

- reporting how the results of the SEA and consultation responses have been taken into account; and
- monitoring mechanism for environmental effects of the plan and programmes during its implementation.

Strategic Environmental Assessment is considered as a promising avenue for incorporating environmental considerations into the highest levels of development decision-making. At an operational level, SEA will vary with several factors including:

- The level and generality of decision-making (e.g., broad policies versus specific plans);
- The policy sector covered; and
- The type of environmental consequences that can be anticipated, notably whether like effects are direct or indirect, discrete or with spatial linkages.

Timing of the SEA can be broadly categorized into:

- Pre-decision stage; and
- Post-decision stage

While the former is an ideal avenue for integrating environmental and social considerations into policy, plan or programme design as a decision-aiding tool. But the latter is usually used in guiding the implementation of policy. While Figure 3 outlines the stages involved in undertaking SEA for a sector or region, the explanation for each stage and its purpose is outline in Table 2.

Initiatives at the National Level

At the national level, Planning Commission under the chairmanship of Prime Minister is an ideal institutional set up for developing NSDS wherein all the major developmental sectors would not only contribute to its evolution but also participate in development of sector specific targets for achieving them through policy, plan and programme initiatives in a time bound manner so as to deliver its commitments. Ministry of Environment and Forests can be a nodal agency for monitoring and evaluation implementation of NSDS and reporting the same to Planning Commission so that sectoral

Table 2
SEA Stages and its Importance

<i>SEA Stage</i>	<i>Purpose of this Stage</i>
<p>A. Setting the context, identifying objectives and problems and establishing the baseline:</p> <p>Analysis of the environment protection objectives, established at international, community or national level, which are relevant to the plan.</p> <p>Establish SEA objectives, indicators and targets.</p> <p>Collect relevant information on the environment context as relevant to the plan/programme, and its evolution without the plan/programme.</p> <p>Outline the environment characteristics of areas likely to be significantly affected.</p> <p>Outline any existing environment problems which are relevant to the plan including those relating to any areas of a particular environmental importance.</p> <p>Outline the relationship with other relevant plans and programmes.</p>	<p>Document how the plan is affected by outside factors. Suggest ideas for how any inappropriate constraints can be addressed.</p> <p>Streamline the subsequent baseline description, prediction and monitoring stages.</p> <p>Provide a base for effects prediction and monitoring.</p> <p>Focus on key environmental issues and opportunities; help to identify environmental problems, objectives and alternatives.</p>
<p>B. Deciding the scope of SEA and developing alternatives:</p> <p>Identify relevant alternatives at the strategic level.</p> <p>Highlight the likely significant effects of the plan and alternatives.</p> <p>Consult with environmental authorities when deciding on the scope and level of detail of the information which must be included in the environmental reports.</p>	<p>Help ensure that: The SEA covers key issues.</p> <p>The plan better meets the government's aims for more sustainable development.</p> <p>The best plan alternatives(s) is/are considered.</p>

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- C. Assessing the effects of the plan: Defensible consideration of all likely significant environment effects.
Forecast the significant effects on the environment of the chosen strategy taking into account the objectives and geographical scope of the plan. Propose mitigation measures where appropriate.
Outline the reasons for selecting the alternatives dealt with. Propose a monitoring programme.
Propose measures to prevent, reduce and as fully possible offset any significant adverse effects on the environment of implementing the plan or programme, such measures should be costed and deliverable.
- D. Consultation on the draft plan and the environmental report: Identify the opinions and concerns of the public and environmental authorities on environmental issues.
Prepare an environmental report in which 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. Show how information and opinions on environmental issues have been considered.
Give environmental authorities and the public an early and effective opportunity within appropriate time-frames to express their opinion on the draft plan and accompanying environmental report before the adoption of the plan.
Take consultation results into account.
Make available the plan as adopted.
Statement summarizing how environmental considerations have been integrated into the plan and how the environmental report, the opinions expressed and the results of consultations entered into pursuant have been taken into light of the other reasonable alternatives dealt with.
Proposals for monitoring.
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E. Monitor the significant effects of implementing the plan on the environment. Decide what needs to be monitored.

Identify the information required, including existing sources and gaps.

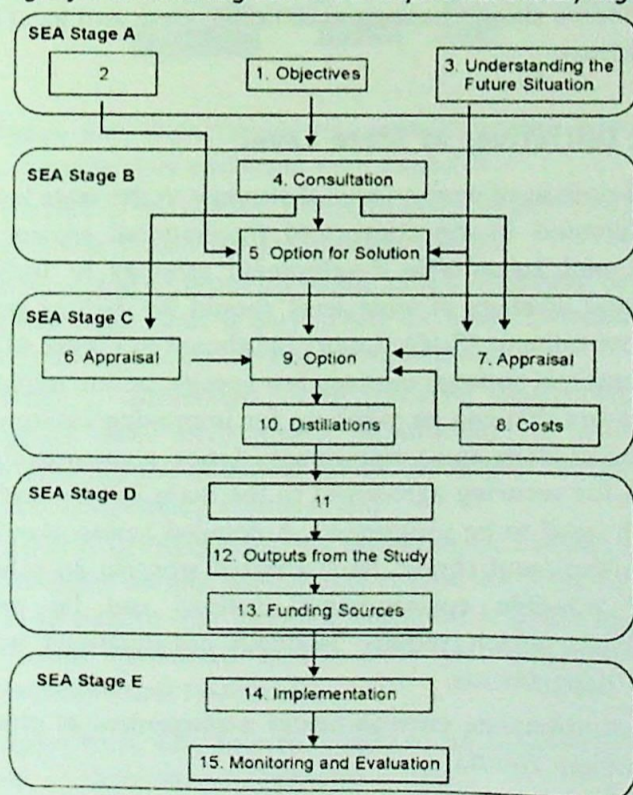
Confirm when the remedial action would be required and identify what remedial actions might be needed.

Consider who is responsible for the monitoring activities, when it should be carried out and propose what is the appropriate format for presenting the monitoring results.

Achieve implementation of the plan in accordance with the outcomes of the SEA. Ensure the adverse effects of implementing the plan can be identified and corrective action be taken.

Provide information for future SEAs.

Figure 3
Stages for Undertaking SEA in Developmental Sector/Region



achievements can be reviewed periodically so as to reset the targets and enable continual improvements across the sectors. The State of Environment Reporting initiative can provide the information requirements for developing NSDS at the national level. The information and knowledge gaps in understanding the interface between sectoral developmental activities and environment can be bridged through joint research initiatives of specific ministry and MoEF in consultations with the Planning Commission. The ongoing research on environmental accounting and environmental valuation of the National Statistics Organizations can further the understanding of the extent of resource depletion and degradation due to various sectoral activities and programmes. Sustainable developmental concerns need to be integrated both horizontally and vertically so as to become institutionally effective. Thus, integration of environmental concerns should happen at national, state and local level in different sectors.

Strategic Initiatives at State Level

This broad outline of environmental strategy at the state levels has to be understood in the context of the national environmental framework and sustainable development strategy in India. Any environmental strategy at state level should be derived from the State of Environment (SoE) Report (as shown in Figure 4). While the environmental strategy outlines few specific action initiatives in selected sectors that can be taken up for improving environmental effectiveness of plans and programmes. Action plans provide a key mechanism for securing agreement to the main actions and initiatives, which need to be progressed. A detailed action plan for the regional environment should be attempted wherein an exhaustive list of all possible environmental actions can be prepared departmentwise which require in-depth consultations with the stakeholder departments.

To institutionalize environmental management at state level state government should: