Topic 14

Strategic Environmental Assessment

What is SEA?

- systematic, transparent process
- instrument for decision-making
- addresses environmental effects of strategic proposals
- includes policy, plans and programme decisions
- undertaken when alternatives are still open
- applies EIA aims and principles
- flexible, diversified process

Why is SEA important?

- EIA of projects insufficient by itself
- effects of strategic decisions not assessed
- SEA rounds out coverage to this level
- enables better identification of sources of environmental impacts
- responds to sustainable development agenda

Key aims and objectives of SEA are to:

- facilitate informed decision-making
- contribute to environmentally sound and sustainable development
- identify and address cumulative effects
- supplement and reinforce project-level EIA by:

  - clarification of scope and context
  - reducing the time and effort for review

Wider potential policy and institutional benefits of SEA include:

- mainstreaming the environment
- incorporating sustainability principles into policy-making
- meeting international obligations
- ‘sustainability assurance’ of development proposals
- environmental accountability in sector-specific agencies
- greater transparency and openness in decision-making

SEA trends and developments

- limited development and implementation until 1990
- formalisation and diversification in 1990s
- increasing number of countries establish SEA
- response to sustainability agenda
- entering expansion and consolidation phase
- pending international & supra-national arrangements
- more developing countries expected to take up SEA

Indicative list of areas subject to SEA

- sector-specific policy, plans and programmes
- spatial and land use plans
- regional development programmes
- natural resource management strategies
- legislative and regulatory bills
- investment and lending activities
- international aid and development assistance

Guiding principles for SEA process design and implementation

- ***fit-for-purpose*** **–**
  customise to decision-making

- ***objectives-led*** **–**
  identify environmental goals and priorities

- ***sustainability-driven*** **–**
  ensure proposal promotes sustainable development

- ***comprehensive scope*** **–**
  cover policies, plans and programmes

- ***decision-relevant*** **–**
  focus on issues that matter

Guiding principles for SEA process design and implementation

(continued)

- ***integrated*** **–**
  include social, health effects

- ***transparent*** **–**
  clear, easy to understand requirements

- ***participative*** **–**
  provide for public information and involvement

- ***accountable*** **–**
  implement fairly, impartially & professionally

- ***cost-effective*** **–**
  meet objectives within time and budget limits

Institutional conditions that enable SEA good practice

- clear legal or policy mandate
- explicit scope of application
- requirements for compliance
- guidance on procedure and process
- provision for administrative oversight
- quality control mechanisms

Some success factors in SEA practice

- promote SEA as a bonus not a burden
- encourage creativity and innovation
- tailor the approach to the needs of decision makers
- provide start-up help
- build a knowledge base from case experience
- learn by doing when applying methods and procedures

Operational rules of thumb for applying SEA guiding principles

- **begin as early as practicable**
- **the purpose is to inform decisions not produce a study**
- **provide the right information at the right time**
- **focus on comparison of major alternatives**

Operational rules of thumb for applying SEA guiding principles

(continued)

- carry out an appropriate level and type of analysis
- use the simplest procedures and methods consistent with the task
- try to gain environmental benefits as well avoid adverse impacts
- review and document the outcomes of the SEA process

Institutional arrangements for SEA

- type of provision for SEA differs
- formalised in both law and policy
- vary in scope, role and relationship to decision-making
- limited development at policy level
- non-statutory, flexible, informal procedure
- greater development at plan/ programme level
- SEA systems diversified compared to EIA

Different types of SEA systems

- **EIA-based –**
  part of EIA law or separate procedure
- **environmental appraisal –**
  comparable, less formalised process
- **dual-track –**
  separate processes operated
- **integrated policy and planning –**
  SEA part of policy and plan-making
- **sustainability appraisal –**
  integrated assessment and review

Main forms of SEA

- **policy SEA – applies to highest level proposals**
- **sector plan and programme SEA – applies to proposals for specific sector**
- **spatial plan and regional SEA – applies to land use proposals for particular region**

Policy SEA

- critical lever to influence development
- SEA difficult to apply at policy level
- often political and bureaucratic resistance
- policy-making itself not straightforward
- SEA needs to be adapted to process
- few countries make provision for policy SEA
- early adoption of non-statutory, minimum procedure
- policy SEA is legislated in some countries

Sector plan and programme SEA

- most developed form of SEA
- will be extended by European Directive
- sector EA applied to World Bank financed programmes
- carried out by borrowing countries
- use and scope of application increasing
- mainly applied to establish framework for EIA of sub-projects
- potential lies in evaluation of major alternatives
- other approaches also relevant to developing countries

Spatial plan and regional SEA

- long established form of SEA, e.g. in USA
- applies to land use plans for designated areas
- spatial planning is a systematic, transparent process
- easily integrated with SEA
- regional EA (REA) promoted by World Bank

Spatial plan and regional SEA
(continued)

- use limited compared to sector EA
- applies to group of sub-projects for a geographic area
- provides framework for analysing cumulative effects
- other approaches also relevant to developing countries

Carrying out a strategic environmental impact assessment (SEIA)

- ***screening*** **–**
  Whether and what level of review is needed?

- ***scoping*** **–**
  What are the key issues and alternatives?

- ***identification & comparison of alternatives*** **–**
  What are the implications & trade-offs?

- ***inform & involve the public*** **–**
  What are the views & concerns?

Carrying out a strategic environmental impact assessment (SEIA)
(continued)

- ***analyse and evaluate the impacts*** **– What are the main effects, how can they be mitigated?**

- ***review the quality of the information*** **– Is it clear and sufficient for this purpose?**

- ***document the findings*** **– What information is needed for decision-making?**

- ***carry out follow up*** **– Are agreed measures being implemented?**

Carrying out a strategic environmental appraisal

- ***list the objectives of the proposal*** **– What does it aim to achieve?**

- ***describe the alternatives*** **– What are options can achieve the objectives?**

- ***identify environmental impacts, issues and implications*** **– What are the effects, how can they be mitigated?**

Carrying out a strategic environmental appraisal (continued)

- ***assess their significance*** **– How important are they?**
- ***quantify costs and benefits*** **– How can this be done?**
- ***value costs and benefits*** **– Which method(s) can be used?**
- ***state the preferred option*** **– What are the reasons?**

Some examples of methods and their usage in SEA

Step	Examples of Methods
Baseline Study	• SOE reports and similar documents • Environmental stock/setting • 'Points of reference'
Screening/Scoping	• Formal/informal checklists • Survey, case comparison • Effects networks • Public or expert consultation
Formulating Options	• Environmental policy, standards, strategies • Prior commitments/ precedents • Regional/local plans • Public values and preferences

Some examples of methods and their usage in SEA

(continued)

Step	Examples of Methods
Impact Analysis	• Scenario development • Risk assessment • Environmental indicators and criteria • Policy impact matrix • Predictive and simulation models • GIS, capacity/habitat analysis • Benefit/cost analysis and other economic valuation techniques • Multi-criteria analysis
Documentation for Decision Making	• Cross-impact matrices • Consistency analysis • Sensitivity analysis • Decision 'trees'

Using SEA to test for sustainability assurance

Stage of SEA	Sustainability Test	Key Questions
Screening	Direction toward requirements	Is the proposal consistent with sustainability policies? What are the environmental implications in this regard?
Scoping	Distance to target	How does the proposal measure up against key indicators? What are the significant environmental issues in this regard?
Significance	Determination of significance	What are the environmental impacts of the proposal? How significant are they with reference to sustainability policies and criteria?

Source: Sadler, 1999.