find a lasting solution to the fundamental conflict between conservation and wood production in Australian forests and to settle jurisdictional disputes arising from intervention by the Commonwealth in State management of these lands. An integral component of the RFA process is a wide-ranging programme of environmental, economic and social assessments known as comprehensive regional assessments (CRA).

With certain variation as to detail, the RFA process comprises four phases: scoping, assessment, integration and agreement. This process and the role of CRA, in particular, are illustrated by the Central Highlands RFA in Victoria. Located north and east of Melbourne, the region comprises 1.1 million hectares, with public lands occupying 56 per cent of this area.

In January 1996, an interim agreement was signed to provide for the protection for forests that might be required for a 'comprehensive, adequate and representative (CAR) reserve system pending completion of the RFA. A scoping agreement set out the arrangements for conduct of the RFA and, in broad terms, the matters to be assessed.

During the next 17 months, a CRA of the environmental, cultural, economic and social issues in the region was carried out. This included assessments relating to biodiversity, old-growth forest, wilderness, national estate, world heritage and ecologically sustainable forest management (ESFM). A CRA report was issued for public consultation in July 1997. The report may be compared in scope and scale to a conventional EIS. It drew heavily on existing studies and was accompanied by technical reports.

Following the public consultation phase, the process entered the 'integration' phase, initiated by the release, in September 1997, of the Central Highlands RFA Directions Report. This set out proposals for the CAR reserve system, ESFM in the region and forestry industry issues. The report was released for an eight-week period and provided the basis for negotiations between the Commonwealth and Victoria governments. The Central Highlands RFA was signed in March 1998 and is to remain in force for 20 years, with provision for amendment by mutual agreement, for dispute resolution and for 5 yearly reviews. Principal elements of the

⁶ Commonwealth of Australia, *National Forest Policy Statement: A New Focus for Australia's Forests* (1992). The NFPS sets out policies and objectives for Australia's public and private forests. It identifies eleven broad national goals for land use, which are to be pursued within a regional planning framework that integrates environmental and commercial objectives.

Agreement include:

- Confirmation by the Commonwealth that its obligations under the Australian Heritage Commission Act 1975, the Environment Protection (Impact of Proposals) Act 1974 and the Endangered Species Act 1992 have been met;
- Provisions concerning world heritage nomination of areas in the region;
- Establishment of a CAR reserve system for the region;
- Commonwealth accreditation of Victoria's ESFM system and processes, and industry development initiatives.

Under the Agreement, the conservation reserve system for the region increased by 116,000 ha (64 per cent) and nearly half the public land in the region is now in national parks or other reserves. The CAR reserve system meets the nationally agreed criteria for biodiversity, old growth and wilderness. Benefits for industry include certainty of access to forest resources and financial incentive for industry development. Social benefits include prospects for the creation of 300 new jobs.

Source: Ashe (2001, 2002)

An earlier SEA-equivalent process was introduced under the Australia Resource Assessment Commission (RAC) Act 1989, which established an independent body to conduct inquiries on resource policy issues referred to it by the Prime Minister. Section 7 of the Act requires the Commission to take an integrated approach and to have regard to considerations of efficiency, equity and ecological integrity (i.e. explicitly address sustainability). The first inquiry on the future use and management of Australia's forest and timber resources (1989-1992) was part of the policy development process that led to the RFA and CRA process (above). The RAC approach also had an evident influence on this process and is referenced internationally because of its scope and comprehensiveness (see Box 3.8). The Commission as a standing body was disbanded in 1993 after conducting only three inquiries, although the legislation remains on the statute books.

At the state level, recent changes to the Western Australia Environmental Protection Act (1986, amended 2003) enable the Environmental Protection Authority (EPA) to formally assess 'strategic proposals' likely to have a significant effect on the environment (www.epa.wa.gov.au). Previously, paragraph 16(e) of the Act, which gives the EPA an advisory function, was used to undertake informal strategic assessments on a range of proposals; for example, approximately 40 were completed between the beginning of 1995 and mid-2001 (Malcolm, 2002). The latest amendment to the Act allows proponents to refer their strategic proposals voluntarily. In subjecting them to SEA, the advantage to the proponent is that future "derived proposals" will not require further assessment (referral of environmentally significant projects is compulsory under the Act).

During 2002 and 2003, an integrated, strategic level assessment of the Gorgon Gas Development off the Pilbara Coast of Western Australia was undertaken by the State Government which considered social, economic and environmental issues, as well as the strategic implications of the proposal for Western Australia. In the absence of a formal SEA or sustainability assessment process at the time, a unique process was developed for the Gorgon case. It was managed through a whole-of-government approach with a high degree of interaction between relevant agencies at both Chief Executive Officer (CEO), and officer level. The process was modelled on the EIA process used in Western Australia. Scoping guidelines were prepared and the proponent subsequently provided an Environmental, Social and Economic Review document

Box 3.8: Forest and Timber Inquiry, Australia

The Forest and Timber Inquiry conducted by the Australian Resource Assessment Commission was completed in 1992. Although now more than 10 years old, the Inquiry remains one of the reference points for integrated, strategic environmental and sustainability assessment. Its mandate was to identify and evaluate policy options for the use and management of Australian forest and timber resources. The Inquiry combined industry and government submissions, public hearings and independent technical analysis.

Major study components included:

- Resource capability, tenure and use inventories;
- Evaluation of forest management strategies and institutional arrangements;
- Wood supply and demand projections;
- Review of the environmental effects of logging, including soil productivity, aquatic systems, flora and fauna, nutrient recycling, and carbon sequestering;
- Survey of social values of forests and attitudes to management;
- Identification of five strategies of forest use and management, from maximisation of timber production to no further logging of native species; and
- Clarification of the choices and trade-offs at stake (although the inquiry did not provide specific advice to the government).

Source: Resource Assessment Commission (1992); summarised in Sadler and Verheem (1996)

(ChevronTexaco Australia 2003) which was made publicly available. The proponent was required to respond to issues raised in the public submissions. Three individual assessment documents were then prepared for consideration by Cabinet:

- An environmental review undertaken by the Western Australian Environmental Protection Authority (EPA 2003);
- Advice on biodiversity conservation values by the Conservation Commission of Western Australia (2003) which is the vesting authority for Barrow Island; and
- Advice on social, economic and strategic considerations to the Department of Industry and Resources (DoIR) (Allen Consulting Group 2003).

These documents also were made publicly available along with a separate summary/overview document (Government of Western Australia 2003). Once public submissions were received, the CEOs of the relevant government agencies briefed the Cabinet on the proposal.

In September 2003, the Cabinet decided to grant the Gorgon Joint Venture access to Barrow Island for the purposes of gas processing. Currently the proponent is undertaking a formal EIA process (under Part IV of the *Environmental Protection Act 1986*) which will detail the environmental impacts and mitigation strategies associated with constructing the gas processing plant on Barrow Island. A detailed analysis of the Gorgon case study is in progress (Pope *et al.*, submitted) which examines the project in light of the three conceptualisations of sustainability assessment put forward by Pope *et al.* (2004).

A number of other Australian States also take a strategic approach to development proposals and variously incorporate elements of SEA. For example, in New South Wales, the formulation of regional and local plans must take into account environmental studies of land likely to be affected. In Victoria, planning authorities must take account of significant effects that a development scheme may have on the environment and, according to Harvey (2002), ad hoc forms of SEA of plans are exemplified in the approach to site nomination and zoning for coastal marinas. A similar approach can be recognised in South Australia although, here, informal SEA takes place within coastal planning to integrate environmental criteria into the marina site selection process (Harvey, 2000, 2002). There are a number of other planning and policy-making processes at the state and federal levels that are analogous to SEA but have yet to be evaluated from this perspective (Marsden and Dovers, 2002).

3.3.2 *Austria*⁷

An EIA law was introduced in Austria in 1994, but there is no legislation yet requiring SEA. However there are various initiatives underway to implement the EU SEA Directive.

Mining, water management and forestry are the responsibility of the federal government whereas spatial planning and nature conservation are the concern of the nine provinces. Thus, the main actors involved in SEA activities in Austria are:

- (a) The Federal Ministry of Agriculture and Forestry, Environment and Water Management (MoE), and the Federal Ministry of Transport, Innovation and Technology;
- (b) The relevant departments of the nine administrations of the provincial governments.

Implementation of the EU Directive is likely to involve both existing and new legislation. To date, the federal government has amended the Water Management Act (Federal Law Gazette No. I 82, 2003; Aug 29, 2003) in order to integrate the relevant provisions of the EU SEA Directive, and the province of Styria is preparing a specific SEA Act.

In preparation for implementation a number of voluntary SEA and SEA-like pilot studies has been undertaken covering different geographical areas and planning sectors (Box 3.9).

Box 3.9: Pilot SEAs in Austria

1995	Local Energy Plan for Graz city;
1997	Land-use plan of Weiz (Styrian municipality with 9,300 inhabitants);
1997	Regional programme of Tennengau (an association of 13 municipalities in Salzburg province);
1997	Danube corridor demonstration study (part of the Trans-European Transport Net, TEN);
1998	Regional development plan for the Danube area in Lower Austria;
1999	Vienna waste management plan;
2001	Urban and transport development in North-East Vienna (part of the city and surrounding municipalities);
2003	Waste management plan for Salzburg province.

⁷ With contributions from Kerstin Arbter (Arbter Consulting and Research) and Ralf Aschermann (Austrian Institute for the Development of Environmental Assessment).

All of these pilot SEAs improved the planning process, e.g. through considering alternatives, analysing environmental consequences and documenting the likely environmental effects. Some SEAs, particularly the most recent ones, also contributed to the adoption of better quality plans and programmes in which environmental concerns were taken into account in decision-making. Not all measures recommended by the SEAs have yet been implemented, so it remains to be seen how effective they have really been. To date, the Viennese Waste Management Plan shows the most progress in implementing proposed measures (Box 3.10). In this case, an SEA round table process was used to facilitate effective stakeholder involvement (Box 3.11).

Box 3.10: Pilot SEA for Vienna's waste management plan

In recent years, Vienna has experienced growing volumes of waste, higher standards for waste disposal in landfill legislation, and bottlenecks in the city's waste treatment facilities. In response, the Environmental Commission of Vienna (a kind of environmental ombudsman) called for an SEA to help in preparing a waste management plan that would resolve these problems by 2010. The waste management authority decided to engage a wide range of stakeholders in the SEA process.

The Commission required that ecological, economic and social aspects be taken into account from the outset. Their key issues were:

- Which waste minimisation and waste recycling and treatment measures will solve the root problem?
- Does Vienna need additional waste treatment facilities to cope with the waste generated until 2010?
- Which treatment technologies are best suited to the specific local circumstances?
- How can the capacity of the existing facilities be optimised? and what treatment capacities should newly built facilities comprise?

The SEA commenced in 1999 and adopted a participatory "round-table" stakeholder team approach (Box 3.10). A political decision on the plan was taken by City Council in December 2001, following the recommendations of the 'round table' team. By 2003, some of the proposed measures had already been implemented: establishment of a strategy group for waste avoidance; selection of sites for the recommended new incineration plant and the new fermentation plant; and initiation of project EIAs for these two new installations.

Beside the pilot SEA case studies, SEA activities in Austria include a wide range of reviews of international and national approaches and experience, studies of the environmental assessment of policies and legislation and the range of potential plans and programmes which will be subject to the EU SEA Directive, and the procedure and criteria for the SEA screening procedure (see: www.lebensministerium.at/umwelt) as well as evaluation studies of the pilot SEAs.

In addition, SEA training workshops and meetings have been organised, and SEA working groups meet regularly (e.g. a federal group on SEA and transport, and a provincial group on SEA implementation). A handbook has been prepared illustrating different aspects of the diverse Austrian SEA activities (Arbter *et al.* 2000)

Box 3.11: Use of the SEA round table approach in Austria

The SEA team for the Vienna waste management plan (Box 3.9) pioneered the round table approach. The team included representatives of local/national planning, environmental and other authorities, external waste management experts (planners) and representatives of interested environmental NGOs. In this approach, team members act as equal partners throughout the process, from defining objectives to preparing the report, and share responsibility for the results. The team tries to reach consensus on a plan/programme which integrates the environmental aspects, combining elements of SEA and mediation. In this study, consensus was reached in nearly all aspects on the proposed waste management plan.

The model was developed further during the SEA for urban and transport development in the North-East of Vienna. Besides environmental NGOs, Chambers of Commerce, Labour, and Agriculture & Forestry, and politicians were represented in the SEA team. Also the participation of the broader public was strengthened and an SEA website was launched (www.wien.at/stadtentwicklung/supernow – it received some 4,000 hits). In addition, several public SEA forums were organised (with about 1,000 participants) and continuous media information was provided. This model has been used again for the most recent Austrian SEA for the waste management plan of Salzburg.

The SEA Round Table approach goes beyond the requirements of the EU SEA Directive. It means more pro-active participation than mere consultation and provision of information, and provides possibilities to contribute to the whole SEA process and to influence its results. The experiences to date have been promising, providing opportunities to reconcile the interests concerned and to strengthen the implementation of a final plan when supported by all interest groups concerned.

The Ministry of Environment has commissioned a study to explore the possibilities of sustainability impact assessment at the level of policies and legislation.

3.3.3 Canada

Established by Cabinet Directive (1990), the SEA process instituted by the Government of Canada was the first of the new type of systems at this level (see section 2.6.2). It was established as a separate process from EIA legislation, and applied flexibly and less prescriptively to integrate environmental considerations into policy and programme proposals submitted to Cabinet or considered by Ministers on their own authority. This is the highest level of political decision-making in Canada and, at the time, the application of SEA represented both a major innovation and a particular challenge with respect to Cabinet secrecy, Ministerial discretion, and other conventions of Westminster-style parliamentary democracy.

Early procedural guidance on SEA in Canada was relatively basic and contained in the so-called 'blue book', titled "The Environmental Assessment Process for Policy and Programme Proposals" (FEARO, 1993). It outlined the scope of coverage, the responsibilities of officials and agencies and the requirements for documentation and disclosure. For Cabinet submissions, the primary SEA was part of the formal procedure of preparation of a memorandum setting out the proposal and the issues for consideration. Tellingly, the 'blue book' noted that public consultation, which normally would be expected to become a key component of SEA, is difficult in the Canadian context 'because of the need for Cabinet confidentiality'.

In the initial phase, SEA implementation was pragmatic and largely at the discretion of the department or agency responsible for the proposal. Key principles were discretion and flexibility, i.e. agencies were encouraged to develop and use approaches and procedures suited to circumstances. During this early period, SEA implementation was subject to periodic reviews by the Federal Environmental Assessment Review Office (FEARO) - later the Canadian Environmental Assessment Agency (CEAA) - which was responsible for an inventory of assessments and procedural advice. This gave the agency nominal oversight of compliance and practice. A survey by Fischer and LeBlanc (1996) found an inconsistent pattern of SEA application, with some federal agencies failing to comply with the Directive and others meeting the bare minimum requirements. But there were also examples of major policy issues being subject to SEA and cases that provided lessons of good practice. More probing, formal audits of SEA compliance and performance were conducted by the Commissioner for the Environment and Sustainable Development (1998, 1999). These indicated that many aspects of SEA practice were inadequate.

A revised Cabinet Directive on SEA (1999) strengthened the role of SEA in policy, plan and programme decision-making by clarifying the obligations of federal departments and agencies and linking EA to the implementation of sustainable development strategies. No “best” methodology is identified, but there is encouragement to “apply appropriate frameworks or techniques, and to develop approaches tailored to their particular needs and circumstances”. Flexible, practical and systematic guidelines are presented based on current, proven, good practices within federal departments and agencies.

The scope of application of the SEA process was broadened nominally to include plans as well as policies and programmes. It remains focused on proposals submitted to an individual Minister or to Cabinet for approval, when these may result in important environmental effects (positive or negative). An SEA for a policy, programme or plan is expected when:

- A proposal is submitted to an individual Minister or Cabinet for approval; and
- Implementation of the proposal may result in important environmental effects (positive or negative).

In addition, departments are encouraged to submit other initiatives to SEA, ‘as circumstances warrant’. There are, however, certain special cases when no SEA may apply, related to national emergencies or issues requiring urgent response, where the normal consideration by Cabinet is shortened. Excluded from SEA are projects that are subject to the Canadian Environmental Assessment Act, although an SEA may be done in advance of these. In the case of new regulatory instruments, the preparation of a regulatory impact assessment statement is deemed to satisfy SEA requirements, although if an SEA has been conducted the findings should be included. A separate SEA report is not required; rather the findings should be included in the relevant decision document. In the case of Memoranda to Cabinet, a strict confidentiality convention applies, although, if necessary, a public statement summarising the findings of the SEA can be released. Documents for which a- SEA may be required include:

- The Allocations Memorandum and other Memoranda to Cabinet (MCs);
- Country (and Regional) Development Policy Frameworks (C/RDPF);
- Strategic plans;
- Policies;
- Development programmes;
- Action plans;

- Sector-wide approaches (SWAPS);
- Sectoral reviews and guidelines;
- Treasury Board submissions.

Guidance on the 1999 Cabinet Directive is available on CEAA's website (www.ceaa.acee.gc.ca/0011/0002/dir_e.htm#guidelines).

Despite the reporting and documentation provision, examples of SEAs are difficult to obtain. A number of high profile SEAs have been completed, for example in support of trade negotiations. Early applications at this level took the form of an ex-post environmental review, notably of the North American Free Trade Agreement (1992) and the Uruguay Round of Multilateral Negotiations (1994). In 2001, the Department of Foreign Affairs and International Trade (DFAIT) established a generic framework for ex ante SEA (Box 3.12), which was recently applied to the current round of Multilateral Trade Negotiations at the WTO.

Box 3.12: Generic framework for ex ante SEA for trade negotiations, Canada

The Canadian Department of Foreign Affairs and International Trade has established a generic framework for SEA of trade negotiations. This is intended to be applied flexibly and adapted on a case-by-case basis according to the policy context; for example, trade liberalisation in the World Trade Organisation (WTO) compared to multilateral or bilateral free trade agreements.

Rationale and objectives: SEA is presented as an instrument that can help 'sensitise' trade negotiators to environmental considerations and lead toward greater coherence of trade and environmental policy. The primary aim of SEA in this context is to provide information necessary to integrate environmental considerations into the decision-making process from the earliest stage (and to document for the public how this has been done). A caveat is that the preferred way to mitigate adverse effects is recognised as appropriate domestic policy rather than prescriptive measures within trade agreements. In addition, this approach may identify opportunities for capacity building for environmental protection.

Challenges: The framework recognises that assessing the environmental impacts of trade negotiations is a complex and demanding task with a number of significant challenges:

- Methodologies for SEA of policy issues including trade negotiations are still evolving;
- Experience in their application is lacking since, to date, Canada has conducted *ex post* reviews of trade agreements rather than *ex ante* assessments of trade negotiations;
- Because trade negotiation is a dynamic process, the SEA process may have to focus on a 'moving target' as new and unanticipated issues arise;
- Environmental impacts of trade agreements are difficult to identify and isolate from other factors external to trade (and quantitative data are limited).

Four step SEA process: The main stages and elements comprise:

- Notice of intent to conduct an SEA issued when a trade negotiation is announced (with comments invited from key stakeholders on environmental matters);
- An initial SEA to scope out the main issues likely to result from the proposed negotiation;
- Preparation of a draft SEA to identify and inform negotiators of the main environmental concerns;
- Preparation of a final SEA report to document the anticipated environmental impacts (identifying any notable divergence from the draft SEA) and recommend any follow up and monitoring actions.

Analytical framework: Because of the dynamic quality of trade negotiations, analysis may be required at various times in the SEA process. The methodology comprises four analytical stages:

- Identification of the economic effects of the trade negotiation and its relevance to Canada;

- Identification of the likely environmental impacts of such changes (adverse and positive), noting their consistency with Canada's existing commitments under multilateral environmental agreements;
- Evaluation of the significance of the potential environmental impacts (using criteria similar to those used in the application of the *Canadian Environmental Assessment Act*);
- Identification of the options for policies or to mitigate adverse effects and enhance positive effects, including regulatory institutions and measures and abandoning or altering a negotiation position.

Public input and stakeholder engagement: The framework identifies the form and stages at which public input will be sought. The scope and timing of public input will vary, depending on the type of agreement assessed. Given the confidentiality of trade negotiations, any re-evaluations of the draft SEA report will not be made public although advice will be sought from key stakeholders including environmental NGOs.

Source: DFAIT (2001) for updates, see <http://www.dfait-maeci.gc.ca/tna-nac/social-e.asp#environmental>

Recently, the Canada – Nova Scotia Offshore Petroleum Board has been conducting a series of SEAs for areas offshore Nova Scotia. The latest was an assessment of Eastern Sable Island Bank, Western Banquereau Bank, the Gully Trough and the Eastern Scotian Slope (August 2002) and was the first to cover lands not currently under licence to petroleum companies or included in a Call for Bids (see: www.ensopb.ns.ca/Whatsnew/SEA0816.html). The ecological overview for the SEA was conducted by an independent consultant and was used by Board staff to prepare the SEA report which was then reviewed by experts within the Department of Fisheries and Oceans and by Environment Canada. A similar SEA process is reportedly underway with regard to offshore oil and gas development on the west coast of Canada, where a moratorium has been in place following an earlier review (1984).

3.3.4 Denmark

In 1993, SEA was established by Administrative Order for new acts and other governmental proposals submitted to the Danish Parliament. An SEA is conducted if the ministry in charge “estimates the proposal will have an essential environmental impact”. Guidelines for such SEA work were produced by the Ministry of Environment and Energy in 1994 and have since been revised. In 1995 and 1998, amendments were made to the Administrative Order to strengthen its scope and application. Ministry staff preparing new acts and proposal undertake the SEAs.

Guidance on SEA procedures has been issued by the Ministry of Energy and Environment, which also provides advice on their application. This material includes a checklist for screening the potential environmental effects of a proposal and information on undertaking an assessment. The process is to be carried out to the extent that administrative and data limitations allow and so as to maintain applicable legislation process. Case examples are included in guidance material.

The commentary to the Bill, which is part of the decision-making basis for Parliament, includes a separate section on the environmental effects of the proposal. It is to be an easily understood non-technical statement. Background assessment statements and other relevant reports are to be publicly accessible.

SEA on a voluntary and more experimental basis has been carried out for some years at the regional level (Box 3.13), and to a less extent at the municipal level in Denmark (Studsholt 2001).

Box 3.13: Pilot SEA in North Jutland, Denmark

Between 1995 and 1997, the Planning Administration in North Jutland, the Danish Ministry of Environment and Energy (DMEE) and the EIA Centre at Roskilde University collaborated on a pilot project financed by the former Ad Hoc Group for EIA under the Nordic Council of Ministers and the DMEE. The pilot project was a component of a research project to develop methods for SEA of regional plans and to test them through case studies.

The pilot project involved an assessment as part of the revision of the 1993 North Jutland Plan. Elling (1999) reports the conclusions of different actors, based on interviews:

- Planners said that whilst the SEA produced no new knowledge, the planning process became more clear;
- Politicians felt they got better information as a basis for choices;
- NGO's experience was that they should participate early in the process, preferably during scoping.

Overall, it was concluded that a better regional plan had been produced.

The Planning Department has tried to carry SEA a step further in the newest regional land use plan revision. The NGOs have been involved at an earlier stage. The county used existing groupings like the Green Panel, the Ground Water Committee, and the Cultural Heritage Committee, where different NGOs are represented. Also the findings of the SEA process were integrated in the plan itself and not placed in an appendix as in 1997. Even though the planners have tried to improve the process, there seems to be no genuine interest in the findings of the SEA from the public, the NGOs or the County Councils own politicians.

The aim has been to achieve more sustainable spatial plans and to prepare for the EU Directive on SEA. It is expected that SEA at the regional level will become mandatory for the next regional land use plan in 2005. In the interim, Denmark must be in compliance with EC Directive 2001/42/EC on SEA of plans and programmes by 2004.

3.3.5 Finland

Under the Finnish EIA Act, 1994 (Section 24), all policies, plans and programmes that are likely to have a significant effect on the environment require assessment. The need for an SEA is determined by the responsible authority for the policy, plan or programme. In addition, a separate SEA process applies to government bills and other proposals. The two processes are compared in Box 3.14.

A working group appointed by the Ministry of Environment has submitted a proposal for implementing the European SEA Directive. The proposed legislation retains the general requirements for the assessment of policies, plans and programmes of the Finnish EIA Act of 1994, but adds a formal procedure for the assessment of certain plans and programmes identified by the SEA Directive. The latter applies to relatively few types of plans and programmes (see section 3.2.3 above), but the working group listed more than 200 different types of assessments of

PPPs: most are for SEAs prepared for land use plans; others examples include those for regional waste management plans and regional development plans. The working group's proposal was accompanied by an assessment of its effects and a consideration of alternatives. It will be widely distributed for comments and debated by parliament in 2004 (Hildén 2003).

Box 3.14: Finnish experience in assessment of Bills compared with the assessment of policies, plans and programmes

In Finland, all Bills submitted to the Parliament are required to include, whenever relevant, a separate sub-chapters on environmental, economic and administrative effects, together with sub-chapters on economic effects and administrative effects. This is a clear checkpoint to determine whether or not an SEA has been completed. Except for land use plans, the assessment of policies, plans and programmes lacks a comparable procedure. In this regard, SEA of Bills is a more formalised process, although research indicates that often the procedural check is merely a formality. So far, no Bill has been returned from Parliament because of a lack of proper assessment. Recently, however, there has been criticism of the quality of Bills and their assessment (Ervasti *et al.* 2000).

Frequently, there are links between the preparation of Bills and policy documents. Policy documents may identify the need for more detailed legislative work. The National Climate Strategy is a case in point. Many of the measures envisaged in the strategy will require amendments to existing legislation or new laws. In these cases, SEA of policy can support the preparation of the legislative proposals. It can be argued that this is the real test of their usefulness and use. Only in special cases, however, will SEA of policy remove the need for an assessment of a Bill. Draft legislation is likely to introduce new considerations and alternatives that will require further assessment.

Source: Hildén (2003)

3.3.6 France⁸

EIA principles and procedures were introduced for development works and projects by Article 2 of the Law of 10 July 1976 on protection of the natural environment, and enacted by an Interministerial Decree of October 12, 1977. The law made EIAs compulsory for projects defined as having potential consequences for the environment and stated that planning documents (i.e. master and land use plans) "must take into account environmental considerations". For different reasons, including the reluctance of the Ministry of Planning and Public Works and lack of expertise, planning documents were not assessed on environmental grounds. In September 1983, a Government Decree modified the Planning Code stating that Local Land Use Plans needed to integrate a preliminary report on the environment and the potential effects of planned actions upon it. A less clear requirement was that Spatial Master Plans should describe "the state of the environment and the measures taken to preserve it". These requirements represented elements of progress towards integrating environmental concerns in decision-making. But they were largely ineffective, as evidenced by several law suits in the Administrative Courts citing lack of substance. In practice, planners paid only lip service to environmental considerations and judicial checks could not cope with administrative carelessness.

⁸ With contributions by Max Falque, Fabien Harel and Koassi d'Almeida.

As for projects, an important deficiency was that the screening procedure relied on strict listing based on financial and technical importance and not land vulnerability. Accordingly, some 5000 EIAs were produced each year and many smaller projects were submitted to mini EIAs (*notice d'impact*).

In 1992, Electricité de France, in conjunction with the Ministry of the Environment, decided to establish a kind of programmatic impact assessment for each of its regional electricity transportation networks.

A new EIA decree in 1993 required the promoters of projects linked to a single institutional decision (e.g. a general road programme split up for financial reasons) to carry out an EIA of the whole programme. This prevented deliberate splitting of projects in order to escape the need for an EIA report, and provided an opportunity to assess cumulative effects.

EIAs are made public at the very end of the planning process through a "public enquiry procedure" set up by the Préfet (Administrator). No public consultation is organised on the basis of a draft report.

The most important projects (e.g. major highways, high speed rail, international airports and harbours) are usually sponsored by the Ministry of Public Works and Transport and are debated by stakeholders at meetings organised by the National Commission for Public Debate. These forums sometimes lead to project amendment, but never their abandonment.

On 2nd December 1993, the Ministry of Environment took a first step towards legislating for a kind of SEA by issuing a Circular to Regional Prefects (Chief Administrators) on the environmental assessment of State–Regions Planning Contracts (*Contrats de plan État –Régions / CPERs*), setting out the principal environmental issues and establishing indicators (Bertrand 2001)⁹. Following this, on 2nd December 1993, the ministry produced an Inter-Ministerial Circular which officially instituted regional assessment measures and introduced a general assessment system for CPERs at three levels (Bertrand, 2000):

- *The political decision-making level/policy-making level*: Here, the committee piloting the assessment of the CPER acts as contracting authority in the assessment;
- *Technical and scientific monitoring bodies*: committees of members of central government and regional service departments (i.e. experts) with the delegated task of initiating and monitoring the assessment of each programme or group of programmes;
- *The operational implementation level*: the individuals who actually carry out the assessment. They may or may not be part of the public administration (private research consultancies, consulting firms or research laboratories).

However these *contrats de plans* are only a general agreement between the Central Government and each Regional Government on co funding certain facilities.

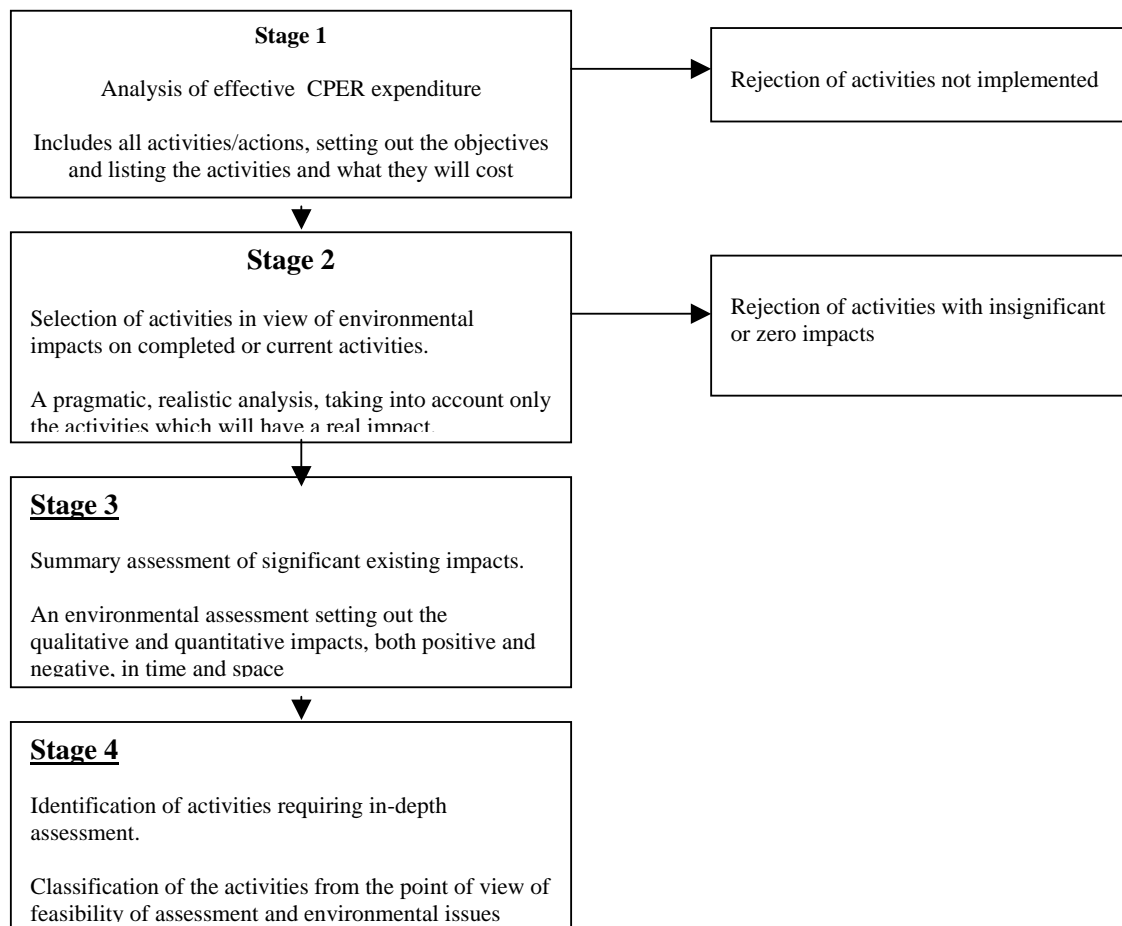
Three types of environmental assessment are provided for in the context of CPERs (André *et al.* 2003):

⁹ Bertrand, F. (2001), l'évaluation environnementale stratégique de programmes de planification régionale: analyse du cadre réglementaire français et européen (strategic environmental assessment of regional planning : analysis of the French and European regulatory framework), presented to the 5th international colloquium of francophone specialists in impact assessment, Paris, 22 -24 May 2000.

- An ex-ante assessment - a prior environmental assessment, to prepare for a decision, based on the precautionary principle;
- An accompanying assessment allowing for periodic review of the environmental effects of decisions following implementation;
- An ex-post assessment, offering the opportunity to take stock of the environmental consequences of implementing a plan or programme, and serving as a guide for future projects.

For ex-post evaluations of CPERs, the Ministry of Regional Development and the Environment has proposed an outline six-step procedure capturing the main principles (Larrue and Lerond 1998) (Figure 3.2). However these assessments are not submitted to judicial and administrative formal review and are never a decision making tool.

Figure 3.2: Stages in the environmental assessment process proposed for evaluating State –Regions planning contracts (CPERs) in France
(Source : André et al. 2003)



In 1990, the Assemblée Nationale (Parliament) introduced a new procedure in order to assess the environmental impact of draft legislative proposals. But it has not yet been implemented due to the lack of competent staff and political will.

The new law on land use plans has led to some progress: local urbanisation plans must now have a forward-looking focus which integrates sustainable development concerns and spatial planning, consistent with territorial coherence schemes (master plans); diagnosis and strategic planning must take account of the interactions between sectoral decisions; and the requirements of the EU SEA Directive are mentioned in the formal advice of Conseil Général des Ponts et Chaussées on the so called "Rapport Chassande (20 June 2000).

Preparing to implement the EU Directive on SEA

In several tentative SEAs, efforts were made to develop methodologies and train people for implementing the EU SEA Directive. These quasi SEAs deal mainly with transportation infrastructure and regional planning. With respect to the latter, the preparation of spatial planning documents became a legal requirement in 1995 for particular areas (e.g. mountain regions, estuaries) of national concern (e.g. for transport, nature conservation, economically important). The Ministry of Environment proposed to adopt the approach used in the UK for *environmental appraisals of development plans* in order to provide coherence between decisions. The SEA procedure follows four main steps:

- Environmental diagnosis (an environmental profile describing the state of the environment and listing political objectives at different scales – international conventions and protocols, European policies, national objectives, regional objectives, etc);
- Compatibility analysis (using a matrix) between orientations of the strategic action and reference objectives;
- Importance of potential impacts of the whole plan;
- Evaluation (ex-post) of interactions between measures, etc.

As in many other EU member states, France will find it difficult to implement the EU SEA Directive in full by the required time. Some draft decrees are being considered. But, so far, there has been no experimentation with SEAs in the agricultural, energy and industrial sectors.

3.3.7 Germany¹⁰

There has been extensive use of SEA-type approaches in Germany in a number of sectors, both domestically and in development co-operation, but, to date, there is no official legislation prescribing the application of SEA.

Requirements for environmental assessment at strategic levels of decision-making were first introduced in 1972, aimed at legislative procedures (Cupei, 1994). In 1975, 'principles for the environmental assessment of public measures by the Federal Government' were formulated for draft legislation and draft governmental regulations and activities which concern the environment.. However, in practice, these were seldom applied (see Cupei, 1994). New SEA legislation is being drafted together with an amendment to the building sector law.

¹⁰ With contributions by Thomas Fischer (University of Liverpool) and Holger Dalkman (Wuppertal Institute).

Currently, SEA-type assessment is most widely applied in spatial/land use and transport planning. Over the past few years, there have been a number of SEA-related research projects, undertaken mainly by the Federal Environment Agency, particularly in the areas of federal transport planning and regional planning.

Spatial/land use planning

Essential elements of SEA can be found in formal spatial/land use plans, landscape plans and programmes prepared at all administrative levels of decision-making for the last 20 years. In the past, they served mainly as state-of-the-environment reports, pro-actively setting objectives for environmentally sustainable land use. But, more recently, in certain states (*Länder*), local land use plans have also started to deal explicitly with the potential impacts of those changes and developments they propose through landscape plans. In this context, Fischer (2002) suggests that they probably meet the requirements of the European SEA Directive to a greater extent than statutory and formally applied assessment types currently practised in other European countries. This is mainly due to the way in which baseline data are collected and presented, environmental objectives are set, professional consultation and participation is conducted, impacts are appraised and potential mitigation and compensation measures are set. But a particular shortcoming is that these local land use plans give insufficient consideration to different development alternatives.

There is increasing experience of assessment at the regional level with a number of authors examining the extent to which SEA Directive requirements are met in current regional planning practice. But here, current shortcomings include not only insufficient consideration of alternatives but also lack of public participation (Siemoneit and Fischer 2002; and UVP 2003). One positive example of an SEA type assessment is the regional management approach in “Westpfalz” region (Weik 2004) in which different individual and institutional actors cooperate in a participatory manner. Despite their different interests and problems, they follow the same defined objectives. In this case, regional management offers a suitable alternative to traditional regional planning. **[BS DID YOU DELETE THIS?]**

In addition to landscape plans and programmes, since 1975, more than 200 local communities have introduced EIA in their local land use planning procedures (Hodek and Kleinschmidt, 1998), although the focus is on possible projects arising from such plans. Nevertheless, this fulfils one of the requirements of the SEA Directive - the consideration of environmental impacts at the level of local land use plans.

Transport Planning

In Germany, a full SEA is not required for any of the relevant decision-making processes in the transport sector, but SEA-type assessments (or certain elements of an SEA) are applied at all administrative levels of decision-making in transport planning (Figure 2.2). Whilst assessment practice is rather widespread at the programme level, little is currently undertaken at policy and plan levels. At all three levels, shortcomings include a lack of public participation and insufficient transparency. However, through the introduction of the EU SEA Directive, not only will the adaptation of certain ideas and elements of SEA become necessary, but also a modification of the present decision-making processes. These modifications, for example, will have to provide adequate opportunities for the general public to participate.

Some significant steps have already been taken in preparing to implement the SEA Directive. In this regard, the transport sector is often regarded as one of the good-practice examples in Germany. During formulation of the new Federal Transport Infrastructure Plan (FTIP), the

Federal Ministry for Transport, Building and Housing (Schaefer *et al.* 2003) undertook project-based, cost-benefit analyses, an estimation of the CO₂ impacts of the FTIP, an environmental and nature conversation appraisal, an ecological risk and Habitat Directive Assessment as well as spatial impact assessments. All of these assessments were considered in the relevant decision-making processes. The German FTIP was also used as an SEA case study for several research projects (such as ANSEA – see Box 3.6) and studies (see Lee and Hughes 1995, Fischer 2002, Dalkmann/Bongardt 2004, and Wende *et al.* 2004). However, whilst the FTIP is subject to review every five years, to date, a full SEA has not been required. Issues such as the net-effects of transport measures (e.g. habitat fragmentation) or alternative transport modes are not currently considered in planning practice in Germany.

The BMVWP and the German Federal Ministry for Environment (UBA) are currently discussing whether the FTIP will be regarded as a policy or a plan when the EU SEA Directive is implemented (UBA 2003). The Ministry for Transport considers itself responsible for preparing only policies, not plans or programmes; so that the EU-Directive would not be seen as applicable. However, there is strong consensus in Germany's SEA 'community' that the FTIP is actually a programme, and that SEA is necessary.

Corridor or 'area' transport studies are still undertaken only sporadically - examples include the SEA of the Danube corridor between the Vilshofen and Straubing (EC 2002) and the study of the 'North-East' area between Hamburg, Hanover and Berlin (MWSVLSA 1995). Furthermore, current practice in project EIA routinely considers different spatial options within defined transport corridors. However, these are usually uni-modal, rather than multi-modal.

At the "Laender" level, there are some interesting examples of applying elements of SEA, e.g. in Bundesleander Brandenburg and Northrhine-Westfalia. In the preparation procedure of the new road infrastructure plan for the *Land* Brandenburg, several essential SEA elements were integrated, e.g. formulation of environmental development objectives, an environmental report, assessment of development alternatives, implementation of the findings into planning and decision-making processes, consultation, participation and monitoring (Bockemüehl 2003).

In North-Rhine-Westphalia, transport planning has been carried out in an integrated manner since 2000. According to a law on "Integrated Transport Planning", from May 2000, transport planning has to be supported by the formulation of environmental development objectives as well as by analyses of the current situation, future scenarios and development alternatives (<http://www.igvp.nrw.de>)

Other practice

There is also some SEA experience in other sectors in Germany, e.g. for wind farms (Kleinschmidt and Wagner, 1996) and waste and water management (UVP 2003). Since 1987, a pilot project in Bavaria has been assessing the environmental impact of agricultural practices. Furthermore, SEA is required for all development co-operation projects of the Federal Ministry of Research and Technology (Hodek and Kleinschmidt, 1998).

3.3.8 Japan

Studies on the introduction of SEA have been undertaken in Japan (Box 3.15).

Box 3.15: Japan Study of SEA Methodology

The Japanese Ministry of the Environment has been studying the possibility of introducing SEA. It has looked at the legal and institutional implications and now proposes to focus on SEA methodology. This work is being carried out with international co-operation and promises to be of wider interest. Key aspects include:

(a) Preparation of:

- Technical guidance to be issued by national, local governments or other organizations;
- Manuals for selected sectors;
- Textbooks and guidance for training courses or lectures.

(b) SEA cases that illustrate the application of methods, including review of full SEA documents (where possible) for:

- Various sectors (especially for transport (roads and railways), land use, water use, and energy plans);
- Different scales of analysis - national to regional, as well as near policy-level and near project-level plans.

3.3.9 Korea

Korea adopted EIA in the late 1970s. In 1999, the Preliminary Environmental Scan (PES) System was introduced – a legislative process to identify and minimise environmental impacts in the early stage for some plans and projects which are specified under the Environmental Policy Act. But the process is not yet applied at the policy level.

PES is carried out after the framework decisions for projects have been taken (eg site or route), making it difficult to assess the best alternatives. It overlaps with the EIA system – they follow similar approaches and both incorporate a review process.

Recently, there has emerged a strong demand for a new assessment process related to the strategic level of policies, plans and programmes. To satisfy this demand, it is being argued to upgrade and expand the PES system to incorporate SEA principles (see Box 3.16).

Box 3.16: Preliminary Environmental Scan (PES) in Korea: A SEA-like system

Aim of PES:

The PES system (or called The Prior Environmental Review System, PERS) aims to balance development and conservation by identifying possible environmental impacts of development plans or projects in the early stages of planning. It includes considering ways to carry out development plans while harmonizing the built and natural environments in an aesthetically pleasing manner (Korean Ministry of Environment, 2001).

The PES System is applied to:

- 39 *administrative plans* specified under the Basic Environmental Policy Act and other individual laws;
- Any *development activities* conducted in 20 specified types of conservation and protection areas (e.g.,

conservation areas for natural environment, wildlife and/or wetland, and protection areas for waterworks and/or groundwater, etc).

How the PES and EIA systems work together

The following example for housing land illustrates how the PES and EIA system provide an overall EA process. In order to develop housing land, PES is required to check the following main concerns:

- Sustainability of the goal;
- Alternatives;
- Environmentally-friendly land-use plan;
- Conditions of location;
- Relevance of the project.

When a target site fulfils the requirements listed above, it is designated as official housing land for development. An EIA is then undertaken with detailed analyses, mainly to mitigate the negative environmental effects predicted in specific fields such as air quality, water quality, floral and fauna, geology and noise. For each such EIA, public participation is mandatory and a sound monitoring plan must be prepared.

However, if the development is anticipated to cause critical and severe environmental problems, it can be terminated at the PES stage and no further action is permitted. In 2002, the development plans for several major housing sites were withdrawn following PES processes.

The Ministry of Environment controls both the PES and EIA systems through consultation processes with development agencies. Research is being undertaken to introduce SEA as early as possible, probably starting from 2005. One possible option is to upgrade and expand the PES system to incorporate SEA principles.

The more information on PES available in Korean Ministry of Environment (2001) (see also www.me.go.kr).

Source: Contributed by Young-Joon Lee, Korea Environment Institute (<http://www.kei.re.kr>)

3.3.10 The Netherlands

In the Netherlands, two SEA systems are in place. The first, the environmental test of law and regulation (E-test)¹¹, was introduced in 1995, and is a policy requirement of the Government. The E-test ensures that an environmental report is made, reviewed jointly by Ministries of Environment and Justice, and attached to the cabinet proposal. As stated in the guidance document by the Ministry of Housing, Spatial Planning and the Environment, the E-test was to apply to regulations and policies. It was to be applied in conjunction with other feasibility and business tests and emphasise a flexible approach and user support (see Box 3.17). Only legal initiatives were subject to SEA in the initial phase. To date, the E-test has not been extended to policies, and it is more limited in scope than initially envisaged. A recent independent review of the E-test found that it was implemented in accordance with procedure, but had little influence on decision-making. Currently, initiatives are underway to strengthen the process.

¹¹ The E-test is coordinated with a B-test, i.e. the effect of regulation on business.

Box 3.17: Netherlands environmental test of draft legislation

The *environmental test* applies to draft legislation sent to the Council of Ministers (Cabinet). It aims to consider the environmental effects of a proposed law (referring to four basic questions), together with an assessment of its enforceability, feasibility and impact on business.

Minimum procedures are used, e.g. to address only those proposals with significant environmental effects (screening) and to identify the priority issues (scoping). There is no public participation, no need to look at alternatives, and no independent quality assurance. Key characteristics include:

- Implementation in a low key manner;
- Use of E-test should not delay decision-making;
- Scope and detail of application geared to significance of issues;
- Minimum procedural and content requirements;
- Flexible, efficient implementation and integration with other processes;
- Client oriented with a helpdesk and Joint Support Centre.

The E-test recently has been evaluated. It appears its influence on adopted legislation has been negligible, i.e. without the E-test the regulation would have been the same. To improve its effectiveness, the E-test has been changed into a two-phased process. First, a so-called ‘Quick Scan’ is prepared to decide if a ‘Full Environmental Assessment’ is needed. If so, the outcome of the Quick Scan provides the terms of reference for the Full EA. To enforce the role of the Joint Support Centre, its name has been changed to the Proposed Legislation Desk, and it now has a stronger reviewing role. It is hoped that the Quick Scan will be applied earlier in the regulation development process and thus will be more influential. It is planned to evaluate the effectiveness of the new approach by the end of 2004.

In contrast, the second system is SEAs of specified plans and programmes which are a statutory requirement of the EIA Act (1987). These are comprehensive in scope and include national plans for waste management, electricity generation and water supply and regional land plans involving site selection of major housing, industrial and recreational areas. In brief, these SEAs seek to make sure that:

- The start of plan preparation is made public early;
- The public is involved in both scoping and review of the SEA report;
- An independent expert committee is asked for advice on both scoping and review;
- In all cases, the best alternative (from an environmental perspective) is examined;
- The final adopted plan is justified on environmental grounds (in writing);
- Plan implementation is monitored.

The Dutch policy and planning frameworks are highly structured and facilitate a tiered process of SEA and EIA (see Box 3.18). This takes place against established policy objectives and facilitates a “distance to target” approach to sustainable development, e.g. as **implied** in the National Environmental Policy Plan. As with EIA of projects, SEA of plans and programmes are subject to review by the independent EIA Commission. Generally, this process is considered to be

effective. Another review (independent of the EIA Commission) has examined the overall effectiveness of EIA and SEA - with no explicit reference to either project or strategic level.- and found a very high influence on decision making. In this context, it will be interesting to see how

Box 3.18: Tiered Management of Waste Management in the Netherlands

At the national level:

- Decision(s) are taken on technologies for final waste treatment, e.g. refuse, dumping or incineration and total treatment capacities:
- SEA is carried out to assess alternative technologies and their environmental consequences.

At the regional level:

- decision(s) are taken on exactly where treatment sites will be located;
- SEAs assess location options and their environmental consequences.

At the project level:

- decisions are taken on design and mitigation measures for each of the selected locations;
- project EIAs are tiered to earlier assessments and decisions.

Source: Sadler and Verheem (1996)

the Netherlands transposes EC Directive 2001/42/EC into national legislation, and particularly whether it will opt for a more minimal procedure in accordance with the provisions of the Directive and what will be the role of the EIA Commission. Box 3.19 provides a reflection on this challenge.

Box 3.19: The challenge of implementing the European SEA Directive in the Netherlands: A personal reflection

By Rob Verheem

“As all European countries The Netherlands is now struggling with implementing the new European SEA Directive. Unlike other countries, however, The Netherlands is in the interesting situation that it already has two SEA systems which have been in place for some time. ‘Strategic EIA’ is mandatory for certain spatial and sectoral plans, such as spatial plans on locations for housing and industrial area and sectoral plans such as waste plans, water plans and energy plans. An ‘E-test’ is mandatory for new legislation with significant environmental consequences.

These two SEA systems are very different in concept and approach and the application in practice, effectiveness and popularity of both systems have been evaluated. (Strategic)¹² EIA is showed to be highly effective in safeguarding the proper consideration of environmental issues in decision-making, but is not very popular with all decision makers. It is regarded as too heavy a burden. The E-test is very popular with most decision-makers because of its minimum approach, but its effectiveness in strengthening the role of

¹² In the Netherlands the same process is followed for projects and plans and programmes. The evaluation took place of the effectiveness of this process. In reporting the results no distinction was made as to effectiveness at project and plan level. The results were that in 50% of all cases the final decision was different as it would have been without EIA; in 70% of the cases people’s attitudes had become more environmentally minded and overall, in 80% of the cases one or both of these effects took place.

environmental goals in law-making is practically zero.

In the current discussion on how to best implement the new SEA Directive, this leads to an interesting dilemma. Should we aim for a minimum approach – e.g. by simply implementing the SEA Directive as it is without adding extra safeguards, and be liked by decision-makers but run the risk of ineffectiveness? Or should we keep strategic EIA as it is, because it is effective, but run the risk of being unpopular with decision-makers because we do more than ‘Europe’ requires? Or can we keep the effectiveness and still get rid of unnecessary rules and requirements?

In practice, the discussion is not as complex as it seems. When compared to the SEA Directive, Dutch strategic EIA is not that much different. The most important additions are:

- Publication of a starting note, so that everybody knows early in plan preparation that something is going on, and can start preparing to get involved;
- A round of public participation on the required content of the environmental report;
- Mandatory independent expert advice on both scope and – in a later stage – on the quality of the report;
- The obligation to always explain what the best alternative would be from an environmental perspective.

The question, therefore, is whether we should keep these four requirements or whether we could get rid of some or all of them.

Recently, the Ministry of the Environment published a first proposal for discussion. It suggests to adopt a new instrument, because strategic EIA is regarded as too unpopular and the E-test does not seem to work. The new instrument is given a new name, although in English it still would translate as strategic environmental assessment. More important, the Ministry of Environment feels that environmental awareness has now progressed sufficiently in The Netherlands to get rid of almost all of the above four requirements. The proposal stresses that although all four elements are crucial for the effectiveness of the instrument, it is felt that responsible government bodies will always include these where necessary. To make this obligatory is no longer necessary. The only exception is the requirement to announce the start of plan preparation early in the process, and an independent review by the EIA Commission if a plan or programme will affect an area protected under the Habitat or Birds Directive.

Not all parties completely agree to the Ministry’s vision. For example, the Dutch EIA Commission feels the Ministry’s approach is correct for the majority of plans and programmes, but not for complex, controversial cases, e.g. those involving choice of location, technology or use of resources. These plans directly affect people’s interests and therefore will lead to much debate and protest. With the possibility of strong opposition from civil society, political pressure over such cases might lead to sub-optimal choices regarding the role of civil society in plan making or the role of an independent advisor. This could weaken both the quality and the credibility of the finally adopted plan. Therefore, as an alternative, it is suggested to prepare a short list of these plans and programmes and keep the existing requirements in place for these.

At the time of writing (June 2003), discussions has progressed to the political stage, but we cannot predict what the outcome will be. But it is clear that, to some extent, the discussion has a ‘religious character’. Do we or do we not have sufficient faith in the environmental awareness of planners and decision makers? And if we do have faith, does this apply to all cases or are their limits of what we may expect of human beings, e.g. when faced with short-term, economic advantages and long-term environmental disadvantages? And if so, what kind of SEA will then help us to act sustainably even in those cases?”

According to the latest annual report of the EIA Commission, over the past 15 years, about 50 SEAs have been completed (90 if the EIAs for rural development plans are included). Recent examples of SEAs include (Netherlands CEIA 2003; Rob Verheem, pers.comm.):

- *EA of the National Structure Plan for Surface Minerals*: This SEA provided a better understanding of the elements of the decision most relevant to the environment and its alternatives. The Commission's advice concentrated on alternatives for the use of the scarcest raw materials and the decision on what would be the locations for the extraction of construction sands.
- *EA of the Spatial Policy Plan 'Space for Rivers'* provided information on and understanding of the combined environmental consequences of the many measures arising from the plan, such as the lowering of the endyked floodplain, excavating side channels and re-routing dykes.
- *EA for the Delta Metropolis* (the urban agglomeration in the west of the Netherlands) provided a basis for reaching a sound conclusion on the strategic decision on whether to build a magnetic levitation railway or a high-speed railway; and what would be the best locations for new housing and industrial areas related to the infrastructure decision.
- *The SEA of the National Waste Management Plan* compared alternative technologies for waste processing, including what would be the best option from an environmental perspective. It also developed a method to assess the environmental effects of waste treatment processes that can be used in subsequent project EIAs (e.g. the quantitative life cycle assessments of a large number of waste materials).
- *The EIS of the Policy Rules on Active Soil Management* contributed to the development of a clear, uniform guidance for dealing with polluted sludge in all future river-widening projects along the Meuse and Rhine distributaries.

3.3.11 New Zealand¹³

The Resource Management Act (RMA) 1991 is generally understood to provide a mandate for SEA. However, the broad institutional context and planning domain for SEA in New Zealand is more complex than is generally understood by many international commentators. With the advent of the new Local Government Act (LGA), 2002, an increasing amount of strategic planning activity is occurring at local and regional levels outside of the context of the RMA, and thereby any implicit requirement for SEA. Thus, it is possible to identify several variants of SEA in practice. These include the formal requirements under the RMA as noted below, strategic plans prepared by local governments under the LGA, and various ad-hoc central government strategies, reports or inquiries. The government's recent commitment to a sustainable development programme of action is one such example.

As the main environmental statute guiding resource development, the RMA provides for an integrated approach to assessment and planning to promote the sustainable management of natural and physical resources (see Dalal-Clayton and Sadler, 1996). The incorporation of the principles of environmental assessment within a statutory planning framework places emphasis on the management of environmental effects. The Act provides for the preparation of a hierarchy of plans where lower-level plans are not to be inconsistent with higher-level plans. Hence, an integrated system of national, regional and district policy statements and plans governs resource development. Implementation of the Act has been slower than anticipated and impeded by poor

¹³ With contribution by Jenny Dixon.

capacity-building, under-funding and a lack of national policy guidance. However, after a decade, the second generation of plans is now getting underway. Nevertheless, the RMA is regarded by many as a landmark statute in institutionalising sustainable management as an integral part of government decision-making.

New Zealand authors take a cautious view of the SEA character of the Resource Management Act (Dixon 1994, 2002; Ward *et al.*, 2002). Dixon observes that the RMA framework “can be interpreted to present possibilities for SEA from a system which, although oriented towards achieving sustainability, was not specifically designed for the purposes of SEA”. The Act places strong emphasis on policy analysis and monitoring. There is, however, no explicit requirement to undertake SEA as such. Thus, within the Act, the mandate for SEA is partial at best and is more appropriately characterised as providing for a form of policy environmental assessment.

Beyond the RMA, there is a proliferation of planning instruments being produced by local government and other government and non-government agencies. Practitioners now face a new challenge to integrate plans produced separately under resource management and local government legislation. What is encouraging to note is that some of these documents have taken on board an SEA-type approach. At the regional level, a particularly significant example of where SEA processes and methods have been applied, as opposed to the more limited policy assessments under the RMA, is in the development of the Auckland Regional Growth Strategy 2050 (Auckland Regional Growth Forum, 1999). What is significant is that this strategy has not been driven by legislation, but developed collaboratively as a strategic solution to some major urban problems.

While the experiences of the last decade have been mixed in respect of the implementation of an integrated mandate for planning and environmental management, there is little doubt that legislative requirements for policy assessment of environmental effects have considerably influenced practices at local and regional levels of government. It is also evident that a more systematic approach for SEA as a process and methodology is required at central government level, particularly in order to address some of the identified policy gaps at a local level and to meet national goals for sustainable development. Whilst this is now occurring to some extent, much remains dependent on the extent to which planners and decision-makers embrace the principles of SEA in preparing policies and plans - both within and outside of the RMA, and institutional support given for its implementation.

3.3.12 Norway¹⁴

The formal provision for SEA of policy and legislation in Norway is given in the *Instructions for consequence assessment, submission and review procedures in connection with official studies, regulations, propositions and reports to the Storting*. These Instructions were issued by Royal Decree on 18 February 2000 and came into force on 1 March 2000 (replacing previous Instructions issued on 16 December 1994).

Both policy and legislative proposals are subject to strategic assessment under the Instructions. The process followed is far more flexible than the EIA procedure. All potential impacts of an initiative are addressed, including financial, social, regional, gender equality and environmental issues.

¹⁴ With contribution by Terje Lind, Ministry of Environment, Norway.

As for EIA, responsibility for assessments undertaken under the Instructions lies with the line ministry/sector concerned. The Ministry of the Environment has a support and advisory role and has issued *Guidelines on Environmental Assessment in Accordance with the Instructions for Official Studies and Reports*.

Currently, there are no specific, formal requirements for SEA of on-shore plans and programmes, But Norway will implement the EU SEA Directive. Legislation requires environmental assessment before opening an area for petroleum-related activities. In addition, the licencees are required to undertake regional environmental impact assessments within smaller areas if the authorities decide it is necessary. Environmental assessment has also been an integral part of preparing sector programmes such as the national transport plan and the national plan for hydroelectric power (see Box 3.20), which are presented as white papers to the Parliament.

In preparing for the introduction of formal requirements for SEA of plans and programmes, the Ministry of the Environment has initiated several pilot projects to gain experience of how SEA might best be undertaken out at the municipal and regional level (see Box 3.21)

Box 3.20: Environmental assessment for hydroelectric power plans in Norway

Norway's strategy for balancing the use and conservation of river systems involves plans and management systems as well as legislation. Elements of particular importance in the decision-making framework include the licensing procedures, the Protection Plan for Water Resources, and The Master Plan for Water Resources.

The first *Protection Plan* was adopted in 1973 and the most recent plan adopted in 1993. The watercourses included in the plan are protected from hydropower development as well as other types of intervention. The aim of the current revision is to add watercourses to the plan. The Plan is drawn up in close co-operation between the energy and water authorities, and the environmental authorities. It is based on an evaluation of the "protection" interests related to the respective watercourses: cultural heritage, nature conservation, fish, wildlife, outdoor recreation and pollution control, as well as agriculture, forestry and reindeer husbandry. All interested parties, including local authorities and local and national NGO's, received the evaluation reports and were able to express their opinions in a broad hearing process.

The *Master Plan for Water Resources* is based on detailed reports (feasibility studies) made for about 400 potential hydropower projects (above 1MW) in the country. Each report contains an evaluation of the impact of the project on the different types of interests in the catchment area: hydropower potential, nature conservation (geology, landscapes, botany and zoology), outdoor recreation (aesthetic experience, walking, rafting etc.), fish (salmon, trout, science, fishing), wildlife (mammals, birds, hunting), water supply, water quality (protection against pollution), cultural heritage, agriculture and forestry (potential), reindeer husbandry (a third of the projects are in *Sami* districts), flood protection and erosion control, transportation, ice and water temperature, climate (changes in the local climate due to more open water in winter) and regional economy. For some projects, many alternatives were studied. Each report was subjected to a hearing process and also, subsequently, for the "main report" (Master Plan) submitted in the autumn of 1984. The first generation of the Master plan was approved by the Parliament in 1986. Since then it has been revised two times, most recently in 1993. It is currently being revised again.

Box 3.21: SEA in land use planning: experiences from five pilot projects.

The Ministry of Environment (MoE) has initiated several SEA pilot projects. The aim has been to test how SEA (both the process and documentation) can best be implemented for land use planning in different settings and circumstances – for different municipality sizes and different planning processes.

The SEA pilot projects built on three of the formal procedural requirements in the planning process:

- The *notice phase* (a more structured process in relation to the public as well as identifying issues relevant to the plan);
- The *circulation* of the draft plan to the public and to relevant governmental authorities (with more thorough information about the impacts of the plan as well as plans to abate them and for follow-up);
- The *publication* of the adopted plan (with information on, for example, how the impacts will be abated and monitored).

The pilot projects show that the SEA elements can be integrated into different stages of land use planning under different planning situations. It has been found especially useful to strengthen the early phase of planning by providing a precise prescription for the process and documentation. In addition, the following considerations have proved to be important:

- A focused knowledge base, to ensure that the assessment of relevant impacts is integrated in the planning process;
- Participation by public organisations;
- Cooperation with relevant governmental bodies;
- Political discussions and considerations;
- Documentation as basis for communication and to steer the planning exercise.

3.3.13 Portugal¹⁵

Draft guidance on SEA for land use planning has been developed as part of Portugal's moves to comply with European SEA Directive (Box 3.22).

Legislative basis for SEA

At present, there are no specific legal requirements for SEA in Portugal. A general requirement for the Environmental Impact Assessment (EIA) of plans and programmes was included in the National Environmental Law, early in 1987. However it was never regulated.

Recent legislation on the development of mineral exploration plans require a report on an SEA to be included in the plan. However, so far, there is no legal definition of the process, methodology and content for SEA.

As a member state of the European Union, Portugal must implement the European SEA Directive 2001/42/EC (see section 3.2) and is also bound by Council Regulation EEC n° 2081/93 regarding proposals for Regional Development Plans and Structural Funds programmes.

¹⁵ With contribution by Maria Partidario.

Box 3.22: Draft guidance on SEA for land use planning in Portugal

Guidance for SEA of Land-Use Plans has been prepared by the New University of Lisbon as an output of a research project on SEA commissioned by the Land-Use Planning Department, within the Ministry of Environment (Partidario, 2003).

The guidance describes a technical methodology for strategic impact assessment (SIA) to be used during the planning process as part of the conception, preparation, discussion, approval and implementation of spatial plans in Portugal.

It applies to regional, special, inter-municipal, and municipal master plans as defined in the Spatial Planning Act and regulations (Law n. 48/98 of 11th August, and Decree-Law n. 380/99, of 22 September 1999).

The SIA methodology is designed to be used in close articulation with the planning methodology, to fit to the sequence and nature of planning activities and functions that are normally part of a plan development process.

Institutional Framework

The absence of legal definition means that the institutional framework for SEA in Portugal is not yet clear. However, it is probable that the main responsibilities will rest with the Ministry of Environment. The decentralised authorities of government responsible for land use planning and the environment have the duty and responsibility to overview SEA in their respective regions.

Current practical experience

The only known application of an SEA approach to date in Portugal was connected to the reports prepared as part of the Regional Development Plans and Structural Funds programmes, in 1994 and 2000. Full studies and reports are not publicly available. A summary of the 1994 report shows that the study focused mainly on the requirements of the Council regulations at the time. In general, the approach adopted addressed the individual project components proposed in the programme. Arguments were raised frequently that insufficient information was available to enable the adequate impact assessment. It is assumed that the 2000 report followed the approach set out in the EU Handbook on SEA (CEC 1998), but it is not publicly available.

3.3.14 Spain¹⁶

There is little national-level experience of SEA in Spain, but more in the regions.

Legislative basis for SEA

There are no existing national level requirements for SEA, but it is required at the regional level, in different Autonomous Regions¹⁷, for different categories of land-use and sectoral plans and

¹⁶ With contribution by Maria Partidario.

programmes. In most cases, such requirements for SEA are included in the EIA legislation (for example in Castilla y Leon, Valencia, Andalucia). In other cases, it is the general Environmental Protection law that requires SEA (eg in the Basque Territory and also Andalucia). In Catalunya, SEA requirements are integrated in the planning procedures. The most prominent examples of legal requirements for SEA in Spanish regions are Castilla y Leon, Basque Territory and Andalucia (see Appendix 8).

Institutional Framework

It is presumed that the Ministry of the Environment will have formal responsibility for SEA at the national level in the future. But at the regional level, responsibilities for overseeing SEA regulations vary, eg:

- Castilla y Leon - the *Junta de Castilla*;
- The Basque Territory - the Environmental Authority of the Autonomous Community;
- Andalucia - the Environmental Agency of the Autonomous Community.

Current practical experience

As in Portugal, part of the SEA practice in Spain relates to the preparation of Regional Plans for the Structural Funds Applications, which require an SEA according to European Regulations. The following examples were led by a network of regional environmental authorities in June 2000 to comply with Council Regulation EEC n° 2081/93:

- SEA of the Regional Development Plan and Structural Funds Programmes for Andalucia in Doñana;
- SEA of the Operational Programme for Rural Development in Castilla y León;
- SEA of the FEDER Operational programme in Castilla y León;
- SEA of Regional Development Plan and Structural Funds Programmes.

Only a few SEAs appear to have been undertaken at the national level. One example is the SEA of the Hydrologic Plan carried out in 2001–2002 by CEDEX (a consultancy company) for the Ministry of the Environment. It was highly criticized for its weaknesses, including lack of consideration of environmental aspects.

Following the adoption in Castilla y León of Legal Decree 1/2000 of May 18th, SEAs of urban development plans were undertaken in Cataluña and Castilla y León and also for the Wind Energy Plan.

Other initiatives in Spanish regions include:

- The SEA of the Urban Planning in Puerto de la Cruz, Islas Canarias, developed in 2002 by TAU Consultants under the Ley de Canarias 11/90 of 23 July.
- The SEA of the wind energy plans in Valencia and Cataluña, developed under the Valencia Law n° 2/ 1989 of 3 March;
- The SEA of sectoral territorial plans in the Basque Territory, developed under Law 3/1998 of 27 February of the Basque Territory;
- The SEA of the Review of the Municipal Plan of Málaga.

¹⁷ Andalucia, Asturias, Islas Baleares, Canarias, Cantabria, Castilla y León, Castilla la Mancha, Extremadura, Madrid, Murcia, País Vasco, Valencia, La Rioja, and also in Catalunya

3.3.15 United Kingdom¹⁸

Prior to the entry into force of the EU SEA Directive's on 21 July 2004, the UK had no statutory provisions for SEA. Nevertheless, several types of SEA process had emerged during the 1990s including appraisals of national policies, 'environmental appraisals' (and latterly 'sustainability appraisals') of local and regional development plans, and *ad hoc* SEAs carried out in specific sectors (e.g. transport and water). Examples of the latter include the strategic environmental appraisal of the Strategic Defence Review (Ministry of Defence, 2000) and the SEA for offshore oil and gas licensing and wind energy generation for the Department of Trade and Industry (DTI 2001).

Good practice guidance has been prepared for both English local authorities and central government departments (see Boxes 3.23 and 3.24, respectively). This guidance forms part of the Government's approach to ensuring that development is sustainable, e.g. as set out in the first and second UK Strategies for Sustainable Development (HMSO 1990, Stationery Office 1994). So far, policy appraisal has been applied narrowly and inconsistently and will not be directly affected by the EU SEA Directive. But development plan evaluation must be brought in line with the SEA Directive (see below).

Box 3.23: UK Guidance on SEA for national policies

The Government's White Paper on the Environment, *This Common Inheritance* (DoE 1990), emphasised the importance of incorporating environmental considerations into policy development. Commitments made in the White Paper resulted in the publication of *Policy Appraisal and the Environment* in 1991 (DoE, 1991). This booklet, aimed at central Government mid-level managers, sought to demonstrate how environmental effects could be taken into account in policy development and emphasised, in particular, the use of cost-benefit techniques (Therivel, 1998). A study by the former Department of the Environment described how government departments had attempted to appraise environmental costs and benefits, and outlined lessons of good practice (DoE, 1994). The study indicated that there was considerable variation in implementation of policy appraisal, bringing into question the extent to which the government-wide commitment to address the potential environmental impact of its own proposals was being met. The study also gave examples of the use of techniques described in *Policy Appraisal and the Environment* and the use of techniques described in *Policy Appraisal and the Environment* and the areas typically covered. It indicated that departments had begun to take better account of environmental effects but that progress was uneven and slower than anticipated. A subsequent study drew similar conclusions and confirmed there was scope for further improvement (DETR, 1997). Updated guidance was prepared on this basis (DETR, 1998). The policy appraisal process involved several basic steps (DoE, 1991; DETR, 1997):

- *List the objectives* of the proposal and *summarise the policy* issue, identifying possible trade-off's and constraints;
- *Specify the range of options* for achieving the objectives, including the 'do nothing' option;
- *Identify and list all impacts* on the environment and consider mitigation measures to offset them;
- *Assess the significance* of the impacts in relation to other costs and benefits;
- Use an appropriate method to *value costs and benefits*, including those based on monetary values, ranking or physical quantities;
- *State the preferred option* with reasons for doing so;
- *Monitor and evaluate the results*, making appropriate arrangements for doing so as early as possible.

More recently, the emphasis has switched from environmental to 'integrated policy appraisal'. The *Modernising Government* White Paper of 1999 committed Government "to produce and deliver an

¹⁸ With contribution from Steve Smith, Scott Wilson Kirkpatrick consultants, UK.

integrated system of impact and appraisal tools in support of sustainable development covering impacts on business, the environment, health and the needs of particular groups in society” (UK Government, 1999). In response, an Integrated Policy Appraisal tool (IPA) was developed by several Government departments to help policy makers assess the full range of social, economic and environmental impacts of their initiatives. The IPA tool was designed to act as a “gateway” to other appraisal methodologies, reducing work by identifying which appraisals needed to be done for a specific policy proposal.

Following a series of pilots, the IPA tool has now been incorporated into the existing system of Regulatory Impact Assessments (RIAs). As part of RIA, policy makers must explicitly identify the economic, social and environmental costs and benefits of their proposals. According to Government, this provides a unified approach for Government policy makers, bringing together within one tool the two complementary aims of better policy-making and sustainable development. In addition, from 1st April 2004, the RIA system was extended to cover all substantial policies and proposals, which will have an impact on the public and private sectors. In order to ensure that RIAs are properly completed, a number of quality checks have been put in place in addition to Ministerial sign-off:

RIAs are placed in the public domain and are a key part of the consultation process;

- RIAs accompany letters seeking collective agreement to proposals so that Ministers, in their responses, are able to comment on the analysis presented in the RIA;
- From 2003/04, the National Audit Office has a new role in reviewing the quality of a sample of RIAs;
- From 2004, departmental reports will require statements on what is being done to support better regulation and to improve the quality of RIAs;
- The Cabinet Office Regulatory Impact Unit is working with departments to enhance the quality of analysis in RIAs and the Department for Environment, Food and Rural Affairs and other departments will be involved in efforts to improve the assessment of social and environmental costs and benefits.

To supplement the RIA regime, the Department of Environment, Food and Rural Affairs (DEFRA) is preparing detailed guidance “designed to make it as easy as possible for policy makers to spot the environmental impacts of their policy options during the policy-making process”.

For further information see: <http://www.sustainable-development.gov.uk/sdig/integrating/index.htm>

Box 3.24: UK Guidance on SEA of development plans

Guidance on the preparation of development plans was first published in the form of Policy Planning Guidance Note 12 *Development Plans and Regional Planning Guidance* (PPG12) (DoE, 1992). PPG12 emphasised the need for planning authorities to consider the environmental implications of their development plans and referred them to *Policy Appraisal and the Environment* (see Box 3.22). In response to PPG12, a number of pioneering local authorities started to carry out ‘environmental appraisals’ of their development plans (albeit using simpler techniques than those advocated in *Policy Appraisal and the Environment*, Therivel, 1998). These early appraisals provided the basis for *Environmental Appraisal of Development Plans: A Good Practice Guide* (DoE, 1993). In comparison to conventional models of SEA, ‘environmental appraisal’ of development plans has been variously described as ‘less comprehensive and onerous’ (Therivel, 1998); ‘less detailed’ (Russell, 1999); and simply ‘informal’ (Glasson and Gosling, 2001). Therivel (1998) argued that many of the SEAs carried out in Britain – particularly the environmental appraisals of development plans – were only *partial* SEAs since they did not describe the baseline environment, consider alternatives, make rigorous, quantitative predictions and offer little in the way of (concrete) mitigation measures. Therivel went on to argue, however, that the majority of these nonetheless fulfilled the aims of SEA – including improved decision-making and greater awareness of environmental issues amongst decision-makers.

During the mid-1990s, many local authorities expanded their environmental appraisal to encompass economic and social concerns; indeed, Therivel (1998) reported that approximately one-third on

respondents to a 1997 questionnaire on appraisal practice characterised their appraisals as 'sustainability appraisals'. The trend toward Sustainability Appraisal (SA) culminated in the publication of a revised PPG12 in 1999. This required local authorities to carry out a full environmental appraisal of their development plans, but encouraged them to extend this to cover other sustainable development objectives. At the regional level, the former Department of Environment, Transport and the Regions published a *Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance* (DETR 2000). Recent research by the EIA Centre at the University of Manchester has demonstrated an increasing use of SA (Short *et al.* 2003). It concludes that, in the majority of cases, development plans had become more environmentally sound as a result of being appraised and that some changes to the plans had been introduced in just over half of the cases as a consequence of applying SA (mainly changes in wording of policies and re-prioritisation of proposed allocation sites within the plans).

The voluntary system of environmental / sustainability appraisal of local and regional plans is set to change considerably in light of the EU SEA Directive and the new Planning and Compulsory Purchase Act (PCPA) (received royal assent in June 2004).

The advent of the SEA Directive and its applicability to local authority development plans led to the publication in 2003 of *Strategic Environmental Assessment Directive: Guidance for Planning Authorities* (ODPM, 2003). This provided some guidance on incorporating the requirements of the SEA Directive into a wider SA process. The PCPA introduced fundamental changes to the planning system and abolished the system of Unitary Development Plans, Structure Plans and Local Plans in England. It replaced these with a single level of plan: the Local Development Framework (LDF). Significantly, the constituent parts of an LDF – Local Development Documents (LDDs) – must undergo a *statutory* SA. For the first time, SEA and SA will both be statutory requirements for local authority development plans. The Government advocates a unified approach to SEA / SA and has commissioned guidance on undertaking SA of LDDs which fully incorporates the legal requirements of the SEA Directive. This guidance should be published by the end of 2004.

Government guidance on undertaking SEA for spatial and land use plans (ODPM, 2003), advocates a five stage approach to SEA (and SA) (see Figures 3. and Table 3.3). Further generic practical guidance on SEA for non-planning authorities is being prepared by the Office of the Deputy Prime Minister and is expected in the summer of 2004.

The government's Statutory Instrument 2004 No. 1633 sets out regulations transposing the EU SEA Directive into law in England.(available at www.hmso.gov.uk/si/si2004/20041663.htm). Transposition of the SEA Directive into national law has been dealt with separately in Scotland, Northern Ireland (NI) and Wales. In line with the Partnership Agreement – *A Partnership for a Better Scotland* (Scottish Labour Party and Scottish Liberal Democrats, undated) – Scottish Ministers aim to achieve and surpass the objectives set out in the EU SEA Directive. This involves a two-stage process. The Scottish Parliament has adopted a set of regulations implementing the SEA Directive; however, these will be revoked by a comprehensive bill on SEA, which will apply it to a wider range of public sector strategies, plans and programmes than the Directive requires (Sheate *et al.*, 2003). In Northern Ireland (NI), regulations to implement the EU SEA Directive were expected to be introduced in July 2004 and individual departments and non-departmental public bodies will be responsible for preparing appropriate sectoral guidance. The Environment and Heritage Service will be the NI consultation body for SEA purposes. In 2002, the National Assembly for Wales published *Sustainability Appraisal of Unitary Development Plans in Wales: A Good Practice Guide*. This has since been superseded by interim guidance on the implications of the SEA Directive for Unitary Development Plan (UDP) preparation. This guidance will itself be superseded by guidance on a combined approach to SEA / SA. In the UK at least, SEA is increasingly giving way to wider sustainability or integrated appraisal.

Figure 3.3. Five-stage approach to SEA / SA (ODPM, 2003)

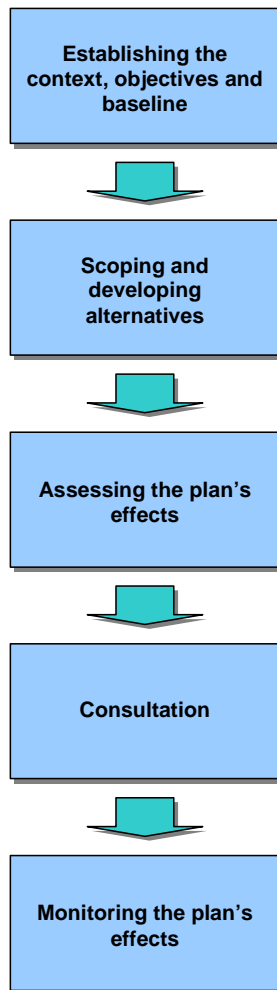


Table 3.3: Stages, decisions and outputs of SEA and SA (ODPM, 2003)

Planning stage	SEA or Sustainability Appraisal stage	The purpose of this stage	What to decide	What to record
Identify the issues and options and prepare for consultation	<p>A. Setting the context and establishing the baseline</p> <ul style="list-style-type: none"> Identify other relevant plans and programmes; Identify environmental protection objectives, and state their relation to the plan; Propose SEA and sustainability appraisal objectives; Propose indicators; Collect baseline data, including data on likely future trends; Identify environmental and sustainability problems. 	<ul style="list-style-type: none"> Document how the plan is affected by outside factors; suggest ideas for how any inappropriate constraints can be addressed; Focus on key environmental and sustainability issues; help to identify SEA and sustainability problems, objectives and alternatives; Streamline the subsequent baseline description, prediction and monitoring stages; Provide a base for effects prediction and monitoring 	<ul style="list-style-type: none"> What other plans, programmes and environmental protection objectives influence the plan; What environmental/sustainability objectives and indicators to test the plan options and policies against; What data to collect and how to structure it so it can be easily used; What environmental/sustainability problems to consider during plan-making. 	<ul style="list-style-type: none"> List of relevant plans, programmes and environmental protection objectives; List of SEA/sustainability appraisal objectives and indicators; Data on environmental/sustainability baseline; List of relevant environmental/sustainability problems.
Consultation on issues and options	<p>B. Deciding the scope of SEA and developing alternatives</p> <ul style="list-style-type: none"> Identify alternatives; Choose preferred alternatives; Consult authorities with environmental responsibilities and other bodies concerned with aspects of sustainability 	<ul style="list-style-type: none"> Clarify baseline, identify problems and alternatives; Ensure that the SEA and sustainability appraisal covers key issues; Help to ensure that the plan is sustainable. 	<ul style="list-style-type: none"> What alternatives to consider, possibly linked to each problem identified in Stage A; What to include in the draft report 	<ul style="list-style-type: none"> List of alternatives; Results of Stages A-B.
Prepare proposed plan	<p>C. Assessing the effects of the plan</p> <ul style="list-style-type: none"> Predict the effects of the plan; Evaluate the plan's effects; Propose measures to prevent, reduce or offset adverse environmental effects. 	<ul style="list-style-type: none"> Consider all likely effects; Ensure that all relevant effects are identified and proposed mitigation measures are considered. 	<ul style="list-style-type: none"> What the effects of specific options, policies and proposals will be; How any adverse effects of implementing plan policies can be avoided, reduced or offset 	<ul style="list-style-type: none"> Effects of the plan options, policies and proposals; List of preferred alternatives and explanation of why these are preferred;

			(mitigated); <ul style="list-style-type: none"> • The preferred alternatives; • How to present the information. 	<ul style="list-style-type: none"> • Proposed mitigation measures and how they will be implemented; • What methods have been used to analyse data and limitations; • Draft Environmental Report
Full public consultation on proposed plan	<i>D. Consulting on the draft plan and the Environmental Report</i> <ul style="list-style-type: none"> • Present the results of the SEA up to this point; • Seek inputs from the public and authorities with environmental responsibilities; • Take consultation results into account; • Show how the results of the Environmental Report were taken into account in finalising the plan. 	<ul style="list-style-type: none"> • Gather more information on the environmental baseline and problems; • Discover the opinions and concerns of the public on environmental and sustainability issues; • Show that information and opinions on environmental and sustainability issues have been appropriately considered 	<ul style="list-style-type: none"> • Who to consult (in addition to statutory consultees) and how; • How to analyse to consultation results 	<ul style="list-style-type: none"> • Consultation process
Monitor plan implementation	<i>E. Monitor the significant effects of implementing the plan on the environment</i>	<ul style="list-style-type: none"> • Ensure that plan is well implemented and feeds into the future plans or reviews next round of SEA/Sustainability Appraisal; • Ensure that adverse effects can be identified ; • Provide information for future SEA's. 	<ul style="list-style-type: none"> • How to measure the actual effects of plan on the environment and <i>sustainability</i> 	<ul style="list-style-type: none"> • Proposed monitoring programme.

Further guidance on SEA in the UK includes:

- The Environment Agency is developing good practice guidance for SEA to assist external organisations in carrying out SEA (due in 2004);
- The Department of Transport has commissioned guidance on SEA of local Transport Plans (due summer 2004) (draft available on www.webtag.org.uk/sitepages/consult/pdf/211consult.pdf);
- Guidance on SEA and biodiversity has recently been published by the Countryside Council for Wales, English Nature, the Environment Agency and the Royal Society for the Protection of Birds (June 2004). It explains, step-by-step, how biodiversity implications can be considered in SEAs in the UK (available on www.rspb.org.uk/policy/planningpolicy/s_e_a.asp)

3.3.16 USA

In principle, provision for the environmental assessment of policies, programmes and plans (PPPs) is contained in the pioneering 1969 US National Environmental Protection Act (NEPA) and the California Environmental Quality Act (1970). Although the day-to-day focus remains mainly on projects, there is a long record of experience with preparing programmatic environmental impact statements (PEIS), although the actual number conducted is relatively small. About 500 draft, final and supplemental EISs are completed each year in the USA and, assuming that this represents 200-300 projects, very few are programmatic (Ray Clark, pers.com.). These are a very small proportion of the 50,000 less detailed EAs completed each year in the country. One of the most strategic EIS's undertaken – and not actually called a programmatic EIS – was for Bonneville Power Administration Business Plan (Box 3.25).

Box 3.25: Bonneville Power Administration Business Plan EIS

The electric utility market is increasingly competitive and dynamic. To participate successfully in this market and to continue to meet specific public service obligations as a federal agency, the Bonneville Power Administration (BPA) needs adaptive policies to guide marketing efforts and its other obligations such as its energy conservation and fish and wildlife responsibilities. This EIS evaluated six alternatives to meet this need.

(1) **No Action.** BPA would maintain its traditional activities in planning for long-term development of the regional power system, acquiring resources to meet customer loads, sharing costs and risks among its firm power customers and non-federal customers using the federal transmission system, and administering its fish and wildlife function, with the goal of fulfilling the requirements of the Northwest Power Act.

(2) **BPA Exercises Market Influences to Support Regional Goals.** In addition to its own activities to acquire energy resources and enhance fish and wildlife, BPA would exercise its position in regional power markets to promote compliance by its customers with the goals established by the Northwest Power Act.

(3) **Market Driven BPA (The BPA Proposal).** BPA would change its programmes to try to achieve its mission while competing in the deregulated electric power market. BPA would be a more active participant in the competitive market for power, transmission, and energy services, and use its success in those markets to ensure the financial strength necessary to fulfil its mandate under the Northwest Power Act.

(4) **Maximize BPA's Financial Return.** BPA would operate like a private, for profit business. It would focus on limiting costs and investing its money where it could get the best return, while continuing to fulfil the requirements of the Northwest Power Act.

(5) **Minimal BPA Marketing.** BPA would not acquire new power sources or plan to serve customers' load growth. Activities would focus on meeting revenue requirements through the long-term allocation of current federal system capability, while continuing to fulfil other requirements of the Northwest Power Act.

(6) **Short Term Marketing.** BPA would emphasize short-term (5 yrs or less) marketing of power and transmission power products and services, while continuing to fulfil requirements of the Northwest Power Act

Source: Ray Clark (pers.com), based on Business Plan Final EIS (DOE/EIS-0183)

Under NEPA, proposed strategic actions can be assessed by grouping them geographically, generically or by stage of technology. The requirements are specified in Council of Environmental Quality Regulations (CEQ 1978 *et seq*) .

Since then, federal agencies have gained considerable experience of PEIS. This approach has been found to be particularly helpful to consider alternatives (see Box 3.23), to address the cumulative effects of subsequent projects and activities. PEIS provides a framework for any further EIA of individual projects, and the requirements for this purpose can be 'tiered' to results of the PEIS. This is acknowledged as saving time and resources. Similar provisions for assessment of programmes and plans are made in the California EIA system.

So far, the provisions of NEPA have been applied to legislation but not at the true policy level. As in much else, there is a body of NEPA case law relating to scope and application. Essentially NEPA is not triggered unless there is a federal action that has a demonstrable environmental impact. For example, the finding of 'no action' under NEPA has been used to exempt the national energy policy, which normally could be thought of as having a wide range of environmental consequences. Recently, an SEA has been proposed for a programme of the Immigration and Naturalization Service to enhance immigration Points of Entry (Box 3.26).

Box 3.26: Proposed SEA of Point of Immigration Entry Enhancements, USA

Background: As a result of the terrorist attack on the United States on 11th September 2002, the Immigration and Naturalization Service (INS) is required by legislation to enhance all Points of Entry (POE), i.e. with more sophisticated technology such as finger, face or biometric identification. Prior to the start of any proposed actions, the INS, like any other federal agency, is required to comply with the requirements of the National Environmental Policy Act (NEPA) and evaluate their potential effects on the environment. The General Services Agency (GSA) will conduct whatever site-specific analyses are necessary to implement the proposed POEs.

Approach: The technology for this POE enhancement programme was not known and not developed; so no actual actions could be proposed. Yet the INS knew that it was going to have to do something at 66 POE and its environmental staff were put under great pressure to prepare the required EIAs very quickly. The scenario was that once the proposed actions were decided, 66 EIAs would then have to be undertaken and the NEPA process would hold up implementation. Enhanced POEs could have a range of impacts due, for

example, to tearing up roads, widening lanes, placing electronic towers for technology.

The Clark Group (TCG) proposed to INS that the most appropriate, efficient, and effective approach was to prepare a strategic environmental appraisal (SEA) before any proposal was offered. The SEA is not a NEPA analysis but will provide the INS with vital information to facilitate rapidly the preparation of the required analysis and assist the implementation and completion of POE enhancements. The SEA will be a document from which INS may reference in subsequent site-specific NEPA analyses. The SEA will be a part of the Administrative Record for the POE project and will provide a scientifically defensible approach for more focused EIAs. It will support decision-makers in directing the level of NEPA analysis required and level of detail for the analysis

The SEA will involve several steps:

- ***Develop a 'roadmap'*** to inform agency personnel and others about the objectives of the SEA and provide clear indication where input will be needed. Rather than look at the impacts of individual POE projects, the SEA is concerned with the 'big picture', dealing with the health and trends of ecosystem resources, and the authorities accountable for them. As the POE technology is being developed, the SEA report will be used by planners to ensure efficient compliance with NEPA.
- ***Scoping:*** The SEA can be used to ensure the efficiency of the scoping process part of NEPA to ensure that the planners are focused on the significant issues, rather than all issues.
- ***Develop current strategy and alternatives***
- ***Conduct the SEA:***
 1. An analysis of the actions and activities involved in each alternative, and development of matrices of impact issues (by resource area) to determine potential problem areas (using a qualitative scale), areas of lesser concerns, and areas where we need additional information.
 2. Identification of areas where INS/GSA may need to conduct site-specific NEPA analyses.
 3. Identification of data needs, suggested levels of significance, mapping/GIS requirements and level of NEPA analysis in an attempt to standardize any subsequent NEPA analyses (and thus streamline that portion of the process). TCG will rely on expert approach as a data collection method.
 4. Regional workshops (representing U.S Fish and Wildlife Ecosystems 1, 4, 10 and 24) and interviews will be used to collect information on potential problems, impact areas and areas where no significant impact would be expected. These workshops will rely on regional experts in a variety of technical fields drawn from state and federal agencies, universities and non-governmental organizations.
 5. The results of the SEA will provide INS with a scientifically defensible approach (which will be part of the agency's administrative record) for how to conduct NEPA analyses in a more focused manner.
- ***Develop a catalogue of mitigation measures*** which INS may then apply to site-specific analyses. Expert input in the previous step will also provide recommended mitigation strategies. These mitigation options will supplement INS strategies of avoidance, minimization, and conservation. The catalogue will provide contractors working on environmental assessments for INS and GSA with an immediate NEPA reference tool for avoiding or minimizing impacts to specific resource areas. It could be included on the GSA NEPA Call-in Web Site (<http://hydra.gsa.gov/pbs/pt/call-in/nepa.htm>). Where possible, other sources of mitigation approaches will be identified such as a Guide to the Congestion Mitigation and Air Quality Improvement Programme based on The Intermodal Surface Transportation Efficiency Act of 1991.

Source: Ray Clark, pers.comm.

