

# Enhancing effectiveness

## Strategic environmental assessment: one concept, multiple forms

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*Several approaches to strategic environmental assessment (SEA) have been developed recently, differing, for example, in openness, scope, intensity and duration. Differences stem from the specific contexts in which the SEA processes are meant to be used. This is illustrated with two current SEA processes in the Netherlands for drafting legislation (environmental test), and for plans and programmes (strategic environmental impact assessment). Although design for purpose enhances the effectiveness of SEA, the variety of approaches may also lead to confusion among non-SEA experts, such as politicians and other senior decision makers, about what SEA is. This could create an impediment to the acceptance and development of SEA in situations where currently no obligation for it exists. A set of principles is proposed as a starting point for further discussion.*

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**A**LTHOUGH THEY SOMETIMES use different definitions, most strategic environmental assessment (SEA) practitioners do agree on what the overall concept of SEA is: a structured, proactive process to strengthen the role of environmental issues in strategic decision making (see, for example, Thérivel *et al.*, 1992; Sadler and Verheem, 1996; Thérivel and Partidário, 1996). Several approaches to SEA have been developed from this concept in different parts of the world (for example, Bass, 1991; Wood and Djeddour, 1992; Webb and Sigal, 1992; Lancashire County Council, 1993; Gibson, 1993; Gow, 1994; Goodland and Tillman, 1995; de Vries and Tonk, 1997; Kessler, 1997; Brown, 1997). These approaches differ, for example, in their openness (for instance, with or without participation of the general public), their scope (for instance, with or without the mandatory description of alternatives) or their intensity and duration (for instance, from one day to several years).

Differences stem from the specific contexts in which the SEA processes are meant to be used, for example, in drafting legislation, in designing broad policies, in preparing concrete programmes and in either developed or in developing countries. Specific design for specific use increases the effectiveness of SEA processes. This is illustrated below by two current SEA processes in the Netherlands: strategic environmental impact assessment (SEIA) for plans and programmes and the 'environmental test' for draft legislation.

However, the variety of approaches may also lead to some confusion with non-SEA experts, such as politicians and other senior decision makers, about 'what SEA is'. These groups decide on whether or not SEA should be implemented as a tool for incorporating

environmental concerns in strategic planning and decision making. Any confusion, therefore, may create an impediment to the acceptance and introduction of SEA in situations in which currently no obligation to do so exists. What people do not know, they do not like.

## Solution?

To remove this potential hurdle to the ongoing development and application of SEA as a tool for environmental protection, it would be a useful first step if SEA experts world-wide could succeed in the adoption of a clear set of principles that underlies all forms of best-practice SEA. This 'standardised' set of principles could then be used — by government officials, NGOs (non-governmental organisations) or trainers — to clarify what SEA is to those who may decide on its introduction.

Useful starting points for the definition of principles could be existing sets, such as those in the SEA Effectiveness Study (Sadler and Verheem, 1996):

*initiating agencies are accountable* for assessing the environmental impacts of new or amended policies, plans and programmes;  
the assessment process should be *applied as early as possible* to proposed designs;  
*the scope of assessment must be commensurate* with the proposal's potential impact or consequence for the environment;  
*objectives and terms of reference* should be clearly defined;  
*alternatives* to, as well as the *environmental impacts* of, a proposal should be considered;  
*other factors*, including socio-economic considerations, should be included as necessary and appropriate;  
the evaluation of *significance* and determination of *acceptability* is to be made against a policy framework of *environmental objectives and standards*;  
provision should be made for *public involvement* consistent with the potential degree of concern and controversy of the proposal;  
there should be *public reporting* of assessment and decisions (unless explicit, stated limitations on confidentiality are given);  
there is a need for *independent supervision* of process implementation, agency compliance and government-wide performance;  
SEA should result in *incorporation* of environmental factors into policy making; and  
be *linked* to other SEAs, project EIAs and/or monitoring for proposals that initiate further actions.

In this, care should be taken that agreement on principles does not lead to dogmatism. Since the 'best' SEA process does not exist, principles should be broad enough to include effective approaches designed for a wide range of specific uses — approaches that may

differ considerably and range from very simple to very comprehensive procedures or cover different material. Of course, this presents a dilemma: how to be clear on 'what SEA is' while at the same time allowing for enough 'room to move'.

## Existing principles

Most existing principles are defined as a set of procedural or content requirements. In other words, they not only tell people what is important (the goals of SEA: for instance, 'make sure you know what the public thinks about what should be done') but also how to do it (the means: for instance, 'make provision for public involvement'). While this certainly has advantages in terms of clarity, it does not allow SEA process developers much flexibility, and there may be more than one way to achieve the same goal, depending on the circumstances. For example, when confidentiality is required, in those countries with a parliament, information on public views may also be gained by consulting the parliament instead of by direct public involvement.

## Goals rather than means

One way to create flexibility, therefore, could be to focus SEA principles on goals to be achieved, rather than on specified process requirements. How the SEA process in a specific situation should be designed to achieve these goals is then dependent on its intended purpose, the level of decision making and the traditional/cultural decision making context. For example, in such an approach, an SEA principle would not be formulated as 'public participation should be part of SEA' but rather as 'sufficient information on the views of the public affected is ensured'. When drafting legislation this could be achieved in a different way from developing a spatial plan or a concrete programme of measures.

## Review criteria

Once basic principles have been formulated and accepted, they not only offer a basis from which a process may be designed, but can also be used to assess the quality of any proposed SEA process. In other words, when formulated as goals, the principles can also serve as review criteria for process quality. An SEA process should only be considered to be of good quality if it can be explained how the application of the process will ensure that the goals for each of the principles are achieved.<sup>1</sup>

A first attempt at formulating a set of SEA principles is made in the next section. To specify and exemplify this set of principles, it is then related to the two previously mentioned Dutch SEA processes.

## Proposal

In summary: any SEA process should achieve certain

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**Any SEA process should achieve certain goals, or ‘principles’: definition should take place in discussion between SEA and decision making experts world-wide, representing different cultural/traditional backgrounds and level of decision making**

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goals, although the means by which they are achieved may differ. These goals could be defined as SEA ‘principles’. Definition should take place in discussion between SEA and decision making experts world-wide, representing different cultural and traditional backgrounds and levels of decision making.

As a starting point for this discussion, a first attempt to formulate principles in the form of goals is shown in Box 1. These, of course, should be amended, integrating information from relevant countries and experiences with the use of SEA in developing countries.

#### **Dutch ‘strategic EIA’ process (SEIA)**

Under Dutch legislation, there has been an obligation since 1987 to carry out an EIA for a number of spatial and sectoral plans and programmes. These include national plans on waste management, electricity production, land development and drinking water supply, and regional plans on waste management and the location of new housing and industrial areas.

Traditionally, these plans were developed in open,

structured processes, including public participation and consultations with (environmental) agencies. For example, many national plans follow the ‘National Spatial Planning Key Decision’ procedure in which the final plan or programme is developed in four steps. At the end of each step a new draft of the plan or a review of comments received is made public.<sup>2</sup>

It is for this reason that in the late 70s and early 80s it was decided that the SEIA process should match the open nature and step-by-step structure of the procedures in which it should be integrated. The process developed has the same characteristics:<sup>3</sup>

detailed procedure  
integration of information in multiple steps of plan/programme development  
full public involvement in scoping and reviewing mandatory advice from an independent group of experts  
mandatory examination of alternatives  
mandatory evaluation and monitoring.

Since 1987, more than 40 SEIAs have been carried out some of which have been described in the literature (see, for example, Verheem, 1992; Ten Holder and Verheem, 1996; Sadler and Verheem, 1996). From these it may be concluded that SEIA works well in the context for which it was intended. However, the process will probably not work very effectively in other contexts, for example in decision making processes that are not open (maybe for reasons of confidentiality) or where little time is available (for instance, in annual budget allocations).

Another process needs to be developed for these types of decision. An example is the Dutch ‘E-test’ that was developed to assist the design of new

#### **Box 1. Generic SEA principles — a proposal for discussion**

##### **An SEA process ensures that:**

Screening	an appropriate environmental assessment is carried out for all strategic decisions with potentially significant (positive or negative) environmental consequences by the agencies initiating these decisions
Publication	it is clear to all parties affected by the decision how the assessment results were taken into account when coming to a decision
Monitoring	sufficient information on the actual impacts of implementing the decision is gained to judge whether the decision should be amended
Timing	the results of the assessment are available sufficiently early to be used effectively in the preparation of the strategic decision
Environmental scoping	all relevant environmental information is provided, and all irrelevant information is excluded, to judge whether an initiative should go ahead or whether the objectives of the initiative could be achieved in a more environmentally friendly way
Socio-economic scoping	sufficient information on other factors, including socio-economic considerations, is available, either parallel to, or integrated in, the assessment
Views of the public	sufficient information is available on the views of the public affected by the strategic decision early enough to be used effectively in the preparation of the strategic decision
Documentation	the results of the assessment are identifiable, understandable and available to all parties affected by the decision
Quality review	the quality of process and information is safeguarded by an effective review mechanism

legislation.

### Dutch 'E-test'

Legislation is intended to have beneficial effects, but often there are unintended (side) effects. Consequently, legislation can unintentionally undermine other main objectives of government policy. In the 80s, the Dutch Government became aware of this problem and started to review its legislative processes. Initially, this consisted mainly of a fixed entry on a form for the Council of Ministers, stating that the effects of the legislation in question had been investigated. This, however, did not include environmental effects. Furthermore, questions were formulated in a highly abstract manner.

This quickly became an automatic procedure with no real content or influence on planning. Ministries often dismissed questions with stock replies such as 'the probable effects of this legislation are acceptable and, in view of its importance, the costs involved are justified'. It was clear that this was not the proper way to improve the quality of legislation.

Therefore, in 1994, the Dutch Government set a new course for the assessment of legislation when it presented the 'Market Operation, Deregulation and Legislative Quality' Project (in Dutch: MDW Project). This plan includes a new approach to the environmental assessment of new legislation (the 'E-test') linked to an assessment of its enforceability and feasibility and its effects on business.

The main challenge for the Government was to develop a system that stimulates, rather than forces, departments to make good assessments of their legislation. Key objectives of the system, therefore, were threefold: it should be client-orientated, selective and easy to integrate in the existing process for developing new legislation.

The first objective was achieved by creating a helpdesk (the Joint Support Centre for Draft Legislation) and by co-ordinating the environmental assessment with other required assessments. The second objective was achieved by keeping the number of questions to be addressed in the assessment as low as possible and by being selective in the legislation for which an assessment is needed.

The third objective was achieved by making sure

**Table 1. SEA principles and the Dutch SEA processes**

Principle	E-test	SEIA
Screening	legislation with potential substantial effects on the environment is listed each year by an interdepartmental working group	plans and programmes for which an assessment is mandatory are listed in the EIA Decree
Publication	when relevant, the Explanatory Note describes how the results of the assessment were taken into account	it is mandatory to publicly report how the result of the assessment was taken into account in the plan or programme developed
Monitoring	post-decision evaluation is not mandatory, but may be carried out voluntarily	a management plan should be part of the plan or programme; post-decision evaluation is mandatory, including the publication of its results
Timing	the Joint Support Centre stimulates the assessment to take place as early as possible and at least before legislation is discussed in the Council of Ministers	the first step in both assessment and plan/programme development is the publication of a notification of intent, followed by scoping
Environmental scoping	the interdepartmental working group on draft legislation determines which of the standard questions of the E-test are relevant and should be answered; in co-operation with the Joint Support Centre, the proponent collects all relevant information to judge whether its objectives could be achieved in a more environmentally friendly way	terms of reference (or 'guidelines') for the content of the assessment statement are published by the competent authority, after comments and advice from the public, environmental agencies and an independent expert committee; the examination of alternatives is mandatory, including the alternative most favourable to the environment
Socio-economic scoping	socio-economic information is gathered in a 'Business Effect Test' as well as in existing procedures parallel to the E-test; integration takes place during the legislative process	socio-economic information is gathered in existing procedures parallel to the environmental assessment; integration usually takes place in the plan or programme itself <sup>a</sup>
Views of the public	information becomes available through informal consultation of interest groups (outside the E-test) and public debate in Parliament	mandatory public consultation in both scoping and reviewing stage; for this a minimum of four weeks should be available
Documentation	results of the E-test are documented in the Explanatory Note to the draft legislation	mandatory publication of a separate report on the assessment results, including an executive summary
Quality review	the Joint Support Centre reviews, in co-operation with the Ministry of Justice, the quality of the information before draft legislation is sent to Cabinet	an independent expert committee publishes advice to the competent authority in both scoping and reviewing the quality of the results of the assessment; for this a minimum of nine weeks should be available

Note: <sup>a</sup> Motivation: traditionally, Dutch strategic decision making focuses strongly on socio-economic issues and adequate instruments for the assessment of these are often already in place

that the characteristics of the E-test procedure matched the characteristics of the process by which legislation is drafted in the Netherlands: an informal, internal process, with no mandatory direct public participation and based on trust and co-operation between civil servants. The E-test has these same features: a simple, flexible procedure, with no public participation or independent external review and in which representatives of several departments work together.<sup>4</sup>

### One concept — multiple forms

As an example, in Table 1, it is exemplified how the principles formulated above are interpreted in the Dutch SEIA and E-test processes. This illustrates the quite different processes that can stem from the application of the same principles, depending on the varying contexts in which the assessment processes are meant to be effective.

With one exception — the absence of a monitoring requirement in the E-test — both processes have installed mechanisms to fulfil the same objectives, although these mechanisms in some cases are quite different. The need for inclusion of a monitoring requirement as part of the E-test is currently being discussed within the ministry and would definitely be an improvement to the process.

### When to do what

If the most effective form of SEA should be chosen according to the context in which it should operate, an obvious next question would be ‘when to apply which form’. This question is, of course, hard to answer in a general article such as this. It should be dealt with in the specific context of strategic decision making in a certain country, region or sector. Nevertheless, on the basis of Dutch SEA experience, a first attempt at a more general and very broad answer could be as follows.

In most countries, in the planning process from the national to the regional/local level, at some point the following four questions have to be answered: why do anything, what to do, where to do it and how to do it? The why-question deals with the need, objectives and principles of new actions. Once these have been established, the what-question deals with selecting the best methods and the capacities needed for each of these methods. The where-question is about the location of facilities, installations, and so on. The how-question deals with topics such as the detailed design of projects, necessary mitigation measures and compensation issues.

For example, in The Netherlands these questions in waste management planning are addressed at the following levels of decision making:

need, objectives and principles are laid down in legislation and in the Dutch National Environ-

mental Policy Plan;  
methods and capacities are decided in the National Waste Management Plan;  
provincial authorities decide on locations in provincial spatial plans;  
design, mitigation and compensation are dealt with in the licensing process for concrete projects.

EIA is traditionally applied for ‘how’ questions and SEA for ‘why’, ‘what’ and ‘where’ questions. One of the important differences within the latter category is that ‘why’ questions (typically addressed at the highest strategic level) often do not touch directly on the interests of the general public, while ‘what’ and ‘where’ questions often do. Also, in answering ‘why’ questions it is typically hard to define a distinct set of alternative options and environmental consequences can only be estimated in a qualitative sense. Defining alternatives and assessing effects quantitatively is easier in addressing most ‘what’ and ‘where’ questions.

Because of these differences, ‘why’ questions need different type of SEA from ‘what’ and ‘where’ questions. In particular, the direct effect on property and living conditions of individuals of most ‘what’ and ‘where’ decisions asks for an open, well structured process, with built-in safeguards ensuring sufficient opportunity for public participation, a clearly motivated choice from alternatives and the use of an independent review body, as arbitrator in case of controversies over the content of assessments between the public and the government. The SEIA process in The Netherlands is an example.

More abstract ‘why’ decisions, on the other hand, ask for an SEA process that integrates well into the more abstract, visionary and informal discussions in which these type of decisions are made. In other words, that is flexible and has a minimum of procedural requirements. The E-test, for example, is such a process. In the example of the Dutch waste management process, this means that in The Netherlands an E-test is carried out for waste legislation, while SEIA is mandatory for the National Waste Management Plan and the provincial spatial plans.

### Conclusion: harmony in diversity

The acceptance of SEA including a wide range of different processes all achieving the same goals but fine-tuned to the needs of a specific planning level, is of importance to both SEA scientists, trainers and planners:

SEA planners should be better aware of the variety of SEA processes that exist and play an active role in selecting the SEA process that works best for a specific planning process, rather than regarding SEA as a straitjacket into which this planning should be forced.

In communicating the key features and results of

SEA processes, SEA scientists should place more emphasis on the specific decision making context and culture within, and for which, a process has been designed. This should include, if possible, an indication of situations in which it will probably be less effective. This will make it much easier for experts and planners in other sectors or countries to select SEA processes that are suited to their purposes.

SEA trainers should try not to focus on one specific SEA process in their training sessions, suggesting that this one would be 'the best'. SEA training should always start with clarifying the type of decision making in which trainees would like to integrate environmental concerns (for instance, drafting legislation or developing policy plans, spatial or sector planning, strategic guidance or concrete programmes). The second step should then be to indicate the (successful) SEA processes that have been developed for similar purposes in similar circumstances.

A generally accepted set of SEA principles as a starting point, the notion that more than one SEA process may 'do the trick' and information on the specific context for which a process is meant, will hopefully make it easier for SEA experts and planners around the world to learn and 'borrow' SEA processes from each other. Building on existing knowledge rather than re-inventing the wheel in each country will be beneficial for the further development of SEA and its acceptance by politicians.

## Notes

1. Starting from the same goals, the means by which goals are achieved can then be quite different, depending on the circumstances. This explains the current development of a wide variety of SEA processes with an equally wide variety of names, such as 'environmental test', 'environmental appraisal', 'environmental overview' and 'strategic environmental analysis'.
2. This procedure starts with the publication of the policy proposal (Part 1), followed by a 5–7 month period in which the public, other government authorities and (environmental) agencies are consulted. The results of consultation are published in Part 2, which is used by the Cabinet when coming to its own deci-

sion (Part 3). After approval by Parliament, the policy becomes legally valid and is published as Part 4.

3. See Ten Holder and Verheem (1996) for a more detailed description of the SEIA process.
4. See de Vries and Tonk (1997) for a more detailed description of the E-test.

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