Chapter 7

SEA AND STRATEGIES FOR SUSTAINABLE DEVELOPMENT

7.1 The dichotomy in SEA

Internationally, most SEA experience tends to have been at the level of programmes and plans, where EIA *procedures* and approaches can be applied fairly readily. SEA here can be seen as an extension of EIA to facilitate strategic decisions. However, there have been fewer applications at the 'higher' level of policies - particularly national-level policies. This is perhaps not surprising because policy is the prerogative of politicians and senior bureaucrats who continue to resist the intrusions of SEA at this level. For policies, where the main body of EA practitioners has little experience, a quite different approach likely will be necessary. At this level, the critical constraints for SEA are not likely to be technical or methodological. In practice, the issues facing environmental assessment (in its widest sense - i.e. incorporating social and economic dimensions) at the policy level are:

- securing the political and institutional will so that SEA has a 'seat at the policy table', i.e., where decision-makers and policy-makers accept its legitimacy and acknowledge that SEA has a key and constructive role to play; and
- finding the key leverage points in the policy-making cycles to ensure that SEA is able to play its part in important stages and throughout the process.

Following a similar theme, Wood (1997) noted that there are methodological difficulties in undertaking SEA which appear to be secondary to political difficulties. In particular, politicians and senior bureaucrats in powerful departments are reluctant voluntarily to cede any role in decision-making to external environmental authorities by allowing activities to be subjected to SEA. He argues the need for some type of action-forcing mechanism, or a framework to ensure that the SEA process works, in order to overcome these political difficulties. However, a serious question is whether any action-forcing mechanism can work in the face of political reluctance.

Bailey and Renton (1997) focus on developing a more sustainability-based approach to SEA, particularly the integration of sustainability into policy proposals. They also suggest that to fully integrate environmental factors into policy decisions, an alternative approach to the extension of project EIA principles and methods to policy-making will be required. They argue that in order for such an approach to be fully developed, it is neceesary to understand the manner in which government agencies are both able to and actually do take environmental consequences into account during policy-level decision-making. Based on a survey of Australian Commonwealth and state government agencies, they recommend a range of issues that should be taken into account in developing policy assessment methods. They also note that the most commonly reported constraints to general policy decisions were seen as "ministerial direction, other agencies' interests, and lack of background information". Also, the most commonly reported constraints to the consideration of environmental issues in policy decisions were "lack of background information, followed by other agencies' interests, ministerial direction, and insufficient financial resources".

The survey data revealed a diversity within agency policy-making procedures in Australia (a common phenomenon throughout the world) and Bailey and Renton contend that there is a need to account for the realities of agency policy-making, and not to rely on the ideal or theorised view of a generic 'policy process'.

The constraints mentioned above represent a formidable challenge. It is not surprising, therefore, that the new European Community Directive for SEA (2001/42/EC – see Chapter 3) requires SEA of plans and programmes only and is framed restrictively. Ten years earlier the EC was committed to including policy level SEA; it appears to have been omitted as a result of political concerns and reluctance of members states to adopt the approach. The UK, for one, argued that SEA procedure, as conventionally applied, was inappropriate to policy-making.

With increasing recognition of this dilemma, there is also a growing view that SEA will need to be rethought so as to clearly distinguish between the methodologically different SEAs as applied to the plan and programme level and policy-level SEAs respectively. As Keith Wiseman (pers.comm.) puts it,

> *"the closer SEA is to the policy level, the greater the chance that fundamental issues such as regional economic processes, alternative sites and the optimisation of forward and backward linkages can be addressed. Given the potential differences that exist, is it reasonable to use the same terminology for the different stages at which SEA can be applied? It is possible to imagine a scenario where an SEA is claimed to have been done but, in fact, programmatic and not policy issues were addressed"*.

Indeed, there is a further view that, at the latter level, what is really required is a more holistic approach which has been called sustainability analysis or something similar. Dalal-Clayton et al (1994) offered an early of sustainability analysis:

> *"A generic term which embraces the aim of assessing the extent to which projects, programmes and policies are able to satisfy the goals and imperatives of sustainable development, particularly the integration of environment and development in decision-making*".

and suggested a possible framework for its application (Box 7.1).

Box 7.1: A Framework for Sustainability Analysis

A framework for SA will, *inter alia*, need to comprise a suite or 'tool kit' of methodologies and approaches which:

- explicitly focus on the trade-offs between the biophysical, social and economic aspects of projects, programmes and policies, recognising that these take place within a framework of political decision-making;
- are undertaken in a systematic, integrative and transparent way;
- are participative (not just consultative), to the extent possible and practicable in the context of prevailing socio-political circumstances;
- need to operate within a set of defined criteria and guidelines for sustainable development, recognising that these may often be best practice approximations; and
- recognise that environmental assessment is a major point of departure because it is a process which is well institutionalised in policy and law.

Source: Dalal-Clayton et al. (1994).

In more recent years, there have been repeated calls to progress towards such an integrative approach focused on sustainability principles and the term has been absorbed loosely into the SEA vocabulary

7.2 Scenario planning

The construction of scenarios is a potentially important tool for development planning and in policy-making, and increasingly are being recognised as a form of SEA. Scenarios are powerful tools for addressing what is both fundamentally significant and profoundly unknowable - the future (WBCSD 1997). However, whereas forecasts provide patterns extrapolated from the past into the future, scenarios present plausible, pertinent, alternative 'stories' that are very much concerned with strategic thinking (as opposed to strategic planning) and particularly with quality thinking. In looking to the future, scenarios frequently consider the likely environmental, social and economic consequences of current and possible future trends, and the consequences of taking particular actions or implementing particular policy options. Different scenarios are often developed for the near future (less than 5 years hence), the medium-term future (10-15 years) and the longer-term future (25 years or more). The longer the period for which projections are made, the more problematic the task since a lot can happen and the unexpected is always likely to happen, as experience from India shows (see Box 7.2).

Box 7.2: Futurology: Experience from India

In 1970, a group of Indian scholars produced an eight volume report (the *Second India Study*, see Ezekial 1975) assessing the implications of the doubling of India's population that demographers in 1970 considered inevitable. The study predicted a range of scenarios, some of which have materialised, and others which have not. A follow-up study compared the predicted scenarios with actual developments (Repetto, 1994), and showed how the authors of the original study failed to foresee oil price changes, the globalisation of the economy, and India's move away from a centrally-planned regime. As a result, the capital and resource requirements, and environmental impacts, of India's growth were substantially less than predicted. Indeed, neither technology nor resources were the main problem - where development has faltered, the stumbling blocks have usually been institutional and policy-related.

Since scenarios are helpful for thinking about the future, they are very useful tools for assessing either the future implications of current environmental problems, or the future emergence of new problems. Some particular uses of scenarios in environmental assessment are listed in Box 7.3.

Box 7.3: Uses of Scenarios in Environmental Assessments

"Scenarios can be used to:

- Provide a picture of future alternative states of the environment in the absence of additional environmental policies ('baselines scenarios'). In this way, scenarios are a device to illustrate the impacts of society on the natural environment, and to point out the need for environmental policies to avoid these impacts (eg to illustrate how continued agricultural practices may lead to more intensive eutrophication of rivers and seas).
- Raise awareness about the future connection between different environmental problems (eg between climate change and threats to biological diversity).
- Illustrate how alternative policy pathways can achieve an environmental target>
- Combine qualitative and quantitative information about the future evolution of an environmental

problem.

- Identify the robustness of environmental policies under different future conditions, eg to examine if best available treatment of wastewater will be a sufficient policy for achieving water quality targets under alternative population scenarios.

- Help stakeholders, policy-makers and experts to 'think big' about an environmental issues, i.e. to take into account the large time and space scales of a problem.

- Help raise awareness about the emergence of new and intensifying environmental problems over the next few decades, eg, in Europe, scenarios about acid rain and climate change have been used to raise awareness of policy-makers about emerging problems.

It can be argued that many of these tasks are already handled by existing assessments and policy analyses. While this may be true, it can also be argued that scenarios can provide added value to these assessments, for several reasons:

(a) These assessments must handle and assimilate an enormous amount of information and insights and scenarios provide an effective format for bringing this information together:

(b) Assessments must gather and assimilate information in both quantitative and qualitative form, and scenarios are capable of representing both forms of information:

(c) Results of an assessment must be communicated to a large and diverse audience, both technical and non-technical. Scenarios can be written in the form of stories and, in this form, they can communicate the results of an assessment in a transparent and understandable way.

Perhaps the most important function of both scenarios and environmental assessments is that they act as a crucial bridge between environmental science and policy. They influence policy-making by summarising and synthesising scientific knowledge in a form that can be used by policy-makers to develop policies. They help policy-makers visualise the different aspects and connections of an environmental problem, as well as its large time and space scales. Conceivably, scenarios and environmental assessments can also help decision-makers devise the policy steps needed to solve a problem".

Source: Alcamo (2001)

There is considerable experience in the use of scenario-planning in the private sector. For example, Shell International has been using scenarios for 30 years to explore wider possibilities. It builds a set of global scenarios every three years as a key part of its planning process - to explore the overarching challenges arising from changes in the business environment that need to be faced by its businesses. During the 1990s, the scenarios explored the possibilities of an increasingly integrated world and envisaged two possible futures built on a recognition that "There Is No Alternative" (TINA) to adapting to three powerful forces: liberalisation, globalisation and technology, and consider the political, social, business and economic systems best able to exploit the forces of TINA. The recently completed 2020 scenarios (Shell 2000) build further on this understanding to consider how globalisation is shaped by the reactions of people with diverse motivations, including powerful and enduring cultural values. They explore the interplay of the different and developing ways people connect with each other – in 'geographies of connection'. These include circles of influence and interconnectedness – both global and local – and the relationships between 'heartlands' and their outward-looking 'edges' (Box 7.4). Shell has also drawn up scenarios for individual countries, such as China, Russia, South Africa and Nigeria. The Nigerian scenarios were presented to a government audience in Lagos as a non-controversial way of introducing potentially unpalatable ideas.

Box 7.4: Global Scenarios:

(i) Shell Global Scenarios 2000-2020

Shell's latest global scenarios contrast two futures:

- **Business Class** offers a vision of 'connected freedom', as global elites and the dominant influence of the USA lead the world towards continuing g economic integration. However, this is a world of continual challenge to established authorities, with power diffusing from states to other institutions.
- In **Prism**, 'connections that matter' reflect the persisting power of cultural values, driving multiple approaches to modernity. Countries combine to follow their own development paths – based on their particular economic, political and social circumstances – in the context of new regional structures.

Source: Shell International (2000)

(ii) World Business Council for Sustainable Development: Global Scenarios 2000-2050

- In **FROG** (First Raise Our Growth) - the responses are inadeqaute - the human social systems are unable to meet the challenge of sustainable development, a challenge made more difficult by a vulnerable natural system;
- In **GEOpolity** - the response is to build an interlocking governance structure coordinated at the international level; and
- In **Jazz** (diverse players form alliances and work together; there is innovation, experimentation, rapid adaptation, and much voluntary interconnectedness; high transparency, dynamic reciprocity) - markets are harnessed for finding solutions to sustainable development.

Source (WBCSD 1997)

(iii) Stockholm Environment Institute: Global Scenarios

A taxonomy of scenarios is set out based on a two-tier hierarchy: *classes* distinguished by fundamentally different social visions and *variants* reflecting a range of possible outcomes within each class. Three broad scenario classes are depicted:

- **Conventional Worlds** - essential continuity with current patterns. Envisages the global system of the 21st century evolving without major surprises, sharp discontinuities, or fundamental transformations in the basis for human civilization. The future is shaped by the continued evolution, expansion and globalization of the dominant values and socio-economic relationships of industrial society. By contrast, the Barbarization and Great Transition scenario classes relax the notion of the long term continuity of dominant values and institutional arrangements.
- **Barbarization** - fundamental but undesirable social change. Envisages the grim possibility that the social, economic and moral underpinnings of civilization deteriorate, as emerging problems overwhelm the coping capacity of both markets and policy reforms.
- **Great Transitions** - fundamental and favourable social transformation. Explores visionary solutions to the sustainability challenge including new socio-economic arrangements and fundamental changes in values. These scenarios depict a transition to a society that preserves natural systems, proviedes high levels of welfare through material sufficiency and equitable distribution, and enjoys a strong sense of social solidarity. Population levels are stabilised at moderate levels and material flows through the economy are radically reduced through reduced consumerism and massive use of green technologies.

Source: Gallopin et al. (1997)

The Global Business Network (GBN), with many members who were pioneers in Shell's work, has gained international acclaim for its use of scenario thinking in a variety of contexts. Many of its projects focused on illuminating the short- and long-term risks and opportunities associated with specific decisions and investments. Others explored emerging opportunities for products, services, technology and new markets. Increasingly, GBN is using scenarios to help organizations change and innovate in fundamental ways.

The World Business Council for Sustainable Development has also developed a set of three global scenarios which explore and aim to stimulate broad discussion on possible responses to the challenge of sustainable development (WBCSD 1997)(see Box 7.4). The work of WBCSD recognised that scenarios have various applications:

- to enrich debate and widen the 'strategic conversation' in an organisation with the aim of bringing new concepts and understanding to users and, ultimately, to change mental maps;
- to search for corporate resilience, including making risky decisions more transparent by identifying threats and opportunities and the creation and assessment of options; and
- to trigger a formal strategic planning process, including the assessent of existing strategies and plans.

Other work on the process of global and regional scenario development, policy analysis and public education, has been carried out by the Global Scenario Group (an international team) of the Stockholm Environment Institute (SEI), through its PoleStar Project. In an SEI report, Gallopin *et al*. (1997) acknowledge that the forces of globalisation take many forms - stresses on the biosphere, far-reaching cultural impacts of communications technology, expansion of worldwide commerce, and rise of new geo-political tensions. The report argues that, as a consequence, of these forces, the world is at an uncertain *branch point* from which a wide range of possible futures could unfold in the next century. These are explored and their implications considered (see Box 7.4).

In the environmental field, scenarios have been used perhaps most notably for climate change analysis, e.g. the so-called 'IS92' series produced by the Intergovernmental Panel on Climate Change (IPCC, 1995). Explicitly or implicitly, these have influenced policy formulation. Conclusions reached by the Panel appear to have underpinned the Kyoto Agreement. But the implications for developing countries and regions are speculative and subject to varying and conflicting interpretations.

Often there is a gap between the production of scenarios and their use by policy-makers (or business managers) which requires bridging by a processes which facilitate communication. Strategic analysis and evaluation of scenarios needs to be an integral part of the policy process.

In the European Union, such strategic analysis is an important step in the process of strategic planning. Here there has been an increasing interest in the use of scenarios as a way of dealing with the inherent complexity of sustainable development at the European level and pinpointing gaps, inconsistencies and dilemmas in existing policy-making. The European Environment Agency has published the results of its first comprehensive scenario exercise (EEA 1999) and has subsequently undertaken a comprehensive review of existing scenario studies relevant to Europe in the context of sustainable development (Greeuw *et al*. 2000). The most recent work of the European Environment Agency (Alcamo 2001) draws on major European and international scenario-building exercises – such as the EC's 'Scenarios Europe 2010' (Bertrand *et al*. 1999), the recent activities of the IPCC and the World Water Commission - to propose a thorough approach to scenario development combining qualitative and quantitative information, which can be useful fort the EEA or any other similar organisation developing environmental assessments. The report sets out a '*Story and*

Simulation' (SAS) approach to developing scenarios, consisting of two main elements: the *storyline* describes how relevant events unfold in the future, while complementary *model* calculations present numerical estimates of future environmental indicators and help maintain the consistency of the storyline. Ten steps are involved (Box 7.5).

Box 7.5: Steps in the European Environment Agency's 'Story and Simulation Approach'

The following procedure is offered only as a general guideline to scenario building. It is not envisaged that it will be necessary to follow the procedure literally step by step in every scenario exercise.

1. A scenario team and scenario panel are established. The team coordinates the scenario-building while the panel provides the creative input and ensures that a wide range of views are represented in the scenarios. The team consists of representatives from the institution sponsoring the scenario building and experts. The Panel consists of stakeholders, policy-makers and additional experts.

2. The scenario team proposes goals for the scenarios and drafts a first outline of the scenarios.

3. At its first meeting, the panel discusses and revises the goals of the scenarios, and drafts a 'zero order' storyline of the scenarios.

4. Based on the draft storyline, the scenario team assigns quantitative values to the driving forces of scenarios.

5. Based on the assigned driving forces, the modelling teams quantify the indicators of the scenarios.

6. At the next meeting of the scenario panel, the modelling team reports on the quantification of the scenarios, and the scenario panel and scenario team revise the storylines.

7. Steps 4,5 and 6 are repeated as necessary.

8. When the scenario team and panel agree on a draft of the scenarios, they are distributed for review by stakeholders and experts via the Internet, open workshops, and other means.

9. Based on review comments, the scenarios are revised by the scenario team and panel.

10. The final scenarios are published and distributed via the Internet, paper reports, meetings, or by other means.

Source: Alcamo (2001).

On the eve of the Johannesburg World Summit on Sustainable Development, UNEP published its third Global Environmental Outlook (GEO-3) which looked 30 years back and forward (UNEP 2002). A set of four what-if scenarios was used to explore the ways that society can advance, including implications for environmental and social goals:

- *Markets First* – a world in which market-driven developments converge on the currently prevailing values and expectations in industrialised countries;
- *Policy First* – strong actions are undertaken by governments in an attempt to achieve specific social and environmental goals;
- *Security First* – assumes a world full of large disparities, where inequality and conflict, brought about by socio-economic and environmental stresses;

- *Sustainability* – pictures a world in which a new development paradigm emerges in response to the challenge of sustainability supported by new, more equitable values and institutions.

In a subsequent report, UNEP presents a pan-European elaboration – in a predominantly qualitative manner - of the four GEO-3 scenarios and their impacts in environmental terms, but does not address policy questions (UNEP/RIVM 2003). Various models are used, with a focus on several key subjects, acting as driving forces behind the scenarios: demography. Economic development, human development, science and technology, governance, culture, and environmental pressure. The environmental impacts are linked with six main clusters of threat (identified in the EU Strategy for Sustainable Development):

- Climate change, caused by emissions of greenhouse gases from human society;
- Potential threats to food safety and public health, for instance from hazardous chemicals;
- Pressures on vital natural resources, such as biodiversity, water and soils;
- Poverty and social exclusion;
- The ageing population;
- Congestion and pollution from current patterns of mobility.

Since 1975, the United States Environmental Protection Agency (EPA) has undertaken a series of 'futures analysis' and 'environmental foresighting' projects. In 2001, EPA initiated an environmental scenario development project, based on the model developed by the Global Business Network (GBN). EPA managers expressed interest to use scenarios to explore the scope of EPA's role in the future, both domestically and internationally, as well as issues related to persistent and emerging environmental problems. A Scenario Development Team began work to explore several topics: aquifer depletion/water quality; urban sprawl; biotechnology and nanotechnology; chemicals in the environment; and climate change.

To frame the scenarios, two critical drivers or axes were selected:

- Economic growth - measured by GDP for national economies, and Gross World Product at the level of the world economy) and
- Social cohesion – defined in terms of the extent of shared values, mutual trust, inclusiveness and participation, and willingness to face common challenges and cooperate in meeting them.

and used to create four quadrants representing four possible scenario worlds: *Eco-Efficiency Revolution*, *Full Speed Ahead*, *Soft Landing*, and *A Darker Age*, each illustrating differing, potential impacts on human health and the environment.

Another older, but excellent example of environmental scenario-planning comes from work undertaken in South Africa preceding the end of apartheid. Various studies looked at the environmental consequences of that policy (e.g. Bromley 1995) and considered the future. Pioneering scenario planning by a group of people (supported by the Anglo American Corporation) examined South Africa's choices for the future, embracing political, social, economic and environmental issues. Their analysis (Huntley et al. 1989) provided a powerful argument to end apartheid and join with the rest of southern Africa to face the environmental challenges of the 21st century (Box 7.6)

Extreme scenarios are often presented to provoke reaction and encourage debate and this is a common approach in strategic planning. For example, in a recent exercise aimed at land use planning and resources protection in Gaza, three different socio-economic development scenarios were formulated. Each of them was based on a set of quite extreme assumptions. "This was done to ensure that real development in the future will be at least somewhere in between the extreme conditions considered" (EPD, 1996).

Box 7.6: Scenario-Planning in South Africa

Analyses undertaken in South Africa by Huntley *et al*. (1989) considered "both global and regional trends in environmental health, from the potential holocaust of a 'nuclear winter' to the insidious invisible threat of the 'greenhouse effect' and the ozone hole". Against this background of possible global issues, the boundary 'rules of the game' for South Africa were analyzed. These included:

- its basic geography;
- the immense natural diversity and richness of landscapes, habitats, fauna and flora;
- the climate and weather cycles;
- population dynamics and settlement patterns (mass urbanization);
- distribution of key natural resources - minerals, water and arable land;
- agricultural and forestry resources;
- homeland (communal land) poverty;
- marine resources; and
- economic growth and consumption patterns.

Two key uncertainties - the different socio-economic paths and environmental management ethics that the country might adopt - were used to derive four possible environmental scenarios in the early 21st century. They ranged: from (a) the '*Paradise Lost*' of a regional wasteland and (b) the '*Separate Impoverishment*' of continuing down the '*Low Road* (stagnation of the political reform process, big government, more centralized economy and siege mentality); to (c) the '*High Road*' (negotiated political settlement, multiparty political system, decentralized power, free enterprise, mass education, etc.) options of '*Boom and Bust*' where the nation's natural resources were plundered to achieve maximum short-term economic gains and (d) '*Rich Heritage*' where sustained development was pursued.

Taking this process further, Sunter (1992) looked at the future South Africa in relation to Southern Africa and the greater world. Here, he saw the 'High Road' as closing the gap between the rich and the poor nations, and the 'Low Road' as allowing that gap to increase with "dire consequences for the stability of the world".

Sources: Huntley *et al*. (1989); Sunter (1992)

This approach was followed by Dalal-Clayton (1997) in assessing environmental trends and scenarios to 2015 for the whole Southern Africa region. This work represents a form of regional scenario-based SEA. Two deliberately contrasting and extreme scenarios were examined: one being excessively pessimistic and charting a 'doomsday' course to a nightmare future; the other being unrealistically optimistic and envisaging a route to an ideal world. The real future undoubtedly lies somewhere between these extremes, and the policy options will have to be gauged accordingly.

7.3 Learning from strategic planning frameworks

From the above perspective, policy-level SEA will have much to learn from the experiences and processes of developing and implementing National Sustainable Development Strategies (NSDSs) and equivalent approaches in both the north and south (for reviews of experience, see Carew-Reid *et al*. 1994, Bass *et al*. 1995, Dalal-Clayton 1996, and more recently OECD/UNDP 2002 and Dalal-Clayton *et al*., 2002). Equally, SEA has much to offer to those responsible for developing and implementing such strategies. This is a theme to which we return later.

Over the last decade, there have been many different approaches to such strategies and plans aiming to integrate environment and development policy. Some of the most commonly-applied in developing countries have been national conservation strategies (NCSs) and national environmental action plans (NEAPs) promoted, respectively, by the World Conservation Union (IUCN) and the World Bank (Box 7.7). But there is a range of others including, for example, green plans, national forestry action plans, and plans to combat desertification. In the context of small islands, National Environmental Management Strategies (NEMS) have played an important role. The Conventions on biodiversity, climate change and desertification also include requirements for yet more national action plans and strategies.

Box 7.7: National Conservation Strategies and National Environmental Action Plans

National conservation strategies (NCSs)

NCSs were proposed by the World Conservation Strategy (IUCN/UNEP/WWF 1980) to provide a comprehensive, cross-sectoral analysis of conservation and resource management issues. They were popular in the 1980s and early 1990s when NCSs were prepared in over 100 countries, many with technical support from IUCN. 'Conservation for development' was the 'spin' on NCSs, with the occasional call also for 'development for conservation'. NCSs aimed to identify urgent environmental needs, link them to development issues, stimulate national debate and raise public consciousness, assist decision-makers to set priorities and allocate resources, and build institutional capacity to handle environmental issues. Information was often obtained and analysis undertaken by cross-sectoral groups. NCSs sought to develop political consensus around the issues identified and resulted, *inter alia*, in policy documents approved at high level and the establishment of cross-sector coordinating groups. An extensive review was made of NCS experience in three continents, Asia, Africa and Latin America – albeit by IUCN, the organisers of the NCS processes and their close collaborators (Carew-Reid 1997; Lopez 1997; Wood 1997). These reviews found a strong set of common factors: NCSs which could be considered to be successful were characterised by 'legitimacy', 'ownership', 'commitment', 'equity' and good 'networking' – all functions of participation (Bass et al 1995).

While most NCSs did not begin with an overt focus on economic growth and poverty alleviation, many evolved to address these issues. This was especially the case where the NCS process successfully raised environmental awareness in key economic and social sector agencies, or in agencies at intermediate and local levels which already had a high level of engagement with community groups and businesses. Some NCSs are now providing a valuable platform for the development of more holistic strategies for sustainable development, for example in Pakistan.

National Environmental Action Plans

In contrast to NCSs, national environmental action plans (NEAPs) were promoted by the World Bank and were undertaken from the mid 1980s. According to World Bank Operational Directive 4.02 (Feb 2000), "an EAP describes a country's major environmental concerns, identifies the principal causes of problems, and formulates policies and actions to deal with the problems. In addition, when environmental information is lacking, the EAP identifies priority environmental information needs and indicates how essential data and related information systems will be developed. The EAP provides the preparation work for integrating environmental considerations into a country's overall economic and social development strategy. The EAP is a living document that is expected to contribute to the continuing process by which the government develops a comprehensive national environmental policy and programs to implement the policy. This process is expected to form an integral part of overall national development policy and decision-making".

NEAPs have recommended specific actions, outlining the required policies, legislation, institutional arrangements and investment strategies. But the typical outcome of most NEAPs was not so much institutional change as a package of environmentally-related investment projects, many intended for donor assistance. Progress with NEAPs is still reviewed by the Bank and forms a part of its Country Assistance Strategies, but the Bank is now placing more emphasis on Comprehensive Development Frameworks and poverty reduction strategies (see ***). NEAPs can therefore be seen as an eclipsed

planning tool in the Bank's relations with its member countries, although most of the lessons from NEAP practice have been taken on board in the way the Bank approaches Comprehensive Development Frameworks (CDFs) and Poverty Reduction Strategy Papers (PRSPS).

Source: OECD/UNDP (2002)

One of the most prominent strategic planning processes now being pursued in developing countries is the Poverty Reduction Strategy which many poor countries now see as the main framework within which to address sustainable development (Box 7.8).

Box 7.8: Poverty Reduction Strategies

The Poverty Reduction Strategy Paper (PRSP) approach was launched in 1999 by the World Bank and the IMF for low-income countries, within the framework of the Comprehensive Development Framework concept. Poverty Reduction Strategy Papers (PRSPs) are country-written documents detailing plans for achieving sustained reductions in poverty. By March 2003 the World Bank and IMF Boards had considered a total of 55 interim PRSPs, which are "road-maps" to forthcoming PRSPs intended to reduce delays in debt relief and concessional lending. To date, 21 countries have developed full PRSPs. There has been much examination and assessment of progress with PRSPs, including by the World Bank itself, which has identified the need for much greater attention to environmental issues and for improved stakeholder participation (see: www.worldbank.org/poverty). Given the domestic political commitment and donor support for PRSPs, they offer a mechanism which can be built upon and, with improvement, could evolve into effective NSDSs

(a) Targets

For the past decade, various international targets have been set for NSDS. Agenda 21 (UNCED, 1992) first called for all countries to develop an NSDS. Five years later, the 1997 Special Session of the UN General Assembly set a target date of 2002 for formulation and elaboration of NSDSs by all countries. The Millennium Development Goals include one to 'integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources' (UNGA 2001, Goal 7, target 9). Most recently, the Plan of Implementation agreed at the World Summit on Sustainable Development recommits governments to taking action on NSDSs.

"States should:
(a) Continue to promote coherent and coordinated approaches to institutional frameworks for sustainable development at all national levels, including through, as appropriate, the establishment or strengthening of existing authorities and mechanisms necessary for policy-making, coordination and implementation and enforcement of laws;
(b) Take immediate steps to make progress in the formulation and elaboration of national strategies for sustainable development and begin their implementation by 2005. To this end, as appropriate, strategies should be supported through international cooperation, taking into account the special needs of developing countries, in particular the least developed countries. Such strategies, which, where applicable, could be formulated as poverty reduction strategies that integrate economic, social and environmental aspects of sustainable development, should be pursued in accordance with each country's national priorities".

Paragraph 162, Plan of Implementation,
World Summit on Sustainable Development
Final version, 24th March 2003
www.un.org/esa/sustdev/documents/WSSD_POI_PD

(b) New thinking on strategies

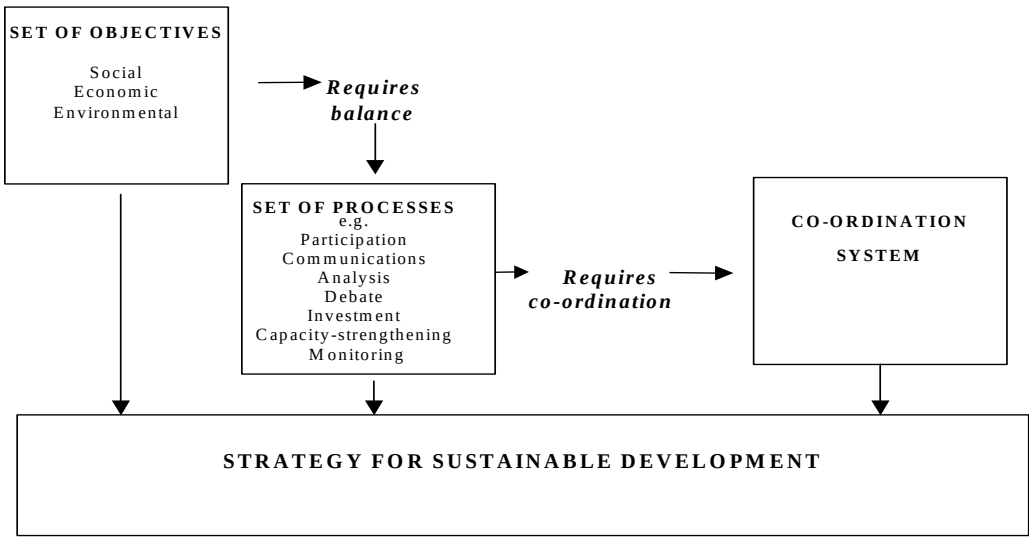
Despite the setting of such targets, until recently, there has been little guidance on what constitutes a strategy for sustainable development and how they are best developed and implemented. Since the 1992 Earth Summit, there has been an unchallenged assumption that they are some form of 'master plan'. But work undertaken over the past four years by the OECD, UNDP, UN and IIED has highlighted a large measure of consensus on the essential elements of a successful process (OECD-DAC 2001, OECD/UNDP 2002, UNDESA 2002b, Dalal-Clayton et al. 2002). Given circumstances of continuing change, it is now clear that effective NSDSs require systematic and iterative processes of learning and doing. They do not have discrete beginnings or ends. Establishing a new or stand-alone strategic planning process would rarely be recommended.

It is now accepted that, instead, an NSDS should improve the integration of social and environmental objectives into key economic development processes. In other words, a set of locally-driven, continuing processes, rather than an encyclopaedia of possible actions (most of which will interest only a few people). The DAC policy guidance on NSDSs offers the first official definition of a strategy:

> *"A co-ordinated set of participatory and continuously improving processes of analysis, debate, capacity-strengthening, planning and investment, which seeks to integrate the short and long term economic, social and environmental objectives of society - through mutually supportive approaches wherever possible - and manages trade offs where this is not possible"*
>
> (OECD DAC 2001)

The rationale for such an approach is shown in Figure 1

Figure 7.1: Rationale for a systematic approach to sustainable development strategies



Note: This figure might suggest that a sustainable development strategy involves a linear sequence of steps. In practice, strategies need to follow a cyclical, continuous improvement approach with monitoring and evaluation of the processes and outcomes; enabling, renewed debate on key issues and needs; review of the national development vision; and adjustment of actions – as shown in Figure 7.2.

(c) Strategy principles and characteristics

The OECD and UN work has established a set of principles and characteristics common to sustainable development strategies in both developed and developing countries (OECD DAC 2001, UN DESA 2001b). These can be summarised as:

- Integration of economic, social and environmental objectives;
- Coordination and balance between sector and thematic strategies and decentralised levels, and across generations;
- Broad participation, effective partnerships, transparency and accountability;
- Country ownership, shared vision with a clear timeframe on which stakeholders agree, commitment and continuous improvement;
- Developing capacity and an enabling environment, building on existing knowledge and processes;
- Focus on priorities, outcomes and coherent means of implementation;
- Linkage with budget and investment processes;
- Continuous monitoring and evaluation.

An International Forum on NSDS convened by UNDESA further confirmed that:

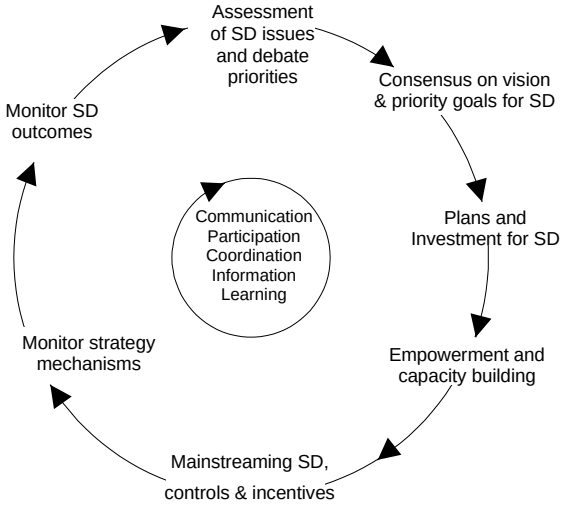
> "Effective national sustainable development strategies have common characteristics, but that they take different forms depending on national and local conditions… For example, established frameworks such as a National Vision, National Agenda 21, a Poverty Reduction Strategy (PRS) or a Comprehensive Development Framework (CDF) can all provide a good basis to build on for taking strategic action towards sustainable development. The particular label applied to a national sustainable development strategy is not important as long as the common characteristics of the strategy are adhered to" (UN DESA 2002a)

(d Strategies should be learning systems

The emphasis is now on demand-driven processes rather than top-down agendas. 'Strategy' is increasingly being used to imply a continuous (or at least iterative) learning system to develop and achieve a shared vision, rather than one-off exercises (Figure 7.2). The associated challenges are now more clearly about institutional change – about generating awareness, reaching consensus on values, building commitment, creating an environment with the right incentives, working on shared tasks – and doing so at a pace with which stakeholders can cope. The means to do this are integrated systems: of participation, analysis, debate, experiment, prioritisation, transparency, monitoring, accountability and review. All countries will have some elements of these systems within existing strategic planning mechanisms. The challenge is to find them, bring them together and strengthen them.

Putting an NSDS into operation would, in practice, most likely consist of using promising, existing processes as entry points, and strengthening them in terms of the key principles and characteristics listed above.

Figure 7.2: A 'continuous improvement' approach to sustainable development strategies (Source: OECD/UNDP 2002)



Note: The figure shows some of the more important relations between the mechanisms shown in Figure 4.1. As portrayed, it suggests that the overall process involves a rigid sequence of steps. However, in practice, these are on-going and necessarily overlap. Key features of the central tasks are stakeholder identification, strengthening capacity, collaboration and outreach.

(e) Establishing a coordinated system

An NSDS should be seen as a set of co-ordinated mechanisms and processes (many of which will already exist in most countries – see Figure 7.3) to implement the principles and help society work towards sustainable development - not as 'master plans' which will get out of date. This will help improve convergence between existing strategies, avoid duplication, confusion and straining developing country capacity and resources. Indeed, a sustainable development strategy may best be viewed as a *system comprising various components*:

- Regular multi-stakeholder fora and means for negotiation at national and decentralised levels, with links between them;
- A shared vision, developed through such fora, incorporating broad strategic objectives;
- A set of mechanisms to pursue these objectives in ways that can adapt to change (notably an information system with key sustainable development indicators; communication capabilities; analytical processes; international engagement; and co-ordinated means for policy coherence, budgeting, monitoring, and accountability);
- Strategic principles and locality- or sector-specific criteria, indicators and standards adopted by sectors and stakeholders, through legislation, voluntary action, and market-based instruments, etc.;
- Pilot activities – from an early stage – to generate learning and commitment.
- A secretariat or other facility, with clear authority and powers, to co-ordinate these mechanisms;
- Finally, a mandate for all these activities from a high-level, central authority such as the prime minister's office and, to the extent possible, from citizens' and business organisations.

Figure 7.3: Constellation of mechanisms contributing to a sustainable development strategy

Explanation
This figure visualises suggested basic elements of a system for developing and implementing a strategy for sustainable development. The system should encourage and facilitate the building of consensus in society about a vision, goals and objectives for sustainable development (the centre circle). It should provide a coordinated set of information and institutional mechanisms to deliver these (the satellite boxes). In establishing such a system, there is a need to look for precedents, recent trends and improvements in mechanisms beyond branded and packaged approaches that might provide examples on how to make progress – adhering to the basic principles and elements set out in Boxes 3.1 and 3.2.

(e) A pattern of change

It is clear that approaches to strategies for sustainable development have evolved over the past decade since the Rio Earth Summit as countries have experimented with different models and learned from their experience. Key differences between the older 'master plan' strategies and the new 'continuous improvement system' thinking, derived from OECD and UN reviews, are summarised in Table 7.1.

Table 7.1: Changing approaches to strategies

FROM	**TO**
Develops and implements a single '***master plan***' for SD (that gets increasingly out of date)	Builds a system of ***coordinated mechanisms & processes*** dealing with SD priorities step-by-step
One-off initiative	***Continuous process*** + monitoring, leaning & improvement
Fixed ideas and solutions	An ***adaptive, learning*** system offering coherence between activities
Centralised and controlled decision-making	***Sharing ideas, negotiation, cooperation***
One-off initiative	A ***continuous*** process
Management based on ***precedent*** or ***evidence*** only	**Also *experimentation* and managing uncertainty**
State alone is responsible	***Society*** as a whole is responsible
Narrow participation	***Multi-stakeholder*** approach
Focus on ***outputs*** (projects, laws, etc.)	Focus on ***outcomes*** (impacts) and the quality of participation and management ***processes***
Sector-based research and planning	***Partnerships*** and ***integrated*** research and planning
Externally-driven (in developing countries)	***Country-driven***
Focus on ***costly 'projects'*** (and a consequent dependence on external assistance)	Focus on ***cost savings*** and ***domestically-driven*** and financed investment and development

Sources: Adapted from OECD/UNDP (2002) and Dalal-Clayton and Bass (2002)

(f) Strategies: a shared challenge in the North and South

The problems faced by developing and developed countries in preparing strategies for sustainable development usually are quite different. Most developing countries are occupied with economic development, poverty alleviation and social investment. Developed countries face problems caused by high levels of industrial activity, movement and consumption (for example, pollution and waste).

Countries have consequently approached strategies from different perspectives and pursued them through different means. In the North, the focus has been on institutional re-orientation and integration, regulatory and voluntary standards and local targets, environmental controls, and cost-saving approaches. The South has been concerned with creating new institutions, and 'bankable' projects.. Clearly they have much to learn from each other's experiences. Both now face a stronger challenge, in a globalising world, of encouraging responsible business and investment – and therefore of well-organised private sector participation in NSDSs.

Governments urgently need to address several key uncertainties it they are truly serious in meeting the international target for sustainable development strategies.

First, are bureaucrats willing to do things differently; to think and behave in new, open, participatory ways that provide for dialogue and consensus-building; to agree what is needed and how to get there? There is a need to be identify those motivations that will encourage bureaucrats to work differently.

Secondly, are institutions willing to work in support of each other to achieve cross-sectoral integration and synchronisation? There is a need to identify and support the constructive institutional relationships and experiments that exist.

Finally, and perhaps most critically; political will must be generated to support such approaches. The NSDS principles and system are designed to continuously improve such political will, but an NSDS will require bold leadership to kick the whole process off.

(g) Time to seize the opportunity

The renewed commitment given at WSSD to developing NSDSs should be a good catalyst to get countries thinking through how they organise themselves to achieve sustainable development. The guidance resulting from both the UN and the OECD processes is timely and effective here. They offer a 'fitness for sustainable development' diagnostic and a 'gap analysis' to identify processes and mechanisms that are missing. Because national strategies are now understood as being based on what works from civil society, private sector and government sources, they should be able to spur countries on to real institutional change by clarifying the issue as one of 'identify and scale up' rather than 'start again'. Because the new thinking on national strategies treats NEAPs, PRSPs, CDFs, and so on as optional means to an end, rather than as ends in themselves, it encourages an inclusive approach that should be able to defuse tensions between these 'branded' initiatives. By emphasising integration with budget/investment processes, and by seeking clarity of goals and evidence of priorities, effective strategy processes are also more likely to attract investment than in the past.

National strategies can provide many 'entry points' for concerned civil society and business groups. Many such groups are seeking effective means of engagement with one another and with government. There are limits to what even the best corporations and NGOs can do on their own, especially in the absence of a forum to debate integration and trade-offs with one another and with government. It is clear that the emerging, pragmatic approach to national strategies has dispensed with the notion of a government-led plan and replaced it with a government-facilitated process. This process integrates many functions (debate, information-gathering, analysis, decision-making, experimentation, role changes, policy changes, monitoring and review) and incorporates principles of inclusiveness and innovation: thus it is an efficient and equitable way to bring together concerned groups. In short, it offers a practical way to keep sustainable development on everybody's agenda. "Ultimately, sustainable development is not something that governments do for people; it is something people achieve for themselves through individual and collective change" (Cielito Habito).

7.4 The role of SEA in sustainable development and poverty reduction strategies

(h) The role of SEA in sustainable development strategies

As indicated in Table 7.1, many past strategy approaches involved officials and experts preparing papers and drafting chapters of a strategy document or action plan, workshops (again often limited to officials and experts) and limited inputs from across government, from the private and business sectors, NGOs and other interests, or from the public. The focus was

usually placed on the delivery of a document (often in a limited time); this meant both rather sketchy analysis, and an inadequate process of building consensus on the key issues and possible solutions or ways forward. Furthermore, to date in developing countries, the pressure for such NSDS documents has often come from donors as a requirement for the release of aid or as a menu of projects from which they can choose. Seldom have such strategies been prepared as a result of a domestically-driven agenda or a conviction in their utility.

It is no surprise, therefore, that NSDS processes are still seen by many people in developing countries as internationally-generated precepts which seldom exert much influence on the key decision-making arms of government which lie in the national planning and finance ministries, and in the key line ministries. As indicated above, it is becoming increasingly apparent that, to be effective, an NSDS cannot be a model or plan. Rather it needs to provide a framework for analysis, debate, action and monitoring. To work, this approach must be defined by reference to the "political culture" of the country concerned.

To date, in general, SEA has been applied mainly as a retroactive step – after policies, programmes or plans have been developed, prepared and agreed. It has therefore undertaken more or less as an after-the-act audit process to check on potential impacts. A similar criticism has long been levelled at very many EIAs carried out after a project has been designed and merely awaits a go-ahead decision if there are no serious or easily mitigable impacts. But impact assessment, whether at the project level or upstream of this at policy, programme and plan levels, can and should play a much more useful and effective role by being fully integrated as a part of strategy and policy development, planning and decision-making processes. Experience of past strategy processes and reveals a range of common tasks in the more successful initiatives which provide entry points and leverage opportunities for applying policy-level SEA (Box 7.9).

SEA must be seen as a tool that can enable better informed options to be considered and more robust decisions to be reached. It offers an analytical approach which can operate at key leverage points through the NSDS cycle - provided there is political will to allow this to happen. This is likely to be easier to apply where there is a formal provision for SEA, e.g. whether in legislation, regulations or administrative orders. However, the paramount requirement is to begin to "just do it".

In this regard, SEA provides a potential mechanism to bring together people from different parts of government, from the private sector and non-governmental organisations, both to analyse and to consider responses to the varied and significant environmental issues and related economic and social concerns which are likely to arise from an NSDS process or its local equivalent. However, this approach has been little practised to date either in strategic planning frameworks (Box 7.10 describes a notable exception). Even in PRSPs – the latest addition to the family of strategy approaches, promoted by the World Bank which also strongly advocates the use of SEA – the has been only weak attention to date to environmental concerns. Poverty and Social Impact Assessment (PSIA) is the main diagnostic tool used (see section ***) which takes no account of environmental considerations. A number of bilateral aid agencies have drawn attention to the 'neglect of the environment' in PRSPs. For example, in a submission to the World Bank in December 2001, DFID noted that

> "*For lasting growth and poverty reduction it is critical that relevant poverty-environment issues are given priority in PRSPs, and that those dealing with the environment in-country are actively engaged in the PRS process. Reviews by DFDI and the World Bank have revealed a mixed picture. Some countries PRSPs (eg Bolivia , Honduras, Mozambique and Uganda) have given priority to relevant poverty-environment issues, but even these countries have been less successful in identifying how they should be addressed. Very few PRSPs have costed interventions in the policy matrix, especially where action is needed across sectors. Only a few PRSPs (eg Bolivia, Uganda) include poverty-environment indicators. Crucially, even*

where the environment is covered in the PRSP, environment agencies and civil society groups are rarely engaged in the process. . . . . We therefore urge the Bank to focus on mainstreaming the poverty-environment agenda among staff working on PRS issues" (www.worldbank.org/poverty).

Box 7.9 Illustrative steps for starting, managing and continually improving a strategy for sustainable development

The following steps apply in full to strategy development tasks, that is, those needed to scope out and establish the strategy by building on existing mechanisms, and/or initiating new mechanisms if necessary. But the same or similar tasks are then iterative during strategy co-ordination and continuous improvement.

A useful first step is to undertake an initial *scoping exercise* to identify stakeholders' views on priority issues that need to be addressed, and to estimate the benefits that might derive from developing and implementing a strategy. Such an exercise would involve a preliminary examination of the opportunities for, and challenges of, undertaking the steps suggested below.

It should not be assumed that the subsequent steps should be undertaken as a rigid sequence. In practice many of them will need to be pursued in parallel and some might best make use of opportunities as they arise.

a) Establish or strengthen *a* ***secretariat*** *or* ***coordinating body*** acceptable to stakeholders, with sufficient authority and resources to co-ordinate the steps outlined in this box, and the continuing strategy mechanisms;

b) Establish or strengthen a ***Steering Committee or equivalent multi-stakeholder forum*** (e.g. National Council for Sustainable Development) with a broad balance of representation from government, the private sector and civil society acceptable to stakeholders;

c) Seek or improve ***political commitment*** to the strategy preparation and implementation process from the highest levels as well as all other levels;

d) Secure or confirm a ***mandate*** for the strategy. The more this represents domestic public demand with high-level support, rather than external mandates, the better;

e) ***Identify the stakeholders*** that will own the preparation and implementation of an integrated sustainable development strategy, and encourage discussion of their (potential) roles;

f) Ensure ***broad-based ownership*** by key ministries and agencies, civil society and the private sector ;

g) Mobilise the ***required resources***. Identify, secure, and allocate in a timely and accountable manner, the required:
- Skills, and sources of knowledge and learning;
- Management, legal and institutional support;
- Financial resources;

h) Define and seek agreement on the ***roles of stakeholders*** (i.e. their rights, responsibilities, rewards, and relations) – private sector, civil society (e.g. NGOs, local communities), donors, national and local government, the Secretariat, etc. (section 4.9);

i) ***Map out the strategy process****,* taking stock of *existing processes and mechanisms*:
- Catalogue the range of existing strategies related to sustainable development;
- Identify the issues covered, vision, goals, and responsibilities;
- Identify mechanisms and processes used by existing strategies (see Figure 7.2);
- Review achievements of these mechanisms in terms of synergies, clashes and gaps, and their outcomes;

- Determine the existence/extent of sectoral policy conflicts and inconsistencies, and the work necessary to resolve them;
- Identify what is required to improve synergies and plug gaps;

j) Develop or improve **coherence and coordination** between strategy frameworks at all levels from international to local; and between and within sectors;

k) Establish or improve the ***ground rules*** governing the strategy process:
- Debate and agree how all decisions will be made and agreed, and uncertainty dealt with;
- Co-ordinate means for negotiation of trade-offs and conflict management;

l) Establish and promote a ***schedule or broad calendar*** for the strategy process – determine activities, responsibilities, capabilities and resources needed, and their timing;

m) ***Promote the strategy*** as a unified concept. Possibly publish a ***'prospectus'*** for the strategy outlining all the above;

n) Establish or improve provisions for ***regular analysis, debate, communication, planning, implementation, monitoring and review***; to ensure that all stakeholders are best able to play their part in the strategy. These processes are the 'heart' of the strategy and are discussed in detail in separate chapters. They will involve establishing or improving:
- ***Means for analysing*** sustainability, stakeholders, mechanisms and processes, and scenarios;
- ***Regular stakeholder fora and other means for participation*** (thematic, national, decentralised and local) to reach and improve consensus on basic vision, goals, principles, system components, pilot activities, targets and responsibilities, and to review progress;
- ***Communication and information systems*** to ensure regular flows of information concerning both the strategy and sustainable development between stakeholders and between fora. This will include development of key information products to improve awareness and stimulate action, and the establishment of knowledge management systems to ensure sharing of experience and facilitate collective learning;
- ***Major decision-making arrangements***, notably: structures and roles; handling global and local values and risk; means of delivering consensus and handling negotiations; and ways of linking those involved;
- ***Implementation services and control mechanisms*** – means for selecting policy implementation instruments (regulations, incentives and voluntary mechanisms) and applying them;
- ***Means for planning investments*** – tasks involved in making the case to different investment sources, and the criteria that should be used;
- ***Monitoring and accountability mechanisms*** to assess both strategy processes and their results. These will include: developing and reviewing sustainability indicators, baselines, standards and codes of practice; identifying and encouraging innovative processes to promote the culture of action-learning; independent monitoring; and feedback to decision-making.

Source: Modified from OECD DAC (2001a)

Box 7.10 Scenario Planning and the Dutch National Environmental Policy Plan

One notable example where SEA, in the form of scenario-planning, played a significant role in strategy development comes from the Netherlands. Here, during the preparation of the first National Environmental Policy Plan (NEPP) (VROM, 1989), the government's National Institute of Public Health and Environmental Protection (RIVM) undertook a national environmental survey and produced an influential report, *Concern for Tomorrow* (RIVM, 1988) which assessed the state of the environment and connected this with the ultimate goals needed for a sustainable future in the Netherlands. The report grouped the main environmental impacts (problems and pollutants) according to the economic activities responsible for them. It further categorized impacts at five different levels or

scales of occurrence: local, regional, fluvial (river systems), continental (trans-boundary and marine) and global. "The scale of impact had implications for the complexity of the source-to-impact chain, the time needed to require environmental quality and the level of government action required to deal with it" (VROM 1993). This analysis was incorporated into the NEPP's analysis of environmental problems in a set of eight different environmental themes (see below). Each theme set quality objectives to meet an overall goal of sustainability by the year 2010.

RIVM was asked to produce national environmental surveys every year to support the planning of national environmental policies, particularly the National Environmental Policy Plans, published approximately every four years, (NEPP2 in 1993, NEPP3 in 1998, and NEPP4 in 2001). Thus, the second national Environment Outlook study (RIVM 1991) covered the period 1990-2010 and assumed full implementation of adopted environmental policies. It made forecasts of environmental quality in the years 2000 and 2010 and provided a measure of progress against environmental targets established by the NEPP. This study was compiled in cooperation with a large number of other research institutes, among them the Institute for Water Management and Waste Water Treatment, the Agricultural Economics Research Institute and the Central Bureau of Statistics. RIVM published a third Environmental Outlook report in 1994 covering the period 1993-2015; and a fourth one in 1997 covering 1997-2020. The latter made use of three economic scenarios developed by the Central Planning Office:

- In *Divided Europe* - the Netherlands will record only modest GDP growth rates (1.5% per year) and productivity gains. Neither the market mechanisms nor the coordination mechanism will function well in Europe, including the Netherlands. As a direct consequence, European economic growth will substantially lag behind that in North America and Asia.

- In *European Coordination* - the Dutch GDP volume growth will be significantly higher over the coming 25 years (2.75% per year). EU policy coordination will play an important role. At the same time, a degree of isolation will develop between the world's major economic blocks.

- *Global Competition* is characterised by highly dynamic technological developments, extensive internationalization and a major role for the market mechanism. For the Netherlands, this scenario yields the highest economic growth (3.25% per year), the strongest productivity gains and the largest increase in the labour force. Unemployment will come down appreciably.

The NEPP3 is based on the 'European Coordination' scenario.

Environmental Balance 2001 (RIVM 2001) fed into development of the latest National Environmental Policy Plan (NEPP4) and highlighted the far reaching consequences of major environmental problems: loss of biodiversity, climate change, over-exploitation of natural resources, threats to both health and external safety, damage to the quality of the living environment, and possible unmanageable risks. NEPP4 outlines the strategies the Netherlands has chosen to resolve such long standing environmental problems. New problems resulting from technological innovations including problems around genetically modified organisms are also on the new agenda. NEPP4 is broader and more future-oriented that previous plans (with a policy horizon extending to 2030) and addresses problems needing international cooperation. Whilst NEPP3 remains in full effect for the short term, NEPP4 marks the beginning of a new policy cycle after 10 years of environmental policy plans. It aims to set a course towards sustainability spanning several decades as the only way to deal with problems in the areas of energy and climate, biodiversity, raw materials, agriculture and food supply. NEPP 4 targets three types of problems:

- Long-standing, persistent problems that can only be solved by completely internalising environmental externalities into prices;
- Well-known environmental problems appearing in new guises, eg external safety and the health risks of chemical and biological pollution and radiation;
- New problems resulting from technological innovations that solve existing problems but that often create unexpected new problems. These pertain not only to actual phenomena (eg increases in scale, biotechnology, unexpected pollution, etc.) but also the ever more complex interaction of these phenomena. The global interaction of these matters renders society more vulnerable and the nature of disruptions more difficult to manage. This requires vigilance on a larger scale and over a longer term that we have been accustomed to so far, and a firmer establishment of the precautionary principle.

The latest Environmental Balance and Outlook Report (RIVM 2002) continues to describe environmental trends in the Netherlands and the effectiveness of the policies pursued, and evaluates the degree to which the stated goals of environmental policies have been achieved. The report places a special focus on the relationship between economy and environment and the role that national and international policy plays here. It also describes the environment in urban and rural areas as well as climate change where possible assessments are included to indicate whether current policies will be sufficient to achieve the targets for 2010.

NEPP Themes
The eight themes in the NEPP were: climate change; acidification; eutrophication; diffusion (the uncontrolled spread of chemicals, often by dumping of toxic waste, into the environment); waste disposal; disturbance (noise and odour); groundwater depletion (which has a detrimental effect on water supplies and natural habitats); and squandering of natural resources. In the NEPP3, these themes changed slightly: 'diffusion' was replaced by 'toxic and hazardous pollutants', 'contaminated areas' was added, and 'squandering' was abandoned.

Source: www.minvrom.nl

In 2002, the Boards of the World Bank and IMF received a report on a *comprehensive review of the PRSP approach* (started in mid-2001), which provides descriptions of good practice for countries and partners, numerous country examples and coverage of sectoral issues). The key points of the report are set out in Box 7.11. It is notable that the environment receives no mention.

Box 7.11 Progress with PRSPs:
Key points of the comprehensive review by World Bank and IMF

Note: This box is based on extracts drawn from the main review report and the separate summary of main findings (available on: www.worldbank.org/poverty/strategies/review).

"It is clear that the development of PRSPs is a major challenge for low-income countries, in terms of both analysis and organisation. Besides managing a complex policy dialogue with development partners, low-income governments have to put together an integrated medium-term economic and poverty reduction strategy, complete with short- and long-term goals and monitoring systems; these are a set of tasks few industrial countries could systematically do well. And in many countries, these tasks must be managed with limited technical and institutional capacity and in ways that reinforce – rather than undermine – existing national institutions, processes, and governance systems. Thus, there is a need to have realistic expectations about the PRSPs that are being developed".

"The central message is that there is broad agreement among low-income countries, civil society organisations and their development partners that the objectives of the PRSP approach remain valid … and that there have been improvements over time in both process and content…. There is widespread agreement on four key achievements of the PRSP approach to date:

- A growing sense of ownership among most governments of their poverty reduction strategies;
- A more open dialogue within governments and with at least some parts of civil society than had previously existed;
- A more prominent place for poverty reduction in policy debates;
- An acceptance by the donor community of the principles of the PRSP approach".

"While it is premature to draw any firm conclusions about the development impact of the PRSP approach, there are nonetheless a range of good practices by countries and their development partners. In reality, there are only a few concrete cases where such practices are in place".

Interim PRSPs

"The requirements for an I-PRSP were deliberately minimal, although this was evidently not widely understood by all stakeholders. The I-PRSP was to describe the existing situation (with respect to poverty: the existing poverty reduction strategy and macroeconomic and policy framework) and set out a plan for developing the full PRSP (including the participatory processes; plans for identifying and developing appropriate policies, targets and indicators; and a system for monitoring and evaluating implementation). Policy commitments and targets for the outer years were to be revised in the full PRSP".

"While the quality of I-PRSPs has varied, their preparation has served a useful purpose by encouraging countries to take stock of existing data and policies, to launch a broader process of rethinking current strategies, and to produce time-bound road maps for the preparation of their first full PRSP. In many cases (e.g. Mongolia and Nicaragua), I-PRSPs were longer than expected, as countries put forward quite comprehensive documents. At the same time, however, the roadmaps were sometimes relatively weak with respect to plans for participatory processes (e.g. Senegal); plans to fill data gaps (e.g. Sierra Leone) and the proposed institutional arrangements for the PRSP (e.g. Moldova and Tajikistan). This appears to have been due to both an unclear understanding about the intended nature of an I-PRSP, coupled with pressures imposed by HIPC and/or PRGF timetables".

"Although I-PRSPs were initially viewed as a transitional device, they may still be useful in many of the nearly three dozen low-income countries that will need to prepare PRSPs for access to Bank/Fund concessional lending and/or debt relief".

"In order to qualify for debt relief, many countries prepared their I-PRSPs too hastily. In fact, the push by many countries to reach their Decision Point at the earliest possible date came at the expense of the quality of some I-PRSPs roadmaps, for example, participation plans and proposed institutional arrangements".

Full PRSPs

Ten countries [at the time of the review] have now finalised their first full PRSPs. These varied considerably in form and content, reflecting each country's own starting point, capacities and priorities. Each of the documents included the four elements proposed in the joint Bank/Fund paper on PRSPs (Operational Issues, SM/99/290, 12 Dec 1999): (a) a description of the participatory process used in preparing the PRSP; (b) a poverty diagnosis; (c) targets, indicators and monitoring systems; and (d) priority public actions. However, the PRSPs varied considerably in the relative weight given to the treatment of the core elements and to key areas within these elements, and in style and format of presentation. Key points raised about PRSP documents and the approach include:

- PRSPs have generally built on existing data and analyses and on prior strategies;
- They reflect considerable improvement in both process and content relative to their corresponding I-PRSPs;
- They have received attention at the highest political level in almost all countries, and many provide useful information about the institutional arrangements for preparation and implementation;
- In some cases, documents have clarified the linkages between PRSPs and existing governmental plans and decision-making processes – especially budget formulation;

<u>Participation</u>

- PRSPs have established a presumption in favour of openness and transparency and broad-based participation – the approach has often led to an improved dialogue within the various parts of government and between governments and domestic stakeholders, and has brought new participants into the policy dialogue;
- However, some concerns have been expressed about inadequate engagement by certain groups or institutions seen as key to successful poverty reduction efforts;
- Sectoral ministries generally are less fully involved than core ministries, such as the Ministry of Finance or the Ministry of Planning;
- The role of parliaments in the PRSP process has generally been limited, although individual parliamentarians have been involved in some countries;

- In most countries, bringing civil society organisations into the process has improved with time;
- In some cases, there have been constraints to deepening and widening the process to all constituents to meet their expectations;
- There is some evidence that civil society's efforts have affected PRSP content, particularly in drawing attention to problems of social exclusion and the impoverishing effects of bad governance;
- In some countries, there may be a risk of "participation fatigue";

Poverty diagnostics

- Despite the significant advances in poverty data and analysis in PRSPs relative to pre-existing government strategies and policy frameworks, analysis of the impact of the policy actions on the lives of the poor appears to have been limited;
- Poverty and social impact analysis of major policies and programmes has typically not been undertaken as part of PRSPs;

Targets, indicators, monitoring and evaluation (M&E)

- Many PRSPs set long-term targets that seem overly ambitious relative to prior achievements and/or likely available resources;
- PRSPs often lack good indicators of intermediate processes that would help track the implementation of public programmes;
- Many PRSPs have detailed plans for improvement of M&E capacities, but the institutional structure for monitoring has not always been clearly defined;

Priority public actions

- PRSPs are generally weak regarding the prioritisation and specificity of public actions;
- Some early PRSPs have made progress in identifying pro-poor growth policies;
- There were various shortcomings in the macro-economic frameworks put forward in the early PRSPs, both in terms of presentation and content. All included ambitious growth targets and could have benefited from a sharper analysis of the likely sources and levels of growth;
- Key cross-cutting issues (e.g. gender, HIV/AIDS, good governance, rural development) have been addressed to varying extents;
- All PRSPs have emphasised access to services as a key concern, with improved access to education a priority;
- In general, the primacy of the private sector for growth is acknowledged;
- Most PRSPs have dealt with issues concerning trade openness in only a limited way;

World Bank environmental economist Jan Bojo (personal communication) confirms that, until recently, no PRSP process had involved any form of formal environmental assessment (either as an input to its development, or as a post-hoc audit) that might equate to an SEA or 'para-SEA'. Two SEAs of PRSPs are now being undertaken in Ghana (Box 6.16) and Tanzania. The Environment Department at the World Bank undertakes unofficial reviews of PRSPs as they are submitted to the Bank. A scoring system is used which ascribes ratings for the way in which the PRSP addresses a range of 17 environmental and other variables (0 for no mention to 3 for good practice). The draft reviews are shared for comment with Bank Country Teams. So far, about 50 such reviews have been completed (a mix of full and interim PRSPs). The most recent example is for Vietnam which achieved an average score of 1.9 (Table 7.2). For comparison, the top score to date was for Mozambique (2.2).

Building on this approach, the Southern African Institute for Environmental Assessment (SAIEA) has developed a framework for the quantitative analysis of poverty/environment linkages and integration in PRSPs (Croal, 2003). It also uses a cumulative index for a different set of key questions/issues, covering: the context of the PRSP, the focus issues, causal links, response systems, PRSP development process. Each question is scored (0 = issues not mentioned, 1= issues mentioned but not elaborated, 2 = issues elaborated, 3 = best practice on environment/poverty integration) (Table 3).

Table 7.2: Environmental review of Vietnam PRSP
(Bojo and Reddy 2003)

Variable	Description	Score	Cumulative score
	A. Issues in Focus		
1. Land use	Degradation, deforestation, erosion, overgrazing, mining, etc.	3	3
2. Water	Drinking water, irrigation, fishery and water pollution	2	5
3. Air	Quality and pollution	1	6
4. Biodiversity	Threats to ecosystem, eco-tourism opportunities	1	7
	B. Causal link assessment		
5. Poverty and natural resource degradation	Resource dependence and inequality	3	10
6. Environmental health	Contagious and vector-borne infections, eg diarrhoea, malaria	1	11
7. Vulnerability	Impacts of climate variability (hurricanes, floods, drought)	2	13
8. Property rights	Tenure and natural resource management	2	15
9. Incentives	Prices, subsidies, taxation, trade, debt, exchange rate, income and employment policies	1	16
10. Empowerment	Decentralisation and partnerships	2	18
11. Gender	Concerns relating to gender and environment links	1	19
	C. Response systems		
12. Environmental management	Regulation, legislation, institutions, information, environmental standards, and economic instruments like cost recovery, product pricing, private sector participation	3	22
13. Investment in natural capital	Projects and programmes relating to land and water resource management, air quality and pollution abatement	3	25
14. Investment in man-made capital	Projects and programmes relating to water supply, sanitation, urban infrastructure & housing for poor	3	28
15. Monitoring natural resource outcomes	Deforestation, protected area, soil & water conservation, renewable energy use	2	30
16. Monitoring human development	Housing, sanitation, preventative care (life expectancy, infant mortality, etc.)	2	32
	D. Process and planning		
17. Participatory process	Process of environmental integration into PRSP preparation & implementation	1	33
	Average score	**1.9**	

But the SAIEA methodology goes further than the World Bank system and provides suggested general indicators of a PRSP that has integrated poverty and environment issues together, covering:

- Assets of the poor;
- Opportunities to use assets;
- Enabling conditions (barriers and links between assets and opportunities);
- Macro environment and potential crises (remedial or preventative; regional, national or international level, leading to potential impact on the poor);
- Expected results

Table 7.3: SAIEA PRSP assessment framework

(Source: Croal, 2003)

Does the PRSP?	Score	Comment
(a) *PRSP Context*		
Integrate environment as a cross-cutting theme?		
Consider environment as a strategic objective?		
Consider environment as an integral element of monitoring and evaluation?		
Consider environment as a theme which requires risk management?		
Evaluate environmental history and resultant situation of the country (cause and effect?)		
Integrate poverty environment issues into national development frameworks?		
Sub total		
(b) *Focus Issues*		
Evaluate land use and resultant environmental problems (desertification, deforestation, erosion, overgrazing etc?)		
Evaluate issues related to loss of species and natural habitats?		
Evaluate water use and resultant environmental problems (access to potable water, water use and sustainable management, water quality and quantity, water equity)?		
Evaluate air issues and resultant environmental problems (air pollution, ozone depletion, greenhouse gasses, dust?)		
Respect Multilateral Environmental Agreements to which the country is a party (Ramsar, CBD, CMS, Climate Change etc)		
Evaluate natural resource methods of extraction and sustainability limits (including inputs such as energy, other raw materials?)		
Sub total		
(c) *Causal links*		
Consider poverty profiles and resultant natural resource degradation (resource dependency and inequality?)		
Evaluate environmental vectors and resulting health issues (malaria, gastrointestinal illness etc) resulting from land, air, water or biomass degradation?		
Address environmental degradation and links to HIV/AIDs?		
Consider vulnerability of the population to social, economic and health stress due to environmental degradation and events (floods, storms, infertile soil etc)		
Address property rights and entitlements (land tenure, access, control over management?)		
Analyze economic catalysts and their relationship to environmental quality *price stability, market access, taxation, subsidies, policies, exchange rates, trade etc?)		
Make foreign investment more pro–poor and pro-environment?		
Encourage sustainable consumption and production?		
Enhance development cooperation and debt relief?		
Consider devolution of land and environmental management to local and community authorities (partnerships, co-management, decentralization, conservancies, empowerment?)		
Consider anti-corruption efforts to protect the environment and the poor?		
Consider gender equality in environmental management?		
Sub total		
(d) *Response systems*		
Consider how the environment can be managed sustainably (regulation, legislation, policy, taxation, incentives, voluntary, environmental standards, co-management, institutional		

development?)		
Evaluate how the country's ecosystems have the capacity to buffer any serious natural disasters or environmental shocks?		
Consider economic valuation of natural capital (including commercial and social use functions as well as ecological functions)?		
Implement pro-poor environmental fiscal reform?		
Integrate poverty – environment issues into economic policy reforms?		
Encourage more private sector involvement in pro-poor environmental management?		
Address how the environment can be monitored and evaluated regularly?		
Evaluate how investment in natural resources can be improved (land and water resources management and conservation, air quality, sustainable extractive industry management?)		
Expand access to environmentally sound and locally appropriate technology?		
Evaluate investment for human needs (health, housing, infrastructure, energy, water, education etc)		
Evaluate human and institutional capacity needs for sustainable environmental management?		
Sub total		
(e) *PRSP development process*		
Have input from a broad range of environmental specialists, preferably in country?		
Have input from a broad range of policy, technical, social and scientific experts, preferably in country?		
Have input from a range of "publics" from the country and elsewhere?		
Have input from a range of environmental NGO's, and local environmental ministries and institutions?		
Allow sufficient time for proper consultation and redrafting?		
Sub total		
TOTAL	Out of 120	

A World Bank review of the environmental performance of PRSPs is expected to be available in June 2003 and this might reveal any progress and where there are opportunities for SEA to play a role.

In the meantime, and following conclusions in the World Development Report 2000/2001 (World Bank 20002), the World Bank Institute has launched a series of workshops on "mainstreaming environment in poverty reduction strategies" under the name "Attacking Poverty". A dedicated website (www.worldbank.org/wbi/sdstrategies/mainstreaming) has been established for workshop participants and others interested in sustainable development and PRSPs. The workshops aim to promote the exchange of experience and knowledge in linking environment and poverty.

Further experimentation in the use of SEA in strategies is needed - requiring something of a leap of faith on the part of policy- and decision-makers, and a commitment on the part of SEA practitioners to operate much more holistically beyond their traditional 'environmental' confines. The incentives for developing countries to initiate such an approach remain to be

identified.

Thus, for a strategy to be effective, its development (throughout the process) and implementation needs to be closely linked with research and analysis, and particularly with the assessment of environmental, social and economic dimensions and the potential impacts of policy options and of implementing actions (whether through plans, programmes or other initiatives) (i.e. strategic impact assessment).

It is becoming clear that there are both mutual needs and potentials/opportunities for improved SEA-policy-practice links:

- *Strategy processes* that effectively link all the centres of debate and decision-making – government, business and civil society – on a continuing basis, will lead to demand for the assessment of options for and proposals for sustainable development.

- *SEA* that brings together many sources of knowledge in an effective inter-disciplinary way – on a continuing basis, will lead to better strategies.

A practical approach for doing this is the 'continuous improvement' framework (see Figure 7.2). This would integrate SEA and policy actors in a step-by-step, learning and adaptation process of change driven by multi-stakeholder groups. There is emerging political agreement nario)that this is the right approach to strategies, through both the NSDS policy guidelines developed by the OECD and eight developing countries (OECD DAC, 2001) and guidelines developed by the UN (UN DESA, 2002). These apply to all forms of strategy aiming at sustainable development, including e.g. poverty and environmental strategies.