

Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is the formalised, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making. SEA aims to integrate environmental and sustainability considerations in strategic decision-making.

Status

The statutory arm of SEA Directive on the assessment of the effects of certain plans and programmes on the environment – the [EU Directive 2001/42/EC](#) - was implemented in all European Member states as of July 2004. This directive is intended to complement [Directive 97/11/EC](#), which requires environmental assessment of specific types of project. Its objective is to provide a high level of protection of the environment and contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.

Early indications from some member states suggest that the SEA Directive could be difficult to implement into national law. In England and Wales, for example, there are fears that recent attempts to streamline the process of preparing and finalising development plans may be undermined by the new requirement for SEA. In Germany, there is an ongoing discussion which plans and programmes fall into the category of mandatory assessment. Furthermore, the complicated federal structure proves to be an obstacle when it comes to transposing EU law in time, as all 16 Lands need to prepare their interpretation of SEA Directive under the regional law. In the southern member states, traditional approach to administration and planning for land use slows down the implementation of SEA. For example, in Greece the public involvement is generally seen as more threatening than constructive to the planning process. In Spain, the administration has given an absolute priority to development over environmental considerations.

Requirements of the SEA Directive

The main requirements of the SEA Directive are as follows:

- preparation of an Environmental Report on the likely significant effects of the draft plan or programme (also describing the objectives of the plan, baseline environment, impact mitigation measures and monitoring system);
- public consultation on the draft plan or programme and the accompanying Environmental Report;
- consideration of the Environmental Report and the results of consultation in the decision-making;
- provision of information when the plan or programme is adopted and show how the results of the environmental assessment have been taken into account.

Application

The SEA Directive requires an environmental assessment of certain plans and programmes (not policies) which are likely to have significant environmental effects. A formal environmental assessment is mandatory for:

- plans and programmes for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use,
- an assessment which has been deemed necessary under [Directive 92/43/EEC](#) (the Habitats Directive).

Where plans or programmes 'determine the use of small areas at local level' or are the result of minor modifications to existing plans and if they are considered to have no environmental effects, member states may exempt them from SEA. National defence, civil emergency and financial plans and programmes are also exempt.

It should be pointed out that, whilst only certain plans and programmes are subject to the SEA Directive, SEA is a useful process to aid decision-making for a plan maker whether or not it is statutorily required.

Procedure

Screening is the essential first stage of the assessment, undertaken to determine whether a plan or programme requires a SEA under the Directive. It is done on a case by case basis. Guidance on the criteria to be used for screening is illustrated by the diagram to be found in Appendix 1 of '[A Draft Practical Guide to the SEA Directive](#)' (ODPM 2004).

The next stage, **scoping**, determines the likely extent (geographic, temporal and thematic) and level of detail for the assessment and the information to be included in the SEA and environmental report. Scoping involves:

- Setting the environmental context and establishing the relevant baseline data,
- Identifying environmental problems and protection objectives,
- Proposing SEA objectives and indicators,
- Identifying reasonable plan alternatives,
- Consultation with the environmental authorities on the proposed scope.

Assessment of the likely impacts involves:

- Predicting the effects of the plan on the environment: Identifying and describing the changes to the environmental baseline that are predicted to arise from the plan, programme and/or proposed alternatives.
- Evaluating the predicted effects of the plan: Determining the significance of predicted changes (beneficial or adverse) to the environmental baseline and identifying the preferred environmental alternatives.
- Identifying opportunities for mitigation of the adverse impacts.

Then, the SEA Directive requires that an **environmental report** is prepared. In the report, the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and geographical scope of the plan, are identified, described and evaluated. The environmental report must be published with the draft plan for **consultation** with the environmental authorities and the public. The consultation results should be taken into account when finalising the plan.

The SEA Directive requires the significant environmental effects of a plan or programme identified by the SEA process to be monitored. **Monitoring** should be undertaken in accordance to the indicators developed in the scoping stage. These will be used to check the success of the plan in maintaining or enhancing the state of

the environment. Remedial actions shall be instigated in regards to any unforeseen adverse effects to the environment.

The stages of the SEA procedure are shown in Figure 1.

Methods and techniques

Methods and techniques which may be useful throughout the SEA process include: Expert judgement, Horizon scanning, Quality of Life Assessment, GIS, Scenario analysis, Cost-benefit analysis, Multi-criteria analysis, Life cycle analysis, Ecological footprints and Risk assessment (see [Select method](#) for descriptions of these methods).

Advantages and disadvantages

The advantages of using environmental assessment at the strategic level, as opposed to limited to the individual project EIA or other environmental management procedures, are as follows:

- SEA gets in earlier so that the strategic actions can influence the type of projects to be implemented.
- SEA deals with impacts that are difficult to consider at the project level. It deals with cumulative impacts of multiple projects, as well as the larger scale impacts such as those on biodiversity or global warming.
- SEA promotes a better consideration of alternatives. SEA affects the decision-making process at a stage where more alternatives are available for consideration.
- SEA incorporates environmental and sustainability considerations in strategic decision-making
- SEA facilitates public participation in strategic decision-making. At a minimum, SEA provides one opportunity for the public to comment on a strategic action before it is formally agreed. At best, it allows the public to be actively involved throughout the strategic decision-making process.

Overall, SEA helps decision-makers to better understand their plan, feel more confident about it, and learn about sustainability.

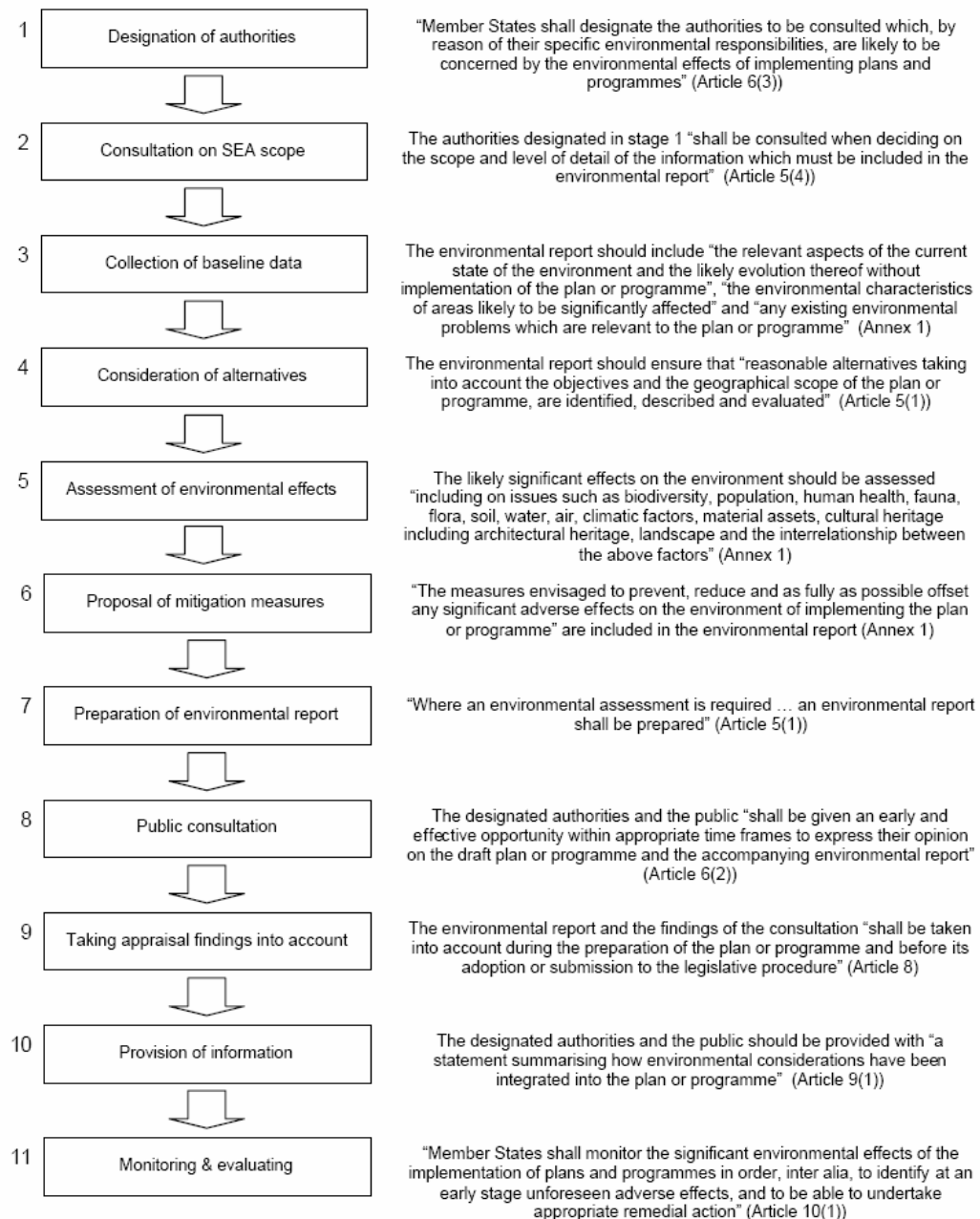
However, SEA does have some limitations:

- SEA takes time and resources. For instance, the Draft Guidance Note on SEA (ODPM 2004) estimates that SEA could take 50 to 100 person-days to prepare. There are concerns about the extra burden this could place on already stretched local government resources.
- It is a relatively new process, and so the mechanisms, i.e. for baseline data, public participation, etc. may not yet be in place to adequately carry out SEA.
- SEA has to deal with uncertainties from a local up to global level, which may occur throughout the course of the strategic action (often taking years), e.g. floods, technical changes. Thus SEA needs to be responsive, adaptable and quick, so potentially not being as detailed and scientific as one might like.
- SEA only provides one input into decision-making. Quite often the decision will be made for reasons that are unconnected to environmental/sustainability principles. Of course, the opposite can be true, for instance a politician may be convinced to take a more sustainable option based on the findings of a SEA.
- SEA does not take into account problems with multiple causations as can be found in urban distressed areas. Social and economic aspects are neglected.

- SEA relies on various quantitative data that cannot necessarily be provided for the area within the boundary of a distressed urban area.

To find out where to learn more about Strategic Environmental Assessment, go to [Further reading](#).

Figure 1. A simplified representation of the assessment process set out in the SEA Directive



Source: Smith and Sheate (2001)