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Great Expectations ? Green Planning in Industrial Countries

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ABSTRACT

Over the last few years, many developed countries have attempted national planning exercises which take account of environmental objectives (this has become known as green planning), and have also responded to Agenda 21 by developing their own national sustainable development strategies.

This paper presents an overview of a recent study of 20 green planning initiatives in 12 industrialised countries: Canada, Denmark, France, Latvia, The Netherlands, New Zealand, Norway, Poland, Sweden, the UK and the USA; and also in the European Union (Dalal-Clayton, 1996, forthcoming).

The majority are government sponsored initiatives, but two were conducted by non-governmental organisations. They include activities which preceded the 1992 UN Conference on Environment and Development (UNCED) and others which were undertaken in response to UNCED, particularly Agenda 21. The initiatives include a wide range of different approaches (environmental plans, strategies, legislative instruments, reports to parliaments, sustainable development commissions, etc.).

The study considers the origin and scope of green planning, the challenges of sustainable development strategies, key characteristics of green planning approaches, management processes and approaches, participation in green planning, links between green planning and other planning processes and political influences. It also compares green planning and sustainable development strategy processes in developed and developing countries.

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Background

"Green planning" is a term originally applied to plans developed, mainly in industrial countries, to address escalating environmental problems. But some developing countries have also used this terminology (e.g. Namibia). It appears to have been first introduced formally in 1989 when, in response to public and political pressure to deal with mounting concern about the environment, the Canadian Environment Ministry - Environment Canada - embarked on preparing a "Green Plan" for Canada. More recently, 'green planning' has been used in a wider context - as a 'shorthand' description as Sadler (1996) puts it - to embrace a range of initiatives including those plans and strategies concerned with broader issues of sustainable development. However, most green plans produced in the industrial countries remain focused on environmental issues; very few (mainly those undertaken independent of governments) have yet attempted to balance environmental, social and economic concerns - a central requirement of moving towards sustainable development.

The development of a National Sustainable Development Strategy (NSDS) is now widely seen as one of the main mechanisms for setting out a national approach to Agenda 21 - the action programme for sustainable development adopted at the 1992 United Nations Conference on Environment and Development (UNCED) - particularly to meet objective 8.3:

> "improving or restructuring the decision-making process so that consideration of socio-economic and environmental issues is fully integrated and a broader range of public participation assured" (UNCED, 1992) .

Agenda 21 recommends that each nation:

> " should adopt a national strategy for sustainable development based on, inter alia, the implementation of decisions taken at the [UNCED] Conference, particularly in respect of Agenda 21. This strategy should build upon and harmonize the various sectoral economic, social and environmental policies and plans that are operating in the country. The experience gained through existing planning exercises such as national reports for the Conference, national conservation strategies and environment action plans should be fully used and incorporated into a country-driven sustainable development strategy. Its goals should be to ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations. It should be developed through the widest possible participation. It should be a thorough assessment of the current situation and initiatives" (Chapter 8, Agenda 21, UNCED 1992).

Many developed and developing countries had already prepared, or were well advanced with, some form of environmental plan or equivalent strategy process before UNCED (e.g. Canada, the Netherlands, the United Kingdom, Botswana and Pakistan). During the last 15 years, many countries have developed various forms of comprehensive national strategies and plans which aim, to a greater or lesser extent, to integrate environmental and developmental objectives. These include conservation strategies, environmental action plans, green plans, forestry action plans, etc. From this wide body of experience, many lessons can be drawn which suggest how a process to undertake an NSDS, as advocated by Agenda 21, might be approached. In a recent two-year study, IIED and IUCN examined the experiences of over 100 countries in developing and implementing various forms of strategy, leading to the publication of a "Handbook on Strategy Preparation and Implementation" (Carew-Reid *et al.* 1994).

There have been several other reviews of experience of strategies and 'green planning' (e.g. Hill 1993; Dalal-Clayton *et al.* 1994; ERM 1994a,b,c,d; Bass & Dalal-Clayton 1995, OECD 1995a) and case studies of strategies undertaken in different regions (IUCN 1993 a,b). The World Bank has also reviewed its experience in promoting National Environmental Action Plans (Lampietti & Subramanian 1995, World Bank 1995) whilst the Regional Environment Centre for Central and

Eastern Europe has recently assessed progress on the development and implementation of National Environmental Action Programmes in CEE countries (REC 1995).

A number of dilemmas are likely to face those charged with developing an NSDS (Dalal-Clayton *et al.* 1994): Some of these include:

■   *The political context* (e.g. structural constraints and inequalities in national and local power structures) will greatly influence how a strategy can be developed and implemented, how values can be defined and/or expressed, and how choices can be made. Some issues that a strategy might have to address are likely to be highly politically charged, e.g. land ownership, environmental degradation and poverty.

■   *Setting the objective(s):* different groups are likely to want to achieve different objectives by preparing a strategy. For a strategy to be effective, the constituency needs to agree on the objectives, and these should determine the process, not the reverse of this (as has often happened).

■   *Building strategic capacity*: sustainable development needs an interdisciplinary approach that aims to integrate environmental, social and economic objectives. Achieving such a balanced approach (rather than concentrating on just one dimension) is a major challenge. Past experience suggests that the capacity of agencies, communities and other groups to think and work strategically is at least as important as the strategy exercise or plan itself.

■   *Establishing the scope of a strategy:* finding a balance between local, national and international issues, between national and regional strategies, and between national and local strategies (e.g. local Agenda 21s) (determining which strategy takes precedence); and focusing on how to tackle controversial and uncertain boundary issues (e.g. "ecological footprints", "environmental space").

■   *Multiple national strategies:* reconciling conflicts, confusion, overlaps (in time, scope and content) when more than one national strategy is undertaken (in some countries, a sustainable development strategy, environmental action plan, green plan and/or other similar initiative have been developed concurrently).

■   *Consultation versus participation:* who are the "stakeholders" in a strategy process ? who should be involved and when ? what should they be involved with ? who should be targeted ?; balancing the benefits and risks of public participation - this issue is perhaps one of the most difficult challenges.

■   *Choosing approaches and methodologies:* whether and how to adopt and promote new ways of thinking and practice to accelerate participation, community-self-reliance, and institutional change to handle holistic concepts and uncertainties that an NSDS may require.

The recent work of IIED and IUCN on strategies drew from numerous case studies and from experience discussed at several regional workshops (Carew-Reid *et al.* 1994). It has enabled a number of *key lessons and guiding principles* to be identified (Box 1).

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**Box 1: Key Lessons and Guiding Principles for
National Sustainable Development Strategies**

■   National sustainable development strategies are cyclical processes of planning and action in which the emphasis is on managing progress towards sustainability goals rather than producing a "plan" or end product.

■   It is crucial to focus on priority issues, and identify key objectives, targets and means of dealing with them.

■   They must be genuinely multi-sectoral and integrative, aimed at engaging relevant interests and overcoming institutional and policy fragmentation.

■   "Widest possible participation" means sharing responsibility and building partnerships among all concerned - business, community and interest groups, as well as governments - but only where the partners feel it is appropriate.

■   The approach taken must be adaptive and flexible, recognising that problems are characterised by complexity and uncertainty, and policy responses and technological capability change over time.

■   Monitoring, evaluation and learning from experience are keys to a successful strategy, and must be an integral part of the process.

■   The preparation of an NSDS is an exercise in capacity-building, and should be organised to enhance institutional arrangements, sharpen concepts and tools, foster professional skills and competence, and improve public awareness.

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

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This paper draws from a recent programme of research which has considered how industrial countries have addressed the dilemmas listed above, examines other difficulties they have faced, and discusses the principles identified in Box 1 in relation to their experience (Dalal-Clayton, 1996). It focuses on 20 recent strategy or green planning initiatives undertaken in 12 industrial member countries of the Organisation for Economic Cooperation and Development (OECD) and in two countries in Eastern Europe, and examines the European Union's Fifth Environmental Action Programme - its attempt to develop a sustainable development strategy (see Table 1).

Approaches and Stimuli

Analysis reveals a range of different approaches that have characterised the development and implementation of green plans and strategies in industrial countries (Table 2).

Since the 1972 UN Conference on the Human Environment in Stockholm, there has been increasing acceptance of the importance of environmental issues. The landmark report of the World Commission on Environment and Development, commonly called the Brundtland Commission (WCED 1987) had a profound influence on governments in the North and South alike. It promoted closer links between environment and development and emphasised issues of

Table 1: Strategy Processes in Selected Industrialised Countries

Country	Strategy	Proponent
Australia	National Strategy for Ecologically Sustainable Development (ESD) (CoA, 1992)	Environment Strategies Directorate, Dept Environment, Sport and the Territories
Canada	Projet de société (Development began '92, final draft June '95) (Projet de société, 1995a)	National Round Table on the Environment and the Economy
Canada	Green Plan (operational 1990-1996) (Govt. of Canada 1990)	Environment Canada
Denmark	Nature and Environment Policy Plan (initiated June '94, published Aug '95) (DanMoE, 1995)	Ministry of the Environment and Energy
European Union	Fifth Environmental Action Programme (initiated March '92, approved Feb '93) (CEC, 1992)	Environment Directorate General, European Commission
France	Plan National pour l' Environnement (PNE) (1990 -) (French MoE, 1990a,b,c)	Ministry of the Environment
France	Key issue studies (FCSD, 1995)	French Commission for Sustainable Development (estab. 1994)
Latvia	National Environmental Policy Plan (NEPPL) (approved 1995) National Environmental Action Plan (Work began Nov '94, due Oct '95)	Ministry of Environmental Protection and Regional Development
The Netherlands	National Environmental Policy Plan: NEPP (VROM, 1989); NEPP+ (VROM, 1990); NEPP2 (VROM 1993)	Ministry of Housing, Physical Planning and Environment (VROM)
The Netherlands	Action Plan Sustainable Netherlands (Milieudefensie, 1992)	Milieudefensie (Friends of the Earth Netherlands)
New Zealand	Resource Management Act (RMA) (NZMfE, 1991); Environment 2010 Strategy (adopted July '95)(NZMfe, 1995)	Ministry for the Environment
Norway	Reports to Parliament: on WCED follow-up (NorMoE, 1989) and on UNCED (NorMoE, 1992)	Ministry of the Environment
Poland	National Environmental Policy (NEP) (approved by Council of Ministers 1990, accepted by Parliament '91) (PolMeP, 1990); Implementation Plan (to year 2000) (PoLMEP, 1994)	Ministry of Environmental Protection, Natural Resources and Forestry

Table 1: Continued:

Country	Strategy	Proponent
Sweden	Towards Sustainable Development in Sweden. Govt. Bill (adopted '94) (SwedMoE, 1994)	Ministry of the Environment
Sweden	An Environmentally Adapted Society: Action Programme: Enviro 93 (SwedEPA, 1993)	Swedish Environmental Protection Agency
UK	Strategy for Sustainable Development (HMSO, 1994)	Department of the Environment
USA	Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future (PCSD, 1996) (presented to the President March '96)	President's Council on Sustainable Development
USA	National Environmental Goals Project (estab.1992; completion due '95) (USEPA, 1994)	Environmental Protection Agency

Source: Dalal-Clayton (1996)

social and economic sustainability. The 1992 UN Conference on Environment and Development (UNCED) was organised mainly in order to respond to the challenges set out in the Brundtland Commission report.

Many nations have responded to Agenda 21 by developing national sustainable development strategies to meet its objectives. In some cases, governments responded by developing new strategies or reports/bills for parliaments. For example, immediately after UNCED, Norway prepared a report to parliament on UNCED and its implications for the country (*Report No.13 to the Storting* (NorMoE, 1992), whilst Sweden developed and submitted a Bill to parliament (*Towards Sustainable Development in Sweden* (SwedMoE, 1994) on implementing the resolutions of UNCED. Intention to publish a *UK Strategy for Sustainable Development* (HMSO, 1994) was announced by Prime Minister Major at UNCED and the document was published in January 1994. More recently published strategies include Denmark's *Nature and Environment Policy* (DanMoE, 1994), and the USA's *Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future* (PCSD, 1996).

In other cases, independent initiatives have been established (e.g. Canada's Projet de société facilitated by the National Round Table on the Environment and the Economy; the Action Plan for Sustainable Netherlands prepared by Milieudefensie - Dutch Friends of the Earth).

In many countries, a national Commission for Sustainable Development (CSD) has been established, mirroring the UN CSD. Their purpose is mainly to address sustainable development issues in their respective countries. According to Silveira (1995), "since 1992, over 130 countries

Table 2: Strategy Characteristics Compared

	Australia	Canada Projet	Canada G.Plan	Denmark	European Union	France PNE	France FCSD
RESPONSE							
Preceded UNCED	yes	no	yes	no	yes	yes	no
Response to UNCED	no	yes	no	yes	no	no	yes
Response to public concern for the environment	yes	no	yes	no	partly	yes	no
GOVERNMENT/PARLIAMENT							
Official government mandate	yes	yes	yes	yes	yes	yes	yes
High-level government commitment	yes	?	yes	yes	yes	yes	yes
Formally reported to Cabinet	yes	no	yes	yes	N/A	?	no
Formally presented to parliament	no	no	yes	?	yes	yes	no
Led to legislative changes	yes	no	yes	?	yes	yes	no
Led to institutional changes	yes	no	?	?	yes	yes	no
FOCUS							
Environment focus	no	no	yes	yes	yes	yes	no
Sustainable development focus	yes	yes	no	no	yes	no	yes
Concerned mainly with federal areas of responsibility	yes	no	yes	no	N/A	no	no
Set target time horizon(s)	no	no	yes	no	yes	yes	yes
Focus on special issues studies	no	no	no	no	no	no	yes
LINKS							
Directly linked to budget process	no	no	yes	no	no	?	no
Linked to mainstream national planning	no	no	yes	yes	no	yes	no
Formal link with other national strategies	yes	no	no	yes	no	no	no
Influenced by regional strategies	no	yes ?	yes	yes	no	?	no
Formal link with provincial/state strategies	yes	no	no	no	no	no	no
Promoted/supported local Agenda 21s	yes	?	no	yes	yes	yes	no
Developed independent from Convention strategies	yes	yes	yes	yes	yes	yes	yes
PROCESS							
Independent process	no	yes	no	no	no	no	no
Continuing (cyclical) process	yes	yes ?	no	yes	yes	no	?
Cross-govt./inter-departmental process	yes	no	yes	yes	N/A	yes	no
Undertaken exclusively within single ministry	no	no	no	no	mainly	no	no
PARTICIPATION							
Extensive stakeholder participation	yes	yes	no	no	no	no	no
Consultation with industry/NGOs/public	yes	yes	yes	no	some	yes	yes
Mainly internal government exercise	no	no	yes	yes	yes	yes	no

Table 2: Continued

	Latvia NEPP/NEAP	Netherlands NEPP	NEPP2	Netherlands Action Plan	New Zealand Res.Man.Act	Envir.2010	Norway Rep 46	Rep 13
RESPONSE								
Preceded UNCED	no	yes	no	yes	yes	no	yes	no
Response to UNCED	?	no	part	part	no	no	no	yes
Response to public concern for the environment	no	yes	no	no	partly	no	no	no
GOVERNMENT/PARLIAMENT								
Official government mandate	yes	yes	yes	no	yes	yes	yes	yes
High-level government commitment	?	yes	yes	no	yes	yes	yes	yes
Formally reported to Cabinet	yes	yes	yes	no	yes	?	yes	yes
Formally presented to parliament	no	?	yes	no	yes	?	yes	yes
Led to legislative changes	no	yes	?	no	yes	?	yes	no
Led to institutional changes	no	?	?	no	yes	?	?	no
FOCUS								
Environment focus	yes	yes	yes	no	yes	mainly	yes	no
Sustainable development focus	no	part	part	yes	partly	partly	part	yes
Concerned mainly with federal areas of responsibility	no	---	---	---	no	no	no	no
Set target time horizon(s)	yes	yes	yes	yes	no	yes	no	no
Focus on special issues studies	no	no	no	no	no	no	no	no
LINKS								
Directly linked to budget process	no	?	yes	no	no	yes	yes	no
Linked to mainstream national planning	no	?	yes	no	yes	yes	yes	no
Formal link with other national strategies	no	no	no	no	no	yes	no	no
Influenced by regional strategies	yes	---	---	no	no	no	yes	no
Formal link with provincial/state strategies	no	---	---	no	no	no	no	no
Promoted/supported local Agenda 21s	no	no	yes	no	no	yes	yes	no
Developed independent from Convention strategies	no	yes	yes	yes	yes	yes	yes	yes
PROCESS								
Independent process	no	no	no	yes	no	no	no	no
Continuing (cyclical) process	yes	yes	yes	no	no	yes	no	no
Cross-govt./inter-departmental process	yes	yes	yes	---	yes	yes	yes	yes
Undertaken exclusively within single ministry	no	no	no	---	no	no	no	no
PARTICIPATION								
Extensive stakeholder participation	no	no	part	no	yes	no	no	no
Consultation with industry/NGOs/public	yes	no	yes	no	---	yes	yes	no
Mainly internal government exercise	yes	yes	no	no	no	no	yes	yes

Table 2: Continued:

	Poland NEP	Sweden Gov.Bill	Sweden Enviro.93	United Kingdom	USA PCSD	USA Env. Goals
RESPONSE						
Preceded UNCED	yes	no	Yes	no	no	no
Response to UNCED	no	yes	No	yes	yes	no
Response to public concern for the environment	yes	partly	No	no	?	no
GOVERNMENT/PARLIAMENT						
Official government mandate	yes	yes	Departmental	yes	yes	set by EPA
High-level government commitment	?	yes	No	yes	?	?
Formally reported to Cabinet	yes	yes	No	yes	not yet	not yet
Formally presented to parliament	yes	yes	No	yes	not yet	? summer 95
Led to legislative changes	yes	yes	No	no	not yet	not yet
Led to institutional changes	?	not yet	No	limited	not yet	not yet
FOCUS						
Environment focus	mainly	yes	Yes	no	no	yes
Sustainable development focus	some	yes	---	yes	yes	no
Concerned mainly with federal areas of responsibility	no	no	no	no	?	? yes
Set target time horizon(s)	yes	yes	yes	yes	?	yes
Focus on special issues studies	no	no	yes	no	yes	yes
LINKS						
Directly linked to budget process	no	no	no	no	no	EPA budget
Linked to mainstream national planning	no	yes	no	no	no	no
Formal link with other national strategies	no	no	no	no	no	no
Influenced by regional strategies	yes	some	yes	no	no	? no
Formal link with provincial/state strategies	no	no	no	no	no	no
Promoted/supported local Agenda 21s	no	yes	yes	financial support	no	no
Developed independent from Convention strategies	yes	yes	yes	yes	yes	yes
PROCESS						
Independent process	no	no	no	no	no	no
Continuing (cyclical) process	no	yes	no	no	?	?
Cross-govt./inter-departmental process	some	yes	yes	yes	no	some
Undertaken exclusively within single ministry	mainly	no	no	no	no	mainly EPA
PARTICIPATION						
Extensive stakeholder participation	no	no	no	no	partly	no
Consultation with industry/NGOs/public	some	yes	no	yes	yes	limited
Mainly internal government exercise	yes	yes	yes	yes	no	yes

have established some form of structure to follow-up Rio Agreements and more than 50 countries have initiated official participatory mechanisms to formalize social participation and promote a multi-sectoral dialogue." Regardless of the names they have been given (Council, Commission, Forum, Round Table, etc.) these National Councils for Sustainable Development generally comprise a panel of appointed persons eminent in their fields (i.e. academics, experts, business leaders, heads of influential organisations, etc.). In the USA, the Presidential Commission on Sustainable Development (PCSD) was established by President Clinton in 1993 and published its national action strategy in March 1996. The French Commission for Sustainable Development (FCSD) was decreed in 1992 but only became active in 1994. Its early work concentrated on preparing reports reflecting on selected key issues for sustainable development. In October 1995, it was announced that a National Strategy for Sustainable Development will be developed by the Ministry of the Environment during 1996 under the guidance of the Prime Minister. The FCSD will also play a full part in this process.

To date, four regional meetings of National Councils or similar entities have been held: Inter-American, October 1994; European, January 1995; African, May 1995; and Asian, June 1995. The European Conference of the National Commissions on Sustainable Development was hosted by France at Courchevel, and attended by representatives from 25 industrial countries. Participants shared experiences and views. The report of the conference (Commissariat Général du Plan, 1995) provides a useful synthesis of challenges and issues perceived by CSDs and an annex outlining work of the Commissions attending.

Whilst UNCED gave new impetus to addressing sustainable development, many industrial countries were already engaged in some form of green planning to deal with pressing environmental problems. Such initiatives were frequently, in some measure, a response to growing public pressure for action to address serious environmental concerns. For example, in the Netherlands, the first *National Environmental Policy Plan* (NEPP) was initiated in 1987, partly in response to public demand for a more active government role following the Chernobyl accident and because of domestic scandals concerning soil pollution. It was an integrated initiative, shifting from a sectoral to a theme-based approach to environmental planning and management dealing with a range of source and process themes. The New Zealand *Resource Management Act* (1991) was developed to rationalise severe inequities in the way that environmental management operated across different sectors, partly as a response to concerns raised by environmental and industrial groups. Similarly, the Australian government's initiation of the process to develop the *National Strategy for Ecologically Sustainable Development* (CoA, 1992) was triggered to a significant extent by domestic public pressure to sort out issues concerning resource use and environment-development conflicts encountered by successive governments (e.g. the construction of the Franklin dam in Tasmania, and mining in Kakadu National Park). In Canada, political demand for the *Green Plan* (Govt. of Canada, 1990) grew out of increased environmental awareness in the late 1980s, and public concern following accidents involving oil spills and PCB fires, and a series of high-profile controversies over the environmental assessment of major projects (Toner 1994). The ruling Conservative Party sought to turn this environmental concern to its advantage by taking action and gaining electoral support. The European Union's Fifth Environmental Action Programme, also called the "*Towards Sustainability*" strategy, was conceived as a response to the report of the Brundtland Commission (WCED 1987) and in preparation for UNCED.

Many recent green planning initiatives in the countries of Central and Eastern Europe (CEE) have been guided by the Environmental Action Programme (EAP) for Central and Eastern Europe, endorsed in April 1993 by European environment ministers meeting in Lucerne. The EAP aims to assist CEE countries transform their systems of environmental protection, which were strongly influenced by their former centrally-planned economic systems, through the adoption of market instruments to control pollution. In a recent report, the Regional Environment Center for Central and Eastern Europe has assessed progress made by 12 CEE countries in adopting National Environmental

Action Plans/Programmes (NEAPs) (REC 1995). To a large extent, these NEAPs have been developed to demonstrate commitment to reversing environmental degradation in order to attract investment and donor assistance. The REC report identifies two main and contrasting trends which have emerged that illustrate the position of environmental issues relative to economic and social problems in the CEE countries:

■ In some countries (Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Poland and Slovakia), the public and government concern for environmental issues was very high, but has decreased over the past four years and been replaced by concern about economic and social issues. This process is seen as an adjustment in attitude due to economic hardship. However, it is not an indication that these countries have solved earlier identified environmental problems.

■ In other countries (Albania and the FYR Macedonia), environmental problems have only recently gained some attention. This is due to the increased availability of information demonstrating the relationship between the environment, human health and the economy. Important environmental issues are still under-evaluated and need to be recognised and addressed properly.

As the report makes clear:

Both trends point to the complex task that lies ahead as the CEE countries identify and prioritize development goals and environmental issues during the transition period. Their ability to effectively address these environmental issues depends not only on the level of public support, but also on the ability of each environmental administration to act (REC 1995).

The development of Poland's *National Environment Policy* (PolMEP, 1990) preceded the EAP and was the result of a series of events connected to the political changes in the country, growing awareness of the severe environmental damage suffered during the Communist period, and pressure for radical policy reform.

Other pre-UNCED strategies had less to do with public environmental concerns. For example, the French *Plan National pour l'Environnement* (French MoE, 1990) was developed mainly in order to strengthen (through re-organisation) the structure of the Ministry of Environment and to give weight to environmental policy. Norway's preparation of *Report No.46 to the Storting* on follow-up to the World Commission on Environment and Development (NorMoE, 1989) probably had much to do with Mrs Brundtland (the Norwegian Prime Minister) having chaired the Commission. Work on *Enviro 93*, the 1993 action programme of the Swedish Environmental Protection Agency, began in 1991 as an internal agency assessment of trends in the state of the environment undertaken to show how individual sectors would need to respond in developing their own sectoral environmental action plans and programmes.

However, many of those strategies and equivalent green planning exercises which commenced before UNCED were undoubtedly influenced by it subsequently in one way or another. Agenda 21 has also influenced those strategies which are effectively revisions of past strategies or which build on past initiatives. For example, in New Zealand, development of the *Environment 2010 Strategy* was initiated in 1994 in order to set out a broader vision following the micro reforms introduced by the 1991 Resource Management Act. In preparing for their inputs to this strategy and for related initiatives, most government departments analysed the significance of Agenda 21 for their policies and activities, even though drawing only broad implications. Equally, development of the Netherlands second National Environmental Policy Plan (NEPP2) was started in mid-1992 and was able to take into account the messages and lessons in Agenda 21.

Focus of Green Plans and Strategies

Of the 21 case studies covered in this study, only eight are concerned specifically with defining national agendas for and responses to the challenge of sustainable development *per se*, whilst a further five focus partly on sustainable development issues. Over half are concerned exclusively or dominantly with environmental issues and often they have been strongly influenced by a need to respond to growing public pressure to 'do something' about the environment. Whilst these distinctions may be useful, in reality there is a continuum of approaches, and environmental plans and strategies can evolve to become sustainable development strategies with time.

In trying to deal with sustainable development, a range of different approaches are evident. For example, in Australia, the concept of ecologically sustainable development has been the main focus. The Canadian Projet de société devised innovative choicework tables to address trade-off issues (Table 3). In the USA, the President's Council for Sustainable Development has developed principles for sustainable development which aim to integrate environmental, social and economic goals and objectives (Box 2). The Dutch Friends of the Earth pioneered the concept of 'environmental space' (Box 3), whilst the UK Strategy cautiously raises the concept of 'ecological footprints' (also Box 3) - but without resolving the government's view.

Environmental strategies have generated a broad range of responses. For example, the Canadian Green Plan (1990-1996) - arguably the 'mother' of green planning - was primarily concerned with environmental decision-making and was an action plan to address specific issues (e.g. climate, fisheries). The various Dutch National Environmental Action Plans (NEPP 1989, NEPP+ 1990, and NEPP2 1993) concerned themselves with a range of environmental source and process themes (e.g. acidification, waste disposal) and set environmental targets. The USA EPA's environmental goals projects sets goals around environmental targets as well. Norway introduced the idea of a 'green budget'. Some countries have instituted periodic environmental progress reports (e.g. Denmark). The French Plan National pour l'Environnement provided a vehicle for reform of public administration of environmental management, whilst Poland's National Environmental Policy aimed at 'green reconstruction' of particular economic sectors. Sweden's Enviro 93 programme also aims to shift environmental responsibilities to sectors.

Duration, Time Frames, Mandates and Management Approaches

The duration of strategy processes has varied between about six months and three years (Table 4) and most have adopted or been based on some time frame for the visions they contain or for implementation of actions (Table 5). Usually, strategies initiated by governments have had some form of official mandate or terms of reference issued by the Head of Government or a Minister, or drawn up by civil servants and endorsed subsequently by government.

Few strategy documents describe the process by which they were developed. Australia's National Strategy for Ecologically Sustainable Development is a notable exception. A wide range of mechanisms were established by governments for the development and management of the green plan and strategy processes reviewed. Examples include: core teams; steering committees; cross-

Table 3: Example of Choicework Table

Some examples of choices that could be considered	Timing Duration Impact	Costs: $ Environ. Social	Benefits $ Environ. Social	Some consequences	Partnerships	Responsibilities	Consensus levels
Replace vehicle registration fees with "feebates": rebates for efficient vehicles; fees for inefficient vehicles	months years xx	$ ss	$ eeee sss	Would increase efficiencies and ensure that the polluter pays	Car dealers	P	?
Negotiate covenants with insurance industry to facilitate car pooling and sharing and pay-at-pump insurance	months years xx	$$ ss	$$ eee sssss	Higher vehicle occupancy; more jobs in car leasing industry; fairer distribution of insurance costs	Commuters and insurance industry	F P B	?
Reduce the deficit through dedicated increases in excise taxes on fossil fuels	months decades xxxxxx	$ sss	$$$$ eeeeee ssss	Would take advantage of concern over deficit to reduce CO_2 emissions and respect UNCED commitments	Public transport and car servicing industry	F	?

Legend

Timing: Time it would take to implement choice. **Duration**: Period during which the impact is felt. **Impact**: x = low impact; xxxxx = high impact. **Cost**: $ = low monetary cost; eee = medium environmental cost; ssssss = high social cost. **Benefits**: $$$$$$ = high monetary benefits; eee = medium environmental benefits; s = low social benefit. **Responsibilitites**: F = federal; P = provincial; M = municipal; B = business; C = civil society.

Source: Projet de société (1995a)

**Box 2: USA National Goals Towards Sustainable Development
and Example Indicators of Progress**

Goal 1 **Health and the Environment**: Ensure that every person enjoys the benefits of clean air, clean water, and a healthy environment at home, at work, and at play.

Clean Air: Decreased number of people living in areas that fail to meet air quality standards.
Diseases and mortality: Decrease in diseases and deaths from environmental exposures, including occupationally related illnesses.

Goal 2 **Economic Prosperity**: Sustain a healthy U.S. economy that grows sufficiently to create meaningful jobs, reduce poverty, and provide the opportunity for a high quality of life for all in an increasingly competitive world.

Employment: Increases in the number, wage level, and quality of jobs (as measured, for example, by the percentage of jobs at or below minimum wage).
Poverty: Decreased number of people living below the poverty line.

Goal 3 **Equity**: Ensure that all Americans are afforded justice and have the opportunity to achieve economic, environmental, and social well-being.

Environmental equity: Development of any disproportionate environmental burdens (such as exposure to air, water, and toxic pollution) borne by different economic and social groups.
Social equity: Development of measures of access to critical services (such as education, health care and community services), and opportunities to participate in decision-making by different economic and social groups, such as the percentage of these populations attending college.

Goal 4 **Conservation of Nature**: Use, conserve, protect and restore natural resources - land, air, water and biodiversity - in ways that help ensure long-term social, economic and environmental benefits for ourselves and future generations.

Habitat loss: Development of measures of threats to habitat loss and the extent of habitat conversion, such as the rate of wetlands loss.
Ecosystems: Increased percentage of forests managed to reach full maturity and diversity.

Goal 5 **Stewardship**: Create a widely held ethic of stewardship that strongly encourages individuals, institutions and corporations to take full responsibility for the economic, environmental and social consequences of their actions.

Waste reduction: Increased source reduction, reuse, recovery and recycling.
Energy efficiency: Reduced energy intensity (energy per unit output).

Goal 6 **Sustainable Communities**: Encourage people to work together to create healthy communities where natural and historic resources are preserved, jobs are available, sprawl is contained, neighbourhoods are secure, education is lifelong, transportation and health care are accessible, and all citizens have opportunities to improve the quality of their lives.

Safe neighbourhoods: Decrease in violent crime rates.
Shelter: Decreased number of homeless people by community.

Goal 7   **Civic Engagement**: Create full opportunity for citizens, businesses and communities to participate in and influence the natural resource, environmental and economic decisions that affect them.

Public participation: Increase in the percentage of eligible voters who cast ballots in national, state and local elections.
Citizen participation: Increase in community participation in such civic activities as professional and service organizations, parent-teacher associations, sporting leagues, and volunteer work.

Goal 8   **Population**: Move toward stabilization of U.S. population.

Population growth: Reduced rate of population growth in the United States and the world.
Status of women: Increased educational opportunity for women; increased income equality for equivalent work.

Goal 9   **International Responsibility**: Take a leadership role in the development and implementation of global sustainable development policies, standards of conduct, and trade and foreign policies that further the achievement of sustainability.

International assistance: Increased level of U.S. international assistance for sustainable development, including official development assistance (federal money).
Environmental technology exports: Increased U.S. exports or transfers of cost-effective and environmentally sound technologies to developing countries.

Goal 10   **Education**: Ensure that all Americans have equal access to education and lifelong learning opportunities that will prepare them for meaningful work, a high quality of life, and an understanding of the concepts involved in sustainable development.

Information access: Increased number of communities with infrastructure in place that allows easy access to government information, public and private research, and community right-to-know documents.
National standards: Increased number of school systems that have adopted K-12 voluntary standards for learning about sustainable development similar to the standards developed under the National Goals 2000 initiative.

Source: PCSD (1996).

government negotiations; representative Councils and Fora involving senior figures from industry, academics, NGOs, etc.; advisory groups and roundtables; informal meetings; working papers released for public comment; seminars, workshops and public meetings; drafting teams; Cabinet scrutiny; and, in a few cases, parliamentary approval.

Non-governmental or independent strategies tend to adopt additional, and more innovative, pproaches including: a Secretariat performing a 'facilitating' role rather than coordinating/directing affairs; participatory stakeholder round tables; and assemblies deciding directions and taking decisions; and inputs by volunteers.

Box 3: Environmental Space and Ecological Footprints

In its "Action Plan for a Sustainable Netherlands" published in April 1992, the Dutch Friends of the Earth, Milieudefensie, made a rough calculation of available per capita global carrying capacity (or 'environmental space') for key energy, water, raw materials and arable land resources. It then identified the cuts in current consumption levels necessary in the Netherlands to return to sustainable levels by 2010: these ranged from 40 per cent for fresh water to 80 per cent for aluminium use. As a result of these and other calculations, the Dutch government was one of the few at Rio to acknowledge that it could only sustain its lifestyle by exploiting the carrying capacity of other countries (VROM, 1991).

The parallel concept of 'ecological footprints' was coined by William Rees to describe the tendency of urban areas "through trade and natural flows to appropriate the carrying capacity of distant elsewheres". Looking specifically at the Lower Fraser Valley of British Columbia, Canada, Rees found that the land area required to support the community (in other words, its 'ecological footprint') was at least 20 times the land it occupies. Looking at the issue from a Southern perspective, Anil Agarwal at the Centre for Science and Environment in India has estimated that the total biomass currently exported from the developing world to industrialised countries is 10 times greater than during the colonial period (Weiszacker, 1994). These exports of carrying capacity do not necessarily pose a problem if they are drawing on true ecological surpluses, and if enough remains for meeting local needs. Currently, there is no guarantee that trade flows are really based on these principles.

Table 4: Duration of Strategy Preparation

Australia, NESDS	c.18 months (August 1990- December 1992)
Canada, Projet de société	c.3 years (1992-95)
Canada, Green Plan	18 months (1989-90)
Denmark, Nature & Envir.Policy Plan	1 year (June 95- June 95)
European Union: Fifth EAP	18 months (mid 1991 - Feb 1993)
France, PNE	6 months (1989)
France CSD	open process (1994 -)
Latvia, NEPPL	18 months (Dec '93 - April '95)
Latvia, NEAP (NEPPL implem.prog)	c.1 year (Nov '94 - Oct '95)
Netherlands, NEPPs	NEPP c.2 years (19878-1989);
	NEPP+: c.5 months (revision in 1990);
	NEPP2: c.1 year (mid 1992 - Sept 1993)
Netherlands, Action Plan: Sust Neth.	2 years (1991-1993)
New Zealand, RMA	3 years (1988-91)
New Zealand, Envir.2010	1 year (Oct 1994-Sept 95)
Norway, Rep 46	2 years (1987-89)
Norway, Rep 13	6 months (1992)
Poland, NEP	< 1 year (1990)
Sweden, Gov.Bill	< 1 year (spring - Dec 1993)
Sweden, Enviro 93	c.18 months (autumn 1991 - summer 1993)
UK, Sust Dev Strategy	c.9 months (Spring 1993 - Jan 1994)
USA, PCSD	ongoing (June 1993 -)
USA, Envir Goals Project	c. 3 years (1992- summer 1995)

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Table 5: Strategy Time Frames

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Australia, NSESD (1992)	No set time frame
Canada, Projet de société (1995 draft)	No set time frame
Canada, Green Plan (1990)	6 year implementation programme (1990-1996), but many targets had 10 year perspective.
Denmark, Nature & Envir.Policy Plan (1995)	Short-term and long-term visions
European Union, Fifth EAP (1993)	Long-term perspective, with short-term performance targets for 2000
France, PNE (1990)	10 years (1990-2000)
France, CSD (est. 1994)	No set time frame
Latvia, NEPPL (1995)	Long-term (20-30 years)
Latvia, NEAP (NEPPL implementation prog)	Short-term (1-5 years, from 1995)
Netherlands - NEPP (1989)	Meet sustainability goal by 2010 (or 2000 for some objectives)
- NEPP+ (1990)	Ditto
- NEPP2 (1993)	Ditto, plus state of environment report (1993-2010), four year plan, and annual rolling 3-yearly environment prog.
Netherlands, Action Plan: Sust Neth (1992)	Vision of sustainable Netherlands in 2010
New Zealand, RMA (1991)	No set time frame
New Zealand, Envir.2010 (1995)	Rolling review every 4-5 yrs
Norway, Rep 46 (1989)	No set time frame
Norway, Rep 13 (1993)	No set time frame
Poland, NEP (1990)	Short-term priorities (3-4 yrs), medium-term (10 yrs, until 2000); long-term (20-25 yrs, until 2020) Implementation plan to 2000
Sweden, Gov.Bill (1994)	Actions during 1994-1997, + long-term objectives
Sweden, Enviro 93	Perspective to 2000
UK, Sust Dev Strategy	20 years (to 2012) (longer for some issues)
USA, PCSD	?
USA, Envir Goals Project	Targets for 2005

Participation

The more open green plans and strategies (e.g. Australia's *National Strategy for Ecologically Sustainable Development*, New Zealand's *Resource Management Act*, the Canadian *Projet de société*) have experimented with different approaches to participation including: stakeholder roundtables, providing financial support to enable NGOs to become involved, funding NGOs to undertake commissioned work, involving target groups, and adopting traditional approaches (e.g. in New Zealand, traditional *hui* were used for meetings with Maori organisations). The Canadian Projet de société arguably represents the most participative national-level strategy process so far attempted. It was developed as a consensus process involving over 80 businesses, government and independent organisations in a National Stakeholders' Assembly. In an assessment of the Canadian round table experience, Ronald Doering, former Executive Director of the Canadian National Round Table on the Environment and the Economy (NRTEE), noted that multistakeholder processes:

> have been important experiments in policy-making and public administration. Their role is essentially transitional and catalytic; they support rather than replace elected bodies. With all their flaws, and while still generally marginal to core policy-making, Canadian round tables are common sense partnerships (Projet de société, 1995b).

The main benefits of the round table approach tend to be in the various forms of consensus achieved. The Canadian NRTEE has issued consensus principles which have been widely used (NRTEE, 1993):

1 Purpose-driven (people need a reason for participation)
2 Inclusive, not exclusive (as long as parties design the process)
3 Voluntary participation
4 Self-design (the parties design the process)
5 Flexibility
6 Equal opportunity (in access to information and participation)
7 Respect for diverse interests (and different values and knowledge)
8 Accountability (to parties both within and outside the process)
9 Time limits (realistic deadlines)
10 Commitment to implementation and monitoring

But most green planning and strategy processes in industrial countries have adopted a 'consultative' approach in which participants are restricted to listening and providing information (through public inquiries, media activities, telephone "hot-lines", etc.) or are consulted (e.g. through working groups and meetings held to discuss plans and policies). They have little effective say in building consensus on the main strategy elements or in decision-making on the policy, strategy or its components. In the Netherlands, the NEPP2 process placed great emphasis on persuading target groups to 'participate' in discussing what changes they should make and to become involved in monitoring implementation. This led to the agreement between industry and government of innovative Covenants to help meet NEPP targets, as complements to existing legislation (Box 4).

A number of plans and strategies have been developed dominantly as internal government processes, for example, in Western Europe, Denmark's 1995 *Nature and Environment Policy* and Sweden's Bill 1993/94.111, and, in Eastern Europe, Poland's National Environmental Policy. It needs to be added, however, that after decades of central planning, the governments of the countries of Central and Eastern Europe are not oriented towards people's participation. At the same time, the publics are not accustomed to 'participating' in government decision-making.

Links to Other Strategy and Planning Processes

Within individual countries, some of the national green plans and sustainable development strategies covered by this study are linked to each other, or have links with other planning processes. e.g. regional strategies and convention-related strategies. For example, in North America, Canada's Green Plan interfaced with various regional initiatives, e.g. the Circumpolar Conservation Strategy, the North American Free Trade Agreement, etc. In contrast, in 1993, driven by the European Union's need to provide a strategic response to the 1987 Brundtland Report and to detail the implications of the provisions of the 1992 Treaty of European Union, the EU launched its efforts to develop a strategy for sustainable development - the Fifth Environmental Action Plan, *'Towards Sustainability'*. This built on a series of previous five-yearly environmental action plans, but there has been no attempt to coordinate or interface with national green planning and strategy exercises.

The issue of linking up strategic efforts at the EU level with national and local initiatives has proved highly sensitive. The European Commission was aware of national planning initiatives, particularly in France, the Netherlands and the UK. It was particularly influenced by the Dutch

Box 4: Covenants in the Netherlands

Covenants are generally seen as complements to existing legislation rather than as alternatives; they have a special role in meeting NEPP targets. While authorities still prefer to use laws and regulations to exercise control, covenants are used to speed up environmental improvements pending legislation, if there are too many uncertainties regarding the content of legislation to be drafted, if government intervention is needed only temporarily, or if covenants are likely to be less costly in terms of implementation or enforcement. Some 26 environmental covenants have been signed between the Government and industry, dealing, *inter alia,* with products, packaging, waste, and emissions in general. Since the advent of the NEPP, the focus has changed from products and packaging to production of waste and emissions.

The main requirements for covenants between industry and the central Government were recently laid down in a *provisional code* covering procedural arrangements (especially information to politicians) and the content of covenants (objectives, requirements, period of validity, consultation, monitoring of compliance, evaluation, settlement of disputes, etc.). The legal status of the covenants is generally that of an agreement under private law. If need be, the authorities can turn to the civil courts for enforcement. Consultation started in 1990 on environmental policy guidelines for the construction industry. After three years of discussion, the Government and the industry adopted key objectives and signed an Environmental Policy Plan:

Covenant with the construction industry (policy lines and selected targets)

A   Reduction in use of non-renewable raw materials:
          - 2.5 per cent reduction by 2000 and 5 per cent by 2005 with respect to 1990.

B   Stimulation of reuse of raw materials:
          - Reuse of construction and demolition waste to rise from 60 per cent in 1990 to 90 per cent in 2000.

C   Reduction in volume and separate collection of construction and demolition waste:
          - 5 per cent quantitative of demolition waste in 2000.
          - 80 per cent of demolition operations to use selective demolition techniques and separate collection by 1996.

D   Stimulation of use of renewable resources:
          - Tropical hardwood to be used only from sustainably-managed forests from 1995.
          - Use of non-tropical wood to increase by 20 per cent between 1990 and 1995.

E   Reduction of use of harmful materials and substances:
          - At least 50 per cent of paint used by construction industry to be low solvent paint by 1995.
          - Emissions of polycyclic aromatic hydrocarbons (PAH) to be reduced by 50 per cent in 1995 with respect to 1990 levels.

F   Promotion of energy saving heating systems and water efficient installations in new and renovated buildings:
          - Energy consumption of buildings to be decreased by 8 per cent by 1995 with respect to 1989/90.
          - Water efficient installations to be fitted in defined per cent of new and renovated buildings by 1995 (e.g. 50 per cent with water-saving shower heads).

Considerable progress has already been achieved concerning some of the targets. For instance, recycling of construction waste has reached about 60 per cent.

Source: OECD (1995b)

National Environmental Policy Plan (NEPP) and adopted the target group approach which it had pioneered. The Commission never sought to posit the Fifth Environmental Action Programme as an "overarching framework" for coordinating European and national-level strategy processes, although some countries (notably Greece, Italy and Portugal) used it as a model. Other countries were sceptical about the need for a European strategy. Some European environmental NGOs, however, have continued to press for a legally-binding agreement laying down common methodologies for the harmonisation and coordination of national plans and citizens participation (EEB, 1995). The design and follow up to the Fifth Environmental Action Plan highlight the EU's uneasy transition from an intergovernmental to a federal institution.

In Central and Eastern Europe, action to halt and reverse environmental degradation is being promoted and coordinated through a regional Environmental Action Programme (EAP). The EAP document has been used in some countries in the region as a "handbook" for the development of national environmental plans.

Some strategies have been directly linked to government budgetary processes (e.g. Canada's Green Plan, the Dutch NEPP2, New Zealand's Environment 2010 Strategy, the Norwegian Report No.46 to the Storting which introduced the idea of a separate 'green budget' - see Box 5).

It is not easy to determine, from documentation and discussions, the extent to which green planning initiatives and sustainable development strategy processes have seriously influenced, or are linked to, mainstream national planning. However, some links are clear in a few cases. Denmark's 1995 *Nature and Environment Policy* is an overall government report. Although it contains no financial commitments, each line/sector ministry will be required to revise its own plans in accordance with government commitments set out in the new policy plan.

In France, the objectives of the 1990 *Plan National pour l'Environnement* (PNE) were discussed, and incorporated, within the 11th five-year development plan. France now intends to diversify the planning system by establishing Territorial Development Directives to be drafted with the major local authorities and then approved by the state. They will aim to enable it to ensure respect "at the proper scale" of the necessary balance between development prospects and the protection of natural areas, sites and landscapes (French MoE 1995).

The Dutch *National Environmental Policy Plan*, NEPP (VROM,1989) was developed as an 'umbrella plan' paralleled by associated four-yearly sector reports (e.g. on energy conservation, the state of water works, the strategic plan for the development of infrastructure), each of which contained a 'heavy element' of environmental policies. The NEPP was strongly linked to key areas of sector planning and was formally agreed (signed) by five key ministries (Agriculture, Economic Affairs and Energy, Transportation and Water Works). The subsequent NEPP2 (VROM, 1993) sets out the conditions for the integration of sector policies of individual ministries with environmental objectives. Consideration is currently being given to further integrating physical planning in the Netherlands in the NEPP3 to be published in 1997.

New Zealand's *Resource Management Act* (RMA), 1991, is a major piece of reforming legislation concerned with the sustainable management of natural and physical resources. As such, it is related integrally to functions concerning national planning and decision-making (see Box 6.5), although it is not itself a planning instrument. Grundy (1993) comments:

> The reform process [repeal of the Town and Country Planning Act 1977 and enactment of the Resource Management Act 1991] was not only a rationalisation of existing, admittedly often overlapping and contradictory, resource legislation, but also a deliberate move to limit the role of statutory planning in resource allocation decision-making. The wider socio-economic objectives of the former legislation were viewed as unnecessary and undesirable interventions in the functioning of the market allocation mechanism and were removed.

Only in a few cases are national plans and strategies linked formally with (i.e. built directly on, or led directly to the development of) sub-national strategies at the provincial, territorial or state level. Nevertheless such sub-national strategies are common, notably in federal countries such as Australia, Canada (Box 6) and the USA (Box 7). There has also been an 'explosion' of local Agenda 21s and similar initiatives throughout industrial countries - some linked to national strategies, others initiated independently (see Box 8). In most countries, green plans and sustainable development strategies have

been developed independently of national plans required by the conventions on climate change and biodiversity.

Political Influences

Various domestic political influences have shaped the development of green plans and strategies are examined. For example, the Canadian Green Plan and follow-up initiatives were greatly influenced by the agenda of Conservative government in the late 1980s in response to soaring public demands for action on the environment. A Liberal government came to power in 1993. It had been critical of the Green Plan in opposition and dedicated a chapter of its election "Red Book" (Canadian Liberal Party, 1993) to the theme of promoting sustainable development - an agenda which it is now pursuing including the establishment of a "Commissioner of the Environment and Sustainable Development".

The fortunes of Australia's 1992 National Strategy for Ecologically Sustainable Development were strongly influenced by Prime Ministerial change. Bob Hawke - a former trade unionist - promoted a consensus approach ("cooperative federalism") and had been extremely supportive of the NSESD, but his successor in 1991, Paul Keating, followed a different and more strident philosophy ("new federalism") and had no interest in the NSESD which then lost its way.

The progress of other national green planning exercises can also be linked to political changes or by the influence of powerful individuals. For example, in New Zealand, the responsiveness to public pressure in favour of environmental reform of the incoming government of Robert Muldoon in 1984 led to the establishment of the Ministry for the Environment, and the interest in law reform of Environment Minister, Geoffrey Palmer, greatly assisted the development of the Resource Management Act, 1991. Similarly, in France, the Plan National pour l'Environnement, 1990, benefitted enormously from the personality and public standing of Environment Minister, Brice Lalonde.

Box 6: Examples of Sub-National Strategies in Canada

The first provincial conservation strategy was developed in Prince Edward Island in 1987 by the Department of Environment, and Alberta and Quebec also began work in the mid-1980s. The Yukon Conservation Strategy was prepared by the Department of Renewable Resources in co-operation with a Public Working Group and was released in 1990.

Provinces and territories in Canada all have developed, or are in the process of creating, sustainable development strategies. For the most part, these are the product of provincial Round Tables. They have been individually and comparatively reviewed in two recent reports (Weichel 1993; Clement 1993). Strategies have been completed in British Colombia, Saskatchewan, Manitoba, Ontario, New Brunswick and Nova Scotia. In Alberta, the Round Table process led to a statement of sustainable development principles and the identification of some priority areas, as well as a vision statement. In Quebec, an Eco-Summit, based on regional activities, is being organised for the autumn of 1996. As another alternative, in the NorthWest Territories, a Sustainable Development Policy has been implemented.

There are also some important regional initiatives:

- the Arctic Environment Strategy (a corollary of the Green Plan) - focuses on cleaning-up the more than 800 hazardous solid waste dumps and industrial sites that are distributed across the region, emphasises the provision of jobs and skills opportunities for northerners, and promotes community-based resource management. This aspect is extended in

- the Inuit Regional Conservation Strategy (1986), prepared by the Inuit Circumpolar Conference, in response to the World Conservation Strategy, and other Inuit-led initiatives;

- the work of the International Joint Commission (IJC), established under the Boundary Waters Treaty of 1909, particularly concerning the Great Lakes and St Lawrence river (water quality, ecosystem restoration and protection, etc.);

- initiatives of the Atlantic Canada Opportunities Agency (ACOA), e.g. cooperation agreements on sustainable economic development in Nova Scotia and Prince Edward Island; and

- various coastal and river action plans and management plans (e.g. Fraser Basin Management Program, Gulf of Maine (marine) Action Plan).

Source: Dalal-Clayton (1996)

Box 7: Examples of State Initiatives Towards Sustainable Development in the USA

Minnesota: *Minnesota Sustainable Development Initiative* - introduced by the Governor in January 1993, involving seven Teams each including 15 members representing environmental, business, public interest and government interests. Each Team has considered seven issues important to Minnesota - agriculture, energy, forestry, manufacturing, minerals, recreation, and settlement, and was charged with fact-finding and strategy development tasks. The Teams held their final collective meeting on November 15, 1993, to discuss issues of mutual interest and to craft an integrated set of directions and recommendations. They presented a report, *"Redefining Progress: Working Toward a Sustainable Future"*, at the "Congress on Sustainable Development" held in February 1994. The report specifies ten principles to guide decision-makers and focuses on six central issues which includes a total of 20 strategies. The strategies call for, *inter alia*:

■ identifying state laws and policies that send unintentional economic signals that encourage environmentally unsustainable activities while discouraging behaviour the state would like to promote;
■ redirecting state investments to foster cooperative ventures which promote sustainable development in the public and private sectors;
■ pursuing opportunities for full cost accounting, including the use of market-based efforts to protect the environment, development of a comprehensive environmental quality trends monitoring network, and of a standard system of product labelling to inform consumers about the full costs of the products they buy;
■ fostering sustainable communities through community-state partnerships in strategic planning for sustainable development and growth management; and
■ use of strategic alliances to make the state a model and to encourage others in Minnesota to work for sustainable development.

Subsequently, the state legislature adopted a new law calling for a joint legislative-executive task force on sustainable communities and land use. Public meetings were to be held and a Minnesota Strategic Plan for Sustainable Development prepared. Momentum was lost in the summer of 1994 when the Governor vetoed a bill which would have provided funding to continue the sustainability efforts of Minnesota.

North Carolina: *Sustainable North Carolina Project* - initiated in 1991 and coordinated by the Environmental Resource Program (ERP) of the University of North Carolina. It initially reviewed programmes elsewhere on linking economics, environment and equity, and contributed to the development of "*Guidelines for State Level Sustainable Development*", published in 1993. ERP then launched a five-year initiative to develop a vision for sustainable development in North Carolina. A 25 person Advisory Committee was established, consisting of members from various sectors, to help establish structure and vision for the program. After conducting a state survey, the Project's role became to facilitate participation and consensus among the state's different regional, social and economic groups. A series of regional meetings were planned to raise awareness, establish participants' community values, establish principles to guide policy development. A state conference was being planned in 1995 to develop policy proposals.

Washington: *Environment 2010 project* - a state project launched in 1988 to develop a clear and comprehensive environmental strategy. It was designed to coordinate the many autonomous agencies and jurisdictions, and to provide mechanisms for anticipating and resolving conflicts. 75 recommendations for government, business and communities were developed for each challenge through a combination of public input from citizens attending the Environment 2010 Summit in November 1989 and public meetings held throughout the state. Much of this effort is now part of ongoing activities within agencies throughout the state. Two "State Environment Reports" were published (1989 and 1992). Environmental indicators are being developed and a new trends report was due in 1995.

Source: Adapted from Nguyen and Roberts (1994)

Box 8: Some Examples of 'Independent' Local Strategy Initiatives in Canada and the UK

Canada

Strategies have been prepared by several local or regional municipalities (e.g. Vancouver City Plan - a participatory planning process launched in late 1992; Hamilton-Wentworth Vision 2000 - a sustainable development strategy for that region). Since 1987, local Round Tables have been appointed by various city councils. In Manitoba alone, there are 52 local Round Tables, approximately 40% of which have completed sustainability vision statements or strategies (Sadler 1996). Other local sustainable development initiatives and processes which complement the national ones include:

■ Remedial Action Plans (RAPs) being developed to restore and protect waterfront areas by 17 communities in the Great Lakes region (e.g. Hamilton Harbour RAP).

■ Eight (to date) self-help small town and rural community sustainability planning processes established since 1991 under Mount Allison University's Rural and Small Town Research and Studies Programme.

■ Watershed-based management plans and projects (e.g. 75 community-based watershed management projects on Prince Edward Island, watershed advisory groups in Nova Scotia).

■ Various programmes and projects aimed at "greening communities" (focusing mainly on issues of water and energy efficiency and conservation, water quality, waste reduction and management, greenspace planning, parks, natural areas, and wildlife habitat conservation).

The UK

Croydon was one of the first boroughs to employ a full-time Local Agenda 21 officer in July 1993. The council set up five Project groups, each dealing with different issues of concern and initiating related projects. Public participation has been limited but the borough now intends to focus on widening community involvement using a variety of innovative ways. It is using a Local Agenda 21 video, prepared by local technicians, to stimulate discussion with community groups and to help involve those groups in the process. 'Croydon Environmental Challenge' has also been set up in partnership with business. For example, British Gas have asked local schools to study the environmental impact of its use of transport and to suggest improvements. Croydon admits that it overlooked the need to set up a mechanism that would facilitate communication between groups and, in retrospect, this should have been a priority.

Gloucestershire decided it was essential to involve the community sector in the Local Agenda 21 process and asked a local charity, 'Rendezvous', to run the process - this arrangement is unique in the UK. Through extensive networking, the coordinator of Rendezvous managed to enlist considerable support for the process. The United Nations Association (UNA) was engaged as an advisor and a separate training budget was set up. The process was retitled 'Vision 21' and eight working groups established covering energy, waste, transport, social and health, natural resources, economy, built environment, education and community involvement. These groups are drawn together by a Coordinating Group with two further linking groups: a LA21 linking group and an Education group that has become the Education and Community Involvement Network (ECIN). The second phase of Vision 21 will involve a community-wide 'visioning' exercise where the initial analysis of issues and problems will lead to the development of strategies which will, in turn, form part of the draft Local Agenda 21 document. It has been realised that to take this document forwards will need considerable resources, a business plan and a fundraising strategy.

Source: Dalal-Clayton (1996)

Conclusions

The government-led processes have been fashioned mainly by prevailing political, bureaucratic and cultural circumstances in the industrial countries concerned, and have usually adopted approaches consistent with routine government practices for such initiatives. Furthermore, the different plans and strategies have been developed to address particular domestic environmental, social and economic conditions and circumstances which differ in each country. Whilst the initiatives covered can all be described - and indeed are promoted by their principal architects - as green planning processes, in practice they represent a range of quite different approaches (e.g. environmental plans, strategies, legislative instruments, reports to parliament, Commission processes) and are aimed at fulfilling a variety of different objectives (some visioning, some goal-setting, some for implementation, etc.). They are not equivalent processes and it is not possible to compare them as if they are.

In approaching the challenge of developing National Sustainable Development Strategies, it is fair to say that the countries of the North and the South have much to learn from the experience of each other. Some comparisons between the approaches in developed and developing countries are presented in Table 6.

Table 6: Basic Comparisons Between Developed and Developing Country Strategy Processes

Developed Countries	Developing Countries
Approach	*Approach*
Internally-generated Internally-funded Indigenous expertise Political action Brokerage approach	External impetus (IUCN, World Bank, etc.) Donor-funded Expatriate expertise frequently involved Bureaucratic/technocratic action Project approach
Aims	*Aims*
Changing production/consumption patterns Response to '"brown' issues (pollution) Environment focus	Increase production/consumption Response to 'green' issues/ rural development Development focus
Means	*Means*
Institutional re-orientation/integration Production of guidelines and local targets Cost-saving approaches Links to Local Agenda 21 initiatives Awareness-raising	Creation of new institutions Development of project 'shopping lists' Aid-generating approaches Few local links Awareness-raising

Source: Dalal-Clayton (1996).

Past research and analysis has shown that a number of steps appear to be common to the more successful strategies in developing countries (see Box 9). But this is not surprising since many of the approaches have followed a basic framework developed for National Conservation Strategies and subsequently built on and improved for National Environmental Action Plans, Tropical Forestry Action Plans and similar initiatives as experience has grown. Furthermore, these approaches have been promoted in developing countries mainly by donors who have provided the financial support and technical assistance to replicate the models in different countries as a framework for aid support. In many cases, the expatriate technical experts and advisers have worked on strategies in several countries and have translocated their experience and approaches.

But the situation in developed countries is entirely different. No common approach is apparent in the processes adopted. As already noted, they have all been fashioned according to domestic agendas and have followed national government styles and cultures rather than those of external agencies. It is still too early to say whether any of the basic requirements which appear to characterise strategies in developing countries apply to those in developed countries (see Box 9).

For example, logic suggests that green plans and strategies in industrial countries should move closer towards the 'ideal' of sustainable development strategies if they are cyclical, i.e. they are periodically revised to take into account feedback and lessons from review following implementation. and thus become genuine 'learning by doing' processes. But to date, of the initiatives reviewed in this study, the only genuine second generation processes are the second Dutch National Environmental Policy Plan, NEPP2 (1993), building on the NEPP (1989) (it is assumed that the NEPP3, planned for 1997, will build further on this experience), and the European Union's Fifth Environmental Action Programme building on previous programmes.

A serious question which will need to be addressed by industrial countries, if they are to make progress towards addressing the challenges of sustainable development, is to what extent will it be necessary to adopt the approaches found to be successful in developing countries (i.e. as suggested by the key tasks listed in Box 9) ？ In particular, to what extent will it be necessary to move towards more participative, integrative, and cyclical processes ？

Some of the initiatives reviewed in this study and discussed in this paper have made impressive progress in this direction; others have been little more than environmental planning and policy-making as usual. The question to be asked is whether governments are serious about moving their societies and economies towards a sustainable future, or are merely paying 'lip service' and responding to the issue in a traditional way by driving Agenda 21 into an 'environmental rut' ？

Another question which only will be answered in the future is whether or not National Sustainable Development Strategies will have any lasting influence on the development and implementation of public policy and economic development, and on social attitudes and behaviour. Will they, as some observers predict, merely "sit on the bureaucratic bookshelves gathering dust like earlier generations of master plans" (Rowley 1993) ？ In this paper are described examples of approaches and innovations which provide a positive basis for hope.

Box 9: Key Tasks in the Strategy Process in Developing Countries

Determine if conditions are appropriate - e.g. a conducive political and social climate, high-level political support, and adequate funds.

Decide on an entry point. An NSDS should be a cyclical process. Some elements follow one from the other; others (e.g. information analysis, monitoring and evaluation, and some implementation) proceed throughout the cycle. A new strategy should take account of what has gone on before, perhaps starting at whatever stage a significant ongoing or past strategy has reached.

Establish an engine to drive the process. Often, a Secretariat is formed, comprising committed staff with good management skills, both from inside and outside the government. The Secretariat may be responsible to a Steering Committee with broad representation, and frequently independently chaired. Neither body should have vested sectoral interests or be located in a sector or interest group.

Decide the process design. The Steering Committee and Secretariat will need to determine the scope of the strategy, the main "stakeholders" to be involved, the issues to address, the approach, and how to manage the individual elements which comprise the strategy cycle.

Determine the participants. Participation implies full involvement of relevant groups (both government and non-government) in appropriate tasks including strategy design, exchanging information, decision-making, implementation etc. It is necessary to decide how much participation is possible and necessary, and to develop mechanisms for participation, e.g. core groups, round tables, workshops, community-based techniques, etc.

Information assembly and analysis. This can be undertaken through background studies and workshops, and by government agencies, universities, research and policy institutions and independent professionals.

Policy formulation and priority-setting. Establish principles, goals and objectives of the strategy, and targets for achieving objectives, through appropriate fora, e.g. policy dialogues and round tables.

Address the hard questions of sustainable development - the major issues, obstacles and risks will be subject to differing opinions and attitudes. There are likely to be winners and losers and trade-offs will be necessary. Policy dialogues should first focus on potential win-win situations, later moving to the more intractable issues.

Action planning and budgeting. An NSDS is a "macro" approach that needs on-the-ground "micro" actions. These can include: policy, legislative, institutional and organisational changes; capacity-building for government, NGOs and local communities; and a range of programmes and projects.

Implementation and capacity-building - embracing the corporate sector, NGOs and communities, as well as government. Government can create an 'enabling environment' for development action by all sections of society, and NGOs can play a key role in catalysing participation and local action.

Communications - keeping participants informed of progress, expressing consensus, generating wider understanding of sustainable development, and encouraging participation - through briefings, newsletters, media coverage, etc.

Monitoring and evaluation - of both the process and products.

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

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If developing countries could rely more on renewable energy, they would have to spend less on importing petroleum and there would be greater reductions in poverty. Water – Almost half the residents of the world's developing countries are still without basic sanitation. By reducing water use in agriculture and ensuring a more secure water supply, less time would be lost accessing water and there would be less illness caused by poor water sanitation. Overall there tended to be more green stimulus policies in industrialised countries. The analysis revealed several trade-offs between effects. Activities with the greatest immediate effects, particularly on employment, often had less favourable long-term growth effects, for example, energy efficiency retrofits. Abstract Green growth requires green technologies: production techniques that economize on exhaustible resources and emit fewer greenhouse gases. The availability of green technologies both low-ers social costs in the transition to a green growth path and helps achieve a satisfactory rate of material progress under that path. The case for green industrial policy: strong in theory, ambiguous in practice. If markets worked well, natural and environmental resources were priced appropri-ately at full social marginal costs, and technological benefits were fully internalized by those who undertook R&D, we could in principle leave such investment decisions in the hands of entrepreneurs, corporations, and financial markets. In developed countries it provides jobs for a great many people. In certain developing but oil-rich countries, petroleum export makes up most of the national income. Petroleum is also a source of political power for such countries because many other nations depend on them for fuel. Commercial oil production spread rapidly throughout the world as the worldwide demand for petroleum grew. Thus, the oil industry itself is more international than any other. Its operations span the globe. Oil is currently produced in nearly 50 countries in every continent and is being sought not only in those countr...