

Southeast Asia



Chapter 3. Australia

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Australia

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SUMMARY

Australia has been an international leader in developing and implementing a National Biodiversity Strategy (NBS). This chapter discusses Australia's ecology and political system, as well as the process and issues that the country faced in developing a national policy framework for biodiversity conservation. Since the adoption of the NBS in 1996, and its subsequent development and implementation, the following lessons have emerged: strong and sustained political commitment is needed at the highest level; extensive and genuine public consultation have proved essential; a strong lead agency's administration and finances made the process work; and a legislative base would have helped ensure effective implementation.

In spite of the accomplishments of the NBS, the country's internationally important biodiversity continues to decline and be lost. Three major challenges face Australia in the next five years:

- recognising that biodiversity is a central issue that cannot be continually subordinated to economic and social objectives. This requires building on the gradual change in attitudes of key decision-makers; they still need to be convinced of the benefits of conserving biodiversity, and the costs of its destruction.
- sustaining high-level political commitment to implement the National Biodiversity strategy in its second planning cycle. This is a matter of urgency, and includes the development and monitoring of a detailed action plan and increased funding of critical biodiversity programs to ensure that policy objectives are met. An increase in federal government leadership and action is also needed to minimise the impact of major threats (especially land clearing);
- institutionalising biodiversity objectives at state, regional and local government levels by integrating biodiversity into planning and other laws, strengthening incentive programs to encourage off-reserve conservation, and mobilising the community to support, and get involved in conservation efforts.

Introduction

Australia was one of the very first countries to ratify the Convention on Biological Diversity (CBD), and to draft and finalise a National Biodiversity strategy. In fact, although the strategy eventually took five years to complete, the process of drafting the document began even before the completion of CBD negotiations. It is Australia's major policy instrument for domestic implementation of the Convention of Biological Diversity.

The final strategy was remarkable both for the consensus that it achieved between industry, governments and the conservation community, and for the breadth of its objectives. Most of the long list of priority goals for the year 2000 have not been met, however, due to a new federal government that wasn't involved in the process, a lack of legislative backing, inadequate funding, and lack of commitment by state governments to implement key priority actions, such as those relating to conserving native vegetation.

These are some of the issues crucial to effective biodiversity planning and strategy implementation in Australia:

- strong and sustained political commitment at the highest level;
- extensive and genuine broad public consultation;
- strong national lead agency administration and finances (headed by an environment portfolio);
- concurrent regional (state) strategies and national action plans to implement the strategy, along with clear biological parameters;
- appropriate national and regional (state) legislation to protect biodiversity and provide a solid legal base for strategy implementation; and
- strengthening the integration of biodiversity conservation needs into economic and policy planning.

Ecology

Australia is the only nation in the world that occupies an entire continent. In land area (7 682 3 square km) it is the sixth largest country on Earth. Australia covers a diverse range of geographic regions; the arid interior occupies about 70 per cent of the continent, with tropical monsoon regions to the north and a Mediterranean and temperate climate in southern areas. Australia's external territories extend to subantarctic and Antarctic regions. The country's marine ecosystems are similarly diverse, spanning coral reefs and giant kelp forests, sea grass plains and deep-sea mounts. Sand-bottomed habitats cover much of the continental shelf.

Australia's relative isolation for more than 20 million years, following the break-up of the ancient Gondwanan landmass, has resulted in a diverse and unique biota. Over one million species and hundreds of ecosystems are found there (SOEAC 1996). Of great significance is the high proportion of species that occur only in Australia; this endemism extends to the higher taxonomic categories of genus and family. Seven families of mammals, including those of the platypus and koala, and 12 of flowering plants are endemic. In the world ranking for endemism, Australia is first for both mammals and reptiles, second for birds, and fifth for both higher plants and amphibians (Mittermeier et al. 1997).

At the species level, about 88 per cent of Australia's reptiles, 70 per cent of land birds, 94 per cent of frogs, and 99 per cent of non-marine molluscs occur nowhere else on Earth. Australia is recognised internationally for its rich biodiversity. It is considered to be one of only 17 mega-diverse countries in the world, which together contain about three-quarters of the life on Earth.

Despite this exceptionally rich natural heritage, Australia's first comprehensive State of the Environment report concluded, "our record of biodiversity loss is very poor by international standards" (SOEAC 1996, pp. 10-26), and noted that this loss was "probably the most urgent issue in the whole field of environmental management. In many cases, the loss of habitat is continuing at an alarming rate, with associated inevitable loss of biodiversity" (SOEAC 1996, pp. 10-26).

Many species groups have been severely affected since European settlement. Of all Australian mammal species, 44 (24.5 per cent) are extinct or threatened (SOEAC 1996); a significant proportion of frog species is in decline, and, if current trends continue, half of Australia's land-based birds will be forced into extinction by the end of this century (Recher 1999).

Native vegetation clearance remains the biggest cause of habitat loss and subsequent decline in biodiversity. From 1991 to 1995, an average of 343,500 hectares of native bush was cleared nationally every year (BRS 1998). This rate of clearing accelerated recently. In the State of Queensland alone, an average of 340,000 ha were cleared each year from 1995 to 1997 (QLD DNR 1999), increasing to an annual rate of 425,000 ha in the period 1997-1999 (QLD DNR 2000). High rates of land clearing continue in Queensland and, to a lesser extent, in New South Wales (Sherwin 2000).

Political system

In Australia environmental responsibilities and management are split among the federal government and eight states and territories.¹ Under the Constitution, the states have primary responsibility for land management, while the federal government has jurisdiction over the management of marine areas.

The federal government system creates a tension between the federal government and the states and territories, as the federal government increasingly seeks to develop and coordinate national approaches to major environmental issues. This increased role and intervention in what was historically considered to be the concern of the states is due to ratifying international treaties, such as the Convention on Biological Diversity. Over the past decade, there has come to be a general acceptance of the need for coordinated national approaches to major environmental issues that cross state borders, such as biodiversity, climate change and land degradation. At the same time, federal government-state institutional structures, such as the Australian and New Zealand Environment and Conservation Council, have been strengthened.

Box 1. The Australian and New Zealand Environment and Conservation Council

The Australian and New Zealand Environment and Conservation Council (ANZECC) is a non-statutory Ministerial Council. It consists of the Commonwealth, state, territory, New Zealand and Papua New Guinea Ministers responsible for the environment and conservation. The Commonwealth is represented on the Council by the Environment Minister and the Minister responsible for the CSIRO. ANZECC provides a forum for member governments to exchange information and experience, and to develop coordinated policies in relation to national and international environment and conservation issues. Issues are resolved through consensus.

The Council is supported by two committees of senior officials nominated by the Ministers: the Standing Committee on Environment Protection (SCEP) and the Standing Committee on Conservation (SCC). The Standing Committees are advised by working groups, task forces and networks set up for specific purposes (more information is available at <http://www.ea.gov.au.cooperation/anzecc/>).

Any attempt to give a joint sense of purpose to a diverse range of federal government, state and territory institutional, administrative and legal systems is to be lauded. Integration of such initiatives is crucial for the conservation of biological diversity. Perhaps the most important factor in ensuring the

success of environmental initiatives — including the National Strategy for the Conservation of Australia's Biological Diversity (NBS) — is the inclusion of stakeholders at different levels of government and the support of consecutive Prime Ministers.

The development of national environment policies is also heavily influenced by the nature of Australia's economy, which is reliant on the export of natural resources and agricultural products. Most arable and semi-arable land has high levels of biodiversity, and since it is used for either intensive agriculture or grazing, it is critical to involve the farming industry in the preparation of the NBS.

These political and economic factors shaped both the development and the implementation of the NBS. Although the strategy was adopted in early 1996, it took five years to develop and negotiate.

National strategy origin and background

In the 1980s there was a rapid increase in community support for the environment and a growing awareness of the threats to Australia's biodiversity. Governments responded with a range of initiatives, including a process to develop a National Strategy for Ecologically Sustainable Development (NSES 1992) and the nomination of several areas as World Heritage sites.

In 1987, the Minister for Environment and Heritage² committed the federal government to establishing national legislation for threatened species, and to participating in negotiations for a new treaty dealing with threatened species (Cohen 1987). These efforts were reinforced by the Prime Minister's Environment Statement in July 1989, which included a mandate for the federal government to take a lead role in developing an international convention on biological diversity and an associated national strategy (Hawke 1989, p.18).

The emerging convention in particular gave the federal government additional authority to develop a national approach to conserve Australia's biodiversity. The Australian government reported that:

preparation in parallel with negotiations of the Convention on Biological Diversity also provided another dimension for arguments for a strategy for Australia. Domestically, association of the strategy with the overarching National Strategy for Ecologically Sustainable Development (NSES) also gave the strategy impetus. The support of non-governmental conservation organisations helped keep the process moving while the cooperation and involvement of business and industry increased the strategy's credibility (Miller and Lanou 1995).

To ensure a cooperative approach with the state governments and the Australian Local Government Association, the federal government negotiated a consultation process on the development of the NBS as part of a broader Intergovernmental Agreement on the Environment, adopted in 1992 (COAG 1992).

Relationship to the Convention

The National Strategy explicitly takes account of all provisions of the Convention on Biological Diversity, which Australia ratified on 18 June 1993. That same year, a joint federal government-state government task force under the auspices of ANZECC prepared the report, "Implementation of and Implications of Ratification of the Convention on Biological Diversity". The report concluded that Australia's obligations under the CBD could be adequately met without need for new legislation, but did note that subsequent legislation would probably be needed for genetically modified organisms and access to biological/genetic resources.

The first draft of the NBS was presented to the federal Environment Minister in 1991 and contained a recommendation for national CBD-enabling legislation. The federal Minister for the Environment decided to pass the draft to the joint government representatives at ANZECC (a member of which is the Minister's representative) for review. ANZECC rejected the recommendation for enabling legislation.³

It was not until 1999, by means of the *Environment Protection and Biodiversity Conservation Act, 1999* (EPBCA; CoA 1999), that Parliament finally passed comprehensive institutional arrangements directly reflecting the obligations contained in the CBD and National strategy.

Relationship to other policies and plans

The federal government has put increasing numbers of institutional, policy, legislative and program arrangements in place to complement the NBS. These are called for in the strategy itself in Objective 7.3: "Ensure that the National strategy is complemented by state and territory and bioregional strategies, supported by effective legislation where necessary". Some of the national, federal government, state and local government initiatives developed to date, including complementary biodiversity strategies, are summarised in Table 1.

Table 1. Overview of initiatives to conserve Australia's Biodiversity

	Major arrangements and instruments
National policy	<ul style="list-style-type: none"> • National Strategy for the Conservation of Australia's Biological Diversity (1996)
Supplementary national policies*	<ul style="list-style-type: none"> • National Local Government Biodiversity Strategy (1999)
Complementary national policies	<ul style="list-style-type: none"> • National Strategy for Ecologically Sustainable Development (1992) • Conservation of Australian Species and Communities Threatened with Extinction: A National Strategy (1996)
Complementary national policies	<ul style="list-style-type: none"> • National Framework for the Management and Monitoring of Australia's Native Vegetation (1999) • National Forest Policy Statement (1992) • Federal Government Oceans Policy (1999)
Federal–state govt. institutional arrangements	<ul style="list-style-type: none"> • Australian and New Zealand Environment and Conservation Council (ANZECC): Political level • ANZECC Biodiversity Strategy Executive Group: Administrative level*
Lead federal govt. agency	<ul style="list-style-type: none"> • Federal Department of the Environment and Heritage
Federal legislation	<ul style="list-style-type: none"> • <i>Environment Protection and Biodiversity Conservation Act, 1999</i>
Key federal government programs	<ul style="list-style-type: none"> • Biodiversity Convention and Strategy Program* • Natural Heritage Trust National Reserves System Program • Natural Heritage Trust Bushcare Program • Natural Heritage Trust Endangered Species Program • Australian Biological Resources Study
State policy*	<ul style="list-style-type: none"> • Australian Capital Territory Nature Conservation Strategy (1997) • Victoria Biodiversity Strategy (1997) • New South Biodiversity Strategy (1999)
Selected regional strategies/plans	<ul style="list-style-type: none"> • South Australian regional biodiversity plans • Lower Hunter and Central Coast Regional Biodiversity Conservation Strategy
Local government policy	<ul style="list-style-type: none"> • A range of local councils have developed local biodiversity strategies, including Brisbane City Council (Qld) and Pittwater Council (NSW)

* These derive from the NBS or have been developed under its auspices.

National Strategy development

Development of the NBS was negotiated over five years and from the outset had strong stakeholder participation and political support. There was broad community representation on the committee that prepared the first draft of the strategy and the related national conference and public submission phase. The strategy has now been through one planning phase and a five-year implementation phase. A review, discussed later in this chapter, is in progress.

Preliminary work on strategy development began in 1989, and the establishment of the Biodiversity Unit within the federal Environment Department and the Ministry for Arts, Sport, Environment and Territories the following year provided a strong administrative focus to the coordination of the NBS process.

Australia was a leading country in implementing articles evolving under the CBD negotiations. It preempted the obligations emerging under the Convention when it established a Biological Diversity Advisory Committee (BDAC-1) in 1991.

Box 2. Australia's process to develop its National Biodiversity Strategy

The Biodiversity Unit defined a six-step process to prepare the NBSAP (Miller and Lanou 1995).

1. Biological Diversity Advisory Committee (BDAC-1)

The federal Environment Minister set up this eleven-member committee to develop a draft strategy and to advise the Minister on the state of Australia's biodiversity, threats to biodiversity and existing conservation responses. BDAC-1 comprised scientists and representatives from state government, conservation NGOs and the farming sector. It met eleven times between April 1991 and August 1992 and presented its draft National Strategy to the Minister in September 1992. The strategy reflected the general structure of the CBD.

2. Public consultation process

Public comment was solicited from March to May 1992.

3. National conference

In conjunction with the public consultation phase, a national conference was held to discuss and debate the elements of the draft strategy. The Department of the Environment and the Ecological Society of Australia sponsored the conference, which consisted of ten different workshops.

4. Revision and referral to ANZECC

The national conference generated healthy debate. In response to industry lobbying the federal government expanded the committee to include representatives from the mining, forestry, tourism and fisheries sector. The enlarged committee was known as BDAC-2. After considering public submissions and representations, BDAC-2 prepared a draft strategy, which was presented to the federal Environment Minister in September 1992. The Minister then referred the draft strategy to ANZECC.

5. Final drafting by ANZECC Task Force

A task force under ANZECC considered the draft strategy, consulted with state and territory governments and key stakeholder groups, and then revised and finalised the strategy. Consultation was limited to written correspondence and meetings with all state and territory governments and selected NGOs; from a public viewpoint, consultation was minimal.

6. Government-wide consideration

The ANZECC Task Force on Biological Diversity submitted a final draft strategy to ANZECC in October 1993. ANZECC then undertook consultation at the Ministerial level. The federal government endorsed the strategy on 16 December 1993. The state governments did not endorse the strategy until late 1995, delaying final adoption by all governments until February 1996. Although ANZECC Ministers had agreed with the Task Force draft, the NBS still had to be approved by each state and territorial Cabinet.

The foreword to the strategy succinctly portrays the broad national and political context in which the policy was developed:

The strategy was prepared by the Australian and New Zealand Environment and Conservation Council, in cooperation with the Agriculture and Resources Management Council of Australia and New Zealand, the Australian Forestry Council, the Australian and New Zealand Fisheries and Aquaculture Council, the Australia and New Zealand Minerals and Energy Council, and the Industry, Technology and Regional Development Council. The views of business, industry and the Convention on Biological Diversity and the draft national strategy prepared by the Biological Advisory Committee also taken into account.

The strategy is a product of the spirit of cooperation engendered by the Intergovernmental Agreement on the Environment. It meets the require-

ments of the National strategy for Ecologically Sustainable Development and complements the National Forestry Policy, the National Greenhouse Response strategy and the draft strategy entitled Conservation of Australian Species and Ecological Communities Threatened with Extinction: A National Strategy (CoA 1996, p 3).

Shortcomings of the NBS process

The development of the NBS had several critical shortcomings:

- ANZECC significantly revised the broadly accepted BDAC-2 version of the strategy;
- two state governments (New South Wales and Western Australia) stalled the adoption of the strategy as part of a broader debate about federal government-state relations; and
- ANZECC, representing joint government Environment Ministers, failed to proceed with action plans developed by BDAC to implement the priority actions identified in the strategy.

ANZECC revisions to strategy

From a non-government conservation organisation perspective, there were some serious failings in the development process and final strategy content. The draft BDAC strategy presented to the federal Minister in 1992 was the product of a truly comprehensive public consultation process. It was a document shaped by community consensus, despite BDAC being expanded to include four new industry representatives halfway through its term.

The ANZECC Task Force tinkered with key strategy recommendations, including removing a recommendation for enabling federal government legislation, and inserting a new action relating to wildlife utilisation programs. To many NGOs, this reworking of a document that had been consulted on so thoroughly in the public arena was a corruption of the consultation process. State and territory government representatives on the ANZECC Task Force overturned broader community wishes, supplanting them with narrow clauses driven by self interest.

Stalling of national strategy adoption

Between late 1993 and late 1995, the state governments of New South Wales and Western Australia delayed endorsing the NBS as part of a broader debate about the nature of federal government-state relations between the Labor federal government and the two Liberal state governments. The federal gov-

ernment officially endorsed the strategy on 16 December 1993, only two months after it was presented, but continuing political objections from the two state governments caused the strategy process and its action program to stagnate. The NBS was finally adopted five years after the preparatory process began and one month before a federal election.

Failure to develop action plans

The NBS process also failed to produce an official national action plan to facilitate implementation. Although BDAC prepared a draft action plan, which was developed further by the ANZECC Task Force, it was never presented to the ANZECC Ministerial Council. NGOs have assumed that this failure resulted from sheer lack of political will.

In contrast, the recently launched National Framework for the Management and Monitoring of Australia's Native Vegetation includes a provision for the federal government and each state government to develop specific action plans (ANZECC 1999). The NBS did not require state action plans, nor was there agreement in ANZECC to develop them according to set deadlines.

Complementary policies and plans

Since the National strategy's adoption, a range of complementary strategies and biodiversity planning documents have been produced at other government levels. Full state and territory biodiversity strategies were launched by Victoria and the Australian Capital Territory in 1997 and by New South Wales in 1999. The states of Tasmania and Western Australia are in the process of preparing strategies, while Queensland is still giving the matter consideration. South Australia is in the process of producing a series of regional biodiversity plans.

The adoption in 1999 of the National Local Government Biodiversity Strategy by the Australian Local Government Association was a very encouraging development. The initiative for this important policy paper came from the local government members of BDAC-3, and the Advisory Committee helped prepare the draft that went before the local government authorities. Implementation of this strategy, however, is poorly funded. A chronology of key events (Table 3) appears at the end of this chapter.

Relationship to development planning

The conservation of biodiversity is one of three core objectives of the National Strategy for Ecologically Sustainable Development (NSES) and the strategy contains a commitment to integrate biodiversity conservation into economic

policies and major planning decisions. The NBS includes a chapter that sets out a range of objectives and actions to guide the integration of biodiversity conservation into various industry sectors, such as agriculture, forestry, fisheries, tourism and water resources. In this respect, the strategy plays an important role in guiding policy, especially since the NSESD has come to the end of its politically useful life.

In day-to-day life, integrating biodiversity considerations depends on the industry sector (particularly in state government jurisdictions) and on whether the sector is subject to federal government funded restructuring, as forestry is. In certain states, development is carried out with little regard for biodiversity values. Translating the general strategy actions into practical and effective integrated management within the states and territories has still to be achieved.

The most glaring example is the contradiction between the NBS priority action to avoid or limit broad scale clearance of native vegetation by the year 2000, and the large-scale clearance of native bush in the state of Queensland, and to a lesser extent in New South Wales. In spite of this activity, the goal of limited clearance has become a key joint government policy commitment (gained through ANZECC negotiations) which provides the community with the political ammunition to pressure wayward states and territories, and even the federal government. Additionally, the commitment can now be implemented through the National Framework for the Management and Monitoring of Australia's Native Vegetation.

The resources to develop and implement the NBS at the federal government level have been provided directly from dedicated federal government budget line items, which for the past decade have included funds for a range of strategic biodiversity programs (Table 2).

Although the national strategy receives high-level political support, biodiversity conservation tends to be under-emphasised in major economic planning decisions. The 1996 national State of the Environment report decried the subordination of the NBS to major development decisions:

Despite the adoption in 1992 of the National Strategy for Ecologically Sustainable Development and the emergence of the National Strategy for the Conservation of Australia's Biological Diversity, there is little evidence that these strategies affect decision-making in any but the most perfunctory way (SOEAC 1996, p.10-28).

Recent examples of this disparity include the large-scale clearance of vegetation, (including threatened vegetation communities) in Queensland, and the inadequate amount of forest area set aside in the national reserve system as part of the process of restructuring the forestry industry.

A recent assessment affirms the criticism made in 1996, and highlights lack of funding as a critical constraint to implementing the strategy:

There is little likelihood that current environmental policies and programs will on their own prevent continuing environmental degradation...The Biodiversity Strategy is being hampered by lack of funding or support for critical activities such as the protection of remnant vegetation on farms or the preparation of and implementation of recovery plans for endangered and vulnerable species (Yencken and Wilkinson 2000, pp. 313, 314).

National Strategy scope and objectives

The NBS highlights the need to implement biodiversity conservation measures at the national and bioregional levels. The major regional planning instruments used at the national level to guide the strategic allocation of program resources are the Interim Biogeographic Regionalisation of Australia (IBRA) and the Interim Marine and Coastal Regionalisation of Australia (IMCRA) (Map 1). The IBRA was initially used to help set funding priorities for the National Reserves System Program, but increasingly it is utilized to help determine funding priorities for other initiatives, such as the federal government's Bushcare Program.

The nation's biological hot spots, both areas with high biodiversity value and major threats to biodiversity, are well known (Map 2). Hot spots include those with a continuing loss of native vegetation. Similarly, the distribution of threatened species and threatened ecological communities and other important habitats is sufficiently defined to permit remedial action. These actions are not directly identified in the NBS, however, and there has been no announcement, subsequent to the strategy's release, of detailed and comprehensive biological priorities for the nation.

As noted earlier, an action plan which outlined a detailed implementation guide for the NBS was never developed. The NBS does contain, however, a clear set of national priorities. While falling far short of a comprehensive action plan, these did give governments some deadlines. As the strategy notes, "The priority areas for action, as depicted by their specific outcomes,

are listed under Action 7.1.1 along with the times frames during which substantive results are to be achieved. These results are broadly defined and many encompass more than one of the strategy's actions. The strategy will be reviewed at five-yearly intervals to allow for assessment of progress, evaluation of priorities and, where necessary, adjustment".

The National Strategy contains 18 priorities to be achieved by the year 2000 and nine priorities to be achieved by the year 2005. The NBS's *primary* goal is to "protect biological diversity and maintain ecological processes and systems". The strategy spans six target areas and is guided by nine major principles directing national implementation. The strategy's six target areas are listed in Box 3.

The strategy successfully addressed ecological, economic and social concerns thanks to the comprehensive nature of the public drafting process. Without this participatory aspect of the development phase, there would have been no consensus for implementation and cooperation. But while question of implementation, including institutional responsibilities, was addressed, funding and budgetary needs were not dealt with in any detail.

Box 3. Main features of the National Biodiversity Strategy

1. Conservation of biological diversity across Australia.
 - identify important biodiversity components and threatening processes;
 - manage biodiversity on a regional basis;
 - improve standards of biodiversity management;
 - establish and manage a comprehensive, adequate and representative system of protected areas;
 - strengthen conservation outside protected areas;
 - maintain and strengthen wildlife conservation;
 - protect threatened biodiversity;
 - recognise and maintain the contribution of Australia's indigenous peoples to biodiversity; and
 - establish and maintain facilities for ex-situ research into biodiversity.
2. Integrate biological diversity conservation and natural resource management
 - develop and implement national integrated policies for biological resources;
 - adopt ecologically sustainable agricultural, pastoral, fisheries, forestry, tourism and recreation management practices;

- manage water resources to conserve biodiversity and meet economic, social and community needs;
 - adopt ecologically sustainable wildlife management practices; and
 - ensure that Australia receives the social and economic benefits derived from the use of genetic material and products.
3. Manage threatening processes
- monitor, regulate and minimise processes and activities which threaten biodiversity;
 - retain and manage native vegetation;
 - control the introduction and spread of alien species and genetically modified organisms;
 - minimise and control the effects of pollution on biodiversity;
 - reduce adverse impacts of altered fire regimes on biodiversity;
 - plan to minimise potential impacts of human induced climate change on biodiversity;
 - repair and rehabilitate areas to restore their biodiversity values; and
 - assess the potential impacts on biodiversity of projects and other development activities.
4. Improve knowledge
- compile existing data and make it readily available;
 - develop rapid assessment methodologies;
 - support and standardise biodiversity research;
 - develop taxonomic training programs;
 - establish a nationally coordinated program of long-term ecological monitoring; and
 - incorporate knowledge and practices of indigenous Australians into biodiversity research and conservation programs.
5. Involve the community
- increase public awareness of, and involvement in, conservation of biodiversity; and
 - expand biodiversity studies in educational curricula.
6. Australia's international role
- participate in existing and new international agreements for the conservation of biodiversity;
 - make efforts to ensure that activities of Australians outside Australia are consistent with the conservation of biodiversity; and
 - make efforts to ensure continued and effective international cooperation in the conservation of biodiversity between governments and international governmental and non-governmental organisations (DEST 1996).

Implementation discussions were not exhaustive and indeed were relatively restricted. BDAC-2's attempt to develop an action plan to guide implementation, and the subsequent draft action plan prepared by ANZECC, never saw the light of day. This was an unfortunate aspect of the National Strategy's development. The draft action plan produced by ANZECC adopted the following format:

1. National Strategy objective;
2. reference to subsequent actions required in strategy;
3. justification for objective;
4. current status of objective;
5. outline of actions required;
6. time frame; and
7. responsibilities.

The draft plan did not make any detailed assessment of budgetary requirements. This notwithstanding, the action plan would have been an extremely useful document had it been published.

Implementation

The strategy includes a specific chapter on implementation, which contained the following objectives:

- implementing the strategy through priority actions within established timelines;
- ensuring that appropriate arrangements are established to implement the Strategy for the Conservation of Australia's Biological Diversity and monitor its effectiveness;
- ensuring that the National Strategy is complemented by state and territory and bioregional strategies, supported by effective legislation where necessary; and
- ensuring that the costs of biological diversity protection are equitably shared, such that they reflect contributions to degradation and benefits from protection or use (CoA 1996, p 41).

To encourage integrated planning and management approaches, the strategy is organised in two levels: continental and bioregional. The local scale is also recognised in the strategy, though activity at this level is subordinated and integrated into the bioregional planning framework (Miller and Lanou 1995).

Examples of major federal government programs designed in part to implement obligations under the NBS and CBD (including budgetary allocations for 2000-2001) are summarised in Table 2. The programs and budgetary allocations have been heavily criticised by NGOs as being seriously inadequate to achieve NBS and CBD objectives. The federal government's capacity to implement NBS provisions and subsequent programs has been constrained not only by limited resources, but by constitutional and institutional demarcation agreements with the states and territories, and an inadequate national legislative base.

Table 2. Selected federal government programs to implement the NBS

Program	Purpose	a	b
Biodiversity Convention and Strategy Program	To coordinate and meet Australia's financial and reporting commitments under the CBD, coordinate implementation of the National Strategy, and fund strategic public education and other projects	\$1.9	4
Natural Heritage Trust National Reserves System Program	To establish and manage a comprehensive, adequate and representative protected area system	\$20.5	5
Federal government Protected Areas Mgmt.		\$59.5	
Natural Heritage Trust Endangered Species Program	To develop and implement threatened species recovery plans and threat abatement plans	\$9.5	
Natural Heritage Trust Bushcare Program		\$91.3	5
Australian Biological Resources Study	To fund taxonomic research of Australian species	\$3.4	4
Plant Pest Eradication		\$0.9	
National Feral Animal Control		\$2.3	
Biodiversity Research	To fund biodiversity related research undertaken by the national government scientific agency, CSIRO	\$20.3	
a: Annual funding, 2000-2001 (millions of dollars) b: Program duration, in years			

Source: CoA 2000, p. 49

These constraints have had a marked effect on the overall implementation of the strategy. A preliminary review of progress in implementation undertaken in 1998 by Humane Society International and the World Wide Fund for Nature-Australia made the following conclusions:

- at the national level, the strategy and ANZECC provide an effective policy and institutional framework to implement the CBD;
- this strategic approach has not been adequately translated into an action program strong enough to halt and reverse the major threats or build a conservation system in accordance with the timetable in the strategy agreed to by the federal government, states and territories;
- grossly inadequate funds have been allocated to key biodiversity conservation programs, particularly in relation to protected area establishment and management, off-reserve conservation and threatened species recovery;
- a large gap remains between current efforts and required levels of action, and most governments will fail to achieve the priority action timetables set out in the NBS; and
- this slow implementation rate contrasts with the agreement by the Prime Minister and state Premiers and Chief Ministers to “commit to implement this strategy as a matter of urgency” (Anon. 1998).

So, despite the NBS and the gradual emergence of strategies at the state, territory, and local government level, as well as other regional biodiversity strategies, there is a lack of effective integrated biodiversity/planning programs. Although the NBS enjoyed the highest political backing at the outset of its development and implementation, progress has slowed in the last four or five years. There is an indisputable need for broad enabling legislation. In the year in which the NBS was adopted by all governments, a new federal government came into office and launched its own \$1.5 billion Natural Heritage Trust. The NBS was marginalised as a core government policy.

Yet, with the development between 1998 and 2000 of federal government environment legislation designed to better implement the NBS and CBD, and the current five-year review of the strategy, the NBS may be gaining new prominence as a national planning document. The federal government’s new *Environment Protection and Biodiversity Conservation Act, 1999* (EPBCA) has the potential to carry out the biodiversity and planning imperatives embedded in the NBS. The EPBCA is the most important conservation tool available to the federal government to improve the poor NBS implementation record.

While there is reason for optimism — for example, NGOs see great potential to implement key actions under the strategy by applying the National Framework

for Native Vegetation Management and Monitoring to address key threatening processes (KTPs) listed under the EPBCA, specifically the recent listing of “vegetation clearance” as a KTP — federal government-state politics and rural industry concerns may undermine yet another avenue for threat mitigation and strategy implementation.

Monitoring and follow-up

ANZECC has overall responsibility for coordinating implementation of the strategy at the national level. The strategy requires ANZECC to monitor outcomes, undertake five-year reviews of its implementation, and report on the state of Australia’s biological resources. The last obligation has not yet been met and is, moreover, unenforceable. Australia will have to rely upon emerging biodiversity laws for more effective biodiversity monitoring programs and reports. The strategy also requires the federal Environment Minister to set up the Biological Diversity Advisory Council (BDAC-3) to report to heads of government through ANZECC on further development and implementation of the NBS.

BDAC-3 was responsible for monitoring the strategy’s implementation. It was constrained in its monitoring role for several reasons, however:

- the new Liberal-Country Party Coalition federal government marginalised the NBS in favour of its Natural Heritage Trust and emerging policies, such as the National Framework for Native Vegetation Management and Monitoring and the Oceans Policy;
- the federal Environment Minister paid little attention to BDAC-3 advice; and
- a very small budget was allocated for NBS implementation.

Despite these handicaps, BDAC-3 had some laudable achievements, including biodiversity education work, initiation of the national local government biodiversity strategy and input into the EPBCA development process, as well as progress in its major task: critical review of NBS implementation.

BDAC-3 was disbanded in June 2000 and replaced by the statutory Biological Diversity Advisory Committee (BDAC-4), established under the federal government *Environment Protection and Biodiversity Conservation Act, 1999*. The *Act* does not specify the detailed functions of BDAC-4, and the terms of reference will be determined by the federal Environment Minister.

Limited monitoring of the NBS meant that the generally poor performance of governments in implementing priority actions was not officially recognized at

an early stage. This meant that there was little opportunity to identify and address shortcomings.

The governments' poor performance became apparent in the review processes initiated by ANZECC and BDAC-3. ANZECC (ANZECC 2001) is required to review the progress of NBS implementation five years after its adoption. The BDAC-3 review was narrower in scope, assessing progress only in year 2000 priority actions. The Department of the Environment has undertaken its own review of the strategy's implementation in support of ANZECC's obligations; the department will also look to identify key new objectives, goals and indicators. There has been little public participation in these assessments, although it is clear from ongoing NGO evaluation and from the assessment processes to date that a large proportion of the NBS priority actions to date have not been met.

Two major year 2000 goals that were not achieved dealt with the mitigation of native vegetation clearance, a key threat to Australia's biodiversity. Humane Society International, in a submission to the BDAC-3 review of the strategy's progress in respect of habitat loss, found that little progress had been made in NBS implementation. They gave these items low achievement scores:

- arresting and reversing the decline of remnant native vegetation (Priority Action l);
- avoiding or limiting any further broad-scale clearance of native vegetation consistent with ecologically sustainable management and bioregional planning to those instances in which regional biological diversity objective are not compromised (Priority Action m); and
- implementing a nationally coordinated program for long-term monitoring of the state of Australia's biological diversity and the impact of threatening processes (Priority Action o).

In tandem with these review processes, the federal government has commenced the preparation of the second national State of the Environment (SoE) report, which is scheduled to be launched in 2001, five years after Australia's first national SoE report (SOEAC 1996). For the first time standard indicators will be used to measure the factors influencing biodiversity conservation (Saunders, Margules and Hill 1998). The new EPBCA places a statutory requirement on the federal government to produce a national SoE report every five years.

The procedures for identifying and monitoring changes to biodiversity in the new EPBCA fall far short of obligations under either the CBD or the NBS. Legal requirements for biodiversity inventories are limited to federal government

lands and waters; other areas are subject only to guidelines. There is no legal requirement for identification or monitoring to occur, though federal government departments will be required to report annually on the ecological sustainability of their activities, and consequently on the conservation of biodiversity.

In BDAC-3's review of progress, implementation of only 5 of the 18 priority goals scored well; most of the remaining priority items received a grade of "C" or lower. And although Priority Action r ("fully implemented provisions of those international agreements relating to the conservation and sustainable use of biological diversity to which Australia is a signatory") received an "A", with "substantial compliance", the review found "inadequate action on the Convention of Biological Diversity's Article 8 (j)" relating to indigenous knowledge and rights (BDAC, 2000).

At the international level, Australia submitted a National Report to the CBD COP-4 meeting in Bratislava in 1998 to meet its reporting commitments under the convention. The NBS formed the basis of the National Report, which recognised: "With Australia's ratification of the Convention on Biological Diversity in June 1993, the strategy became the principal means for coordinated implementation of the Convention" (CoA 1998, p.17). Australia will submit its second National Report in accordance with COP-5 decision V-19 before the sixth meeting of the Conference of Parties.

Lessons learned

These were the four main lessons learned during the development of the NBS and its implementation:

- **Strong and sustained political commitment is needed at highest level.** A Prime Ministerial mandate ensured that resources and support were available to develop the strategy. After a change of federal government in 1996, soon after the strategy was adopted, it was initially marginalised in light of the new government's policy initiatives (a common practice when governments change). This compromised the implementation of the first planning cycle of the NBS. Political/bureaucratic mechanisms need to be devised to ensure continuity and avoid or minimise damage in such circumstances.
- **Extensive and genuine public consultation has proved to be essential.** Extensive public consultation, along with the involvement of key stakeholder groups in the development of the NBS, increased the sense of ownership of the strategy and reduced the potential for backlash. In

addition, it is essential that a document developed through a fair and equitable public process is not subsequently altered or corrupted by any non-democratic involvement. This is a sure way of removing public confidence in the final product.

- **A strong lead agency administration and finances made the process work.** The establishment of a Biodiversity Unit within the federal Environment Department provided an administrative focus to drive the development of the National Strategy, and was central to the success of the process. Such units must be provided with sufficient resources to achieve their tasks.
- **A strong legislative base would have helped ensure effective action.** It is clear that delays in the completion and implementation of the strategy could have been avoided if supporting legislation for effective execution of objectives and goals had been introduced earlier. This may well be hard to accomplish politically, but the effort needs to be made.

Strategy features that worked particularly well are worth repeating:

1. Australian NGOs provided the impetus for the development of, and federal government involvement in, the Convention on Biological Diversity and, consequently, for the NBS and its implementation.
2. NBS development benefited from one of the broadest public process ever undertaken for a conservation strategy.
3. The successful activities of NGOs, who committed large resources to a broad biodiversity campaign in the nation's capital, achieved the highest level of political commitment.
4. The NBS process addressed major issues, setting a clear benchmark for all future policy goals at federal government and state levels.
5. The NBS provided a good basis for the development of the much-needed national biodiversity law, thereby helping to secure long-term implementation of the strategy's goals.

Recommendations

These recommendations concern implementation of the second five-year planning cycle of the NBS:

- **There must be greater integration of biodiversity conservation needs in economic and social policy and planning.** Biodiversity conservation factors continue to be subordinated to economic and social factors in major development decisions. A key constraint is government cabinets'

tendency to include several ministers representing industry sectors, but only one environment minister. This imbalance extends to the administrative level. The new EPBCA may well help improve this situation, since it requires each federal government department and agency to report annually on how their activities satisfy the principles of ecologically sustainable development.

- **The benefits of biodiversity conservation need to be better explained.** Key decision-makers continue to undervalue the economic and social benefits of biodiversity conservation. The long-term costs associated with biodiversity destruction are very real; for example, excessive land clearing tends to result in salinity problems. Additionally, the role of biodiversity in producing clean air and water, absorbing pollutants, and maintaining soil fertility continue to be undervalued in development planning. Models need to be developed to quantify these benefits in monetary and other terms so that they are not ignored or undervalued in decision-making. Here the EPBCA may also have a positive influence on development and economic decision-making by Ministers and developers.
- **Concurrent strategy development is needed.** Ideally, given the delay in achieving joint governmental support for the strategy and further subsequent delays in state and territory governments developing strategies, every attempt should be made to ensure concurrent strategy preparation, to improve the chances of joint and consistent implementation.
- **Develop action plans and biological strategies.** For the second five-year planning cycle, the federal government and each state and territory should develop specific action plans that include targets and their outcomes, measurable performance indicators and costs. These action plans must be developed through full public processes, and should make clear the nation's biological priorities (for example, hot spots), detailing the method of implementation for each strategy objective and goal.
- **Provide adequate funding.** Preliminary assessment of government performance in implementing the first five-year NBS planning cycle shows that funds were grossly inadequate to implement initiatives on schedule. This needs to be rectified in the second planning cycle, particularly in relation to establishing and managing the national reserves system, recovering threatened species, establishing an incentives program to encourage landholders to conserve remnant vegetation and other off-reserve measures, and establishing a long-term monitoring program. BDAC-4 should provide the Ministers and ANZECC with guidance on the full cost required to achieve new strategy goals, including advice on measures for generating these funds from within existing government budgets.

- **Increase federal government leadership and action to minimise the impact of major threats.** More concerted action is needed in this area, particularly native vegetation clearance. Federal government leadership can be achieved partly through effective implementation of the EPBCA, and through biologically justified and well-directed funding. BDAC-4, for example, established under the EPBCA, should advise the Minister for the Environment on new matters of National Environmental Significance for listing under the EPBCA.
- **Increase monitoring arrangements** for the implementation of the second NBS planning cycle. The uneven performance of governments in implementing the strategy wasn't understood until late in the planning cycle; one of the roles of BDAC-4 should be to monitor strategy implementation on a yearly basis. Its report should be submitted to ANZECC and also made publicly available. In addition, those non-obligatory clauses in the EPBCA, which refer to identification and monitoring, should be amended to become obligatory, under a fully financed national program.
- **Increase the legislative base** for implementing the strategy in the states and territories. While the EPBCA could be significantly improved, particularly in relation to national environmental responsibilities, it is an important tool with which to implement the NBS. The EPBCA and its stronger provisions need to be mirrored in state and territorial laws, many of which lag far behind international and national environmental management standards.

Conclusion

Australia was an international leader in the development of a National Biodiversity Strategy. Sound progress has been made in implementing some areas of the strategy, including significant increases in government funding for priority actions, such as establishing a national reserve system, threatened species protection and off-reserve conservation. Other areas have been inadequately addressed, however, and the strategy — along with biodiversity conservation factors in general — has not been given enough prominence in major development planning decisions.

As the National Biodiversity Strategy moves into its second five-year planning cycle, two initiatives have high potential to increase its political and community support, and to consolidate its role in influencing overall government policy and practice in favour of a pattern of development that is ecologically sustainable.

The first is the outcome of the reviews of the strategy's first planning cycle carried out by ANZECC, federal government and BDAC-3. The performance of governments has been mixed and key priority actions have been poorly implemented. Governments have the opportunity to address these deficiencies and provide adequate funding and political commitment to put an action plan. This should, at a minimum, effectively implement the outstanding priority actions for 2000 as well as year 2005 actions.

The second is the federal *Environment Protection and Biodiversity Conservation Act, 1999*. Its implementation will provide the broadest protection yet in Australian for biological diversity, providing the federal government with strong new powers for protection and enforcement. The new legislation is reviewed in a later chapter.

Chronology

1987 – July	Federal Environment Minister announces government commitment to treaty negotiations while launching national endangered species program
1989 – July	Prime Minister's Environment Statement includes a mandate to take a leading role in the development of an international convention on biological diversity, and develop a National Strategy on Biological Diversity (Hawke 1989, p.18)
1990	Biodiversity Unit established within the federal Environment Department to coordinate and develop an NBS.
1991	Biological Diversity Advisory Committee (BDAC-1) established
1992	Inter-Governmental Agreement on the Environment (IGAE) endorsed by Prime Minister, state Ministers, territory Chief Ministers and the President of the Australian Local Government Association. The IGAE includes a chapter that sets out a process to develop a cooperative National Biodiversity strategy.
1992 - March-May	Draft BDAC National Strategy available for public comment
1992 – March	National conference held to discuss the draft BDAC National Strategy
1992 – September	BDAC-2 presents a draft National Strategy to the Federal Environment Minister. The Minister then refers the draft strategy to ANZECC

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1992-93	Task Force under ANZECC considers the further development and finalisation of the National Strategy
1993 – June 18	Australia ratifies Convention on Biological Diversity
1993	ANZECC Task Force on Biological Diversity releases draft ANZECC National Strategy for limited consultation with federal government, state governments and key stakeholder groups
1993 – October	ANZECC Task Force on Biological Diversity submits final draft ANZECC National Strategy to ANZECC, whose members seek consideration of the strategy by the Australian government (in each of the states and territories and the federal government)
1993 – December	Federal government adopts the National Strategy.
1996 – February	National Strategy, adopted by the federal government and all state and territory governments, is released.
1996	Biological Diversity Advisory Council (BDAC-3) established under the National Biological Strategy
1996	Federal government's Natural Heritage Trust launched, which includes \$80m National Reserves System Program, \$6m Endangered Species Program and \$350m Bushcare Program
1997	First state Biodiversity Strategies adopted. The Australian Capital Territory and Victoria launch their strategies in December 1997; New South Wales launches its strategy in March 1999; Tasmania, Western Australia and Queensland commit to developing state strategies
1998 – November	National Local Government Biodiversity strategy adopted by the general assembly of the Australian Local Government Association
1999 – 2000	Review of strategy by ANZECC BDAC and federal government
1999 – June	Parliament passes new <i>Environment Protection and Biodiversity Conservation Act, 1999</i> .
2000 – July	Federal <i>Environment Protection and Biodiversity Conservation Act, 1999</i> comes into force

Box 4. Evolution of BDAC

The Federal Department of the Environment and Heritage established a peak stakeholder advisory body to assist develop, implement and monitor the National Biodiversity Strategy:

BDAC-1: Biological Diversity Advisory Committee. Established in 1991 to develop a draft National Biodiversity Strategy and advise the Federal Minister of the Environment and Heritage on the state of Australia's biodiversity, threats to this biodiversity and current measures to conserve it. Members comprised experts from the scientific community, non-government conservation organisations, the agricultural industry and ANZECC.

BDAC-2: Biological Diversity Advisory Committee (expanded). In mid-1992, as a response to industry pressure, BDAC membership was expanded to include additional representatives from the forestry, fishing and tourism industries. After BDAC-2 presented a draft National Biodiversity Strategy to the Federal Minister of the Environment and Heritage, the committee was disbanded.

BDAC-3: Biological Diversity Advisory Council. In 1996, the Federal Minister of the Environment and Heritage established BDAC-3 under the auspices of the newly adopted National Biodiversity Strategy. It comprised experts from the scientific community, non-government conservation organisations, industry (agriculture, forestry, fisheries, pharmaceutical, tourism), local government and the indigenous Australian community. BDAC-3 was disbanded in 2000.

BDAC-4: Biological Diversity Advisory Committee. In 2000, the Federal Minister of the Environment and Heritage established the statutory BDAC-4 under the auspices of the federal *Environment Protection and Biodiversity Conservation Act, 1999*. Members included experts from the scientific community, non-government conservation organisations, industry (fisheries, rural and business), local government, the indigenous Australian community and ANZECC.

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Endnotes

1. The Federal Government is another name for the Commonwealth of Australia (CoA).
2. The federal Department of the Environment and Heritage (formerly known as the Department of the Environment, Sport and Territories) comprises several agencies, including Environment Australia, which is the lead federal agency for the National Biodiversity Strategy. Except in the References section, this chapter uses the designation "Department of the Environment and Heritage" for all the agencies responsible for strategy implementation and all its organisational precursors. Additionally, this chapter refers to the Commonwealth of Australia (CoA) as the Federal Government of Australia.
3. While the ANZECC working group rejected the concept of a national environment law, its recommendations are not automatically binding. ANZECC Ministers collectively or individually may take action as they wish. It merely suited all ANZECC Ministers in this instance to agree that a national law was not necessary.

For more information

Community Biodiversity Network	http://www.cbn.org.au
Environment Australia	http://www.ea.gov.au/biodiversity
Australia's Biodiversity	http://www.ea.gov.au/biodiversity/chm/
Clearing House Mechanism	index.html
Humane Society International	http://www.hsi.org.au

